

SELF-ASSESSMENT REPORT ON THE QUALITY OF EDUCATION IN THE DOCTORAL SCHOOL

Szkoła Doktorska w Uniwersytecie Przyrodniczym we Wrocławiu

Uniwersytet Przyrodniczy we Wrocławiu

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VISITING CARD

Basic Information about the Doctoral School

Year of Creation

2019

Institution running the doctoral school

Uniwersytet Przyrodniczy we Wrocławiu

Field of Education	Education Disciplines
Veterinary science	veterinary science
Natural sciences	biological sciences biotechnology
Engineering and technology	environmental engineering, mining and energy civil engineering, geodesy and transport
Social sciences	socio-economic geography and spatial management
Agricultural sciences	agriculture and horticulture food and nutrition technology animal science and fisheries

Name/Scope of the Education Program (PL)	Name/Scope of the Education Program (EN)
ProHum	ProHum
nauki inżynieryjno-techniczne	Engineering and Technology Sciences
nauki biologiczne	Biological Sciences
nauki rolnicze	Agricultural Sciences
nauki społeczne	Social Sciences
nauki rolnicze	Agricultural Sciences
nauki inżynieryjno-techniczne	Engineering and Technology Sciences
nauki ścisłe i przyrodnicze	Natural Sciences
nauki weterynaryjne	Veterinary Science

Characteristics of the Doctoral School

The Doctoral School at the Wrocław University of Environmental and Life Sciences (hereinafter – UPWr DS) creates conditions for the development of scientific, research, innovation and implementation competences among doctoral students through interdisciplinary scientific research conducted in the fields of natural sciences, veterinary sciences, agricultural sciences, engineering and technical sciences, as well as social sciences.

The DS educates doctoral students based on best practices in talent management, develops their competences in

collaboration with mentors and certified academic tutors, and offers courses and training tailored to the needs of ongoing research in the areas of soft and analytical skills. UPWr DS is a certified Doctoral School with a tutoring programme.

An individual approach to the doctoral student and their **relationship with the supervisor, based on the “student–master” model**, forms the foundation of education at UPWr DS. This approach enables personalised scientific development, mentoring support in the implementation of the individual research plan, effective preparation for a scientific career, as well as the shaping of leadership attitudes. Thanks to close collaboration with the supervisor and Leading Research Groups at UPWr, the doctoral student becomes an active participant in scientific life, gradually achieves research maturity and builds networks of academic and professional contacts. The high effectiveness of the “student–master” relationship is achieved through the opportunity to work with leading supervisors, whose profiles are reviewed by the Scientific Discipline Boards, the possibility of pursuing innovative and interdisciplinary research and implementation projects financed by external sources, the appointment of second or auxiliary supervisors from leading international universities and the provision of training and workshops for supervisors in the areas of tutoring, mentoring, design thinking and other methods supporting the scientific and professional development of doctoral students. Outcomes of these initiatives include the training of 67 accredited academic tutors by the DS, an original tutoring programme, collaboration with 33 foreign supervisors and particular care to ensure that doctoral theses are submitted on time.

Since its inception, UPWr DS has **promoted internationalisation** as a key component of its development strategy and scientific prestige. Strategic internationalisation goals are implemented, among others, through the conduction of research projects and theses with the participation of foreign supervisors and experts, collaboration between academic staff, supervisors and doctoral students with international research centres, participation in NAWA STER, SPINAKER projects and EU GREEN research networks, as well as specialist courses and training delivered in English, including Polish language courses for international doctoral students, and also through a parity-based recruitment process for international applicants. Results of these efforts include the enrolment of 51 foreign doctoral students since the School's establishment, joint cotutelle doctorates, international doctoral exchanges, scientific internships, summer schools and lectures by international scholars under the “New trends in disciplines” course.

UPWr DS comprehensively prepares doctoral students for a scientific and research career by integrating the **development of scientific, research, teaching, organisational and soft skills**. The DS enables doctoral students to work in interdisciplinary research teams, supports the establishment of national and international research collaborations, which facilitate knowledge and experience exchange, joint research, preparation and implementation of R&D projects, assistance in publication process and implementation efforts in cooperation with the Patent Attorney's Office.

The DS supports the comprehensive development of doctoral students' competences through **extensive financial support, both internal and external**. Financial resources allocated to maintain the scientific, research and development potential of UPWr DS also contribute to greater engagement of doctoral students in the advancement of their scientific disciplines and serve to promote the university's image both domestically and internationally. These funds may be allocated to co-finance participation in specialist training, workshops or summer/winter schools, as well as international scientific conferences abroad. They also serve to enhance research and publication potential through one-time increases in doctoral scholarships awarded to students who have published scientific articles in journals ranked at least 140 or 200 points according to the current list of journals issued by the Ministry and classified in Q1 or Q2. In 2024, under these funds, the DS awarded 87 fundings, including 53 one-time scholarship increases for publication activities. As of the date of this report in 2025, 32 fundings have been awarded, including 14 one-time scholarship increases.

The DS also supports the research activity of doctoral students through the **“Doctoral Student Grant” programme**. The funds under this programme are dedicated to doctoral students to support the implementation of planned scientific research, including the preparation of research defined in the doctoral thesis, the preparation of publications and future applications for scientific projects. Grants of up to PLN 20,000 are awarded for research conducted by doctoral students during the first half of their education period at UPWr DS. Every year, all doctoral students recruited under the basic admission path benefit from this funding.

The DS also realises the ministerial **“Implementation Doctorate” programme**, which involves educating doctoral students in cooperation with their employing partner institutions. Within this programme, the Doctoral School collaborates with leading companies and external entities on the preparation and implementation of industrial doctorate projects, including Selena, Grupa Hasco, AdiFeed, S-Lab, Oleofarm, Herbapol, Ekoplón, Eneris, CJ Group, Polska Grupa Energetyczna, PORT Sieć Badawcza Łukasiewicz, Miasto Wrocław, ZOO Wrocław, Wody Polskie, Lasy Polskie and others. So far, the Doctoral School has developed 54 implementation doctorate projects, of which 43 received funding, and 36 have been initiated.

UPWr DS is advised by the **Doctoral School Board**, which serves as an advisory and consultative body to the Director of the Doctoral School. The Board includes one representative from each scientific discipline in which the university is authorised to

award the doctoral degree, as well as a representative of the doctoral students. The discipline representative is recommended by the Scientific Discipline Board and then appointed by the Rector upon the Director's request. The functioning of the Director and the Board is regulated by the UPWr Statute and Regulations of the Doctoral School.

Additional Information about the Doctoral School

Educating Staff

Numerical data for the evaluation period

Educating Staff	Instructors	Supervisors	Assistant Supervisors
Number of people	24	144	85

Doctoral Students

Number of doctoral students (total): 230

Recruitment during the evaluation period	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	Total
Number of recruited doctoral students	33	31	46	49	41	31	231
Number of doctoral students who completed the doctoral school	32	21	1	0	0	0	54
Number of doctoral students removed from the doctoral student list	1	9	7	5	1	0	23

Mid-term evaluation results	Positive	Negative
Number of Doctoral Students	139	0

Educational Programs	Number of Doctoral Students
ProHum	0
Engineering and Technology Sciences	0
Biological Sciences	0
Agricultural Sciences	0
Social Sciences	6
Agricultural Sciences	67
Engineering and Technology Sciences	39
Natural Sciences	36
Veterinary Science	39

Additional Numerical Data on Doctoral Students

Number of foreign doctoral students	51
Number of doctoral students with disabilities	3
Number of doctoral students in the Implementation Doctorate program	36
Number of doctoral students in the EU program	22
Number of doctoral students employed by the institution running the doctoral school as academic teachers or research staff	9

Graduates

Numerical data for the evaluation period

Number of graduates who applied for initiation of proceedings for the award of a doctoral degree	54
Number of doctoral students who completed the doctoral school	51

INFORMATION ON THE ENTITY'S COOPERATION WITH THE DOCTORAL STUDENTS' COUNCIL

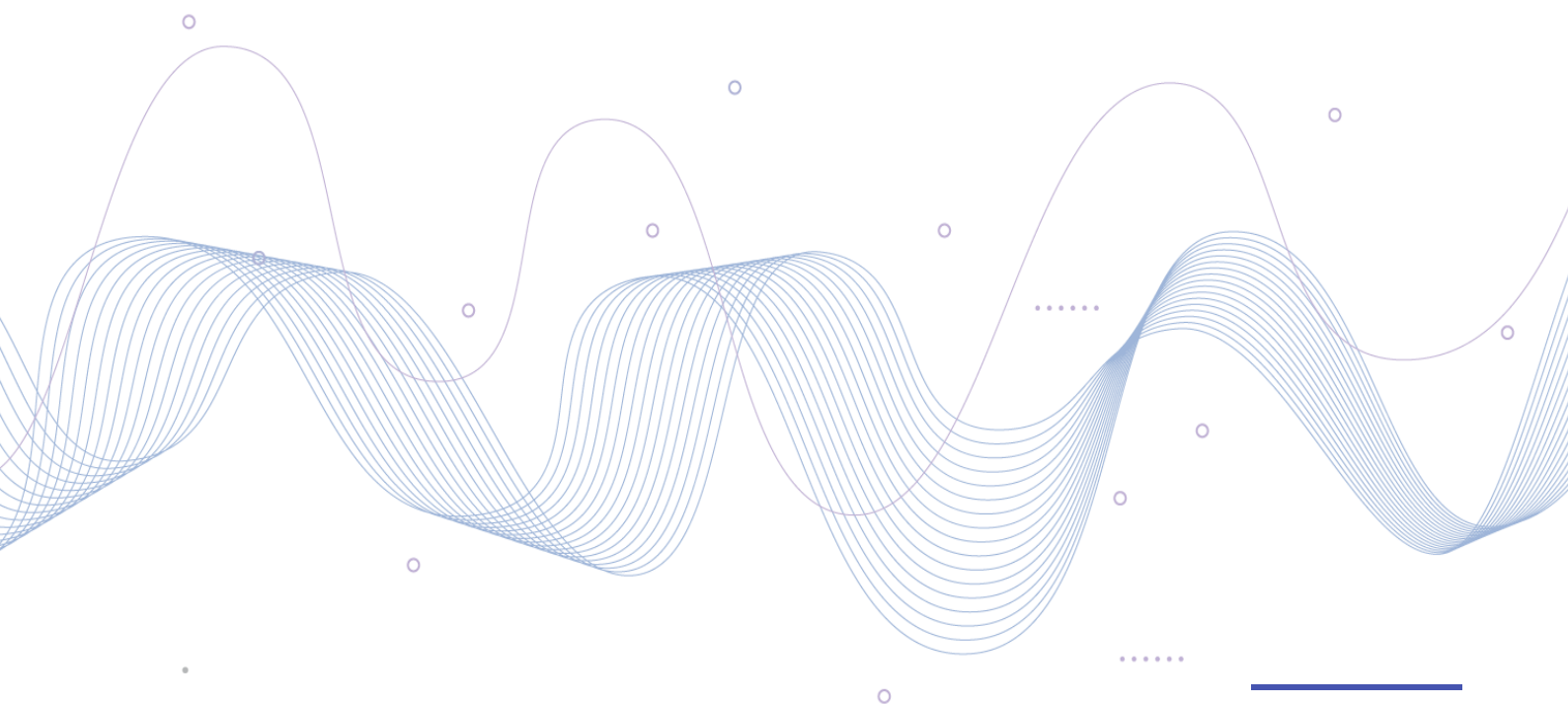
UPWr Doctoral School (DS) maintains close cooperation with the Doctoral Students' Self-Government (DSSG), ensuring that doc. students have a real influence on shaping the DS educational process and activities.

A representative of the DSSG is a full member of the DS Board, participating on equal terms in monthly meetings and raising important matters concerning doc. students. Communication takes place via email or in person. Additionally, the DSSG representative takes part as an observer in the work of the Recruitment Committee and the Committee for Mid-Term Evaluation of Doctoral Students. The DSSG provides opinions on, proposes and approves changes to documents governing the functioning of the DS, including the regulations and the curriculum.

Easy and direct contact between students and the DS is ensured – students may report matters, i.a., via DS Office or during weekly consultations with the DS Director. The DS actively supports initiatives of students and DSSG, incl. the Interdisciplinary Scientific Club "Fuzja", the "What after PhD?" meeting series and sport activities (rowing team). Furthermore, the DS provides organisational and financial support for doc. students' events – e.g. the 1st Open Meeting of the Board of the National Association of Doctoral Candidates, which took place this year at UPWr.

The DSSG refers doctoral students facing difficulties to the DS, where joint action is taken to resolve issues in the doc. student–supervisor relationship and other irregularities reported by students. In cooperation with the DS Board, a guide "Good Practices in the Doctoral Student–Supervisor Relationship" (<https://tiny.pl/3xd5h5xr>; <https://tiny.pl/x-cfbq6p>) has been developed, offering recommendations for effective collaboration aimed at supporting scientific and personal development of students. The DS responds to reports of irregularities and implements remedial measures. All these actions are part of the transparent and participatory academic culture of UPWr.

INFORMATION ON THE DOCTORAL SCHOOL GROUPED BY 8 EVALUATION CRITERIA



1. Adequacy of the education program and individual research plans to the learning outcomes for qualifications at PRK level 8 and their implementation

The education programme at UPWr DS was developed by leading scholars of the university with extensive international collaboration experience, with the aim of providing students with optimal conditions for scientific, research and implementation development. The curriculum is designed to enable students to achieve the learning outcomes at level 8 PQF, while also addressing the individual research development needs of each student, demands of contemporary science and expectations of the labour market. The programme emphasises interdisciplinarity and the development of didactic, communicative and ethical competencies. It is structured to support research and applied activities, to promote the publication of research findings in top-tier scientific journals. At the time of the DS establishment, a single programme was in force in the 2019/2020 academic year. As part of ongoing improvements to the educational process, the "Doctoral Education Programme for Implementation Doctorates" was introduced in the 2021/2022 ac. year to accommodate participants of the "Implementation Doctorate" initiative. Subsequently, a "Three-Year Education Programme" was introduced for students starting in the 2024/2025 ac. year who have secured full funding for their doc.scholarships and research activities for a period of 36 months through external projects.

DS programmes are structured into the following modules: core, development of the discipline and related disciplines, interdisciplinary colloquium, research methodology, workshop, scientific self-development and professional practice. The core module includes doc. seminars, specialised English for academic purposes, teaching methodology, self-presentation, voice emission and psychology. The workshop module includes training in scientific writing, grant proposal preparation and the practical and legal aspects of research commercialisation. Through this module, students develop the ability to create original solutions, conduct independent research, disseminate findings and formulate conclusions and recommendations tailored to various audiences. Students also learn to manage research outputs ethically and in accordance with legal regulations, to improve their grant acquisition skills, an essential component for strengthening research independence. The scientific self-development module must be planned and completed by the student between the 1st and 7th semesters, with min. 8 ECTS. This module aims to support students in developing an independent academic trajectory and making informed decisions regarding research and organisational matters. Activities may include participation in external training courses, scientific meetings at institutions, several-day specialist workshops and active participation in international scientific conferences. As part of the professional practice module, students should co-teach 15h of classes. The scope of teaching or co-teaching responsibilities has evolved across DS programmes. International students may fulfil this requirement by supporting the teaching processes within a given unit. Students in the "Implementation Doctorate" programme may additionally host undergrad. students for internships or placements in collaborating institutions.

The student's Individual Research Plan (IRP) constitutes an integral part to the educational programme, enabling the customisation of the research trajectory to the specific characteristics of the discipline, thesis topic and stage of advancement of the scientific work. The IRP includes the title of the thesis, its primary hypotheses and research theses, justification for the research topic, research materials, methods, expected outcomes, planned budget and sources of funding. It also identifies the necessary approvals and permits required for conducting research. The plan accounts for the publication process by listing intended scientific publications, conference presentations, academic meetings and planned activities for the dissemination of findings. It highlights anticipated collaborations with industry, scientific partnerships (incl. international cooperation) and implementation activities. The IRP outlines a timeline for the execution of the research and completion of the thesis. This includes planned research outcomes, key milestones and planned date of thesis submission.

The IRP is submitted to the relevant Scientific Discipline Board (SDB) for its opinion by resolution. Changes to the IRP require the approval of the DS Director. As a result of good practice, changes are opinioned by the SDB and accepted by the DS Director. From the ac. year 2025/2026, changes to the IRP will be reviewed and accepted by the SDB. The IRP has been developed by the university's leading academics in a way that ensures the individualisation of learning process, enables the monitoring of students' progress and serves as mid-term evaluation tool. Its structure supports the achievement of learning outcomes consistent with level 8 PQF.

2. Method of verifying learning outcomes for qualifications at PRK level 8

Verification of learning outcomes at the Doctoral School of Wrocław University of Environmental and Life Sciences (UPWr DS) is carried out through the following mechanisms:

Assessment of the implementation of the Individual Research Plan (IRP)

Progress in the implementation of the IRP is assessed at the end of each semester based on the Individual Doctoral Student Card (IDSC), submitted by the doctoral student. In this report, the student provides information about activities under the professional practice and scientific self-development modules, a list of received awards and distinctions, current stage of scientific research and progress in the preparation of the doctoral thesis. The supervisor provides an opinion on the student's scientific progress. A negative opinion from the supervisor, indicating insufficient progress and the risk of not completing the doctorate on time, triggers an explanatory procedure initiated by the DS Board within 14 days of the submission of the opinion. The filled IDSC form and its attachments must be approved by the Director of the DS.

Assessment of the quality of the IRP by the relevant Scientific Discipline Board (SDB). The SDB acts as an advisory and supervisory body in the education of doctoral students within the respective scientific discipline. The IRP is submitted to the relevant SDB for review and approval through a formal resolution. The doctoral student is required to revise the IRP in accordance with the SDB's feedback. The IRP must be positively reviewed by the end of the 3rd semester. This deadline is clarified in the latest DS Regulations (in force since 1 October 2025) and aims to complete the review process early enough to allow the IRP to be formally accepted before the mid-term evaluation. The deadline for submitting the IRP and other educational documents is set by the Director of the DS and communicated to doctoral students via email.

An assessment of the IRP progress is also prepared prior to the doctoral student's mid-term evaluation in the form of the "Report on the Implementation of the Individual Research Plan (IRP)". This report includes the description of the extent to which planned tasks have been completed according to the IRP schedule, a description of the research tasks, their implementation status, outcomes, any discrepancies from the planned timeline, scientific achievements and other activities directly related to the preparation of the doctoral thesis. This includes a list of publications, conference presentations, participation in research projects (as team members and in acquiring funding), as well as patents, patent applications, utility models, scientific awards, scholarships, certificates, qualifications, etc. The report also contains the supervisor's opinion on the IRP implementation and the level of advancement in preparing the doctoral dissertation.

Assessment of IRP progress also takes place at two open seminars. The first seminar is held before the mid-term evaluation, where the doctoral student presents the IRP, main assumptions and results of the doctoral research to the relevant SDB or a body designated by it. The outcome is a written evaluation submitted to the DS, highlighting the strengths and weaknesses of the work. The second seminar takes place directly before the doctoral student submits an application to initiate the procedure for awarding the doctoral degree. Here, the results of the research are presented at an open seminar organised by the chairperson of the relevant SDB.

An assessment of IRP progress also takes place at the beginning of the fourth year of the doctorate during a meeting between the doctoral student, supervisor(s), Director of the DS and representative of the DS Board in the discipline represented by the doctoral student. The purpose is to verify the research objectives outlined in the IRP, assess scientific output and progress on the dissertation, identify potential support needs and prepare the doctoral student for completing their education and submitting the dissertation.

Mid-term evaluation of doctoral students.

The mid-term evaluation is a formal and effective tool for verifying learning outcomes at the DS. Its structure at UPWr ensures reliability and objectivity through: the involvement of three external experts from the relevant discipline as the members of the Committee; assessment based on analysis of the IDSC, IRP progress report, IRP and information from the open seminar; the student's presentation. This process ensures compliance with level 8 PQF requirements.

Assessment of the quality of education by the Doctoral School's Education Quality Committee.

The tasks of the Committee are to undertake actions to ensure and improve the quality of education, in particular with regard to: the adequacy of the educational programme to the learning outcomes for qualifications at level 8 PQF and their implementation, the manner of verification of the learning outcomes for qualifications at level 8 PQF, the qualifications of academic teachers or academic staff providing education at the DS, the quality of scientific supervision and support in conducting scientific activities, the effectiveness of doctoral students' education, conducting observations of teaching classes of no less than 10% of the classes taught at the DS, including at least one doctoral seminar. The Committee prepares a report with findings and recommendations, which are reviewed by the Director and members of the DS Board and discussed during Board meetings. The Director is responsible for implementing the recommended corrective actions.

Assessment of the quality of education by doctoral students.

Each semester, after classes conclude, the DS collects feedback from doctoral students via the "Course and Instructor Evaluation Survey" for every course and instructor. The survey addresses course quality, teaching methods, scientific support, instructor relations and learning conditions. Students are informed about the survey through the USOS system, emails, the DS website and the Doctoral Students' Self-Government. Results are reviewed by the DS Director and the Board, discussed during Board meetings, and used to implement improvements. If feedback indicates the need for changes, the Director consults the Board and discusses modifications with the instructor. The effectiveness of changes is verified through survey results in subsequent semesters.

Graduate career tracking.

Monitoring of doctoral graduates occurs at three levels. The first one is a website profile – the tab includes information about the graduate, discipline, dissertation topic and supervisor. The second level is graduate survey, which collects feedback on doctoral education, the research process at UPWr, the doctorate's impact on current employment and future career plans. The third level is the interviews with graduates published on the DS website, which provide detailed insights into career development, including continued scientific activity. This process helps evaluate the relevance of learning outcomes, the usefulness of acquired knowledge and the accuracy of the intended learning outcomes.

DS candidates, doctoral students, supervisors, teaching staff and all interested parties have **easy access to information about the requirements and methods of assessing learning outcomes at UPWr DS** through the DS Polish and English websites, including:

- DS regulations, recruitment rules, education programmes, legal acts;
- The DS Strategy, including mission, vision, strategic goals and indicators;
- Course descriptions (syllabi) with detailed learning outcomes and verification methods: <https://sdsylabus.upwr.edu.pl>;
- Step-by-step education guides for each year of the doctorate in the section "Education Step-by-Step";
- Information for supervisors: <https://phd.upwr.edu.pl/o-nas/dla-promotora>.

Moreover, to further improve access to information, the DS organises:

- Regular information sessions for first-year doctoral students, second-year students approaching mid-term evaluation and those preparing to submit their thesis;
- Information meetings on research funding, training opportunities, international conferences, summer and winter schools and one-time scholarship increases for publication activities;
- Individual consultations with supervisors and the Director of the DS.

UPWr DS implements a coherent, multi-stage and transparent system for verifying learning outcomes in line with the requirements of level 8 PQF. The integrity of the process is ensured by, i.a., regular monitoring of doctoral student progress through semester-based IDSCs; involvement of external experts in the mid-term evaluation committees; active participation of doctoral students in course and instructor evaluations; ongoing quality assessment by the Doctoral School's Education Quality Committee, DS Board and Director. These mechanisms not only ensure current oversight of learning outcomes but also foster continuous improvement based on feedback from candidates, doctoral students, graduates, supervisors and instructors.

3. Qualifications of academic teachers or research staff conducting education at the doctoral school

In the 2024/2025 academic year, doc. students at UPWr DS were taught by 25 academic and research staff (15 from UPWr, 10 from outside UPWr) and 5 language lecturers. In addition, 16 teachers, including 14 from outside UPWr, taught classes as part of the "New trends" course. Among all teachers, there were 14 professors and 10 *dr hab.* Since the beginning of education at the DS, 24 UPWr employees have taught classes. The academic teachers and researchers engaged in doctoral education at the UPWr DS demonstrate a high level of subject-matter competence, confirmed by significant and current academic and professional achievements. Their publications in reputable scientific journals, participation in research projects of national and international scope and active involvement in the scientific and professional community attest to their profound understanding of the specific nature of the disciplines they represent. Moreover, due to the specificity of some classes, particularly those focusing on soft skills, certain teaching activities are carried out by instructors and practitioners who are not employed at UPWr but possess relevant professional experience and appropriate, certified vocational and sectoral qualifications. An analysis of the individual profiles of the teaching staff involved in doctoral training reveals a **high degree of alignment** between their specialisations and research interests and the thematic scope of the offered doctoral programmes. Their scientific output, including numerous publications in JCR-listed journals, academic monographs, patents and the implementation of innovative solutions, is complementary and covers key research areas essential for the academic development of doctoral students in the following nine disciplines: Biotechnology; Civil Engineering, Geodesy and Transport; Environmental Engineering, Mining and Energy; Biological Sciences; Agriculture and Horticulture; Nutrition and Food Technology; Veterinary Science, Animal Science and Fisheries; Socio-Economic Geography and Spatial Management.

Academic teachers and researchers at UPWr actively engage in initiatives aimed at the continuous development of their professional competences, with particular emphasis on their roles as supervisors and auxiliary supervisors. They show initiative in enhancing their qualifications by participating in specialised training courses, including the "**Promotor 2.0**" (Supervisor 2.0) training held in 2023, aimed at improving the competences of supervisors in providing substantive support to doctoral students. In 2024, the Doctoral School conducted the "**Design Thinking Moderator**" training for supervisors, intended to develop their skills in mentoring doctoral students, especially in terms of rapidly supporting promising ideas, validating research concepts and solving complex and non-obvious problems. Participants were also trained in effective facilitation of Design Thinking workshops. Nine supervisors, both from Poland and abroad, took part in this training. Participation in such professional development initiatives is also taken into account in the periodic evaluation of academic staff, which serves as an additional incentive to improve qualifications.

UPWr DS also facilitates continuous exchange of experience between academic staff and doctoral students through tutoring. **Tutoring** is based on individual work between the doctoral student (tutee) and the academic teacher (tutor). Tutorials (meetings with the tutor) take the form of individual consultations totalling 20 hours per semester. During tutoring, educational and scientific goals are set within the doctoral student's area of interest. To ensure a high standard of tutoring, 67 academic teachers have been trained as professional tutors at the DS. Furthermore, to enhance the competences of tutors who had already obtained a certificate of participation in Tutor Training, an additional "**Accredited Tutoring Practitioner**" training was conducted. This course prepared participants to carry out the tutoring process in a professional manner, including supervision, thereby developing both their substantive knowledge and practical tutoring skills. Six tutors from the UPWr DS took part in this training.

The UPWr Doctoral School attaches utmost importance to the reliable verification of the qualifications of its teaching staff. A key element of this process is the collection and analysis of candidates' CVs, which serve as a comprehensive source of information covering:

Scientific achievements: A list of scientific publications (articles in peer-reviewed journals, monographs), participation in national and international conferences, patent applications and other research accomplishments. Special emphasis is placed on the quality and impact factor of the journals in which the works are published.

Teaching experience: Information on courses taught, types of classes delivered, number of teaching hours and any teaching awards or distinctions. Experience in delivering doctoral seminars is particularly valued.

Professional achievements: Participation in research projects (both domestic and international), functions held in scientific bodies, membership in scientific associations, awards and honours.

Candidates for the role of supervisor undergo a detailed assessment by the relevant Scientific Discipline Boards (SDB). These boards, comprising experienced researchers, analyse the candidate's academic output, publications, participation in research projects, experience in teaching and supervising doctoral students and other relevant aspects attesting to their scientific competence and ability to conduct research. This verification by the SDB is carried out in two stages: during the approval of supervisor profiles with proposed doctoral dissertation topics submitted by prospective supervisors and at the stage of supervisor appointment approval. The assessment process takes into account all the requirements specified in the Act on Higher Education and Science. Additionally, at the stage of supervisor appointment approval, following an opinion issued within the discipline by a member of the Doctoral School Board, the Chairperson of the Doctoral School Board signs and approves the opinion. This opinion is forwarded to SDB together with the supervisor's profile.

The opinion of the SDB is a key component in the process of approving a candidate for the role of supervisor. The supervisors' profiles and supervisor appointment requests are approved by majority vote at the SDB meetings. This procedure ensures a comprehensive assessment of supervisors' qualifications by a panel of experts in the relevant field. A positive opinion of the board is a prerequisite for further proceedings of the candidature by the Doctoral School. As a result, the UPWr Doctoral School ensures that doctoral students receive academic supervision of the highest standard, which directly contributes to the quality of research and the scientific achievements of graduates.

4. Quality of the recruitment process

Recruitment to the Doctoral School of the Wrocław University of Environmental and Life Sciences (UPWr) is carried out through a competitive process governed by regulations established by the UPWr Senate. These regulations, along with the education programme, are published in the university's Public Information Bulletin (BIP) no later than five months before the start of the recruitment process. All legal acts regulating recruitment and education in the DS are also available on the official DS website: <https://phd.upwr.edu.pl>. The website provides the recruitment schedule and regulations, a list of required documents, the PhD curriculum, available funding opportunities, the composition of the Recruitment Committee and current research topics. Recruitment to UPWr DS can take place via three paths: the basic recruitment path, the project-based path and the "Implementation Doctorate" programme. Each of these paths is described step-by-step in a simplified format in the "For Candidates -> Admission" section of the DS website. The information is also available in English.

Recruitment follows an open competition model and is conducted in all disciplines evaluated at UPWr. Research topics in each discipline must be approved by the relevant Scientific Discipline Board and are then published in either Polish or English (from 2024 onwards, exclusively in English) in the "PhD Research Topics" section of the DS website. The basic recruitment usually takes place from May (document submission) to July (interviews), whereas project-based recruitment is conducted on a continuous basis, though studies may begin only at the start of the next semester. The recruitment schedule for the "Implementation Doctorate" follows the guidelines set by the Ministry. The recruitment regulations do not give preferential treatment to domestic candidates over international ones, or to UPWr graduates over those from other institutions. Candidates who are unable to attend the interview in person (particularly international candidates, or domestic candidates with valid reasons) are allowed to participate in an online interview with the Recruitment Committee. For candidates with disabilities, the Committee will adapt the recruitment procedure based on a legally valid disability certificate, or a certificate in accordance with Articles 5 and 62 of the Act of 27 August 1997 on vocational and social rehabilitation and employment of persons with disabilities.

The basic recruitment path is overseen by the Recruitment Committee, which is appointed by the Vice-Rector for Science upon the request of the Director of the Doctoral School. A representative of the Doctoral Students' Self-Government (DSSG) participates in the Committee's work as an observer, and the Director supervises its activities. The Committee's term lasts until a new Committee is appointed for the following academic year. One representative from each discipline participates in the work of the Committee; if unavailable or in the event of a conflict of interest (e.g. if the candidate's prospective supervisor is the same person), a replacement member takes their place.

The basic recruitment path consists of two stages. In the first, the achievements indicated by the candidate are assessed, including publication of a scientific article or monograph, authorship or co-authorship of a patent, utility model or entry of a sequence into a genetic database, conference presentations, participation in scientific projects financed from external sources and completion of scientific internships. All achievements are presented on the document "Candidate's Card", which contains detailed rules for documenting and scoring achievements. In case of doubts regarding the recognition of the achievement, the Committee requests the candidate to supplement the documentation by e-mail within 7 days, after which the supplementation is reconsidered. The complete documentation must be sent to the email address of the Doctoral School. In addition, candidates are required to register in the IRK/Dream Apply system.

Candidates who exceed the minimum threshold of points in Stage I and rank among the top 50 candidates in a given year proceed to Stage II, i.e., the qualification interview. The interview date is sent to candidates at least one week before the start of Stage II and, upon a justified request from the candidate, may be rescheduled to another day or time within the 5 days allocated for this stage. Representatives of all disciplines participate in the qualification interview with the candidate. Each interview is allocated 15 minutes, and part of the interview must be conducted in English. The Committee evaluates the candidate according to three criteria, i.e., knowledge of the concept and subject of the doctoral dissertation, career path and self-presentation. After all interviews are completed, a ranking of candidates is created. First, a so-called discipline ranking is created, where for each scientific discipline authorised to provide education at the doctoral school, three candidates with the highest number of points from each discipline are admitted (parities), with at least one being a Polish citizen and at least one a foreigner. If it is not possible to select three candidates in a given discipline within the parity, the vacant places are transferred to the general pool. After selecting candidates representing scientific disciplines, a single ranking list is created again, common to all disciplines, the so-called general ranking, based on which candidates with the highest number of points obtained in the recruitment process are admitted within the remaining place limit.

Participation in the recruitment process is allowed for individuals who, in the year of the recruitment process, will not obtain a master's degree but demonstrate "highest quality scientific achievements" referred to in Article 186(2) of the Act – Law on Higher Education and Science. So far, only one candidate was admitted to Stage I of recruitment in this way (in 2021).

In accordance with the current recruitment rules for candidates who, at the date of application to the Doctoral School, have secured funding for their PhD for a period of min. 36 months from externally funded projects, additional recruitment may be

announced, taking into account the requirements of a research or research and development project – “project-based recruitment”. In the case of project-based recruitment, the competition procedure is conducted in accordance with the project’s requirements. The competition committee, appointed by the Vice-Rector for Research, consists of: the project manager and two individuals holding at least *dr hab.* degree in the discipline in which the project is being implemented. The Doctoral School Board provides an opinion on the project profile. The competition committee submits a protocol with the selected candidate. The candidate who wins the competition procedure is admitted to the DS with the consent of the Director of the DS, based on the competition committee’s protocol and recruitment documents, along with the candidate’s application for admission to the DS.

The recruitment of candidates to the DS within the framework of the “Implementation Doctorate” programme is conducted by the DS Board. The Chair of the DS Board acts as the Chair of the Recruitment Committee. In the case where a member of the DS Board is directly involved as a potential supervisor, the Chair of the relevant Scientific Discipline Board appoints a replacement from among the members of the discipline. The Committee may include the relevant Vice-Rector, to whom the project is subordinate.

The recruitment results are published on the DS website immediately after its completion, along with the scores obtained. A candidate may appeal a decision of the Committee only to the Rector. For all appeals submitted so far, the Rector has upheld the decisions of the Committee, finding no irregularities in its actions. In the following recruitment years to the DS, the following number of candidates were admitted (with the number of foreign candidates in parentheses): 33 (7) in 2019, 31 (5) in 2020, 46 (9) in 2021, 49 (7) in 2022, 41 (14) in 2023, and 31 (9) in 2024. The high percentage of candidates, including those admitted to the DS, indicates the high level of openness of the recruitment process and the international character of the entire DS.

The recruitment process is regularly monitored and analysed. Each year, the Recruitment Committee submits to the DS Board comments and suggestions that can improve the recruitment process. These changes aim to enhance the quality of admitted candidates by clarifying evaluation criteria, streamlining procedures and better aligning the requirements with the profile of a candidate capable of conducting high-level scientific activity. Any proposed change must first be approved by the DS Board and then by the Senate. Over the past years, the following changes have been made in this way: 1) the method of scoring co-authorship of publications was changed to take into account the candidate’s position on the list of authors, 2) minimum score thresholds were established for each stage, 3) the scoring of grade point average from studies was abolished, 4) the rules for recognising scientific internships were clarified, 5) the method of documenting participation in research projects was standardised.

Any doubts regarding the recruitment process may be consulted by candidates and potential supervisors with the DS Office and the Chair of the Recruitment Committee, primarily via email. Starting from 2025, the DS organises open online meetings for candidates with the DS Office and a representative of the Recruitment Committee, during which the recruitment rules are discussed, and questions asked during the meeting are answered.

5. Quality of scientific or artistic supervision and support for conducting scientific activities

To become a supervisor at the Doctoral School of UPWr, one must submit a scientific profile, which is approved by the Scientific Discipline Board in a secret ballot. The Board prepares a resolution expressing its opinion on the scientific profile of the candidate for supervisor. After a positive opinion is issued, the proposed doctoral thesis topic together with the supervisor's name is published on the UPWr Doctoral School website prior to the start of recruitment for the given academic year.

Within 3 months of commencing education at the Doctoral School, the relevant Scientific Discipline Board, at the request of the doctoral student, appoints the supervisor or supervisors, or a supervisor and auxiliary supervisor, who meet the conditions specified in the law.

The possibility of changing the supervisor is regulated in a way that enables flexible responses to the changing needs of the doctoral student, while ensuring continuity of academic supervision. According to the UPWr Doctoral School Regulations, a change of supervisor, supervisors or auxiliary supervisor is possible in particularly justified cases. For this purpose, the doctoral student submits a request to the Chair of the Scientific Discipline Board indicating the reason for the change, along with confirmation of acceptance by the new supervisor, supervisors or supervisor and auxiliary supervisor.

UPWr DS ensures the continuity of academic supervision of doctoral students, including in unforeseen situations such as resignation or death of the supervisor. In such cases, the Scientific Discipline Board appoints a new supervisor, and the Director of the Doctoral School, at the request of the doctoral student, may decide to extend the deadline for submitting the doctoral dissertation.

Changes to the supervisory team, except in particularly justified cases, may take place no later than the date of the mid-term evaluation. These decisions are made individually by the Scientific Discipline Board, following a thorough analysis of the situation and with concern for the doctoral student's wellbeing and the quality of the research conducted.

To respond quickly to conflict situations in the supervisor–doctoral student relationship, doctoral students may book consultations with the Director of the Doctoral School. During these meetings, any problems are discussed and possible solutions are proposed; the Director may then consult with the Chair of the relevant Scientific Discipline Board or arrange a joint meeting with all parties involved to resolve the conflict.

Supervisors are also obliged to maintain systematic contact with doctoral students and to support them in implementing their research plans. To facilitate and streamline the relationship between doctoral student and supervisor, the Doctoral School operates a "Good Practice Guide" which includes a set of recommendations for effective collaboration aimed at supporting the doctoral student's academic development. In addition, a good practice at the beginning of the supervisory relationship is the signing of a "Cooperation Charter between the doctoral student and the supervisor", which serves as a starting point for setting cooperation rules and building a "master–student" relationship.

UPWr DS ensures that all doctoral students, including those with disabilities and those who are parents, are provided with appropriate conditions for pursuing their education programme and conducting research. Access to research infrastructure, the possibility of participating in classes remotely and an individual approach to each doctoral student's needs form the basis of this support. The unit responsible for supporting and coordinating activities for people with disabilities is the Centre for Support and Accessibility. For doctoral students with motor disabilities, the Doctoral School enables recruitment using IT tools for video conferencing. The UPWr Doctoral School ensures digital accessibility by maintaining a website that allows for changes in contrast and font size. The timetable is prepared based on the needs of people with limited mobility, so that classes are held on the ground floor or in buildings with special access. The rights of doctoral students with special needs are set out in the Doctoral School Regulations (§ 15 section 1, § 19 section 11, § 23, § 25 section 4). The Director of the Doctoral School is responsible for ensuring or supporting the implementation of these rights.

Outstanding specialists from outside the University are actively involved in the activities of UPWr DS to support doctoral students. Their involvement includes teaching the "New trends" course, research collaboration and serving as auxiliary supervisors. Within the "New trends" course, i.a. in the 2024/2025 academic year, doctoral students were taught by 16 teachers (incl. 14 from outside UPWr), including from the University of Oxford (UK), University of Georgia (USA) and organisations such as the World Organisation for Animal Health (WOAH).

Each year, doctoral thesis supervisors include individuals employed at other research institutions both in Poland and abroad. As of 30.09.2024, doctoral students were supervised by 20 co-supervisors, 9 auxiliary supervisors, and 26 assistant supervisors – all outstanding specialists employed outside the Wrocław University of Environmental and Life Sciences. Additionally, the Doctoral School offers the opportunity to undertake education under cotutelle agreements, allowing doctoral students to collaborate regularly with international experts.

The work of both the doctoral student and the supervisor is verified during Scientific Seminars held before the mid-term evaluation, allowing for ongoing monitoring of research progress and the effectiveness of cooperation. In addition, before the doctoral dissertation defence, an individual meeting is organised between the Director of the Doctoral School and each doctoral student and their supervisor. During this meeting, a comprehensive evaluation of the doctoral student's work and the quality of supervision is conducted, along with the provision of guidance to support the preparation of the dissertation.

To further improve the quality of supervision, supervisors and auxiliary supervisors are offered dedicated training opportunities. Courses delivered so far include "Promotor 2.0", focusing on enhancing competencies in academic supervision, and "Design Thinking Moderator", developing skills for supporting doctoral students' innovative ideas and solving complex problems. It is also worth noting that among the supervisors of doctoral students at the Doctoral School, there are 6 accredited tutoring practitioners (Collegium Wratislaviense Certificate).

6. Integrity of the mid-term evaluation process

In the middle of the education period, the doctoral student undergoes a mid-term evaluation in accordance with Article 202 of the Law on Higher Education and Science. This assessment is carried out by three-member committees appointed for each discipline by the Vice-Rector for Science at the request of the Director of the Doctoral School.

The doctoral student is subject to mid-term evaluation based on:

- a written report on the progress in implementing the individual research plan, reviewed by the supervisor;
- semester reports (IDSC) submitted to the Director of the Doctoral School, assessing the implementation of the training programme, the progress of scientific research and the advancement of work on the doctoral dissertation, including the supervisor's evaluation;
- a presentation at an open scientific seminar, during which the doctoral student presents the main assumptions and obtained results of the doctoral work to the relevant Scientific Discipline Board or a body designated by the Board, which provides the Doctoral School with a written evaluation indicating the strengths and weaknesses of the work;
- an interview with the Committee and the doctoral student.

The mid-term evaluation ends with either a positive or negative result. The outcome of the assessment, along with justification, is public. The criteria and rules for mid-term evaluation, the required forms and the evaluation results are published on the website of the Doctoral School of the Wrocław University of Environmental and Life Sciences (<https://phd.upwr.edu.pl/dla-doktorantow/ocena-srodokresowa>).

In the case of a negative evaluation, in accordance with the established criteria, the doctoral student is removed from the list of doctoral students.

During the evaluation period, all doctoral students successfully passed the mid-term evaluation.

The mid-term evaluation is carried out by three-member committees appointed for each discipline by the Vice-Rector for Science at the request of the Director of the Doctoral School. The committees include individuals employed outside the Wrocław University of Environmental and Life Sciences who hold a *doktor habilitowany* degree or the title of professor in the relevant discipline and who are experts in their fields, which ensures a professional and independent evaluation process.

During the evaluation period, committee members included representatives from, among others, the following institutions: Poznań University of Life Sciences, University of Gdańsk, University of Rzeszów, University of Warmia and Mazury in Olsztyn, Jarosław Dąbrowski Military University of Technology in Warsaw, AGH University of Krakow, Warsaw University of Life Sciences, Gdańsk University of Technology, Wrocław University of Science and Technology, University of Wrocław, Ludwik Hirsztfeld Institute of Immunology and Experimental Therapy of the Polish Academy of Sciences, Bydgoszcz University of Science and Technology, University of Life Sciences in Lublin, Wrocław University of Economics, University of Agriculture in Kraków.

The composition and competencies of all members of the committees conducting mid-term evaluations of doctoral students meet all conditions specified in external legal acts as well as in the Regulations of the Doctoral School of the Wrocław University of Environmental and Life Sciences.

During the interviews conducted by the Committee, an observer is present in the form of a member of the Doctoral School Board representing the given discipline, as well as, since last year, the supervisor. Observers do not influence the course of the evaluation process.

Before the mid-term evaluation, an informational meeting is organised for doctoral students undergoing the evaluation, with the participation of representatives of the Doctoral School Board, the Director of the Doctoral School, the Doctoral Students' Self-Government and third-year doctoral students who have already completed the evaluation process. The meeting covers the principles, procedure and criteria of the evaluation, as well as practical experiences. This meeting not only enhances the transparency and accessibility of information, but also supports the development of a quality culture, facilitates the exchange of experiences and prepares doctoral students for participation in the evaluation process. Additionally, it provides a space for submitting potential comments and improving evaluation procedures. This initiative constitutes an important element of the quality assurance system in education and is in line with the principles of transparency, accessibility and clarity of the procedures in use.

Mid-term evaluations at the Doctoral School are conducted in accordance with applicable regulations and within the required timeframes. Meetings of the Mid-Term Evaluation Committee are held annually in September, in line with the regulatory provisions regarding the timing of evaluations.

Prior to the scheduled session, committee members receive by email a full set of documents submitted by the doctoral students, enabling preliminary analysis of research output and the implementation of individual research plans. The evaluation process takes the form of an in-person meeting during which doctoral students present the results of their current work and outline their further plans. Subsequently, committee members conduct an interview with the doctoral student, allowing for a thorough assessment of their progress and aptitude for continuing their education.

After the interviews, the committee prepares a report containing the justification for the given evaluation. The results are published immediately after the conclusion of the process on the website of the Doctoral School, in accordance with the principle of transparency and procedural clarity.

Committees consist exclusively of external members, i.e. not employed by the Wrocław University of Environmental and Life Sciences. Furthermore, from 2024 onwards, all members of the mid-term evaluation committees within a given discipline are drawn from different academic institutions.

The Regulations of the Doctoral School, which will come into force on 1 October 2025, introduce the following changes concerning the mid-term evaluation of doctoral students, developed as a result of the improvement process:

- a representative of the Doctoral Students' Self-Government may now serve as an observer during the doctoral student's interview with the committee;
- an appeal procedure against a negative evaluation result has been introduced. In the event of a negative result, within 14 days from the publication of the assessment result, the doctoral student may appeal to the Vice-Rector for Science. The Vice-Rector for Science may decide to appoint an appeal committee in a new composition. The appeal committee grants either a positive or negative result, which constitutes the final assessment.

7. Internationalization

The staff of the UPWr DS demonstrates an increasing level of internationalisation, evident both in academic mobility and activity within the international EU GREEN alliance. This alliance, bringing together nine European partner universities, aims to create one of the first “Universities of the Future”. Academic teachers and research staff regularly participate in international conferences, presenting the results of their research and establishing key collaborations with foreign academic and research institutions.

In the academic year 2023/2024, the academic staff of the DS undertook academic and teaching mobilities to various foreign institutions, such as: University of Oxford, University of Bari Aldo Moro, University of Parma, Atlantic Technological University, Universidade de Lisboa, Lleida University, University of Évora, University of Extremadura, University of Georgia, UMH Elche, Astana International University, Freie Universität Berlin, University of Sassari, HES-SO – Haute Ecole Spécialisée de Suisse Occidentale, The Hague University of Applied Sciences, Bilkent University, Technical University of Crete, Brandenburg University of Technology, Maynooth University, Dublin City University, University of Leon, etc. The scope of mobility included activities such as scientific research, data collection, implementation of joint projects and preparation of new applications, study visits, teaching activities, training, consultations, participation in international scientific and industry associations, establishing collaborations, promoting UPWr including the DS, working in European COST research networks, as well as participation in and co-organisation of international conferences. The staff actively participates in international research projects and mobilities funded by prestigious agencies (e.g. EU Horizon Europe, NAWA), which confirms their ability to compete internationally and build lasting partnerships. Under the NAWA STER Programme, 8 academic staff members completed visits abroad, e.g. to the University of Manchester, University of Georgia and Bilkent University.

The DS regularly hosts visiting professors from renowned international institutions, enriching the educational offer and providing doctoral students with direct contact with outstanding specialists. The STER project, acquired by the DS with funds from NAWA, enabled the participation of international co-supervisors in doctoral thesis defences, emphasising the international character of education.

Internationalisation is an integral part of the education process at UPWr DS. The individual research plans of doctoral students include international cooperation and research internships abroad. The appointment of co-supervisors from foreign universities is also actively promoted, which enhances the quality of education and allows doctoral students to carry out and defend their theses in English. UPWr DS actively supports doctoral students' academic mobility financially, funding their participation in international conferences, trainings, workshops and summer schools. In the years 2023-2024, 11 doctoral students participated in international scientific conferences, 13 in intensive programmes and 23 in specialised trainings.

Doctoral students had the opportunity to take part in mobilities funded by the STER project – Internationalisation of Doctoral Schools, entitled: International Interdisciplinary Doctoral School – at the HEART of BioBased University (I2PhD@BBUniHEART), implemented between 2022-2024. Doctoral students participated, among others, in bilateral exchanges in two-person teams – a doctoral student leader from UPWr and a doctoral student from a foreign institution. As part of the programme, 13 teams (26 individuals) were formed and completed foreign exchanges to, among others, the USA, India, UAE, Sri Lanka and European countries including Denmark and Finland. A tangible outcome of the programme was the initiation of cooperation with prestigious international institutions, development of joint publications and the preparation of further collaboration plans. Through mobility, doctoral students built networks of contacts which led to further initiatives, publications and projects. They acquired new skills and competences, which are of great value in the context of future research undertakings. As part of individual mobility, 9 doctoral students travelled for 30 days to institutions such as Imperial College London, Freie Universität Berlin, Dresden University of Technology and 19 students for 90 days to institutions such as Ludwig-Maximilians-Universität, Oklahoma State University, The University of British Columbia, Seoul National University and Aarhus University. Under the STER project, doctoral students also participated in numerous specialised training courses and soft skills training held both online and at UPWr in English. Doctoral students also benefited from mobility under the HORIZON Twinning project (SEASONED – Advances in food sensory analyses of novel foods), including visits to Denmark and Spain, and participated in intensive food sensory analysis training. Doctoral students took part in two PROM (NAWA) projects and had the opportunity to co-organise intensive training for doctoral students and students from abroad as part of the SPINAKER and STER projects, as well as Blended Intensive Programmes (BIP) organised by the EU GREEN consortium.

Since the establishment of UPWr DS, education for foreign doctoral students has been conducted entirely in English. The number of courses delivered in English has increased year by year, also for Polish doctoral students. From 2024/2025 academic year, education at the UPWr DS is conducted in English.

The Doctoral School Office provides comprehensive support for foreign doctoral students, including: assistance with completing residence legalisation applications, verification of documentation and submission to the Voivodeship Office, information on obtaining a PESEL number and setting up a bank account, organising integration meetings for first-year doctoral students with members of the Doctoral School Board and the Doctoral Students' Self-Government to familiarise them

with the academic environment and facilitate the assimilation process.

The office maintains a website and all social media channels in both Polish and English, organises training on using the EOD system (electronic document circulation), which is mandatory at UPWr, and training on basic procurement procedures for foreign doctoral students in English. All presentations and training sessions for doctoral students and candidates are conducted in both languages, and all documents related to education are translated into English.

Additionally, under the NAWA STER Programme, Polish language courses were organised for UPWr doctoral students, attended by 21 doctoral students, and English language courses, attended by 30 doctoral students.

To increase its international visibility, the DS applies a multidimensional strategy that includes a variety of promotional activities. A key element is the Google Ads campaign, which enables reaching a wide audience interested in undertaking education at the DS. The effectiveness of the campaign is monitored using several key indicators, such as CTR (click-through rate), conversions, cost per conversion and campaign reach – all of which remain at high levels. Analysis of these indicators confirms that the current campaign is an effective promotional tool, contributing to the growing recognition of the DS and the recruitment of candidates from abroad. In addition, an active presence on social media platforms such as Facebook and Twitter (X) allows for ongoing communication about the successes of doctoral students and supervisors, building a positive image of the DS. Staff, as well as doctoral students and graduates, through their participation in scientific events and implementation of mobilities, serve as the best ambassadors of UPWr DS.

8. Effectiveness of doctoral education

Percentage of individuals who obtained a doctoral degree	Doctoral students who applied for initiation of proceedings for the award of a doctoral degree	Doctoral students who were awarded a doctoral degree	Doctoral students who were denied the award of a doctoral degree
in the number of doctoral students who completed their education at the doctoral school during the evaluation period	100 %	94 %	0 %
in the total number of doctoral students who completed their education at the doctoral school	100 %	94 %	0 %

a) 2022/2023: 31 out of 32 doc. students submitted theses by 30.09.2023. 1 person (one-year suspension of education) submitted the thesis in 2024.
2023/2024: 19 out of 21 doc. students submitted theses by 30.09.2024. 2 persons (with approval from the Director of the DS for extension – justified reasons) submitted theses in 2025.

b) 51 doc. students obtained the doc. degree as of: 12.05.2025.

c) The high level of scientific achievements of UPWr doc. students is confirmed by external verification during the work on their doc. theses:

- most submitted theses are based on a series of thematically related publications, mainly in journals listed in the JCR;
- doc. students were involved in the implementation of research projects:
NCN projects: OPUS – 7 persons (p.), PRELUDIUM BIS – 15 p., SONATA BIS – 1 p.
Implementation Doctorate – 36 p.
Horizon 2020 – 2 p.
POWER 3.5 – 14 p.
ProHum – 6 p.

d) Doc. students assess the quality of education each semester via surveys. The average score for lecturers is approximately 4 points on a 5-point scale. Comments highlight high competence, up-to-date knowledge, good methodological preparation, usefulness of courses and a friendly atmosphere. Survey results are discussed at meetings of the DS Board with the doc. student representative. The results have been used, i.a., for consultations with lecturers regarding methods of course delivery.

e) Based on information collected from graduates, actions have been taken to increase flexibility in the curriculum and to expand optional formats:

- expanding the range of topics within the course "New trends in the discipline and related disciplines",
- introduction of an optional form of scientific communication development (2024: competition "PhD in 3 Minutes", 2025: competition within the EU GREEN "3 Minutes Fame"),
- launch of the Blended Intensive Programme "Statistics for Management" (editions: 2024, 2025);
- meetings of doc. students with graduates "What after PhD?"

1. environmental engineering, mining and energy

Achievement Description

MAŁGORZATA HEJNA obtained a project in the Preludium 22 competition entitled *Comparative analysis of qualitative and quantitative emissions of volatile organic compounds from biochar and hydrochar derived from poultry manure*. Project duration: July 2024 – July 2026. The scientific objective of this project is a comparative analysis of the qualitative and quantitative emissions of volatile organic compounds from biochar and hydrochar derived from poultry manure in relation to the conditions of the torrefaction and hydrothermal carbonisation processes. It is anticipated that selecting an appropriate process temperature will reduce the emission of volatile organic compounds and improve the properties of the obtained materials. Accordingly, the achievement of the objective will include the determination of fuel properties and

nutrient content of the substrate and the obtained products, qualitative and quantitative analysis of emitted volatile organic compounds, as well as a comparative analysis of process parameters (temperature and time) and their impact on product characteristics, determination of a mathematical model to describe the influence of the processes on the quality and quantity of emitted compounds, fuel properties and nutrient content.

The doctoral student also participated as a researcher in the Preludium BIS project entitled *Research on the release of volatile organic compounds from carbonised solid fuel produced from municipal waste*. The scientific aim of this project is the qualitative and quantitative characterisation of emissions of volatile organic compounds (VOC) from carbonised solid fuel (CSF) in relation to torrefaction temperature and the content of fabrics, kitchen waste, paper, various plastics, rubber, wood and their mixtures.

KAROLINA SOBIERAJ is the principal investigator of the Preludium project entitled *The influence of technological composting parameters of biowaste on the efficiency of carbon monoxide production – a precursor of biohydrogen production*. Project duration: November 2022 – November 2025. The main goal of the project is to understand the fundamentals of carbon monoxide (CO) formation during the composting of biowaste: determining the influence of process conditions (temperature, biowaste properties, their moisture and oxygen saturation) on CO production, the types of bacteria responsible and their ability to produce the necessary enzyme – carbon monoxide dehydrogenase (CODH). Due to its bidirectional nature, this enzyme may simultaneously contribute to the production of CO and its conversion into biohydrogen via the biologically mediated water-gas shift reaction (BMWGS). For this reason, composting becomes a potential environment for combining CO and H₂ production processes, aligning with the goals of a circular bioeconomy by using biomass and biowaste as raw materials for the production of valuable products. However, this requires increasing CO production efficiency during composting and understanding its mechanism. The intended outcome of the research is to gain new knowledge in the field of waste composting and to develop a theoretical concept related to the possibility of using the generated CO and microorganisms present in the composting process for the BMWGS reaction. The growing amount of biowaste constitutes a wide spectrum of substrates that may be used for this purpose. The research results may contribute to enhancing the attractiveness of the composting process for organic waste, not only as a method of disposal but also for obtaining two valuable products – compost and CO.

The doctoral student also participated as a researcher in the OPUS project entitled *Research on the microbiological mechanism of increasing biomethane production from biowaste by typical carbon materials*, the scientific objective of which is to discover the true nature of the mechanism of carbon materials' influence on biomethane production and the possibility of modifying CM properties to obtain the highest possible biomethane yield. The innovativeness of the research lies in a systemic approach to identifying the mechanism of CM influence on biomethane production, indicating the most important properties increasing the efficiency of AD, and finally applying targeted modification of selected CM properties and their use to intensify AD of food waste. To the best of our knowledge, such an experiment has not yet been conducted, therefore new knowledge will be obtained. Additionally, the possibility of targeted modification of CM to increase yield and biomethane kinetics is expected to be examined, which may be significant for optimising biogas plants and implementing the circular economy approach.

EWA SYGUŁA participated as a researcher in the Preludium BIS project entitled *Research on the influence of pyrolysis technological parameters and substrate properties on the release of volatile organic compounds from biochar*, conducted from 2020–2024. The scientific aim of the project was to assess the influence of torrefaction/pyrolysis temperature and the content of biomass components, i.e. lignin, cellulose and hemicellulose on the qualitative and quantitative emission of volatile organic compounds from biochar. The research included qualitative and quantitative characterisation of the formation and emission of volatile organic compounds from biochar in relation to torrefaction/pyrolysis temperature and biomass composition, and the development of a model describing the potential impact of biochar on human health.

WAHEED RASAQ acted as the principal investigator of the Preludium project entitled *Research on the conversion of sewage sludge into hydrochar and lipids as a result of combined hydrothermal and biological treatment*, carried out between January 2024 – July 2025. The aim of the project was to develop a cost-effective and energy-efficient system for the recovery and recycling of VFAs from sewage sludge in line with EU renewable energy and sustainable development policy. In addition, the project aimed to determine the optimal hydrothermal process conditions to achieve the highest production of VFAs in the liquid phase and to identify the best conditions for the biological process using *Yarrowia* yeast, in which the highest lipid production can be achieved. Furthermore, the project involved assessing whether the highest production of VFAs in the liquid phase is achieved during hydrothermal liquefaction (HTL) or hydrothermal carbonisation (HTC) of sewage sludge due to the influence of increased temperature and pressure on organic substances and material decomposition. It was also investigated whether the liquid fraction from HTL is a better substrate for *Yarrowia* yeast than the fraction from HTC due to higher content of bioavailable VFAs and lower content of potentially toxic organic compounds.

Since 2020, the doctoral student has published 13 articles in prestigious high-impact scientific journals such as *Frontiers in Energy Research*, *Journal of Food Process Engineering* and *Global Nest Journal*.

In 2024, the doctoral student was also awarded the *Interstudent* prize for his contribution to research on waste management. The award recognised not only his scientific achievements but also his involvement in the social life of the university.

2. biological sciences

Achievement Description

The achievements of doctoral students representing the discipline include: publications in international journals with a high impact factor, presentations at renowned international conferences and the implementation of research with practical and application significance.

MATEUSZ SZCZEPAŃCZYK in 2022, was awarded the highly competitive and difficult-to-obtain Short-Term Fellowship granted by the European Molecular Biology Organization (EMBO). This is a prestigious scholarship programme that funds short-term scientific exchanges lasting up to three months between laboratories in EMBO member states and partner countries. The aim of the fellowship is to facilitate the implementation of joint research projects in laboratories offering unique techniques and infrastructure unavailable at the home institution, thereby fostering scientific development and international collaboration. The fellowship enabled M. Szczepańczyk to undertake a research placement in the laboratory of Prof. Michael Sauer at the University of Natural Resources and Life Sciences in Vienna (BOKU), where he conducted research for three months on *Yarrowia lipolytica* yeast capable of producing polyols – important compounds used, among others, as sweeteners. His research focused on the molecular mechanisms of polyol assimilation by these yeasts, which have potential biotechnological and industrial applications. Additionally, M. Szczepańczyk was a scholarship holder in the OPUS 16 project funded by the National Science Centre (NCN) and participated in European research networks, including COST Action CA18229, under which he completed another research placement at IMDEA in Madrid (Spain) and a training programme at the Technical University of Denmark (DTU, Copenhagen). In 2022, at the 1st Polish Yeast Conference held in Rzeszów, he received the Young Scientist Award for the best oral presentation.

DOMINIKA JAMA in 2023, received funding for the PRELUDIUM 22 project 2023/49/N/NZ9/00951, financed by the National Science Centre, concerning the biosurfactant-producing capabilities of marine bacteria and their role in combating foodborne pathogens, which constitutes a significant contribution to biotechnology and environmental microbiology. Biosurfactants are a group of natural surface-active compounds mainly produced by bacteria and yeasts during microbial biosynthesis and have numerous industrial applications: they act as emulsifiers, foaming agents, dispersants, wetting agents, and also exhibit antimicrobial activity and the ability to inhibit biofilm formation. As such, they are used in the food, pharmaceutical, cosmetic and agricultural industries. In contrast to synthetic surfactants, biosurfactants are biodegradable, have low toxicity, and show high stability under various environmental conditions such as fluctuating pH, temperature and salinity. These properties make them an attractive, eco-friendly alternative to synthetic detergents. To reduce biosurfactant production costs, the project focuses on the use of renewable and inexpensive raw materials, such as enzymatically hydrolysed agri-food waste, e.g. sugar beet pulp, wheat bran and carrot peels, as carbon sources supporting biosurfactant production. The project focuses on evaluating the antibacterial and antibiofilm activity of new biosurfactants produced by *Pseudomonas libanensis* and *Bacillus subtilis* bacteria isolated from the Baltic Sea and Norwegian fjords. They will be tested against foodborne pathogenic bacteria; thus, the new findings may contribute to the development of new, natural food protection agents, enhancing food safety and supporting efforts to combat infectious diseases.

ADRIAN WYSOCKI published a scientific article awarded 200 points: Wysocki et al. 2023, "Opposite effects of host tree species on the realised niche of *Dicranum viride* – A model species belonging to the group of endangered epiphytes", *Forest Ecology and Management* 545, 1, 121303. The article concerns the effect of host tree species on the ecological niche of the model species, the endangered epiphytic moss *Dicranum viride*, enriching knowledge in the field of ecology and species conservation. *Dicranum viride* is a moss of international conservation significance, attracting the interest of forest managers. The research assessed the impact of host tree species on the realised niche of *D. viride* in deciduous forests. It was found that individual tree species significantly affect the moss's ecological niche. Both European beech (*Fagus sylvatica*) and hornbeam (*Carpinus betulus*) may provide suitable substrates; however, the key factor is the availability of specific microhabitats – particular combinations of moss species embedded in bark crevices. The study results indicated that even in managed forest areas, preserving trees with diverse microhabitats supports the survival of rare moss species such as *D. viride*. As a species with a narrow ecological tolerance, *D. viride*'s occurrence patterns can be useful in monitoring and help optimise forest management strategies that integrate timber production with biodiversity conservation and ecosystem functioning. This knowledge is therefore of considerable importance for nature conservation strategies, highlighting the need to identify and protect specific tree species that support not only unique epiphytic communities but also protected species like *Dicranum viride*.

PAULA PRZYGODA-KUŚ participates in the international project COST Action CA20101 PRIORITY (Plastics Monitoring Detection Remediation Recovery), which focuses on the monitoring, detection and remediation of microplastics. She also took part in the *Microplasticsdays* conference in 2025, indicating her active engagement in environmental research and pollution-related issues. Paula Przygoda-Kuś's participation in COST Action CA20101 – PRIORITY is highly significant for both her scientific development and the establishment of international contacts in this research area. COST Action is a renowned European scientific cooperation network that brings together experts from various countries, integrating an interdisciplinary approach to plastic pollution monitoring, detection and removal. Through her involvement in the project, Paula Przygoda-Kuś gained access to the latest research methodologies and techniques concerning micro- and nanoplastics. Her participation in the training and the *Microplasticsdays* conference (March 2025, Ljubljana, Slovenia) enabled her to exchange experiences with leading European experts, present her own research findings and expand her scientific network. This is an important step in building research competencies, particularly in the dynamically developing

field of environmental protection and pollution monitoring. Her research was selected for oral presentation at the final conference of the action in Leoben, Austria, to be held in September 2025. This experience strengthens her position as an active and competent researcher in the biological sciences. It also demonstrates the relevance of research conducted by doctoral students of the Doctoral School at UPWr.

The implementation of numerous research projects funded by the National Science Centre, such as: **Nabila Bourebaba** OPUS18UMO-2019/35/B/NZ7/03651 (PI: K. Marycz), **Magdalena Jarosz-Ostrówka** OPUS22 2021/43/B/NZ1/02236 (PI: M. Wołoszyńska), **Krzysztof Kotlarz** Preludium Bis 1, 2019/35/O/NZ9/00237 (PI: J. Szyda), **Adrianna Pielok** OPUS 15 2018/29/B/NZ7/02662 (PI: K. Marycz), **Mateusz Sikora** Harmonia 9 UMO-2017/26/M/NZ5/01184 (PI: K. Marycz), **Mateusz Szczepańczyk** OPUS16 UMO-2018/31/B/NZ9/01025 (PI: A. Mirończuk), confirms a strong research environment developing interdisciplinary biological studies, with a focus on biotechnology, microbiology, biochemistry, botany and veterinary sciences. A significant proportion of doctoral students at the Doctoral School in the field of Biological Sciences have been involved in the implementation of scientific projects, which has enabled not only their development but also demonstrates the engagement of scientists in educating the next generation. These projects provide access to modern methods, equipment, and inclusion in scientific networks, facilitating the establishment of valuable academic contacts and the exchange of experience. This enriches the research toolkit and also builds soft skills, such as teamwork (often in international teams) and the opportunity to participate in foreign internships – important at every stage of an academic career. The projects enable doctoral students to conduct research at a high technical and substantive level, which is the foundation of knowledge development in their field. Good research practices acquired through participation in projects influence the quality of the doctoral dissertation and future publications. External funding also allows doctoral students to participate in international conferences, which supports the dissemination of research results and gaining of further experience or seeking employment after obtaining the doctoral degree. This increases their competitiveness on both the academic and non-academic job market.

3. biotechnology

Achievement Description

AGATA MATERA i KINGA DULAK are researchers the project funded by the European Union's research and innovation programme Horizon 2020, entitled *Synthetic microbial consortia-based platform for flavonoids production using synthetic biology*, acronym: SynBio4Flav (No. 814650, total project funding: EUR 7,371,051, funding for UPWr: EUR 528,110). The aim of the project was to create a cost-effective industrial method for the production of flavonoids, as an alternative to currently used methods, using synthetic biology. The scientific challenge of the project was the production of flavonoids through the breakdown of complex plant biosynthetic pathways into standardised modules and their transfer into modified microorganisms, which would form a compatible consortium biosynthesising flavonoid molecules from components generated through distributed biocatalysis. The breakthrough approach of SynBio4Flav has great potential beyond flavonoid production. The final goal of the project was to change the paradigm in the biotechnological production of complex natural chemical compounds. As a result of the work carried out within the project, among others, five scientific articles were published, in which Agata Matera and Kinga Dulak are first and/or second authors. The articles were published in renowned journals listed in the JCR: *Journal of Biological Engineering* (IF 6.5), *Microbial Cell Factories* (IF 4.9), *Bioorganic Chemistry* (IF 4.7), *Applied Microbiology and Biotechnology* (IF 4.3), and *Scientific Reports* (IF 3.9).

AGATA MATERA also received funding in the PRELUDIUM 22 call (No. 2023/49/N/NZ1/0308) organised by the National Science Centre for the implementation of the research project entitled *A universal and efficient platform for enzymatic glucosylation of steroids*. The aim of the project is to create a platform of an enzymatic cascade in *Escherichia coli* bacteria as an alternative to the expensive and complex chemical synthesis methods currently used for steroid glycosylation. The use of an enzymatic cascade makes the enzymatic glucosylation process independent of the need for expensive cofactors, which is necessary when using individual enzymes. As a result, it becomes relatively inexpensive and much simpler to carry out regioselective introduction of a sugar molecule into a steroid compound. Such a modification increases water solubility and chemical stability of the compound. Consequently, this may facilitate the dissolution of a steroid drug in digestive fluids and protect it against degradation in the gastrointestinal tract, thus significantly improving its absorption. This enables a reduction of the effective dose of the administered drug, which also decreases the side effects that often accompany steroid therapies. Furthermore, such a modification may also increase the biological activity of the steroid compound.

KACPER SZYMAŃSKI is a laureate of a three-month student exchange project under the *EMBO Scientific Exchange Grant* (No. 11099), which he carried out at Claude Bernard University Lyon 1 and the Institute of Biology and Chemistry of Proteins (IBCP). The completed project focused on structural studies of the yeast hexokinase YIHxk1, isolated from *Yarrowia lipolytica*. Using modern methods, including synchrotron radiation and liquid chromatography coupled with mass spectrometry (LC-MS/MS), the three-dimensional structure of the YIHxk1 hexokinase was determined and a number of interacting proteins were identified. The results provided new and valuable insights into the structure and function of the studied protein, supporting the development of bioinformatic tools and potential industrial applications.

THIRUCHENTHOORAN VAIKUNTHAVASAN is the first author of a publication in the *International Journal of Nanomedicine* (Dove Medical Press, Q1, IF 6.6, 140 pts MEIN) entitled *Combination of Indomethacin with Nanostructured Lipid Carriers for Effective Anticancer Therapy*. The article presents an innovative approach to cancer treatment, using nanotechnology to enhance the effectiveness of a well-known drug – indomethacin. This drug has long been known for its analgesic, antipyretic, anti-inflammatory and anticancer properties. *In vitro* and *in vivo* studies, as well as clinical trials, have confirmed its ability to reduce tumour size and number and to induce apoptosis in cancer cells. However, the wide application of indomethacin in oncology is limited due to its poor water solubility, which results in low bioavailability, and serious side effects, mainly in the gastrointestinal tract. To overcome these limitations, the research team used nanostructured lipid carriers (NLC). A formulation of indomethacin encapsulated in nanostructured form (IND-NLC) was developed, characterised by small nanoparticle size, negative surface charge, high encapsulation efficiency, and stability for over 60 days. A key feature was also the controlled release of indomethacin from the NLC, which was significantly slower than in the case of the free drug. The most important finding was that indomethacin delivered in the IND-NLC form showed significantly higher antiproliferative activity than the free drug. IND-NLC effectively inhibited the growth of prostate cancer cells (PC-3) and triple-negative breast cancer cells (MDA-MB-468), while free indomethacin showed no cytostatic activity against these cancers. The technology used may form the basis for the development of a safer and more effective anticancer therapy by minimising the systemic side effects of indomethacin and enabling targeted drug delivery.

AGATA MATERA is a co-author of seven Polish patents (Pat.239563, Pat.239564, Pat.237711, Pat.237709, Pat.237710, Pat.236834, Pat.237135) concerning the production of biologically active steroid compounds via biotransformation carried out by selected filamentous fungi in submerged shaken cultures. The obtained compounds may be used in the pharmaceutical industry, for example as precursors of contraceptive drugs. The products of the reactions obtained contain in their structure a 6,19-epoxy bridge, which causes a bend between rings A and B of the steroid structure. This has a positive effect on biological activity, as steroid compounds with such a bridge may act as selective antiglucocorticoids without mineralocorticoid or progestogenic activity, prevent ventricular fibrillation, have anticonvulsant properties, exhibit analgesic and bacteriostatic activity against Gram-positive bacteria. These compounds are also precursors of 19-norsteroids with contraceptive properties.

4. veterinary science

Achievement Description

JAYSON PASAOL has been repeatedly recognised for his scientific activity and science popularisation efforts, both by national and international bodies. He was awarded first place among 97 finalists in the Magna Charta Universitatum (MCU) Essay Competition 2023 Award and was the winner of the Young Owl competition during the *International Student Conference Speech Competition*. He was a finalist in the *3 Minute Breaking the Walls*, *3 Minute Fame Lab* competitions and winner of the *3 Minute Fame Lab Competition* in 2025. He also received awards for presentations at international scientific conferences: *OncoPhD Conference 2023* – for best oral presentation, and in 2024 at NYMU in Taiwan – second place in the best poster competition. He popularised science in the years 2023–2024 as an AstraZeneca Scientific Ambassador, and in the years 2025–2026 as a BioImaging Scientific Ambassador.

MAREK PIECZKA was awarded a Fulbright Poland – BioLab scholarship, which enabled him to spend 12 months at the Oklahoma Medical Research Foundation under the supervision of Ph.D., M.D. José Alberola-Ila, where he carried out a project entitled *Role of c-Myb in ILCs development*. The results of this work were presented at the international *Oklahoma Medical Research Foundation's Annual Scientific Retreat* in March 2023 in the form of a scientific poster. Marek Pieczka also published the findings of his research in the prestigious journal *Veterinary and Comparative Oncology* (Q1): M. Pieczka, L. Moniakowski, A. Studzińska, D. Kubiak-Nowak, A. Pawlak & A. Miazek. "Sequence Diversity and Expression Profiles of T Cell Receptor Beta Chain Constant Genes TRBC1 and TRBC2 in Canine Lymphoid Tumour Cell Lines and Normal Lymphocytes" and presented at the *European Congress of Immunology (ECI) 2024*: "Investigation of Canine T Cell Receptor Beta Chain Constant Gene Variants: Implications for Immunotherapy of T Cell Malignancies".

EWA DEJNAKA, a second-year doctoral student, already boasts significant scientific achievements. She is a co-author of scientific papers published in prestigious journals relevant to the veterinary field, such as *BMC Veterinary Research* (Q1), *Frontiers in Veterinary Sciences* (Q1) and *Biomedicines* (Q1). She has presented her research findings on numerous occasions in the form of oral presentations at both national and international scientific conferences (a total of 7 presentations), including at the *18th International Conference on Malignant Lymphoma (ICLM)* in Switzerland in 2025 – the most important international congress dedicated to lymphomas. There, Ewa Dejnaka had the opportunity to present her research in a talk entitled: *Targeting mitochondrial metabolism as a new potential therapeutic strategy for canine lymphoma treatment*. The research demonstrated the dog's value as a model in translational medicine studies and underscored the vital role of veterinary science in the development of modern oncology. Ewa Dejnaka has gained international recognition in part through internships at prestigious centres in Europe (University of Padua) and the United States (University of Georgia) in 2024 and 2025 respectively, as part of the STER and PROM exchange programmes offered at UPWr.

PAWEŁ BORECKI is a participant in the "Implementation Doctorate" programme, is the first author of the article entitled:

Breeding behaviour analysis in a large captive colony of African penguins (Spheniscus demersus) and its implications for population management and conservation published in *Scientific Reports* (Q1), and actively presents the results of his scientific and implementation work at national and international scientific conferences. He delivered a paper on his research at, among others, the *5th International Meeting on ZOO Research, Conservation and Biodiversity* in Germany and the *10th Congress of the Polish Society for Reproductive Biology* in Warsaw. He also presented scientific posters at the *EAZA Annual Conference 2024* in Leipzig, Germany, and the *EAZA Annual Conference 2023* in Helsinki, Finland.

AGATA KUBLICKA was awarded a Fulbright Visiting Research Graduate Student (BioLab 2025–2026) scholarship, under which she completed a one-year internship at the University of Virginia, Charlottesville, US, in the Department of Microbiology, Immunology and Cancer Biology, carrying out a research project entitled: *Modulation of herpesvirus infection by immunologically stimulated circRNA*. The research was conducted under the scientific supervision of Dr Sarah Dremel. Agata Kublicka presented the results of her research at both national and international conferences, including the *Junior Group Workshop for the European Society for Virology: Imaging Viruses* in Madrid, and the *European Conferences on Biomedical Optics (ECBO) 2025* in Germany.

She also received second place for her oral presentation at the *10th Congress of the Polish Society for Reproductive Biology* in Warsaw, for her talk entitled: *The influence of age and the timing of the reproductive season on sperm quality in African penguins (Spheniscus demersus)*.

5. socio-economic geography and spatial management

Achievement Description

MUHAMMAD KAMRAN KHAN was twice recognised by Stanford University on the Top 2% Scientists list for the high number of citations of his research papers (<https://topresearcherslist.com/Home/Profile/812996>). The doctoral student appeared on the list published in 2023 and 2024. This distinction confirms the doctoral student's impact on shaping scientific discourse at the international level. Maintaining cooperation with his former university, Bahria University in Pakistan, the doctoral student uses two affiliations, including Wrocław University of Environmental and Life Sciences since the start of his doctoral studies at the Doctoral School at UPWr.

MONIKA LEBIEDZIŃSKA is a co-author of an article published in the prestigious journal *Ecological Indicators* (Elsevier, Q1, 200 pts MeIN), entitled *Assessing the driving forces of landscape change in the perspective of Polish residents*. The study identifies the driving forces behind landscape changes in the Lower Silesia region of Poland from the perspective of residents during the years 2005–2020. The main conclusions indicate that landscape changes are driven primarily by political forces (40.66%), followed by socio-economic and cultural forces, with differences depending on the landscape type. This study fills a knowledge gap by combining quantitative and qualitative methods, offering insight into how landscape changes are perceived and which factors have the greatest impact on them – an issue crucial for sustainable landscape management and future research in Eastern Europe. The study forms part of the landscape analyses conducted by the doctoral student as part of the research included in her individual research plan.

ALEKSANDRA LUBAŃSKA received a scholarship from the Wrocław Academic Centre for her activities in the field of sustainable development. The doctoral student conducts research on how older people perceive complex urban systems, focusing on visual and auditory perception. The aim of this research is to increase the accessibility of urban spaces and to create environments that are inclusive for all users, regardless of their age or social background. These activities are part of the broader context of her doctoral research entitled *Perception of complex urban systems by older people*.

JOANNA WYRWA became the leader of the formalisation process of the European research-artistic network European Network for Sonic Ecologies (CENSE) and is a member of its first board alongside Dr Jacek Smolicki, the official founder of the initiative. CENSE is an informal research-artistic network bringing together specialists from various fields interested in the sonic dimension of space and its social and environmental implications. The network was established in Budapest in 2018 and promotes interdisciplinary knowledge exchange and projects focused on the relationships between sound, culture and the environment. The doctoral student's election to the board of a network focused on acoustic research aligns with her PhD project entitled *Spatial differentiation of the soundscape in urban planning – a socio-environmental assessment of the city*.

6. civil engineering, geodesy and transport

Achievement Description

The achievements of doctoral students representing the discipline include: an international award, a national award, securing two research projects financed from external sources and the publication of an article in a journal with an impact

factor (IF) above the average for the discipline.

ADAM CEGŁA was recognised by the Committee on Space Research (COSPAR) for his work on integrated GNSS tomography. The article entitled *Application of Integrated GNSS Tomography in Observation Study over the Area of Southern Poland* received the Outstanding Paper Award for Young Scientists, thereby being recognised as one of the nine best Earth science publications of 2024 authored by researchers under the age of 35 in the journal *Advances in Space Research*. The awarded article presents innovative research on the integration of satellite and ground-based GNSS (Global Navigation Satellite System) observations for the analysis and modelling of tropospheric dynamics. As part of the project, the doctoral student developed an original research tool named INTOMO, which is the first in scientific literature to use the synergy of ground-based GNSS measurements and satellite radio occultation data, taking into account the geometry of the signal path. The use of integrated GNSS tomography enabled a significant improvement in the accuracy of atmospheric parameter mapping, including the water vapour content in the troposphere. The research demonstrated that the new method improves the quality of input data for numerical weather models (so-called apriori data) by nearly 20% compared to previously used solutions that relied solely on ground-based GNSS observations. The research results open new perspectives for the development of modern weather forecasting systems and climate modelling. The data generated by INTOMO may in the future be used as the initial state in numerical atmospheric models, which could lead to improved forecast accuracy and a deeper understanding of physical processes in the troposphere, such as convection, water vapour transport, and precipitation formation.

MARCIN MIKOŚ received a START 2025 scholarship awarded by the Foundation for Polish Science (FNP), which is one of the most prestigious national honours for young researchers. This distinction was granted for an original and innovative contribution to the development of Precise Point Positioning (PPP) technology and satellite time and frequency transfer using multi-GNSS PPP solutions (American GPS, European Galileo, Russian GLONASS, Chinese BeiDou). The doctoral student conducts research on the stability and modelling of GNSS receiver clock parameters in the context of using ultra-stable external atomic clocks, particularly hydrogen masers. His work focuses on optimising the estimation of GNSS receiver clock parameters in PPP solutions through the development of stochastic models that account for inter-system delays. To this end, he implemented new functionalities in the GNSS-WARP software (developed by researchers at the Wrocław University of Environmental and Life Sciences), including the determination of an independent clock correction for each satellite system, as well as resetting inter-system delays and variance-covariance matrices at the boundaries of the day—due to clock jumps resulting from changes in the atomic reference standard. He performed analyses in the Python programming language, enabling the characterisation of clock stability using Fourier transforms and Allan and Hadamard deviations. The research results indicate improved stability in the height component in multi-GNSS PPP solutions and increased accuracy of intercontinental frequency transfer using hydrogen masers. The outcomes of his work were published in three articles (with the doctoral student as first author) in the journal *GPS Solutions* (Springer) and presented at international scientific conferences. These achievements have applications in precise geodesy, time system synchronisation and the development of GNSS technologies.

JOANNA NAJDER was awarded funding in the PRELUDIUM 23 competition organised by the National Science Centre (NCN), receiving the highest score in panel ST10, which translated into first place in the ranking of proposals in this field. The project entitled *Simulations of TRacking netwOrk aNd satellite orbits for future-GEneration satellite laser Ranging* (STRONGER) concerns issues related to the optimisation of the functioning of the Satellite Laser Ranging (SLR) technique. Receiving the project constitutes not only a personal success for the researcher but also confirmation of the Doctoral Student's research potential and the relevance of the project topic for shaping the future of SLR technology. The project aims to conduct a comprehensive analysis of SLR technology to optimise the performance of both the space segment – geodetic satellites – and the ground segment – the network of ground stations, particularly in the context of analysing the trade-off between investments in new geodetic satellites and modernisation of ground infrastructure. Such actions aim to improve the quality of determining global geodetic parameters and the realisation of the Terrestrial Reference Frame (TRF). The research work will include an analysis of the current state of the SLR station network, simulations of satellite tracking strategies and the development of new observational standards. The project also includes an analysis of the impact of limited access to data from selected world regions, e.g. in the context of geopolitical challenges. Some tasks will also concern the assessment of potential benefits resulting from the implementation of low-cost stations. The project, carried out in cooperation with leading research centres in Europe, is part of global efforts to build more accurate and robust solutions based on SLR technology – crucial for understanding dynamic processes occurring on, beneath and above the Earth's surface.

FILIP GAŁDYN received funding in the amount of PLN 195,000 in the NCN PRELUDIUM 23 competition for the implementation of the research project entitled *Environmental patterns in gravity field models based on the SLR technique*. This project ranked 4th out of 103 submitted proposals in panel ST10. The aim of the project is to develop a comprehensive model of the Earth's gravity field based on 30 years of satellite laser ranging (SLR) data – covering the years 1995–2025. In addition to SLR data, models from the GRACE mission, GNSS observations and satellite orbits in low Earth orbit (LEO) will also be used. This integration of data will allow the detection of long-term trends and accelerations related to mass redistribution within the Earth system, including glacier melting, changes in groundwater resources and the effects of El Niño/La Niña phenomena. The project assumes an increase in both temporal and spatial resolution of gravity

field models derived from the SLR technique. This will be possible through the development of data processing methods, including the combination of short and long arcs, the use of regularisation methods and machine learning techniques. As a result, the project aims to obtain models developed up to degree and order 20 of spherical harmonics, which is a significant advancement compared to standard SLR solutions, usually limited to degree and order 6. The models will be verified using altimetric data and hydrological and isostatic models, and their quality will be assessed in terms of polar motion analysis, length of day, geocentre variations, and regional hydrology. The project's results will contribute to deepening knowledge on long-term climate and environmental changes and improve the precision of monitoring glacier and continental ice sheet mass, as well as the global water cycle. The resulting models may also be applied, among others, in research on extreme weather events.

GRZEGORZ MARUT in 2022, published (as first author) an article in the journal *Institute of Electrical and Electronics Engineers (IEEE) Transactions on Geoscience and Remote Sensing*, which has an Impact Factor (IF) of 7.5 and is included in the list of scientific journals and peer-reviewed international conference materials of the Ministry of Science and Higher Education with a score of 200. The article entitled *Monitoring the Water Vapour Content at High Spatio-Temporal Resolution Using a Network of Low-Cost Multi-GNSS Receivers* was written in collaboration with four researchers from the Institute of Geodesy and Geoinformatics (IGiG) at the Wrocław University of Environmental and Life Sciences. The Doctoral Student presented the potential of using low-cost Global Navigation Satellite System (GNSS) receivers in tropospheric research focused on estimating water vapour content, and the subsequent assimilation of results in numerical weather forecast models. The obtained results were compared with two independent external sources – a geodetic receiver at the WROC station (part of the International GNSS Service – IGS) and a microwave water vapour radiometer installed on the roof of IGiG – showing high consistency of results despite the use of a cheaper GNSS receiver. For the purpose of the study, the Doctoral Student built in Wrocław the world's first local network of low-cost GNSS receivers consisting of fifteen devices that recorded satellite observations over the course of a month. Analysis of the obtained results revealed intra-urban variability of water vapour content over distances of just a few kilometres between receivers. The presented results indicate that low-cost GNSS receivers can now be used to expand and densify existing geodetic receiver networks, improving the quality of developed weather forecast models.

7. agriculture and horticulture

Achievement Description

The achievements of doctoral students representing the discipline include: publications in international journals with a high impact factor, presentations at renowned international conferences, and the implementation of research with practical and application significance.

MACIEJ JAKOBINA is a co-author of an article published in the prestigious journal *Scientific Reports* (Nature Portfolio, Q2, 140 points MEiN) entitled *The influence of cultivation conditions on the formation of psychoactive salvinatorin A, salvinatorin B, rosmarinic acid and caffeic acid in Coleus scutellarioides*. This publication presents innovative research on the influence of different cultivation conditions on the biosynthesis of valuable bioactive compounds, including the psychoactive salvinatorins, as well as antioxidant compounds such as rosmarinic and caffeic acids, in the decorative plant *Coleus scutellarioides*. This research is of significant scientific and practical value – it provides essential knowledge for optimising the production of medicinal and aromatic plants, which is crucial for the development of precision agriculture, where controlled environmental conditions enable the production of higher-quality crops with increased levels of desirable bioactive compounds. In addition, together with the research team, Maciej presented the results of his work at the international conference *ICANFTA 2025* in India, in the presentation entitled *Variability of narrow-leaf lupin RILs lines in terms of proportion of seed coat and pod walls*. This study addressed the genetic variability of breeding lines of narrow-leaf lupin and its influence on seed traits, such as the ratio of seed coat to pod wall, which has practical relevance for the seed industry and for improving the quality and efficiency of crop production. These studies contribute to the development of modern plant breeding methods, supporting sustainable agriculture.

RAFAŁ RAMUT presented the results of his research at the international *AGROSYM 2024* conference in Bosnia and Herzegovina, where he gave a presentation entitled *Impact of Struvite (Crystal Green) Application on Microbial Activity and Soybean Yield*. His research focuses on an innovative fertilisation approach – the use of struvite, a fertiliser recovered through phosphorus recycling, which is a valuable but limited natural resource. Rafał analysed the impact of this fertiliser on soil microbial activity and soybean yield, which is key to sustainable agriculture and environmental protection. He also published an article as first author entitled *The effect of broadcast struvite fertilization on element soil content and microbial activity changes in winter wheat cultivation in southwest Poland* in *Scientific Reports* (Nature Portfolio, Q2, 140 points MEiN). This publication provides a comprehensive assessment of the impact of struvite use on the chemical and biological properties of soil under winter wheat cultivation. Rafał's research highlights the importance of recycled fertilisers in improving soil biodiversity and agricultural production efficiency, while minimising the environmental impact of conventional mineral fertilisation.

BHAKTI JADHAV is the author of the publication entitled *Use of EDTA and CaCl₂ Extraction Methods to Predict the*

Bioavailability of Heavy Metals in Soils Polluted with Microplastics, published in the peer-reviewed journal *Materials* (Q2, 140 points MEiN). This article addresses a highly current and relevant environmental issue – the impact of microplastics on the bioavailability of heavy metals in soils. Bhakti's research demonstrated that microplastics can significantly alter the chemical properties of soil, increasing the mobility and potential toxicity risk of metals such as lead, cadmium, copper and zinc. The study applied two extraction methods (EDTA and CaCl₂) to assess the biological availability of these metals to soil organisms and plants, which is key for ecological risk assessment and the development of effective remediation and monitoring methods for degraded areas. The research findings are highly relevant to environmental protection, agriculture, and spatial planning in areas at risk of microplastic contamination.

PELIYAGODAGE PERERA is the first author of the article entitled *Wpływ ekstraktów z różnych części inwazyjnych gatunków *Solidago* na kiełkowanie i wzrost rodzimych gatunków roślin trawiastych*, published in the reputable journal *PeerJ* (2023, vol. 11, e15676, IF 2.3, 100 points). Peliyagodage's research provides valuable data on the allelopathic effects of invasive goldenrod species (*Solidago canadensis* and *S. gigantea*) on the germination and early growth of 13 native meadow plant species. Using aqueous extracts from various parts of the goldenrods (roots, rhizomes, stems, leaves and inflorescences), it was shown that the leaves and flowers contain the strongest growth-inhibiting compounds. These findings are of key importance for conservation and restoration efforts, highlighting the need to remove the above-ground parts of goldenrods, especially fallen leaves, in order to enable the regeneration of native vegetation and maintain meadow biodiversity. This work makes a significant contribution to invasion ecology, soil biology, and grassland ecosystem management.

ALEKSANDRA ZIMMER is the first author of the publication entitled *The Influence of the Pretreatment of Garlic (*Allium sativum* L.) and Tomato (*Solanum lycopersicum* L.) Osmotic Solution on Physical Properties of the Material*, published in the journal *Journal of Food Process Engineering* (2023, vol. 46, e14314; IF 2.7; 100 points MEiN). The article presents research on the influence of various methods of pretreatment of raw material and osmotic solution on the physical properties of garlic and tomato subjected to osmotic dehydration. The aim of the study was to develop effective processing technologies that preserve the sensory and technological quality of plant-based products and extend their shelf life, which is important both for the food industry and for consumers seeking healthy and durable products. Aleksandra's research contributes to the development of innovative food processing methods and the optimisation of technological processes in the agri-food sector.

8. food and nutrition technology

Achievement Description

KATARZYNA LEICHT received funding from the Ministry of Science and Higher Education under the "Perły Nauki" project (PN/01/0240/2022) entitled *Changes in the functionality of myofibrillar proteins in the presence of bioactive compounds of *Centella asiatica**. The project involves a comprehensive analysis of the interactions between bioactive chemical compounds present in *Centella asiatica* extract and myofibrillar proteins from chicken breast muscles, studied in model systems. The data obtained on the potential bioactivity of the compounds and the mechanism of protein stabilisation, including under reducing conditions, will allow for an assessment of the possibility of using *Centella asiatica* as a natural functional additive to high-protein foods and for expanding the range of new products with enhanced health-promoting value. Mgr Leicht is the first and lead author of a publication issued in the prestigious journal *Nutrients* (doi.org/10.3390/nu17071232), within the discipline of Food Science and Nutrition. The article presents the effect of plant extracts rich in polyphenolic compounds on the structure, antioxidant potential, and sensory properties of high-protein myofibrillar gels. Additionally, Katarzyna Leicht has participated in several research projects and tasks in cooperation with the business sector, funded from external sources, mainly by the National Centre for Research and Development (NCBR), in which she studied, among other things, the quality, physicochemical, and functional properties of innovative food products. As part of the project SEASONED – *Advances in food sensory analyses of novel foods* (HORIZON-WIDERA-2021-ACCESS-03-01, grant no. 101079003), she completed a 3-month research internship at Universidad Miguel Hernández de Elche, Spain, as well as intensive training courses (including in BIP format) in the broadly understood field of sensory analysis. This enabled her to acquire the competences and skills of a professional sensory panel member. The doctoral student is also actively involved in initiatives of the EU GREEN consortium, such as the BIP "Food Sustainability" and the seed funding project AgroBioPep.

KAMIL HAŁADYN is the first author of a publication in the scientific journal *Food Chemistry* (doi.org/10.1016/j.foodchem.2024.139990), which is one of the highest-ranking journals in the discipline of Food Technology and Nutrition. The article concerns the chemical characterisation, health-promoting properties, and bioavailability of o/w nanoemulsions obtained with varying levels of a carotenoid preparation from *Calendula officinalis* L. The doctoral student is also the first author of two publications in the journals *Molecules* (doi.org/10.3390/molecules29174184) and *Foods* (doi.org/10.3390/foods10091994), concerning the isolation of bioactive components from *Calendula officinalis* L. and their interactions with proteins and lipid components in nanoemulsions, as well as the use of microencapsulation techniques to stabilise the bioactive compounds in chokeberry extracts. All three publications have a significant impact on the development of the discipline of Food Technology and Nutrition. Mgr Haładyn has participated as a researcher in several externally funded projects, including: NCN SONATA 15 *Nanoemulsions as a way of modulating the health-promoting properties and bioavailability of bioactive compounds isolated from various plant matrices* (B080/0019/20), NUTRITECH I *Development of functional high-protein vegetable pastes as a breakthrough in the food market dedicated to people at risk of diet-related*

diseases and inflammation (VEGEpast) and NCBiR LIDER IX Development of innovative high-fibre snack products based on plant raw materials for daily dietary applications in children and adolescents (VITA SNACK). The doctoral student received the Young Researcher Award for the best presentation during the 4th Nordic Baltic Drying Conference (7–9.09.2022, Wrocław), and was awarded second place for the best poster during the IX International Session of Young Scientific Staff (19–20.05.2022, Poznań). He completed a 3-month research internship at the International Iberian Nanotechnology Laboratory (INL) in Braga, Portugal, where he acquired both theoretical knowledge and practical skills in the formulation and characterisation of nanoemulsions. Kamil Haładyn is also a co-author of two patent applications: 1. Functional fruit and vegetable smoothie-type beverage and method for the production of a functional fruit and vegetable smoothie-type beverage [P.444673] and 2. High-fibre snack and method for the production of a high-fibre snack [P.444405].

MUHAMAD ALFIYAN ZUBAIDI is a recipient of the award in the *My PhD in Three Minutes* competition held in 2024 as part of the EU Green alliance initiatives. First co-author of a publication in the journal *Food Chemistry* (doi.org/10.1016/j.foodchem.2025.144686), presenting the results of research into the impact of the drying method and type of carrier used on the antioxidant and physical properties of powder obtained from elderberry juice. The obtained results have a significant influence on the development of functional food products. The doctoral student completed a research internship financed by the project *International Interdisciplinary Doctoral School – at the HEART of BioBased University* at IPB University in Indonesia and actively participated in a summer school at the University Miguel Hernández de Elche in Spain in 2023, within the project *Advances in food sensory analyses of novel foods*, SEASONED (HORIZON-WIDERA-2021-ACCESS-03-01 grant no. 101079003). Mgr Zubaidi is an active expert in the field of halal food standardisation. He has delivered, among other things, two presentations on the latest developments in this area in Thailand and Bosnia and Herzegovina.

ALEKSANDRA RAJEWSKA is a Chair of the Doctoral Students' Assembly for 2024/2025 and representative of UPWr in the Academic Sports Association. Active member of the "Fuzja" Doctoral Students' Research Club. She is always eager to support international students and interns (CEEPUS, ERASMUS+, NAWA), and participates in events promoting the University, the Faculty, and the Doctoral School. Co-author of an original scientific publication in the highly ranked *Chemical Engineering Journal* (doi:10.1016/j.cej.2023.148407), concerning the use of supercritical fluids technology and co-crystallisation for the development of PLA foam-based food packaging materials with antimicrobial properties, offering the potential to extend shelf life and improve the microbiological safety of packaged food. Mgr Rajewska is involved in the implementation of the project *Molecular and physiological mechanisms of foodborne pathogen response to selected natural bioactive compounds and the development of biodegradable polymers with antibacterial activity* (NCN OPUS 18 2019/35/B/NZ9/02774). She has undertaken research internships at the University of Warsaw, the Austrian Agency for Health and Food Safety (AGES; Vienna, Austria) and the Universidad de Santiago de Chile – El Laboratorio de Envases (LABEN CHILE) in Santiago, Chile, where she gained knowledge and practical skills in microbiological research and in the development of new biologically active materials, including for food packaging.

MARTYNA SZYDŁOWSKA is the first author of a publication in the scientific journal *Foods* (doi.org/10.3390/foods13172715). The article presents comprehensive research on the physical properties, chemical composition, content of biologically active compounds, *in vitro* pro-health activity (antioxidant activity and ability to inhibit α -amylase and α -glucosidase), and sensory evaluation of newly developed products based on apple juice with various doses of fresh (6% and 12%) and dried (3% and 6%) black and red currant pomace. The doctoral student is involved in the implementation of an NCN project, PRELUDIUM BIS (UMO-2021/43/O/NZ9/01518), as well as NCBR projects (NUTRITECH1/002C/2022) and (LIDER/25/0102/L-9/17/NCBR/2018). Mgr Szydłowska completed a 6-month research internship at the Instituto de la Grasa in Seville (Spain), where she gained competencies in the evaluation of fat-based products. She has presented the results of her research at numerous scientific conferences and participated in the ERASMUS+ Blended Intensive Programme (BIP) in Food Sustainability in Parma (Italy), as part of activities initiated by the EU Green consortium.

AKSHAY CHANDRAN is the first co-author of a scientific publication (doi.org/10.1016/j.lwt.2025.117632) published in the high-impact journal *LWT*. The article concerns a comparison of polyphenol compound profiles, volatile components and *in vitro* biological activities of dried tea leaves. The data significantly expand the knowledge of the chemistry and applicability of different types of tea. The doctoral student completed two research internships: at the University of British Columbia in Canada (BPI/STE/2021/1/00008/U/00001) and at the University Miguel Hernández de Elche in Spain (*Advances in food sensory analyses of novel foods*, SEASONED, HORIZON-WIDERA-2021-ACCESS-03-01 grant no. 101079003), where he gained knowledge and competencies in nutrimental research and sensory analysis of food.

9. animal science and fisheries

Achievement Description

MARCIN GUMOWSKI is the first author of the article entitled *The use of phytobiotics in the form of complexed organometallic phytoncides and micronized herbs in the nutrition of Ross 308 broiler chickens: Effects on growth performance, meat quality, and immune response*, published in the renowned journal *Animal Feed Science and Technology* (IF: 2.7; MNiSW: 200 points), <https://doi.org/10.1016/j.anifeedsci.2025.116391>. The article presents the results of a study on the use of phytobiotics as a natural alternative to synthetic growth stimulants in broiler nutrition. The results of an

experiment involving 1,280 chickens demonstrated that one of the phytobiotic prototypes improved body weight gain, intestinal villi structure and meat quality in a manner comparable to antibiotic growth stimulants. A beneficial effect on immune response was also observed, confirming the potential of these preparations in modern, sustainable poultry farming.

ELŻBIETA GAŁĘSKA is the first author of the article entitled *The Importance of Mitochondrial Processes in the Maturation and Acquisition of Competences of Oocytes and Embryo Culture*, published in the renowned journal *International Journal of Molecular Sciences* (IF: 4.9; MNiSW: 140 points), *Int. J. Mol. Sci.* 2025, 26(9), 4098, <https://doi.org/10.3390/ijms26094098>. The article provides a review of the current knowledge on the role of mitochondria in oocyte maturation and embryo culture, highlighting the critical importance of proper mitochondrial function for energy provision, genomic stability and normal development in the early stages of life. The authors emphasise the diagnostic potential of mitochondria and their impact on the effectiveness of assisted reproduction techniques. The article also points to the need for further research into the interactions between mitochondria and other cellular structures in the context of improving reproductive outcomes.

KATARZYNA OLEJNIK has been actively involved in two international projects on PLF (Precision Livestock Farming) funded under ICT-AGRI-FOOD – LivestockSense (completed 31.05.2023) and ET4D (started 01.10.2023). In the LivestockSense project (2021–2023), which included pig and poultry farming in seven EU countries, Ms Olejnik focused on overcoming social barriers to the adoption of ICT/PLF technologies through quantitative and qualitative research, supporting farms in Poland and other countries, and developing an AI-supported database for analysing economic and environmental benefits. In the ET4D project, aimed at sustainable and animal welfare-friendly dairy cattle farming, she is responsible for collecting environmental data from livestock facilities. In both projects, her role included co-conducting social and qualitative research and active dissemination of results – through workshops, publications, and communication with farmers, technology developers, and decision-makers. As a result, Katarzyna Olejnik contributes to strengthening the role of digitisation in livestock farming, promoting productivity, environmental protection and animal welfare in the animal production sector. An outcome of this collaboration is numerous conference communications and a co-authored article: Banhazi, T., Banhazi, A., Tikasz, I. E., Palotay, S., Mallinger, K., Neubauer, T., ..., Opalinski, S., Olejnik, K.,... & Soerensen, K. (2024). "Facilitating PLF technology adoption in the pig and poultry industries". *Studies in Agricultural Economics*, 126, <https://doi.org/10.7896/j.2725>.

MUHAMMAD UMAIR ASGHAR, between 2022 and 2025, was the co-author of 11 publications (totalling 1320 MNiSW points) focused on innovative solutions in livestock nutrition. The studies included, among others, the use of phytobiotics (<https://doi.org/10.1016/j.anifeedsci.2025.116391>), medium-chain fatty acids, probiotics and organic acids (<https://doi.org/10.22358/jafs/202262/2025>), as well as plant additives such as blueberries (<https://doi.org/10.3390/ani15111633>), black cumin (<https://doi.org/10.3390/ani12101298>), and quinoa (<https://doi.org/10.3390/ani12141851>) in poultry nutrition. These studies demonstrated the beneficial effects of natural additives on performance, immunity, and the quality of meat and eggs. An important part of his achievements also includes review papers on soybean processing (<https://doi.org/10.2478/aoas-2024-0020>), the use of amino acids in ruminant nutrition (<https://doi.org/10.22358/jafs/166576/2023>), and the application of insect meal as an alternative to traditional protein sources (<https://doi.org/10.3390/agriculture13061239>). Additionally, the author has explored antioxidant additives (<https://doi.org/10.1038/s41598-023-41282-3>) and the use of vegetable oils in broiler nutrition. Muhammad Asghar has also investigated new strategies for reducing methane emissions in the rumen (<https://doi.org/10.3390/agriculture12111943>) and the importance of anaerobic fungi and fungal additives in ruminant nutrition (<https://doi.org/10.22358/jafs/153961/2022>), aligning with current trends in sustainable agriculture. This body of work reflects Muhammad Asghar's interdisciplinary approach to improving the efficiency of livestock production while considering animal welfare, product quality and minimising environmental impact.

ATTACHMENTS

Method of verifying learning outcomes for qualifications at PRK level 8

No.	File type	Filename
1	The method of assessing the learning outcomes for qualifications at level 8 of the PQF	Individual Doctoral Student Card.pdf
2	The method of assessing the learning outcomes for qualifications at level 8 of the PQF	Individual Research Plan.pdf
3	The method of assessing the learning outcomes for qualifications at level 8 of the PQF	IRP Report.pdf
4	The method of assessing the learning outcomes for qualifications at level 8 of the PQF	Individual Doctoral Student Card - implementation doctorate.pdf
5	The method of assessing the learning outcomes for qualifications at level 8 of the PQF	Individual Research Plan - implementation doctorate.pdf
6	The method of assessing the learning outcomes for qualifications at level 8 of the PQF	IRP Report - implementation doctorate.pdf

Qualifications of academic teachers or research staff conducting education at the doctoral school

No.	File type	Filename
1	biotechnology	Biotechnology.pdf
2	socio-economic geography and spatial management	Social and economic geography and spatial management.pdf
3	civil engineering, geodesy and transport	Civil engineering, geodesy and transport.pdf
4	biological sciences	Biological sciences.pdf
5	agriculture and horticulture	Agriculture and horticulture.pdf
6	food and nutrition technology	Nutrition and food technology.pdf
7	animal science and fisheries	Animal science and fisheries.pdf
8	veterinary science	Veterinary science.pdf
9	environmental engineering, mining and energy	Environmental engineering, mining and energy.pdf

Quality of scientific or artistic supervision and support for conducting scientific activities

No.	File type	Filename
1	Internal regulations that pertain to the midterm evaluation and that are in force during the evaluation period, such as evaluation rules and criteria	Ewaluacja - zasady OŚ - ENG.pdf
2	Internal regulations that pertain to the midterm evaluation and that are in force during the evaluation period, such as evaluation rules and criteria	Data discrepancy between system POL-on and platform SEDok regarding the number of doctoral students by education programmes.pdf

STATEMENTS



I hereby declare that the information contained in the self-assessment report is fully consistent with the factual and legal status.



I hereby declare that the information contained in the self-assessment report in Polish and English is fully identical in substance.



I hereby declare that the documents attached to the self-assessment report in Polish and English are fully identical in substance.

Signature



Signed by /
Podpisano przez:

Magdalena
Szymura

Date / Data: 2025-
08-01 11:45

AUTHORIZATIONS

Added files

Pełnomocnictwo - Magdalena Szymura.pdf

School of PhD Education at Wrocław University of Environmental and Life Sciences

1. The WUELS School of PhD Education is established in the following scientific fields and disciplines:

- 1) exact and natural sciences in the discipline of biological science;
- 2) technical engineering in the following disciplines:
 - a. civil engineering and transport,
 - b. environmental engineering, mining, energy engineering;
- 3) agricultural science in the following disciplines:
 - a. farming and horticulture,
 - b. food science and nutrition,
 - c. veterinary medicine
 - d. zootechnology and fishery.

2) Principal goals of education, including qualifications acquired by the graduate:

The principal goal of education at the WUELS School of PhD Education (further referred to as the WEULS PhD School) is for the graduates to acquire competencies related to new, previously unknown scientific problems and to solving them in an original way based on modern research apparatus using world-class analytic and methods and techniques. The PhD School will allow its graduates to gain highly specialised up-to-date knowledge of environmental and life sciences, agriculture, and engineering, as well as provide them with interdisciplinary perspectives on life in a modern society. PhD-level training in accordance with the goals set by the WUELS PhD school will contribute to a wider understanding of research work in the academic and transfer of knowledge to the economic sector. It will help WUELS PhD students to make their mark in the international academic community, making them more employable on the dynamically developing market of modern technologies powering innovation and economic competitiveness.

3) Identification of education modules together with the educational outcomes and reference to Level 8 of Polish Qualifications Framework;

Educational outcomes for the WUELS PhD School		
Item	Competencies acquired by a WUELS PhD school graduate	Reference to Level 8 of the Polish Qualifications Framework
Knowledge		
SDUPWr_W01	Understands complex natural, social, and economic phenomena and processes and multi-faceted factors impacting these phenomena and processes	P8S_WK, P8S_WG, P8Z_WT
SDUPWr_W02	Has in-depth knowledge relating to the organization of scientific inquiry, to preparing and reviewing scientific papers	P8S_WG, P8S_WO, P8Z_WT
SDUPWr_W03	Has in-depth knowledge relating to selected disciplines of exact and natural sciences, agricultural science, and technical engineering	P8S_WG, P8Z_WZ,
SDUPWr_W04	Has in-depth knowledge of mathematical statistics and knowledge relating to selected disciplines of exact and natural sciences, agricultural science, and technical engineering, allowing the graduate to explain, model, and forecast processes in a selected scientific discipline	P8S_WG, P8Z_WT
SDUPWr_W05	Has in-depth knowledge relating to the currently discussed issues in the literature on selected disciplines of exact and natural sciences, agricultural science and technical engineering	P8S_WK, P8S_WG
SDUPWr_W06	Has in-depth knowledge of research planning and procedures through sophisticated research tools and techniques relating to selected disciplines of exact and natural sciences, agricultural science, and technical engineering. Has extensive knowledge of scientific databases and their resources, especially of natural science and sociological databases	P8S_WZ, P8Z_WO
SDUPWr_W07	Knows work health and safety rules, relating in particular to field research and other health hazards (laboratory work)	P8S_WK, P8Z_WO
SDUPWr_W08	Knows the principles applying to setting up and developing various forms of self-employment and the various practical uses of scientific research relating to selected disciplines of exact and natural sciences, agricultural science and technical engineering	P8S_WK, P8Z_WO

SDUPWr_W09	Knows the legislation relating to selected disciplines of exact and natural sciences, agricultural science and technical engineering, and knows concepts and principles relating to industrial property protection and copyright	P8S_WK, P8Z_WO
SDUPWr_W010	Knows and understands the accomplishments of science and arts in the world and their implications for practice in selected disciplines of exact and natural sciences, agricultural science and technical engineering	P8S_WK, P8S_WG
SDUPWr_W0 11	Knows and understands the theoretical bases, general issues and selected detailed issues pertaining to selected disciplines of exact and natural sciences, agricultural science and technical engineering at a level that allows questioning the existing paradigms	P8S_WK, P8Z_WZ, P8Z_WT
Skills		
SDUPWr_U01	Has the ability to apply advanced research tools and techniques to solving complex scientific problems in selected disciplines of exact and natural science, agricultural science and technical engineering	P8S_UW, P8Z_UI
SDUPWr_U02	Is well-versed in scientific literature, has the ability to critically analyse the literature and materials drawn from electronic sources	P8S_UW, P8Z_UU
SDUPWr_U03	Has the ability to collect materials and information from various sources (including from own research), to work with the collected material and formulate conclusions	P8S_UW, P8Z_UO
SDUPWr_U04	Has the ability to creatively develop the existing theoretical models and concepts and to create own scientific concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	Has (theoretical and practical) methodological skills that allow planning and conducting independent scientific research and carrying out expert analyses	P8S_UW, P8S_UU, P8S_UU
SDUPWr_U06	Has the ability to conduct university classes and prepare various forms of presentations and deliver papers in Polish and English, relating to disciplines of exact and natural sciences, agricultural science, and technical engineering	P8S_UW, P8S_UU
SDUPWr_U07	Has the ability to produce extensive written work on scientific themes (PhD dissertation) and other minor scientific works (articles, polemics, abstracts, reports, reviews) in Polish and English	P8S_UW, P8Z_UO

SDUPWr_U08	Has the ability to manage their professional/academic career path	P8S_UK, P8S_UO, P8S_UU, P8Z_UO
SDUPWr_U09	Has the ability to provide a comprehensive analysis of the causes and progress of social and economic processes relating to exact and natural science, agricultural science and technical engineering, to formulate independent opinions and formulate and verify hypotheses; can also forecast and model complex social and economic processes through the medium of advanced research methods and tools	P8S_UW, P8Z_UN
SDUPWr_U010	Has the ability to use knowledge from various fields to identify, formulate and solve, in a creative and innovative manner, complex problems or carry out research tasks, including in particular: define the objective and scope of research, develop research methods, techniques and tools and use them creatively to draw conclusions based on research findings	P8S_UW, P8S_UO, P8S_UU
SDUPWr_U011	Has the ability to use English at level allowing participation in the international academic and professional community	P8S_UK, P8S_UO, P8S_UO, P8S_UO, P8S_UU
Social skills		
SDUPWr_K01	Understands the need for life-long study and improvement of qualifications and encourages others to do likewise	P8S_KK, P8S_KO, P8S_KR
SDUPWr_K02	Can work co-operate and work in a team in a variety of roles	P8S_KO, P8Z_KP, P8Z_KW
SDUPWr_K03	Can specify and select priorities when performing a task set by themselves or assigned by others	P8S_KK, P8Z_KW
SDUPWr_K04	Correctly identifies and resolves problems related to their professional practice. Is ready to fulfil the obligations that researchers and artists have towards society	P8S_KO, P8S_KR, P8Z_KW, P8Z_K, P8Z_KO
SDUPWr_K05	Understands the need to keep up-to-date with the state of the art in their discipline by studying scientific journals and improving their general and specialised knowledge	P8S_KK, P8S_KR, P8Z_KO
SDUPWr_K06	Shows responsibility for assessing hazards that arise from using research techniques and tools	P8S_KK, P8S_KO, P8Z_KO
SDUPWr_K07	Seeks to update their knowledge to apply it in practice	P8S_KK, P8Z_KP, P8Z_KO

SDUPWr_K09	Has in-depth knowledge of research funding systems and of ways in which to obtain and account for research funding	P8S_KR, P8Z_KP
SDUPWr_K010	Is ready to engage in independent research and tackle challenges in the professional and public field, giving due consideration to ethical aspects, responsibility for the consequences and for propagating models of proper conduct	P8S_KO, P8S_KR
SDUPWr_K011	Understands the social implications of interventions on a living organism	P8S_KR, P8Z_KP, P8Z_KO

Polish Qualifications Framework level criteria used in higher education

P = level in the Polish Qualifications Framework (8)

S = qualifications typically acquired in higher education

W = knowledge

G = depth and scope

K = context

U = skills

W = using knowledge

K = communication

O = work organization

U = learning

K = social competencies

K = critical assessment

O = responsibility

R = occupational role

Specification of Level 8 criteria in the Polish Qualifications Framework

KNOWS AND UNDERSTANDS			IS ABLE TO			IS READY FOR		
Level criteria			Level criteria			Level criteria		
P8U_W	Accomplishments in the world science and arts and their implications for practice		P8U_U	Carry out analysis and creative synthesis of scientific and artistic accomplishments to identify and solve research problems and problems related to innovative and creative activities; contribute new content to these accomplishments; independently plan self-development and inspire the same in others; participate in the exchange of experience and ideas, including in the international context		P8U_K	Independent research contributing to scientific and artistic accomplishments; accepting challenges in the professional and public sphere, giving due consideration to their ethical aspects, responsibility for their consequences and for creating models of proper conduct	
Second-tier criteria specific to qualifications obtained in higher education			Second-tier criteria specific to qualifications obtained in higher education			Second-tier criteria specific to qualifications obtained in higher education		
P8S_WG	To the extent allowing them to question the existing paradigms – accomplishments in world science and arts including theoretical bases, general and detailed issues pertinent to the scientific or artistic discipline; main trends in the development of scientific and artistic disciplines relevant to the programme of education; scientific research methodology	P8Z_WT	P8S_UW	Use knowledge from various fields to identify, formulate and solve complex problems in a creative and innovative manner and carry out research tasks, in particular: define the objective and scope of research, formulate research hypotheses, develop research methods, techniques and use them creatively to draw conclusions from research findings; transfer research findings to the economic and social sphere.	P8Z_UI	P8S_KK	Critically assess the accomplishments in the represented scientific or artistic discipline; critically assess own input in the discipline; recognize the importance of knowledge in solving theoretical and practical problems	P8Z_KP
P8S_WK	fundamental problems of modern civilization; economic, legal and other relevant implications of research activity	P8Z_WZ	P8S_UK	Publicize research findings, including in popular forms, initiate debate, participate in academic discourse, use a foreign language at a level allowing for participation in the international academic and professional community	P8Z_UO	P8S_KO	Fulfil social obligations required from researchers and artists; initiate action in the interests of the general public; think and act in a business-like manner	P8Z_KW
		P8Z_WO	P8S_UO	Plan and execute individual or group research or artistic projects, including in an international context	P8Z_UN	P8S_KR	maintain and perfect professional ethics in research and the arts, including by independent pursuit of research, respecting the principle of public ownership of research findings with due consideration to intellectual property protection	P8Z_KO
		P8Z_WN	P8S_UU	independently plan for and be proactive for self-development, inspire and organize others' development; develop and implement education and training programmes, using modern methods and tools	P8Z_UU			

Modules of education together with expected educational outcomes					
Modules of education		ECTS	Reference to expected educational outcomes	Expected educational outcomes	Method of verification of expected educational outcomes achieved by the PhD student
Basic	PhD seminar	8	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_W10; SDUPWr_W11; SDUPWr_U03; SDUPWr_U07; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K04; SDUPWr_K07	Understands the need for regular study of scientific journals to improve their general and specialist knowledge relating to the discipline and related disciplines. Can present the latest achievements in the discipline and research findings in the context of literature data. Can present the scope, hypotheses, objectives, methodology and findings of own research in a public forum. Understands the fundamental problems of modern civilization. Can initiate an academic debate and participate in academic discourse. Can publicise research findings, including in popular forums.	Pass/fail
	English for special purposes	6	SDUPWr_W05; SDUPWr_W10; SDUPWr_U02; SDUPWr_U07; SDUPWr_U11; SDUPWr_K05	Acquires skills relating to preparing, editing and reviewing research publications in English. Feel comfortable working with the English-language literature and can engage in academic debate in English. Feels comfortable presenting in English their research findings as well as other research findings and problems in the discipline in English. Can use English at a level that allows participating actively in the international academic community.	examination
	Teaching methodology	1	SDUPWr_U06; SDUPWr_K01;	Knows and understands teaching methodology. Can independently plan and contribute to the self-development of others. Is ready to develop and execute educational or training programmes, using modern methods and tools. Can popularise and verify knowledge. Can conduct university classes using a proper classroom manner and voice emissions techniques.	Pass/fail
	Psychology	1	SDUPWr_K02; SDUPWr_K03; SDUPWr_K04;		
	Self-presentation	1	SDUPWr_K05; SDUPWr_K07;		
	Voice emission	1	SDUPWr_U05; SDUPWr_U07		

Advancement of the discipline and related disciplines	New trends in the discipline and related disciplines	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W05; SDUPWr_U01; SDUPWr_U2; SDUPWr_U4; SDUPWr_U5; SDUPWr_U7; SDUPWr_K01	Knows and understands the main development trends in the discipline that are relevant to the field of study. Keeps themselves informed of the latest achievements in the disciplines of exact and natural sciences as well as agricultural science and technical engineering Understands the need to keep up-to-date with the latest trends and innovations relating to disciplines of exact and natural sciences, agricultural science, and technical engineering to expand one's general and specialist knowledge. Regularly advances their knowledge of natural science for practical applications. Can use new trends and knowledge to identify research problems and popularise findings as well as fulfils their role in society by maintaining ties with the international academic community. Can solve the most complex problems and create innovative solutions based on the application of research findings. Educates themselves about new analytical trends and techniques as well as current research problems.	pass/fail
Interdisciplinary tutorial	Interdisciplinary problem-solving skills	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K01; SDUPWr_K02; SDUPWr_K04; SDUPWr_K05	Understands the need to be familiar with the basic issues driving today the growth of exact and natural sciences, agricultural science, and technical engineering in the relevant discipline and related disciplines. Has the ability to apply advanced research techniques and tools appropriate to complex problem-solving in science in the relevant discipline and in an interdisciplinary perspective. Educates themselves about modelling and problem-solving in science, advances their knowledge beyond their field of specialisation, and is willing to learn about the wider impact of their specialist research. Can solve research problems and place them in a wider interdisciplinary context. Can use knowledge from a variety of disciplines to identify, formulate, and solve, in a creative and innovative manner, complex problems and undertake research tasks, in particular by defining the objective, scope and hypotheses of their research Knows and understands the economic, legal, and other relevant aspects of research work.	pass/fail
Research methodology	Designing experiments	1	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K06	Can use knowledge from a variety of fields to design, identify, and formulate, in a creative and innovative manner, complex problems and undertake research tasks. Can define objectives and scope of research, formulate research hypotheses, refine research methods and techniques, and use them appropriately. Can formulate correct conclusions based on research findings. Can transpose research findings into the economic and social spheres.	examination

	Data analysis techniques	2	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_K06	Can design scientific experiments, lay down key hypotheses for discipline-related research, specify methods of verification and plan the investigative and interpretative process. Knows and is able to work in practice with basic and fundamental concepts in mathematical statistics. Knows the theoretical underpinnings of hypothesis testing in statistics as a key scientific instrument for verifying research hypotheses. Knows the basic tools in data analysis. Is ready to use basic and advanced features of statistical software to allow for a wide range of statistical analyses. Knows the latest world- and nation-wide research programmes. Knows health and safety regulations, relating in particular to field work and other hazardous conditions (laboratory work). Has the ability to apply advanced research techniques and tools appropriate for complex problem-solving contexts in the discipline.	examination
	Ethics and law in research	1	SDUPWr_W09; SDUPWr_K09; SDUPWr_K10	Knows and understands the need to know the ethical and legal aspects of the research process. Is ready to undertake research to advance science and tackle challenges related to the field of work and publishing, in a creative manner, giving due consideration to their ethical aspects, responsibility for their consequences and creating models of conduct. Is ready to comply with the principles governing the discipline with respect to quality assurance in scientific work, harmonious co-operation and competitive culture. Takes a pro-quality approach in research relating to the discipline and related disciplines.	examination
	Academic writing	3	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W10; SDUPWr_U02; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_K02; SDUPWr_K04; SDUPWr_K08	Feels comfortable using scientific literature, is able to critically analyse data from the literature and materials in electronic form. Is able to specify key hypotheses in research relating to their discipline, can specify methods of verification and formulate the investigative and interpretative process. Has the ability to collect materials and information from a variety of sources (including data from own research), organize the materials and formulate conclusions. Knows the organisational aspects of scientific activity, relating in particular to writing and presenting research findings. Knows and understands social and legal aspects related to undertaking and commercial use of scientific research. Knows and understands the wider issues relating to funding scientific research and knowledge transfer on a national and international scale, is familiar with database issues (bibliographic references, citation indexes), project competitions and copyright. Systematically educates themselves about the latest developments in natural science to use them in formulating new hypotheses in order to obtain external funding for scientific research.	pass/fail
Workshops	Writing research proposals	3			
	Legal aspects of commercialization of research findings	1			

Professional self-development	1. Training courses outside WUELS must be approved by the supervisor and PhD School Board (1 ECTS credit for 1 course)—no more than 2 courses	-	SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K07	Is ready to comply with and uphold the ethics of the scientific and artistic communities. Understands the need for academic self-improvement as the key to expanding general and specialist knowledge relating to the discipline. Understands the need for life-long learning. Is ready to acquire new skills related to career management and planning.	pass/fail
	2. academic symposium in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	-			
	3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	-			
	4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	-			
Professional training	Professional training as required by the Rules of the WUELS PhD School	18	SDUPWr_K02; SDUPWr_K09	Exercises understanding of research methodologies and techniques. Is well prepared to undertake teaching work in a methodologically correct manner.	pass/fail

4) Programme of education at the PhD School;

Framework programme of education at the WUELS PhD School

Year 1—mandatory coursework

Item	Learning modules	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
		English for special purposes	SD>P-ANG	workshop	examination	-	30	2
		Methodology of teaching	SD>P-MPZ	workshop	pass/fail	-	5	1
		Psychology	SD>P-PSYCH	workshop	pass/fail	-	5	1
		Self-presentation	SD>P-AUTOPR	workshop	pass/fail	5	-	1
		Voice emission	SD>P-EG	workshop	pass/fail	5	-	1
2.	Interdisciplinary tutorial	Interdisciplinary problem-solving skills	SD>KI-INTERRP	seminar	pass/fail	-	20	6
3.	Methodology of teaching	Experiment design	SD>MPBN-PD	workshop	examination	10	-	1
		Data analysis techniques	SD>MPBN- TAD	workshop	examination	-	20	2
		Ethics and law in research	SD>MPBN-EP	lecture	examination	10	-	1
4.	Workshops	Academic writing workshop	SD>W-ARTN	workshop	pass/fail	10	-	1
		Research proposal writing workshop	SD>W-PROJ	workshop	pass/fail	5	-	1
5.	Academic self-development ²	1. training courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposium in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-
6.	Professional training	Professional training as required by the Rules of the WUELS PhD School	SD>PZ-PZ		pass/fail	60		6

1. ECTS: 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

Year 2—mandatory coursework

Item	Learning modules	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
		English for special purposes	SD>P-ANG	workshop	examination	30	30	4
2.	Advancement of discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DYSCY	lecture	pass/fail	5	5	3
3.	Methodology of research	Data analysis techniques	SD>MPBN- TAD	workshop	examination	-	20	2
4.	Workshops	Academic writing	SD>W-ARTN	workshop	pass/fail	15	5	2
		Research proposal writing	SD>W-PROJ	workshop	pass/fail	15	-	2
		Legal aspects of research commercialization	SD>W-PRKOMERC	lecture	pass/fail	10	-	1
5.	Self-development²	1. training courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposiums in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-
6.	Professional training	Professional training as required by the Rules of the WUELS PhD School	SD>PZ-PZ	-	pass/fail	60		6

1. ECTS: 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

Year 3—mandatory coursework

Item	Learning module	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
2.	Academic self-development²	1. courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposiums in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-
3.	Professional training	Professional training as required by the Rules of the WUELS PhD School	SD>PZ-PZ		pass/fail	60		6

1. ECTS: 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

Year 4 – mandatory coursework

Item	Learning modules	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
2.	Academic self-development ²	1. training courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposiums in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-

1. ECTS – 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

- 5) **Period of education: 4 years.**
- 6) **Academic degrees obtained by PhD students:**
 - 1) PhD in exact and natural science in the discipline of biology,
 - 2) PhD in technical engineering in the following disciplines:
 - a) civil engineering and transport,
 - b) environmental engineering, mining, energy engineering.
 - 3) PhD in agricultural science in the following disciplines:
 - a) farming and horticulture,
 - b) food science and nutrition,
 - c) veterinary medicine,
 - d) zootechnology and fishery.
- 7) **PhD education ends with:**
 - 1) Completion of the programme of education of the PhD School,
 - 2) Completion of the individual research programme,
 - 3) Publishing JCR-indexed work,
 - 4) Submitting a PhD dissertation.

School of PhD Education at Wrocław University of Environmental and Life Sciences

1. The WUELS School of PhD Education is established in the following scientific fields and disciplines:

- 1) exact and natural sciences in the discipline of biological science;
- 2) technical engineering in the following disciplines:
 - a. civil engineering and transport,
 - b. environmental engineering, mining, energy engineering;
- 3) agricultural science in the following disciplines:
 - a. farming and horticulture,
 - b. food science and nutrition,
 - c. veterinary medicine
 - d. zootechnology and fishery.

2) Principal goals of education, including qualifications acquired by the graduate:

The principal goal of education at the WUELS School of PhD Education (further referred to as the WEULS PhD School) is for the graduates to acquire competencies related to new, previously unknown scientific problems and to solving them in an original way based on modern research apparatus using world-class analytic and methods and techniques. The PhD School will allow its graduates to gain highly specialised up-to-date knowledge of environmental and life sciences, agriculture, and engineering, as well as provide them with interdisciplinary perspectives on life in a modern society. PhD-level training in accordance with the goals set by the WUELS PhD school will contribute to a wider understanding of research work in the academic and transfer of knowledge to the economic sector. It will help WUELS PhD students to make their mark in the international academic community, making them more employable on the dynamically developing market of modern technologies powering innovation and economic competitiveness.

3) Identification of education modules together with the educational outcomes and reference to Level 8 of Polish Qualifications Framework;

Educational outcomes for the WUELS PhD School		
Item	Competencies acquired by a WUELS PhD school graduate	Reference to Level 8 of the Polish Qualifications Framework
Knowledge		
SDUPWr_W01	Understands complex natural, social, and economic phenomena and processes and multi-faceted factors impacting these phenomena and processes	P8S_WK, P8S_WG, P8Z_WT
SDUPWr_W02	Has in-depth knowledge relating to the organization of scientific inquiry, to preparing and reviewing scientific papers	P8S_WG, P8S_WO, P8Z_WT
SDUPWr_W03	Has in-depth knowledge relating to selected disciplines of exact and natural sciences, agricultural science, and technical engineering	P8S_WG, P8Z_WZ,
SDUPWr_W04	Has in-depth knowledge of mathematical statistics and knowledge relating to selected disciplines of exact and natural sciences, agricultural science, and technical engineering, allowing the graduate to explain, model, and forecast processes in a selected scientific discipline	P8S_WG, P8Z_WT
SDUPWr_W05	Has in-depth knowledge relating to the currently discussed issues in the literature on selected disciplines of exact and natural sciences, agricultural science and technical engineering	P8S_WK, P8S_WG
SDUPWr_W06	Has in-depth knowledge of research planning and procedures through sophisticated research tools and techniques relating to selected disciplines of exact and natural sciences, agricultural science, and technical engineering. Has extensive knowledge of scientific databases and their resources, especially of natural science and sociological databases	P8S_WZ, P8Z_WO
SDUPWr_W07	Knows work health and safety rules, relating in particular to field research and other health hazards (laboratory work)	P8S_WK, P8Z_WO
SDUPWr_W08	Knows the principles applying to setting up and developing various forms of self-employment and the various practical uses of scientific research relating to selected disciplines of exact and natural sciences, agricultural science and technical engineering	P8S_WK, P8Z_WO

SDUPWr_W09	Knows the legislation relating to selected disciplines of exact and natural sciences, agricultural science and technical engineering, and knows concepts and principles relating to industrial property protection and copyright	P8S_WK, P8Z_WO
SDUPWr_W010	Knows and understands the accomplishments of science and arts in the world and their implications for practice in selected disciplines of exact and natural sciences, agricultural science and technical engineering	P8S_WK, P8S_WG
SDUPWr_W0 11	Knows and understands the theoretical bases, general issues and selected detailed issues pertaining to selected disciplines of exact and natural sciences, agricultural science and technical engineering at a level that allows questioning the existing paradigms	P8S_WK, P8Z_WZ, P8Z_WT
Skills		
SDUPWr_U01	Has the ability to apply advanced research tools and techniques to solving complex scientific problems in selected disciplines of exact and natural science, agricultural science and technical engineering	P8S_UW, P8Z_UI
SDUPWr_U02	Is well-versed in scientific literature, has the ability to critically analyse the literature and materials drawn from electronic sources	P8S_UW, P8Z_UU
SDUPWr_U03	Has the ability to collect materials and information from various sources (including from own research), to work with the collected material and formulate conclusions	P8S_UW, P8Z_UO
SDUPWr_U04	Has the ability to creatively develop the existing theoretical models and concepts and to create own scientific concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	Has (theoretical and practical) methodological skills that allow planning and conducting independent scientific research and carrying out expert analyses	P8S_UW, P8S_UU, P8S_UU
SDUPWr_U06	Has the ability to conduct university classes and prepare various forms of presentations and deliver papers in Polish and English, relating to disciplines of exact and natural sciences, agricultural science, and technical engineering	P8S_UW, P8S_UU
SDUPWr_U07	Has the ability to produce extensive written work on scientific themes (PhD dissertation) and other minor scientific works (articles, polemics, abstracts, reports, reviews) in Polish and English	P8S_UW, P8Z_UO

SDUPWr_U08	Has the ability to manage their professional/academic career path	P8S_UK, P8S_UO, P8S_UU, P8Z_UO
SDUPWr_U09	Has the ability to provide a comprehensive analysis of the causes and progress of social and economic processes relating to exact and natural science, agricultural science and technical engineering, to formulate independent opinions and formulate and verify hypotheses; can also forecast and model complex social and economic processes through the medium of advanced research methods and tools	P8S_UW, P8Z_UN
SDUPWr_U010	Has the ability to use knowledge from various fields to identify, formulate and solve, in a creative and innovative manner, complex problems or carry out research tasks, including in particular: define the objective and scope of research, develop research methods, techniques and tools and use them creatively to draw conclusions based on research findings	P8S_UW, P8S_UO, P8S_UU
SDUPWr_U011	Has the ability to use English at level allowing participation in the international academic and professional community	P8S_UK, P8S_UO, P8S_UO, P8S_UO, P8S_UU
Social skills		
SDUPWr_K01	Understands the need for life-long study and improvement of qualifications and encourages others to do likewise	P8S_KK, P8S_KO, P8S_KR
SDUPWr_K02	Can work co-operate and work in a team in a variety of roles	P8S_KO, P8Z_KP, P8Z_KW
SDUPWr_K03	Can specify and select priorities when performing a task set by themselves or assigned by others	P8S_KK, P8Z_KW
SDUPWr_K04	Correctly identifies and resolves problems related to their professional practice. Is ready to fulfil the obligations that researchers and artists have towards society	P8S_KO, P8S_KR, P8Z_KW, P8Z_K, P8Z_KO
SDUPWr_K05	Understands the need to keep up-to-date with the state of the art in their discipline by studying scientific journals and improving their general and specialised knowledge	P8S_KK, P8S_KR, P8Z_KO
SDUPWr_K06	Shows responsibility for assessing hazards that arise from using research techniques and tools	P8S_KK, P8S_KO, P8Z_KO
SDUPWr_K07	Seeks to update their knowledge to apply it in practice	P8S_KK, P8Z_KP, P8Z_KO

SDUPWr_K09	Has in-depth knowledge of research funding systems and of ways in which to obtain and account for research funding	P8S_KR, P8Z_KP
SDUPWr_K010	Is ready to engage in independent research and tackle challenges in the professional and public field, giving due consideration to ethical aspects, responsibility for the consequences and for propagating models of proper conduct	P8S_KO, P8S_KR
SDUPWr_K011	Understands the social implications of interventions on a living organism	P8S_KR, P8Z_KP, P8Z_KO

Polish Qualifications Framework level criteria used in higher education

P = level in the Polish Qualifications Framework (8)

S = qualifications typically acquired in higher education

W = knowledge

G = depth and scope

K = context

U = skills

W = using knowledge

K = communication

O = work organization

U = learning

K = social competencies

K = critical assessment

O = responsibility

R = occupational role

Specification of Level 8 criteria in the Polish Qualifications Framework

KNOWS AND UNDERSTANDS			IS ABLE TO			IS READY FOR					
Level criteria			Level criteria			Level criteria					
P8U_W	Accomplishments in the world science and arts and their implications for practice		P8U_U	Carry out analysis and creative synthesis of scientific and artistic accomplishments to identify and solve research problems and problems related to innovative and creative activities; contribute new content to these accomplishments; independently plan self-development and inspire the same in others; participate in the exchange of experience and ideas, including in the international context		P8U_K	Independent research contributing to scientific and artistic accomplishments; accepting challenges in the professional and public sphere, giving due consideration to their ethical aspects, responsibility for their consequences and for creating models of proper conduct				
Second-tier criteria specific to qualifications obtained in higher education		Second-tier criteria specific to qualifications obtained in occupational educational and training	Second-tier criteria specific to qualifications obtained in higher education		Second-tier criteria specific to qualifications obtained in occupational educational and training	Second-tier criteria specific to qualifications obtained in higher education		Second-tier criteria specific to qualifications obtained in occupational educational and training			
P8S_WG	To the extent allowing them to question the existing paradigms – accomplishments in world science and arts including theoretical bases, general and detailed issues pertinent to the scientific or artistic discipline; main trends in the development of scientific and artistic disciplines relevant to the programme of education; scientific research methodology	P8Z_WT	The latest achievements in science, forming the theoretical bases for methods and technologies in the field of specialization	P8S_UW	Use knowledge from various fields to identify, formulate and solve complex problems in a creative and innovative manner and carry out research tasks, in particular: define the objective and scope of research, formulate research hypotheses, develop research methods, techniques and use them creatively to draw conclusions from research findings; transfer research findings to the economic and social sphere.	P8Z_UI	Create development models in the field of specialization, using appropriate theories and complex information and draw conclusions from such models	P8S_KK	Critically assess the accomplishments in the represented scientific or artistic discipline; critically assess own input in the discipline; recognize the importance of knowledge in solving theoretical and practical problems	P8Z_KP	Shape principles governing the professional field, with respect to maintaining the quality of research, cooperation and competitive culture
P8S_WK	fundamental problems of modern civilization; economic, legal and other relevant implications of research activity	P8Z_WZ	The latest theories on phenomena and processes, which allow working with new materials, methods, products and processes	P8S_UK	Publicize research findings, including in popular forms, initiate debate, participate in academic discourse, use a foreign language at a level allowing for participation in the international academic and professional community	P8Z_UO	Develop a development strategy in the field of specialization; propose legal and organizational conditions supporting the field of specialization; solve the most complex problems, create innovative solutions using research findings	P8S_KO	Fulfil social obligations required from researchers and artists; initiate action in the interests of the general public; think and act in a business-like manner	P8Z_KW	Forming and maintaining good relations within the international professional community
		P8Z_WO	The latest methods and technologies in the field of specialization; the world's latest organizational solutions in the field of specialisation	P8S_UO	Plan and execute individual or group research or artistic projects, including in an international context	P8Z_UN	Develop new methods and technologies in the field of specialisation	P8S_KR	maintain and perfect professional ethics in research and the arts, including by independent pursuit of research, respecting the principle of public ownership of research findings with due consideration to intellectual property protection	P8Z_KO	Contribute to the culture of pro-activism in the course of professional activities
		P8Z_WN		P8S_UU	independently plan for and be proactive for self-development, inspire and organize others' development; develop and implement education and training programmes, using modern methods and tools	P8Z_UU	Develop training programmes and didactic materials in the field of specialization				

Modules of education together with expected educational outcomes					
Modules of education		ECTS	Reference to expected educational outcomes	Expected educational outcomes	Method of verification of expected educational outcomes achieved by the PhD student
Basic	PhD seminar	8	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_W10; SDUPWr_W11; SDUPWr_U03; SDUPWr_U07; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K04; SDUPWr_K07	Understands the need for regular study of scientific journals to improve their general and specialist knowledge relating to the discipline and related disciplines. Can present the latest achievements in the discipline and research findings in the context of literature data. Can present the scope, hypotheses, objectives, methodology and findings of own research in a public forum. Understands the fundamental problems of modern civilization. Can initiate an academic debate and participate in academic discourse. Can publicise research findings, including in popular forums.	Pass/fail
	English for special purposes	6	SDUPWr_W05; SDUPWr_W10; SDUPWr_U02; SDUPWr_U07; SDUPWr_U11; SDUPWr_K05	Acquires skills relating to preparing, editing and reviewing research publications in English. Feel comfortable working with the English-language literature and can engage in academic debate in English. Feels comfortable presenting in English their research findings as well as other research findings and problems in the discipline in English. Can use English at a level that allows participating actively in the international academic community.	examination
	Teaching methodology	1	SDUPWr_U06; SDUPWr_K01;	Knows and understands teaching methodology. Can independently plan and contribute to the self-development of others. Is ready to develop and execute educational or training programmes, using modern methods and tools. Can popularise and verify knowledge. Can conduct university classes using a proper classroom manner and voice emissions techniques.	Pass/fail
	Psychology	1	SDUPWr_K02; SDUPWr_K03; SDUPWr_K04;		
	Self-presentation	1	SDUPWr_K05; SDUPWr_K07;		
	Voice emission	1	SDUPWr_U05; SDUPWr_U07		

Advancement of the discipline and related disciplines	New trends in the discipline and related disciplines	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W05; SDUPWr_U01; SDUPWr_U2; SDUPWr_U4; SDUPWr_U5; SDUPWr_U7; SDUPWr_K01	Knows and understands the main development trends in the discipline that are relevant to the field of study. Keeps themselves informed of the latest achievements in the disciplines of exact and natural sciences as well as agricultural science and technical engineering Understands the need to keep up-to-date with the latest trends and innovations relating to disciplines of exact and natural sciences, agricultural science, and technical engineering to expand one's general and specialist knowledge. Regularly advances their knowledge of natural science for practical applications. Can use new trends and knowledge to identify research problems and popularise findings as well as fulfils their role in society by maintaining ties with the international academic community. Can solve the most complex problems and create innovative solutions based on the application of research findings. Educates themselves about new analytical trends and techniques as well as current research problems.	pass/fail
Interdisciplinary tutorial	Interdisciplinary problem-solving skills	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K01; SDUPWr_K02; SDUPWr_K04; SDUPWr_K05	Understands the need to be familiar with the basic issues driving today the growth of exact and natural sciences, agricultural science, and technical engineering in the relevant discipline and related disciplines. Has the ability to apply advanced research techniques and tools appropriate to complex problem-solving in science in the relevant discipline and in an interdisciplinary perspective. Educates themselves about modelling and problem-solving in science, advances their knowledge beyond their field of specialisation, and is willing to learn about the wider impact of their specialist research. Can solve research problems and place them in a wider interdisciplinary context. Can use knowledge from a variety of disciplines to identify, formulate, and solve, in a creative and innovative manner, complex problems and undertake research tasks, in particular by defining the objective, scope and hypotheses of their research Knows and understands the economic, legal, and other relevant aspects of research work.	pass/fail
Research methodology	Designing experiments	1	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K06	Can use knowledge from a variety of fields to design, identify, and formulate, in a creative and innovative manner, complex problems and undertake research tasks. Can define objectives and scope of research, formulate research hypotheses, refine research methods and techniques, and use them appropriately. Can formulate correct conclusions based on research findings. Can transpose research findings into the economic and social spheres.	examination

	Data analysis techniques	2	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_K06	Can design scientific experiments, lay down key hypotheses for discipline-related research, specify methods of verification and plan the investigative and interpretative process. Knows and is able to work in practice with basic and fundamental concepts in mathematical statistics. Knows the theoretical underpinnings of hypothesis testing in statistics as a key scientific instrument for verifying research hypotheses. Knows the basic tools in data analysis. Is ready to use basic and advanced features of statistical software to allow for a wide range of statistical analyses. Knows the latest world- and nation-wide research programmes. Knows health and safety regulations, relating in particular to field work and other hazardous conditions (laboratory work). Has the ability to apply advanced research techniques and tools appropriate for complex problem-solving contexts in the discipline.	examination
	Ethics and law in research	1	SDUPWr_W09; SDUPWr_K09; SDUPWr_K10	Knows and understands the need to know the ethical and legal aspects of the research process. Is ready to undertake research to advance science and tackle challenges related to the field of work and publishing, in a creative manner, giving due consideration to their ethical aspects, responsibility for their consequences and creating models of conduct. Is ready to comply with the principles governing the discipline with respect to quality assurance in scientific work, harmonious co-operation and competitive culture. Takes a pro-quality approach in research relating to the discipline and related disciplines.	examination
	Academic writing	3	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W10; SDUPWr_U02; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_K02; SDUPWr_K04; SDUPWr_K08	Feels comfortable using scientific literature, is able to critically analyse data from the literature and materials in electronic form. Is able to specify key hypotheses in research relating to their discipline, can specify methods of verification and formulate the investigative and interpretative process. Has the ability to collect materials and information from a variety of sources (including data from own research), organize the materials and formulate conclusions. Knows the organisational aspects of scientific activity, relating in particular to writing and presenting research findings. Knows and understands social and legal aspects related to undertaking and commercial use of scientific research. Knows and understands the wider issues relating to funding scientific research and knowledge transfer on a national and international scale, is familiar with database issues (bibliographic references, citation indexes), project competitions and copyright. Systematically educates themselves about the latest developments in natural science to use them in formulating new hypotheses in order to obtain external funding for scientific research.	pass/fail
Workshops	Writing research proposals	3			
	Legal aspects of commercialization of research findings	1			

Professional self-development	1. Training courses outside WUELS must be approved by the supervisor and PhD School Board (1 ECTS credit for 1 course)—no more than 2 courses	-	SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K07	Is ready to comply with and uphold the ethics of the scientific and artistic communities. Understands the need for academic self-improvement as the key to expanding general and specialist knowledge relating to the discipline. Understands the need for life-long learning. Is ready to acquire new skills related to career management and planning.	pass/fail
	2. academic symposium in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	-			
	3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	-			
	4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	-			
Professional training	Professional training as required by the Rules of the WUELS PhD School	18	SDUPWr_K02; SDUPWr_K09	Exercises understanding of research methodologies and techniques. Is well prepared to undertake teaching work in a methodologically correct manner.	pass/fail

4) Programme of education at the PhD School;

Framework programme of education at the WUELS PhD School

Year 1—mandatory coursework

Item	Learning modules	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
		English for special purposes	SD>P-ANG	workshop	examination	-	30	2
		Methodology of teaching	SD>P-MPZ	workshop	pass/fail	-	5	1
		Psychology	SD>P-PSYCH	workshop	pass/fail	-	5	1
		Self-presentation	SD>P-AUTOPR	workshop	pass/fail	5	-	1
		Voice emission	SD>P-EG	workshop	pass/fail	5	-	1
2.	Interdisciplinary tutorial	Interdisciplinary problem-solving skills	SD>KI-INTERRP	seminar	pass/fail	-	20	6
3.	Methodology of teaching	Experiment design	SD>MPBN-PD	workshop	examination	10	-	1
		Data analysis techniques	SD>MPBN- TAD	workshop	examination	-	20	2
		Ethics and law in research	SD>MPBN-EP	lecture	examination	10	-	1
4.	Workshops	Academic writing workshop	SD>W-ARTN	workshop	pass/fail	10	-	1
		Research proposal writing workshop	SD>W-PROJ	workshop	pass/fail	5	-	1
5.	Academic self-development ²	1. training courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposium in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-
6.	Professional training	Professional training as required by the Rules of the WUELS PhD School	SD>PZ-PZ		pass/fail	60		6

1. ECTS: 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

Year 2—mandatory coursework

Item	Learning modules	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
		English for special purposes	SD>P-ANG	workshop	examination	30	30	4
2.	Advancement of discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DYSCY	lecture	pass/fail	5	5	3
3.	Methodology of research	Data analysis techniques	SD>MPBN- TAD	workshop	examination	-	20	2
4.	Workshops	Academic writing	SD>W-ARTN	workshop	pass/fail	15	5	2
		Research proposal writing	SD>W-PROJ	workshop	pass/fail	15	-	2
		Legal aspects of research commercialization	SD>W-PRKOMERC	lecture	pass/fail	10	-	1
5.	Self-development²	1. training courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposiums in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-
6.	Professional training	Professional training as required by the Rules of the WUELS PhD School	SD>PZ-PZ	-	pass/fail	60		6

1. ECTS: 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

Year 3—mandatory coursework

Item	Learning module	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
2.	Academic self-development²	1. courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposiums in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-
3.	Professional training	Professional training as required by the Rules of the WUELS PhD School	SD>PZ-PZ		pass/fail	60		6

1. ECTS: 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

Year 4 – mandatory coursework

Item	Learning modules	Name of course	Course code in USOS system	Form of course	Form of credit	Number of teacher contact classes		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	pass/fail	10	-	2
2.	Academic self-development ²	1. training courses outside WUELS must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	SD>SD-KKSZ	-	pass/fail	-	-	-
		2. academic symposiums in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at WUELS (1 ECTS for 1 academic symposium)—no more than 4 academic symposiums	SD>SD-SN	-	pass/fail	-	-	-
		3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course)—no more than 2 specialist training courses	SD>SD-SZSPEC	-	pass/fail	-	-	-
		4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference)—no more than 2 conferences	SD>SD-MKONF	-	pass/fail	-	-	-

1. ECTS – 20 working hours for the PhD student, including participating in classes as part of the course; self-study for the course.

2. The module can be designed and worked through in the time between the 1st and 7th term. A pass for the entire module can be obtained after completing all courses, training, conferences and symposiums with a minimum combined value of 8 ECTS credits.

- 5) **Period of education: 4 years.**
- 6) **Academic degrees obtained by PhD students:**
 - 1) PhD in exact and natural science in the discipline of biology,
 - 2) PhD in technical engineering in the following disciplines:
 - a) civil engineering and transport,
 - b) environmental engineering, mining, energy engineering.
 - 3) PhD in agricultural science in the following disciplines:
 - a) farming and horticulture,
 - b) food science and nutrition,
 - c) veterinary medicine,
 - d) zootechnology and fishery.
- 7) **PhD education ends with:**
 - 1) Completion of the programme of education of the PhD School,
 - 2) Completion of the individual research programme,
 - 3) Publishing JCR-indexed work,
 - 4) Submitting a PhD dissertation.

**Doctoral School
of Wrocław University of Environmental and Life Sciences**

1. The Doctoral School at the University of Environmental and Life Sciences in Wrocław provides education in the following fields and disciplines:

- 1) in Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technology, in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries;
- 4) in Social Sciences, in the discipline of Socio-Economic Geography and Land Management.

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wroclaw University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wroclaw University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge		
SDUPWr_W 01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WK, P8S_WG
SDUPWr_W 02	The graduate has in-depth knowledge of the available scientific tools, including the preparation and review of scientific papers	P8S_WG, P8S_WO
SDUPWr_W 03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG
SDUPWr_W 04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W 05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK, P8S_WG
SDUPWr_W 06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences. The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social sciences	P8S_WZ
SDUPWr_W 07	The graduate knows the principles of occupational health and safety, in particular with reference to field tests and other tests that pose a health risk (laboratories)	P8S_WK
SDUPWr_W 08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK
SDUPWr_W 09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W 10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK, P8S_WG

SDUPWr_W11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, or engineering and technical sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WK
Skills		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU, P8S_UU
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English	P8S_UW, P8Z_UO
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UK, P8S_UO, P8S_UU,
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, or engineering and technical sciences, formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW, P8S_UO, P8S_UU
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK, P83_UO, P8S_UO, P8S_UO, P8S_UU
Social skills		
SDUPWr_K01	The graduate understands the need for lifelong learning and improving qualifications, and encourages others to do so	P8S_KK, P8S_KO, P8S_KR
SDUPWr_K02	The graduate can work in a team and assume various roles in it	P8S_KO, P8Z_KP
SDUPWr_K03	The graduate is able to define and select priorities needed to do a task	P8S_KK

SDUPWr_K04	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The graduate is ready to fulfil the social obligations of researchers and creators	P8S_KO, P8S_KR
SDUPWr_K05	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline	P8S_KK, P8S_KR
SDUPWr_K06	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KK, P8S_KO
SDUPWr_K07	The graduate feels the need to systematically update knowledge in order to use it in practice	P8S_KK
SDUPWr_K09	The graduate has in-depth knowledge of the research funding system, including the methods of raising funds and settling projects	P8S_KR
SDUPWr_K10	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K11	The graduate understands the social role of interfering with a living body	P8S_KR, P8Z_KP

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = social competences

K = critical assessment

O = responsibility

R = professional role

Education modules and the expected learning outcomes					
Education modules		ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student
Basic	PhD seminar	8	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_W10; SDUPWr_W11; SDUPWr_U03; SDUPWr_U07; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K04; SDUPWr_K07	The student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The student understands the fundamental dilemmas of modern civilisation. The student can initiate a scientific debate and participate in scientific discourse. The student can disseminate research results, also in public.	credit
	English for special purposes	6	SDUPWr_W05; SDUPWr_W10; SDUPWr_U02; SDUPWr_U07; SDUPWr_U11; SDUPWr_K05	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam
	Teaching methodology	1	SDUPWr_U06;	The student knows and understands the methodology of conducting classes.	credit
	Psychology	1	SDUPWr_K01;	The student can independently plan and contribute to the development of others.	
	Self-presentation	2	SDUPWr_K02;	The student is able to develop training programmes and curricula and implement them using modern methods and tools.	
	Voice emission	1	SDUPWr_K03; SDUPWr_K04; SDUPWr_K05; SDUPWr_K07; SDUPWr_U05; SDUPWr_U07	The student can disseminate knowledge and verify it. The student is able to conduct classes using self-presentation and voice emission methods.	

Development of the discipline and related disciplines	New trends in the discipline and in related disciplines	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W05; SDUPWr_U01; SDUPWr_U2; SDUPWr_U4; SDUPWr_U5; SDUPWr_U7; SDUPWr_K01	The student knows and understands the main development trends of scientific disciplines relevant to a given science. The student keep up with the latest achievements in the field of exact and natural sciences, agricultural sciences, or engineering and technical sciences The student understands the need to systematically learn about the current trends and innovations in the field of exact and natural sciences, agricultural sciences, or engineering and technical sciences in order to raise general and specialist knowledge. The student demonstrates the need to systematically update the knowledge of natural science in order to use it in practice. The student is able to use new trends and knowledge to identify research problems and disseminate research results as well as fulfil their social obligations in an international professional environment. The student can solve the most complex problems, create innovative solutions based on the use of research results. The student acquires knowledge connected with the application of new trends and analytical techniques as well as knowledge of current research problems.	credit
Interdisciplinary tutorial	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K01; SDUPWr_K02; SDUPWr_K04; SDUPWr_K05	The student understands the need to follow fundamental issues necessary to understand the development of exact and natural sciences, agricultural sciences, or engineering and technical sciences in a given discipline and related disciplines. The student is able to use advanced techniques and research tools in order to solve complex scientific problems in a given discipline and in an interdisciplinary approach. The student acquires knowledge in the field of modelling and solving research problems, knowledge from outside his or her specialisation, as well as knowledge connected with the natural aspects of his or her specialised research. The student is able to connect and situate his or her research problems in the context of interdisciplinary research. The student is able to use interdisciplinary knowledge to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular by defining the purpose and subject of research and formulating the research hypothesis. The student knows and understands the economic, legal and other important considerations of research activity.	credit
Scientific research methodology	Design of experiments	1	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K06	The student can use knowledge from various fields to creatively plan, identify, formulate and innovatively solve complex problems or do research tasks. The student can define the aim and scope of research, correctly formulate a research hypothesis, develop research methods and techniques, and use them creatively. The student can make correct inferences based on research results. The student can transfer research results to the economic and social area.	exam
	Data analysis techniques	4	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05;	The student is able to properly design an experiment, define key research hypotheses in the discipline, set verification methods and correctly formulate the research and interpretation process. The student knows the basic and fundamental concepts of mathematical statistics, and is able to apply them in practice.	exam

			SDUPWr_K06	The student is familiar with the theory of testing statistical hypotheses, which is a scientific instrument for the verification of research hypotheses. The student knows the key tools needed for data analysis. The student can use basic and advanced features of statistical software to perform a wide variety of statistical analyses. The student knows the research programmes currently conducted in Poland and abroad. The student knows the rules of occupational health and safety, especially with regard to field tests and other tests that pose a health risk (laboratories). The student is able to use advanced research techniques and tools to solve complex scientific problems in a given field of research.	
	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K09; SDUPWr_K10	The student knows and understands the need for ethical and lawful conducting of scientific research. The student is ready to conduct research in order to advance science by addressing professional challenges and preparing publication, taking into account the ethical dimension of research, responsibility for the consequences of one's actions and the need to develop best practices. The student is willing to observe rules regarding the need to maintain the quality of scientific activity, the culture of cooperation and the culture of competition. The student is able to contribute to the development of a pro-quality culture of research in a given discipline and related disciplines.	exam
Workshops	Academic writing	3	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W10; SDUPWr_U02; SDUPWr_U03;	The student is able to efficiently use scientific literature by critically analysing data and materials in electronic form. The student is able to specify key research hypotheses in their discipline, determine methods of their verification and formulate the investigative and interpretative process. The student is able to collect materials and information from a variety of sources (including data from their own research), organise the materials and formulate conclusions. The student knows how to organise scientific activity, in particular how to write and present research findings. The student knows and understands social and legal considerations connected with undertaking and commercialising scientific research. The student knows and understands the broad context of research funding and knowledge transfer on a national and international scale, including issues connected with databases (bibliographic references, citation indexes), project competitions and copyright. The student demonstrates the need to systematically update the knowledge of natural science in order to formulate new research hypotheses in order to obtain external research funds.	credit
	Writing research proposals	3	SDUPWr_U04;		
	Practical and legal considerations of scientific research commercialisation	1	SDUPWr_U05; SDUPWr_K02; SDUPWr_K04; SDUPWr_K08		
Scientific self-development	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-		The student is ready to maintain and develop the ethos of the research and creative communities. The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline. The student understands the need for lifelong self-improvement.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-	SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K07		

	3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	-		The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	12	SDUPWr_K02; SDUPWr_K09	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

4. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School of Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary tutorial	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of experiments	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals workshops	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-

		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 20 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year II – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit/exam ³	30	30	4
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DYSCY	lecture	credit	5	5	3
3.	Scientific research methodology	Data analysis techniques	SD>MPBN-TAD	classes	exam	-	20	2
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	15	5	2
		Writing research proposals workshops	SD>W-PROJ	classes	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-

		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 20 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS	SD>SD-SZSPEC	-	credit	-	-	-

		point for one training) – max. 2 specialist training courses						
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 20 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences	SD>SD-MKONF	-	credit	-	-	-

		(oral presentation; 2 ECTS points for one conference) – max. 2 conferences						

¹ ECTS – 20 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

5. Duration of education at the Doctoral School: 4 years.

6. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries.
- 4) *Doktor* (PhD) of Social Sciences in the discipline of Socio-Economic Geography and Land Management.

7. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

**Doctoral School
of the Wrocław University of Environmental and Life
Sciences**

1. The Doctoral School at the Wrocław University of Environmental and Life Sciences provides education in the following fields and disciplines:

- 1) in Exact and Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technical Sciences, in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Sciences,
 - d) Animal Science and Fisheries,
- 4) in Social Sciences in the discipline of Social and Economic Geography and Spatial Management.

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences and engineering and technical sciences along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wroclaw University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wroclaw University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge		
SDUPWr_W01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WK, P8S_WG
SDUPWr_W02	The graduate has in-depth knowledge of the organization of a scientific workshop as well as of the preparation and review of scientific papers	P8S_WG, P8S_WO
SDUPWr_W03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG
SDUPWr_W04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_WG, P8S_WG
SDUPWr_W06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences. The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social	P8S_WZ
SDUPWr_W07	The graduate knows the principles of occupational health and safety, in particular with reference to field tests and other tests that pose a health risk (laboratories)	P8S_WK
SDUPWr_W08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_WK
SDUPWr_W09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_WK, P8S_WG

SDUPWr_W11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, engineering and technical sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WK
Skills		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW, P8Z_UU
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU, P8S_UU,
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English in a form appropriate for a given scientific discipline	P8S_UW
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UK, P8S_UO, P8S_UU
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW, P8S_UO, P8S_UU
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK, P8S_UO, P8S_UO, P8S_UO, P8S_UU

Social skills		
SDUPWr_K01	The graduate understands the need for lifelong learning and improvement of qualifications and influences the behavior of others in this regard	P8S_KK, P8S_KO,P8S_KR
SDUPWr_K02	The graduate is able to cooperate and work in a group, assuming various roles.	P8S_KO
SDUPWr_K03	The graduate is able to define and choose priorities for the implementation of tasks specified by himself or others	P8S_KK
SDUPWr_K04	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The graduate is ready to fulfil the social obligations of researchers and creators	P8S_KO, P8S_KR
SDUPWr_K05	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline, in which he carries out education and updating of knowledge in order to use it in practice --- The graduate is able to define and select priorities needed to do a task	P8S_KK
SDUPWr_K06	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KK P8S_KO
SDUPWr_K07	The graduate demonstrates the need and systematically updates knowledge for practical use	P8S_KK
SDUPWr_K09	The graduate has in-depth knowledge of the research financing system, methods of obtaining funds for research and their settlement	P8S_KR
SDUPWr_K10	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K11	The graduate takes professional ethical responsibility for interfering with a living body	P8S_KR

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organization

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

4. Learning modules with expected learning outcomes – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme.

Education modules and the expected learning outcomes					
Education modules		ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student
Basic	PhD seminar	6	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_W10; SDUPWr_W11; SDUPWr_U03; SDUPWr_U07; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K04; SDUPWr_K07	The doctoral student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the selected discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The doctoral student understands the fundamental dilemmas of modern civilisation. The doctoral student can initiate a scientific debate and participate in scientific discourse. The doctoral student can disseminate research results, also in public.	credit
	English for special purposes	4	SDUPWr_W05; SDUPWr_W10; SDUPWr_U02; SDUPWr_U07; SDUPWr_U11; SDUPWr_K05	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the selected discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam

Development of the discipline and related disciplines	Anticipating technological developments	1	SDUPWr_W01 SDUPWr_W05 SDUPWr_W010 SDUPWr_U01 SDUPWr_U02 SDUPWr_U03 SDUPWr_U04 SDUPWr_K01 SDUPWr_K05	He/she has knowledge in the area of anticipating technological developments and strategic analysis in technology transfer. He/she can obtain information from literature, databases and other sources, integrate it, interpret it, draw conclusions and form opinions. He/she can apply the acquired knowledge of technology and knowledge transfer to understand the theoretical principles, forms of organisation and general principles of organisational functioning and solve problems that arise. He/she understands that in knowledge and technology transfer, knowledge and skills quickly become obsolete.	credit
Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K01; SDUPWr_K02; SDUPWr_K04; SDUPWr_K05	He/she understands the need to better understand the current development of exact and life sciences, agricultural sciences, engineering and technical sciences in a given scientific discipline and related disciplines. He/she has the ability to apply advanced research techniques and tools to solve complex scientific and research problems in the given scientific discipline and from an interdisciplinary perspective. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, in particular to define the purpose and object of research, formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Data analysis techniques and design of experiments	4	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U10; SDUPWr_K06	The graduate can use their knowledge from various fields to creatively plan, identify, formulate, and innovatively solve complex problems or perform research tasks. He/she can define the purpose and subject of research, correctly formulate a research hypothesis, develop research methods and techniques, and apply them creatively. He/she can correctly draw conclusions based on research results. He/she can transfer research results to the economic and social spheres. He/she can properly plan research experiments, identify key research hypotheses in their discipline, determine methods for their verification, and correctly formulate the research and interpretation process. He/she know and can apply in practice the basic and fundamental concepts of mathematical statistics. He/she know the basics of statistical hypothesis testing theory, which is a scientific apparatus for verifying research hypotheses. They are familiar with key tools useful for data analysis. They are ready to use basic and advanced features of statistical software that allows for a wide range of statistical analyses. Knowledge of current global and domestic research programs. Knowledge of occupational health and safety regulations, especially in relation to fieldwork and other research that poses a health risk (laboratories). Ability to apply advanced research techniques and tools appropriate for solving complex scientific problems within the scope of their research.	exam

	Statistical data analysis	2	SDUPW _r _W02; SDUPW _r _W04; SDUPW _r _W06; SDUPW _r _W08;SDUPW _r _U01; SDUPW _r _U03; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U09; SDUPW _r _U10; SDUPW _r _K06	He/she has knowledge of statistical methods and tools, including statistical software. He/she is able to apply appropriate statistical methods to analyse and validate a selected research problem. He/she can design statistical research, verify research hypotheses on the basis of a statistical sample and critically evaluate the research results. He/she can select a statistical method for a specific research problem and solve it.	exam
	Ethics and law in scientific research	1	SDUPW _r _W09; SDUPW _r _K06; SDUPW _r _K010	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to expand existing scientific and creative achievements, to take on professional and publication challenges, taking into account their ethical dimensions, taking responsibility for their consequences, and shaping models of appropriate conduct in such situations. He/she is ready to shape the discipline's principles for maintaining the quality of scientific activity and a culture of cooperation and competition. He/she is able to shape a culture of quality-oriented research in a scientific discipline and related disciplines.	exam
Workshops	Intellectual property protection workshop	1	SDUPW _r _W02; SDUPW _r _W08; SDUPW _r _W09; SDUPW _r _W10; SDUPW _r _U02; SDUPW _r _U03; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _K02; SDUPW _r _K04; SDUPW _r _K08	He/she is able to correctly identify key research hypotheses in their discipline, determine methods for their verification, and correctly formulate the research and interpretation process. Demonstrates the ability to gather materials and information from various sources (including their own research), analyze the collected material, and formulate conclusions. He/she knows and understands the social and legal issues connected with conducting and commercializing research in the R&D area. He/she has knowledge of issues related to the protection of intellectual property. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit

	Workshop on writing R&D projects	1			
	Practical and legal considerations of scientific research commercialisation	2			
	Project and resource management	2	SDUPWr_W01 SDUPWr_W06 SDUPWr_U09 SDUPWr_U010 SDUPWr_K02 SDUPWr_K03	He/she knows the interrelationship between team management and the objectives of a social project, and can put this into practice in planning specific activities and selecting appropriate leadership styles He/she can critically evaluate the management of specific projects and teams and identify potential alternative actions He/she is aware of the differences in the project team structure in different entities and institutions implementing social projects and is able to select appropriate management methods.	
Scientific self-development	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-	SDUPWr_K01; SDUPWr_K02; SDUPWr_K03; SDUPWr_K07	The student is ready to maintain and develop the ethos of the research and creative communities. The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline.	

	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-		The student understands the need for lifelong self-improvement. The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	credit
	3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	-			
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	6	SDUPWr_K02; SDUPWr_K09	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

5. Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme.

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	5	-	1
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTER RP	seminar	credit	20	20	6
4.	Workshops	Data analysis techniques	SD>MPBN- TADiPD	classes	exam	15	15	4
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
		Intellectual property protection	SD>W-WI	classes	credit	10	-	1
		Workshop on writing R&D projects	SD>W-PBR	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. 2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board - the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKON F	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	-	5	1
		English for special purposes	SD>P-ANG	classes	credit/exam ³	30	-	2
2.	Development of the discipline and related disciplines	Anticipating technological developments	SD>DW-RT	lecture	credit	10	-	1
3.	Scientific research methodology	Statistical data analysis	SD>DW-S	classes	exam	10	10	1
4.	Workshops	Project and resource management	SD>DW-ZP	classes	credit	10	-	2
		Practical and legal considerations of scientific research commercialisation	SD>DW-PPK	classes	credit	-	10	2
5.	Scientific self-development²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at University of Environmental and Life Sciences (admitting one student to internship for a number of hours in the specific field of study)	SD>PZ-PZ		credit	15		2

¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 20 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 20 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

4. Duration of education at the Doctoral School: 4 years.

5. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering, Geodesy and Transport,
 - b) Environmental Engineering and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries.
- 4) *Doktor* (PhD) of Social Sciences in the discipline of Social and Economic Geography and Spatial Management.

6. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

**Doctoral School
of Wrocław University of Environmental and Life Sciences**

1. The Doctoral School at the University of Environmental and Life Sciences in Wrocław provides education in the following fields and disciplines:

- 1) in Exact and Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technical Sciences, in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries;

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wroclaw University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wroclaw University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge		
SDUPWr_W 01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WG, P8S_WK
SDUPWr_W 02	The graduate has in-depth knowledge of the organization of a scientific workshop as well as of the preparation and review of scientific papers	P8S_WG
SDUPWr_W 03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG
SDUPWr_W 04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W 05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG
SDUPWr_W 06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences. The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social sciences	P8S_WG
SDUPWr_W 07	The graduate knows the principles of occupational health and safety, in particular with reference to laboratory and field tests and other tests that pose a health risk	P8S_WK
SDUPWr_W 08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WK
SDUPWr_W 09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W 10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG

SDUPWr_W 11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, or engineering and technical sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WG
Skills		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English	P8S_UW
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UU
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, or engineering and technical sciences, formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK
SDUPWr_U12	The graduate can plan and implement individual and team research projects, also in an international environment	P8S_UO
Social skills		
SDUPWr_K03	The graduate is able to define and select priorities needed to do a task	P8S_KO
SDUPWr_K04	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The	P8S_KO, P8S_KR

	graduate is ready to fulfil the social obligations of researchers and creators	
SDUPWr_K05	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline	P8S_KK
SDUPWr_K06	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KO
SDUPWr_K10	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K11	The graduate takes professional ethical responsibility for interfering with a living body	P8S_KR, P8Z_KO

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

Education modules and the expected learning outcomes					
Education modules		ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student
Basic	PhD seminar	8	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_U03; SDUPWr_U06; SDUPWr_U09; SDUPWr_U010	The student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The student understands the fundamental dilemmas of modern civilisation. The student can initiate a scientific debate and participate in scientific discourse. The student can disseminate research results, also in public.	credit
	English for special purposes	6	SDUPWr_U07; SDUPWr_U011; SDUPWr_U012	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam
	Teaching methodology	1	SDUPWr_U06;	The student knows and understands the methodology of conducting classes.	credit
	Psychology	1	SDUPWr_K03;	The student can independently plan and contribute to the development of others.	
	Self-presentation	2	SDUPWr_K04;	The student is able to develop training programmes and curricula and implement them using modern methods and tools.	
	Voice emission	1	SDUPWr_K05; SDUPWr_U05	The student can disseminate knowledge and verify it. The student is able to conduct classes using self-presentation and voice emission methods.	

Development of the discipline and related disciplines	New trends in the discipline and in related disciplines	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W05; SDUPWr_U01; SDUPWr_U02; SDUPWr_U04; SDUPWr_U05; SDUPWr_U07	The student knows and understands the main development trends of scientific disciplines relevant to a given science. The student keep up with the latest achievements in the field of exact and natural sciences, agricultural sciences, or engineering and technical sciences The student understands the need to systematically learn about the current trends and innovations in the field of exact and natural sciences, agricultural sciences, or engineering and technical sciences in order to raise general and specialist knowledge. The student demonstrates the need to systematically update the knowledge of natural science in order to use it in practice. The student is able to use new trends and knowledge to identify research problems and disseminate research results as well as fulfil their social obligations in an international professional environment. The student can solve the most complex problems, create innovative solutions based on the use of research results. The student acquires knowledge connected with the application of new trends and analytical techniques as well as knowledge of current research problems.	credit
Interdisciplinary tutorial	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K04	The student understands the need to follow fundamental issues necessary to understand the development of exact and natural sciences, agricultural sciences, or engineering and technical sciences in a given discipline and related disciplines. The student is able to use advanced techniques and research tools in order to solve complex scientific problems in a given discipline and in an interdisciplinary approach. The student acquires knowledge in the field of modelling and solving research problems, knowledge from outside his or her specialisation, as well as knowledge connected with the natural aspects of his or her specialised research. The student is able to connect and situate his or her research problems in the context of interdisciplinary research. The student is able to use interdisciplinary knowledge to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular by defining the purpose and subject of research and formulating the research hypothesis. The student knows and understands the economic, legal and other important considerations of research activity.	credit
Scientific research methodology	Design of experiments	1	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K04	The student can use knowledge from various fields to creatively plan, identify, formulate and innovatively solve complex problems or do research tasks. The student can define the aim and scope of research, correctly formulate a research hypothesis, develop research methods and techniques, and use them creatively. The student can make correct inferences based on research results. The student can transfer research results to the economic and social area.	exam
	Data analysis techniques	4	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05;	The student is able to properly design an experiment, define key research hypotheses in the discipline, set verification methods and correctly formulate the research and interpretation process. The student knows the basic and fundamental concepts of mathematical statistics, and is able to apply them in practice. The student is familiar with the theory of testing statistical hypotheses, which is a scientific instrument for the verification of research hypotheses. The student knows the key tools	exam

			SDUPWr_U09; SDUPWr_U010; SDUPWr_K06	needed for data analysis. The student can use basic and advanced features of statistical software to perform a wide variety of statistical analyses. The student knows the research programmes currently conducted in Poland and abroad. The student knows the rules of occupational health and safety, especially with regard to field tests and other tests that pose a health risk (laboratories). The student is able to use advanced research techniques and tools to solve complex scientific problems in a given field of research.	
	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K09; SDUPWr_K10	The student knows and understands the need for ethical and lawful conducting of scientific research. The student is ready to conduct research in order to advance science by addressing professional challenges and preparing publication, taking into account the ethical dimension of research, responsibility for the consequences of one's actions and the need to develop best practices. The student is willing to observe rules regarding the need to maintain the quality of scientific activity, the culture of cooperation and the culture of competition. The student is able to contribute to the development of a pro-quality culture of research in a given discipline and related disciplines.	exam
Workshops	Academic writing	3	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W010; SDUPWr_U02; SDUPWr_U03;	The student is able to efficiently use scientific literature by critically analysing data and materials in electronic form. The student is able to specify key research hypotheses in their discipline, determine methods of their verification and formulate the investigative and interpretative process. The student is able to collect materials and information from a variety of sources (including data from their own research), organise the materials and formulate conclusions. The student knows how to organise scientific activity, in particular how to write and present research findings. The student knows and understands social and legal considerations connected with undertaking and commercialising scientific research. The student knows and understands the broad context of research funding and knowledge transfer on a national and international scale, including issues connected with databases (bibliographic references, citation indexes), project competitions and copyright. The student demonstrates the need to systematically update the knowledge of natural science in order to formulate new research hypotheses in order to obtain external research funds.	credit
	Writing research proposals	3	SDUPWr_U04;		
	Practical and legal considerations of scientific research commercialisation	1	SDUPWr_U05; SDUPWr_U010; SDUPWr_K04		
Scientific self-development	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-	SDUPWr_K03; SDUPWr_K04; SDUPWr_W010; SDUPWr_W011; SDUPWr_K010	The student is ready to maintain and develop the ethos of the research and creative communities. The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline. The student understands the need for lifelong self-improvement. The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-			
	3. several-day-long specialist training ending with a certificate of	-			

	completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses				
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	12	SDUPWr_W04 SDUPWr_W08	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

4. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School of Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary tutorial	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of experiments	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals workshops	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences	SD>SD-MKONF	-	credit	-	-	-

		(oral presentation; 2 ECTS points for one conference) – max. 2 conferences						
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)	4	

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year II – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit/exam ³	30	30	4
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DYSCY	lecture	credit	5	5	3
3.	Scientific research methodology	Data analysis techniques	SD>MPBN-TAD	classes	exam	-	20	2
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	15	5	2
		Writing research proposals workshops	SD>W-PROJ	classes	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new	SD>SD-SZSPEC	-	credit	-	-	-

		research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses						
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international	SD>SD-MKONF	-	credit	-	-	-

		conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences						
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)	4	

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

5. Duration of education at the Doctoral School: 4 years.

6. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries.

7. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

**Doctoral School
of the Wrocław University of Environmental and Life
Sciences**

1. The Doctoral School at the Wrocław University of Environmental and Life Sciences provides education in the following fields and disciplines:

- 1) in Exact and Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technical Sciences, in the following disciplines:
 - a) Civil Engineering and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Sciences,
 - d) Animal Science and Fisheries,

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences and engineering and technical sciences along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wroclaw University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wroclaw University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge – The graduate knows and understands:		
SDUPWr_W01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WG, P8S_WK
SDUPWr_W02	The graduate has in-depth knowledge of the organization of a scientific workshop as well as of the preparation and review of scientific papers	P8S_WG
SDUPWr_W03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences	P8S_WG
SDUPWr_W04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_WG
SDUPWr_W06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences. The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social	P8S_WG
SDUPWr_W07	The graduate knows the principles of occupational health and safety, in particular with reference to laboratory and field tests and other tests that pose a health risk	P8S_WK
SDUPWr_W08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_WK
SDUPWr_W09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_WG

SDUPWr_W11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, engineering and technical sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WG
Skills - The graduate is able to:		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English in a form appropriate for a given scientific discipline	P8S_UW
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UU
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK
SDUPWr_U12	The graduate can plan and implement individual and team research projects, also in an international environment	P8S_UO

Social skills - The graduate is ready to:		
SDUPWr_K03	The graduate is able to define and select priorities needed to do a task	P8S_KO
SDUPWr_K04	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The graduate is ready to fulfil the social obligations of researchers and creators	P8S_KO, P8S_KR
SDUPWr_K05	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline, in which he carries out education and updating of knowledge in order to use it in practice	P8S_KK
SDUPWr_K06	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KO
SDUPWr_K10	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K11	The graduate takes professional ethical responsibility for interfering with a living body	P8S_KR, P8Z_KO

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organization

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

4. Learning modules with expected learning outcomes – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme.

Education modules and the expected learning outcomes					
Education modules		ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student
Basic	PhD seminar	6	SDUPW _r _W01; SDUPW _r _W03; SDUPW _r _W05; SDUPW _r _U03; SDUPW _r _U06; SDUPW _r _U09; SDUPW _r _U010	The doctoral student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the selected discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The doctoral student understands the fundamental dilemmas of modern civilisation. The doctoral student can initiate a scientific debate and participate in scientific discourse. The doctoral student can disseminate research results, also in public.	credit
	English for special purposes	4	SDUPW _r _U07; SDUPW _r _U011; SDUPW _r _U012	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the selected discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam

Development of the discipline and related disciplines	Anticipating technological developments	1	SDUPWr_W01; SDUPWr_W03; SDUPWr_W010; SDUPWr_U01; SDUPWr_U02; SDUPWr_U03; SDUPWr_U04; SDUPWr_K05	He/she has knowledge in the area of anticipating technological developments and strategic analysis in technology transfer. He/she can obtain information from literature, databases and other sources, integrate it, interpret it, draw conclusions and form opinions. He/she can apply the acquired knowledge of technology and knowledge transfer to understand the theoretical principles, forms of organisation and general principles of organisational functioning and solve problems that arise. He/she understands that in knowledge and technology transfer, knowledge and skills quickly become obsolete.	credit
Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K04	He/she understands the need to better understand the current development of exact and life sciences, agricultural sciences, engineering and technical sciences in a given scientific discipline and related disciplines. He/she has the ability to apply advanced research techniques and tools to solve complex scientific and research problems in the given scientific discipline and from an interdisciplinary perspective. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, in particular to define the purpose and object of research, formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Data analysis techniques and design of experiments	4	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K06	The graduate can use their knowledge from various fields to creatively plan, identify, formulate, and innovatively solve complex problems or perform research tasks. He/she can define the purpose and subject of research, correctly formulate a research hypothesis, develop research methods and techniques, and apply them creatively. He/she can correctly draw conclusions based on research results. He/she can transfer research results to the economic and social spheres. He/she can properly plan research experiments, identify key research hypotheses in their discipline, determine methods for their verification, and correctly formulate the research and interpretation process. He/she know and can apply in practice the basic and fundamental concepts of mathematical statistics. He/she know the basics of statistical hypothesis testing theory, which is a scientific apparatus for verifying research hypotheses. They are familiar with key tools useful for data analysis. They are ready to use basic and advanced features of statistical software that allows for a wide range of statistical analyses. Knowledge of current global and domestic research programs. Knowledge of occupational health and safety regulations, especially in relation to fieldwork and other research that poses a health risk (laboratories).	exam

Workshops				Ability to apply advanced research techniques and tools appropriate for solving complex scientific problems within the scope of their research.	
	Statistical data analysis	2	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09;	He/she has knowledge of statistical methods and tools, including statistical software. He/she is able to apply appropriate statistical methods to analyse and validate a selected research problem. He/she can design statistical research, verify research hypotheses on the basis of a statistical sample and critically evaluate the research results. He/she can select a statistical method for a specific research problem and solve it.	exam
	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K06; SDUPWr_K01 0	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to expand existing scientific and creative achievements, to take on professional and publication challenges, taking into account their ethical dimensions, taking responsibility for their consequences, and shaping models of appropriate conduct in such situations. He/she is ready to shape the discipline's principles for maintaining the quality of scientific activity and a culture of cooperation and competition. He/she is able to shape a culture of quality-oriented research in a scientific discipline and related disciplines.	exam
	Intellectual property protection workshop	1	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W10; SDUPWr_U02; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_K04	He/she is able to correctly identify key research hypotheses in their discipline, determine methods for their verification, and correctly formulate the research and interpretation process. Demonstrates the ability to gather materials and information from various sources (including their own research), analyze the collected material, and formulate conclusions. He/she knows and understands the social and legal issues connected with conducting and commercializing research in the R&D area. He/she has knowledge of issues related to the protection of intellectual property. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she is	credit

				able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	
	Workshop on writing R&D projects	1			
	Practical and legal considerations of scientific research commercialisation	2			
	Project and resource management	2	SDUPW _r _W01; SDUPW _r _W06; SDUPW _r _U09; SDUPW _r _U010; SDUPW _r _K03	He/she knows the interrelationship between team management and the objectives of a social project, and can put this into practice in planning specific activities and selecting appropriate leadership styles He/she can critically evaluate the management of specific projects and teams and identify potential alternative actions He/she is aware of the differences in the project team structure in different entities and institutions implementing social projects and is able to select appropriate management methods.	
Scientific self-development	1. training courses outside UPW _r – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-	SDUPW _r _K03; SDUPW _r _K04; SDUPW _r _W010; SDUPW _r _W011; SDUPW _r _K010	The student is ready to maintain and develop the ethos of the research and creative communities. The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline.	

	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-		The student understands the need for lifelong self-improvement. The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	credit
	3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	-			
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	6	SDUPWr_W04 SDUPWr_W08	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

5. Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme.

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	5	-	1
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTER RP(1)	seminar	credit	20		3
			SD>KI-INTER RP	seminar	credit	20	20	6
		Data analysis techniques	SD>MPBN-TADiPB	classes	exam	15	15	4
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Intellectual property protection	SD>W-WI	classes	credit	10	-	1
		Workshop on writing R&D projects	SD>W-PBR	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. 2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board - the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKON F	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	-	5	1
		English for special purposes	SD>P-ANG	classes	credit/exam ³	30	-	2
2.	Development of the discipline and related disciplines	Anticipating technological developments	SD>DW-RT	lecture	credit	10		1
3.	Scientific research methodology	Statistical data analysis	SD>DW-S	classes	exam	10	10	1
4.	Workshops	Project and resource management	SD>DW-ZP	classes	credit	10	-	2
		Practical and legal considerations of scientific research commercialisation	SD>DW-PPK	classes	credit	-	10	2
5.	Scientific self-development²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – admitting one student to internship for a number of hours in the specific field of study	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min.

8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. 2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. implementation internships (technology parks, business incubators, Bridge Alfa funds, laboratory practice) (1 ECTS point for 1 scientific meeting)	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (1 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

4. Duration of education at the Doctoral School: 4 years.

5. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering, Geodesy and Transport,
 - b) Environmental Engineering and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Veterinary Science,
 - d) Animal Science and Fisheries.

6. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

**Doctoral School
of the Wrocław University of Environmental and Life
Sciences**

1. The Doctoral School at the Wrocław University of Environmental and Life Sciences provides education in the following fields and disciplines:

- 1) in Exact and Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technical Sciences, in the following disciplines:
 - a) Civil Engineering, Geodesy and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Animal Science and Fisheries,
- 4) in Veterinary Sciences, in the discipline of Veterinary Science;
- 5) in Social Sciences in the discipline of Social and Economic Geography and Spatial Management.

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wroclaw University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wroclaw University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge		
SDUPWr_W01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WG, P8S_WK
SDUPWr_W02	The graduate has in-depth knowledge of the organization of a scientific workshop as well as of the preparation and review of scientific papers	P8S_WG
SDUPWr_W03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, veterinary sciences or social sciences	P8S_WG
SDUPWr_W04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_WG
SDUPWr_W06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences . The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social	P8S_WG
SDUPWr_W07	The graduate knows the principles of occupational health and safety, in particular with reference to laboratory and field tests and other tests that pose a health risk	P8S_WK
SDUPWr_W08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_WK
SDUPWr_W09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_WG

SDUPWr_W11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WG
Skills		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English in a form appropriate for a given scientific discipline	P8S_UW
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UU
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK
SDUPWr_U12	The graduate can plan and implement individual and team research projects, also in an international environment	P8S_UO

Social skills		
SDUPWr_K01	The graduate is able to define and select priorities needed to do a task	P8S_KO
SDUPWr_K02	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The graduate is ready to fulfil the social obligations of researchers and creators	P8S_KO, P8S_KR
SDUPWr_K03	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline	P8S_KK
SDUPWr_K04	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KO
SDUPWr_K05	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K06	The graduate takes professional ethical responsibility for interfering with a living body	P8S_KR, P8Z_KO

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organization

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

Education modules and the expected learning outcomes					
Education modules		ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student
Basic	PhD seminar	8	SDUPWr_W01; SDUPWr_W03; SDUPWr_W05; SDUPWr_W07; SDUPWr_U03; SDUPWr_U06; SDUPWr_U08; SDUPWr_U09; SDUPWr_U010; SDUPWr_K03; SDUPWr_K05	The student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the selected discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The student understands the fundamental dilemmas of modern civilisation. The student can initiate a scientific debate and participate in scientific discourse. The student can disseminate research results, also in public.	credit
	English for special purposes	6	SDUPWr_U07; SDUPWr_U011; SDUPWr_U012	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the selected discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam
	Teaching methodology	1	SDUPWr_U06;	The student knows and understands the methodology of conducting classes.	credit
	Psychology	1	SDUPWr_K01;	The student can independently plan and contribute to the development of others.	
	Self-presentation	2	SDUPWr_K02;	The student is able to develop training programmes and curricula and implement them using modern methods and tools.	
	Voice emission	1	SDUPWr_K03; SDUPWr_U05	The student can disseminate knowledge and verify it. The student is able to conduct classes using self-presentation and voice emission methods.	

Development of the discipline and related disciplines	New trends in the discipline and in related disciplines	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W05; SDUPWr_W011; SDUPWr_U01; SDUPWr_U02; SDUPWr_U04; SDUPWr_U05; SDUPWr_U07	The student knows and understands the main development trends of scientific disciplines relevant to a given science. The student keep up with the latest achievements in the field of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences. The student understands the need to systematically learn about the current trends and innovations in the field of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences in order to raise general and specialist knowledge. The student demonstrates the need to systematically update the knowledge of natural or social science in order to use it in practice. The student is able to use new trends and knowledge to identify research problems and disseminate research results as well as fulfil their social obligations in an international professional environment. The student can solve the most complex problems, create innovative solutions based on the use of research results. The student acquires knowledge connected with the application of new trends and analytical techniques as well as knowledge of current research problems.	credit
Interdisciplinary tutorial	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_W11; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_U012; SDUPWr_K02; SDUPWr_K03	The student understands the need to follow fundamental issues necessary to understand the development of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences in a given discipline and related disciplines. The student is able to use advanced techniques and research tools in order to solve complex scientific problems in a given discipline and in an interdisciplinary approach. The student acquires knowledge in the field of modelling and solving research problems, knowledge from outside his or her specialisation, as well as knowledge connected with the natural aspects of his or her specialised research. The student is able to connect and situate his or her research problems in the context of interdisciplinary research. The student is able to use interdisciplinary knowledge to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular by defining the purpose and subject of research and formulating the research hypothesis. The student knows and understands the economic, legal and other important considerations of research activity.	credit
Scientific research methodology	Design of research	1	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K02; SDUPWr_K03	The student can use knowledge from various fields to creatively plan, identify, formulate and innovatively solve complex problems or do research tasks in the given scientific disciplines. The student can define the aim and scope of research, correctly formulate a research hypothesis, develop research methods and techniques, and use them creatively. The student can make correct inferences based on research results. The student can transfer research results to the economic and social area.	exam
			SDUPWr_W02;	The student is able to properly design an experiment, define key research hypotheses in the	

	Data analysis techniques	4	SDUPW _r _W04; SDUPW _r _W06; SDUPW _r _U01; SDUPW _r _U03; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U09; SDUPW _r _U010; SDUPW _r _K04	given discipline, set verification methods and correctly formulate the research and interpretation process. The student knows the basic and fundamental concepts of mathematical statistics or qualitative analysis, and is able to apply them in practice. The student is familiar with the theory of testing statistical hypotheses qualitative analysis interpretation, which is a scientific instrument for the verification of research hypotheses. The student knows the key tools needed for data analysis. The student can use basic and advanced features of statistical software to perform a wide variety of statistical analyses or tools and techniques of qualitative analysis. The student knows the research programmes currently conducted in Poland and abroad. The student knows the rules of occupational health and safety, especially with regard to field tests and other tests that pose a health risk (laboratories). The student is able to use advanced research techniques and tools to solve complex scientific problems in a given field of research.	exam
	Ethics and law in scientific research	1	SDUPW _r _W07; SDUPW _r _W09; SDUPW _r _K04;; SDUPW _r _K05; SDUPW _r _K06	The student knows and understands the need for ethical and lawful conducting of scientific research. The student is ready to conduct research in order to advance science by addressing professional challenges and preparing publication, taking into account the ethical dimension of research, responsibility for the consequences of one's actions and the need to develop best practices. The student is willing to observe rules regarding the need to maintain the quality of scientific activity, the culture of cooperation and the culture of competition. The student is able to contribute to the development of a pro-quality culture of research in a given discipline and related disciplines.	exam
	Academic writing	3	SDUPW _r _W02; SDUPW _r _W08; SDUPW _r _W09; SDUPW _r _W010; SDUPW _r _U02; SDUPW _r _U03;	The student is able to efficiently use scientific literature by critically analysing data and materials in electronic form. The student is able to specify key research hypotheses in the given discipline, determine methods of their verification and formulate the investigative and interpretative process. The student is able to collect materials and information from a variety of sources (including data from their own research), organise the materials and formulate conclusions. The student knows how to organise scientific activity, in particular how to write and present research findings. The student knows and understands social and legal considerations connected with undertaking and commercialising scientific research. The student knows and understands the broad context of research funding and knowledge transfer on a national and international scale, including issues connected with databases (bibliographic references, citation indexes), project competitions and copyright. The student demonstrates the need to systematically update the knowledge of natural or social science in order to formulate new research hypotheses in order to obtain external research funds.	credit
Workshops	Writing research proposals	3	SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U010; SDUPW _r _K02		
	Practical and legal considerations of scientific research commercialisation	1			
Scientific self-development	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-	SDUPW _r _W010; SDUPW _r _W011; SDUPW _r _U08; SDUPW _r _K01; SDUPW _r _K02;	The student is ready to maintain and develop the ethos of the research and creative communities. The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline.	

	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-	SDUPWr_K05; SDUPWr_K06;	The student understands the need for lifelong self-improvement. The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	credit
	3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	-			
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	12	SDUPWr_W04 SDUPWr_W08	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

4. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School of Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG (2)	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary tutorial	Interdisciplinary problem solving	SD>KI-INTERRP (2)	seminar	credit	-	20	6
3.	Scientific research methodology	Design of research	SD>MPBN-PB	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing workshops	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals workshops	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences	SD>SD-MKONF	-	credit	-	-	-

		(oral presentation; 2 ECTS points for one conference) – max. 2 conferences						
6.	Teaching practice ³	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)	4	

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ Teaching practice – a course carried out throughout the academic year. Credit obtained in the summer semester.

Year II – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG (3)	classes	credit/exam ³	30	-	2
		English for special purposes	SD>P-ANG (4)	classes	credit/exam ³		30	2
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DYSCY(3)	lecture	credit	5	-	1,5
		New trends in the discipline and related disciplines	SD>RDY-DYSCY(4)	lecture	credit	-	5	1,5
3.	Scientific research methodology	Data analysis techniques	SD>MPBN-TAD	classes	exam	-	20	2
4.	Workshops	Academic writing workshops	SD>W-ARTN (3)	classes	credit	15	-	1
		Academic writing workshops	SD>W-ARTN (4)	classes	credit	-	5	1
		Writing research proposals workshops	SD>W-PROJ	classes	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-improvement ²	1. training courses outside UPW _r – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-

		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-

		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

Item	Education module	Name of course	USOS course code	Form of study	Form of course completion	Number of contact hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-improvement ²	1. training courses outside UPWr – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	SD>SD-SZSPEC	-	credit	-	-	-

		4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

5. Duration of education at the Doctoral School: 4 years.

6. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering, Geodesy and Transport,
 - b) Environmental Engineering, Mining and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Animal Science and Fisheries.
- 4) *Doktor* (PhD) of Veterinary Sciences in the discipline of Veterinary Science.
- 5) *Doktor* (PhD) of Social Sciences in the discipline of Social and Economic Geography and Spatial Management.

7. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

**Doctoral School
of the Wrocław University of Environmental and Life
Sciences**

1. The Doctoral School at the Wrocław University of Environmental and Life Sciences provides education in the following fields and disciplines:

- 1) in Exact and Natural Sciences, in the discipline of Biological Sciences;
- 2) in Engineering and Technical Sciences, in the following disciplines:
 - a) Civil Engineering, Geodesy and Transport,
 - b) Environmental Engineering, Mining and Energy;
- 3) in Agricultural Sciences, in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Animal Science and Fisheries,
- 4) in Veterinary Sciences, in the discipline of Veterinary Science;
- 5) in Social Sciences in the discipline of Social and Economic Geography and Spatial Management.

2. The main educational goals, including competences acquired by the graduate:

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest level. The Doctoral School will enable the graduates to acquire state-of-the-art knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences along with an interdisciplinary understanding of functioning in modern society. The preparation of a doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Identification of education modules, including the intended learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes at the Doctoral School of Wroclaw University of Environmental and Life Sciences		
Code	Competences acquired by a graduate of the Doctoral School of Wroclaw University of Environmental and Life Sciences	reference to the characteristics of the 8th level of the Polish Qualifications Framework
Knowledge – The graduate knows and understands:		
SDUPWr_W01	The graduate understands complex natural, social and economic phenomena and processes as well as multiple factors influencing them	P8S_WG, P8S_WK
SDUPWr_W02	The graduate has in-depth knowledge of the organization of a scientific workshop as well as of the preparation and review of scientific papers	P8S_WG
SDUPWr_W03	The graduate has in-depth knowledge of selected disciplines of exact and natural sciences, agricultural sciences, or engineering and technical sciences, veterinary sciences or social sciences	P8S_WG
SDUPWr_W04	The graduate has in-depth statistical and mathematical knowledge as well as knowledge of selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences enabling the graduate to explain, model and forecast processes connected with a given scientific discipline	P8S_WG
SDUPWr_W05	The graduate has in-depth knowledge of issues that are currently discussed in the academic literature in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_WG
SDUPWr_W06	The graduate has in-depth knowledge covering the principles of planning and conducting research using advanced techniques and research tools in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences . The graduate has extended knowledge of scientific databases, with particular emphasis on natural and social	P8S_WG
SDUPWr_W07	The graduate knows the principles of occupational health and safety, in particular with reference to laboratory and field tests and other tests that pose a health risk	P8S_WK
SDUPWr_W08	The graduate knows the principles of creating and developing forms of individual entrepreneurship and the practical possibilities of using scientific research in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_WK
SDUPWr_W09	The graduate knows the legal determinants in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences as well as general concepts and principles in the field of industrial property protection and copyright	P8S_WK
SDUPWr_W10	The graduate knows and understands the global scientific and creative achievements and their practical implications in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_WG

SDUPWr_W11	The graduate knows and understands the theoretical foundations, general issues and selected specific issues relevant to a given discipline of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences to the extent that enables the graduate to revise the existing paradigms	P8S_WG
Skills - The graduate is able to:		
SDUPWr_U01	The graduate is able to use advanced techniques and research tools, appropriate to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_UW
SDUPWr_U02	The graduate is able to efficiently use and critically analyse scientific literature as well as materials from electronic sources	P8S_UW
SDUPWr_U03	The graduate is able to collect materials and information from various sources (also from their own research), develop the collected material and formulate conclusions	P8S_UW
SDUPWr_U04	The graduate is able to creatively develop the existing models and theoretical concepts and to create their own research concepts	P8S_UW, P8S_UU, P8S_UO
SDUPWr_U05	The graduate possesses methodological skills (theoretical and practical) allowing them to plan and conduct independent scientific research and pass expert opinions	P8S_UW, P8S_UU
SDUPWr_U06	The graduate demonstrates the ability to teach didactic classes and prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences	P8S_UW, P8S_UU
SDUPWr_U07	The graduate demonstrates the ability to write an extensive scientific work (doctoral dissertation) and various shorter scientific studies (articles, polemics, abstracts, reports, reviews), also in English in a form appropriate for a given scientific discipline	P8S_UW
SDUPWr_U08	The graduate is able to independently manage their own professional or scientific career	P8S_UU
SDUPWr_U09	The graduate is able to comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences or social sciences formulate their own opinion about them, construct and verify hypotheses, forecast and model complex social and economic processes using advanced research methods and tools	P8S_UW
SDUPWr_U10	The graduate can use knowledge from various fields to creatively identify, formulate and innovatively solve complex problems or do research tasks, in particular: define the purpose and subject of research, formulate a research hypothesis, develop research methods, techniques and tools, creatively apply them and draw conclusions on the basis of research results	P8S_UW
SDUPWr_U11	The graduate can use the English language at a level that is sufficient to participate in the international scientific and professional environment	P8S_UK
SDUPWr_U12	The graduate can plan and implement individual and team research projects, also in an international environment	P8S_UO

Social skills - The graduate is ready to:		
SDUPWr_K03	The graduate is able to define and select priorities needed to do a task	P8S_KO
SDUPWr_K04	The graduate correctly identifies and resolves dilemmas connected with the graduate's profession. The graduate is ready to fulfil the social obligations of researchers and creators	P8S_KO, P8S_KR
SDUPWr_K05	The graduate understands the need to systematically follow scientific journals in order to raise general and specialist knowledge in their discipline, in which he carries out education and updating of knowledge in order to use it in practice	P8S_KK
SDUPWr_K06	The graduate is aware of the responsibility for assessing the risks arising from the research techniques and tools used in research	P8S_KO
SDUPWr_K10	The graduate is ready to conduct independent research and face challenges in the professional and public sphere, taking into account research ethics, responsibility for the consequences and the need to promote best practices	P8S_KO, P8S_KR
SDUPWr_K11	The graduate takes professional ethical responsibility for interfering with a living body	P8S_KR, P8Z_KO

Characteristics of PQF levels for higher education qualifications

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organization

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

4. Learning modules with expected learning outcomes – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme.

Education modules and the expected learning outcomes					
Education modules		ECTS	Reference to the expected learning outcomes	Expected learning outcomes	Method of verification of acquiring the expected learning outcomes by the doctoral student
Basic	PhD seminar	6	SDUPW _r _W01; SDUPW _r _W03; SDUPW _r _W05; SDUPW _r _U03; SDUPW _r _U06; SDUPW _r _U09; SDUPW _r _U010	The doctoral student understands the need to systematically follow scientific journals in order to improve general and specialist knowledge in the selected discipline and related disciplines. The student is able to present the latest achievements in the selected discipline and the results of his/her research in the context of literature on the subject. The student is able to publically present the scope, hypotheses and goals, methodology and results of his/her research. The doctoral student understands the fundamental dilemmas of modern civilisation. The doctoral student can initiate a scientific debate and participate in scientific discourse. The doctoral student can disseminate research results, also in public.	credit
	English for special purposes	4	SDUPW _r _U07; SDUPW _r _U011; SDUPW _r _U012	The student acquires skills needed to prepare, edit and review scientific papers in English. The student is able to freely use English-language literature and conduct a scientific discussion in English. The student is able to present the results of his/her own research as well as problems and findings of other researchers in the selected discipline in English. The student is sufficiently fluent in English to actively participate in the international academic community.	exam

Development of the discipline and related disciplines	Anticipating technological developments	1	SDUPWr_W01; SDUPWr_W03; SDUPWr_W010; SDUPWr_U01; SDUPWr_U02; SDUPWr_U03; SDUPWr_U04; SDUPWr_K05	He/she has knowledge in the area of anticipating technological developments and strategic analysis in technology transfer. He/she can obtain information from literature, databases and other sources, integrate it, interpret it, draw conclusions and form opinions. He/she can apply the acquired knowledge of technology and knowledge transfer to understand the theoretical principles, forms of organisation and general principles of organisational functioning and solve problems that arise. He/she understands that in knowledge and technology transfer, knowledge and skills quickly become obsolete.	credit
Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W07; SDUPWr_W09; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K04	He/she understands the need to better understand the current development of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences in a given scientific discipline and related disciplines. He/she has the ability to apply advanced research techniques and tools to solve complex scientific and research problems in the given scientific discipline and from an interdisciplinary perspective. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, in particular to define the purpose and object of research, formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Data analysis techniques and design of experiments	4	SDUPWr_W02; SDUPWr_W04; SDUPWr_W06; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09; SDUPWr_U010; SDUPWr_K06	The graduate can use their knowledge from various fields to creatively plan, identify, formulate, and innovatively solve complex problems or perform research tasks. He/she can define the purpose and subject of research, correctly formulate a research hypothesis, develop research methods and techniques, and apply them creatively. He/she can correctly draw conclusions based on research results. He/she can transfer research results to the economic and social spheres. He/she can properly plan research experiments, identify key research hypotheses in their discipline, determine methods for their verification, and correctly formulate the research and interpretation process. He/she know and can apply in practice the basic and fundamental concepts of mathematical statistics or qualitative data interpretation. He/she know the basics of statistical hypothesis testing theory, which is a scientific apparatus for verifying research hypotheses. They are familiar with key tools useful for data analysis. They are ready to use basic and advanced features of statistical software that allows for a wide range of statistical analyses, or qualitative research tools and techniques. Knowledge of current global and domestic research programs. Knowledge of occupational health and safety regulations, especially in relation to fieldwork and other research that poses a health risk (laboratories).	exam

Workshops				Ability to apply advanced research techniques and tools appropriate for solving complex scientific problems within the scope of their research.	
	Statistical data analysis	2	SDUPWr_W01; SDUPWr_W04; SDUPWr_W06; SDUPWr_W08; SDUPWr_U01; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U09;	He/she has knowledge of statistical methods and tools, including statistical software. He/she is able to apply appropriate statistical methods to analyse and validate a selected research problem. He/she can design statistical research, verify research hypotheses on the basis of a statistical sample and critically evaluate the research results. He/she can select a statistical method for a specific research problem and solve it.	exam
	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K06; SDUPWr_K01 0	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to expand existing scientific and creative achievements, to take on professional and publication challenges, taking into account their ethical dimensions, taking responsibility for their consequences, and shaping models of appropriate conduct in such situations. He/she is ready to shape the discipline's principles for maintaining the quality of scientific activity and a culture of cooperation and competition. He/she is able to shape a culture of quality-oriented research in a given scientific discipline and related disciplines.	exam
	Intellectual property protection workshop	1	SDUPWr_W02; SDUPWr_W08; SDUPWr_W09; SDUPWr_W10; SDUPWr_U02; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_K04	He/she is able to correctly identify key research hypotheses in their discipline, determine methods for their verification, and correctly formulate the research and interpretation process. Demonstrates the ability to gather materials and information from various sources (including their own research), analyze the collected material, and formulate conclusions. He/she knows and understands the social and legal issues connected with conducting and commercializing research in the R&D area. He/she has knowledge of issues related to the protection of intellectual property. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she is	credit

				able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	
	Workshop on writing R&D projects	1			
	Practical and legal considerations of scientific research commercialisation	2			
	Project and resource management	2	SDUPW _r _W01; SDUPW _r _W06; SDUPW _r _U09; SDUPW _r _U010; SDUPW _r _K03	He/she knows the interrelationship between team management and the objectives of a social project, and can put this into practice in planning specific activities and selecting appropriate leadership styles He/she can critically evaluate the management of specific projects and teams and identify potential alternative actions He/she is aware of the differences in the project team structure in different entities and institutions implementing social projects and is able to select appropriate management methods.	
Scientific self-development	1. training courses outside UPW _r – must be accepted by the supervisor and the Doctoral School Board (1 ECTS point for 1 course) – max. 2 courses	-	SDUPW _r _K03; SDUPW _r _K04; SDUPW _r _W010; SDUPW _r _W011; SDUPW _r _K010	The student is ready to maintain and develop the ethos of the research and creative communities. The student understands the need for scientific self-improvement in order to improve general and specialist knowledge in a given discipline.	

	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding UPWr scientific societies (1 ECTS point for 1 scientific meeting) – max. 4 scientific meetings	-		The student understands the need for lifelong self-improvement. The student is ready to acquire the skills needed to better understand and independently plan the determinants of a scientific career.	credit
	3. several-day-long specialist training ending with a certificate of completion; purpose – learning new research techniques, calculation methods (1 ECTS point for one training) – max. 2 specialist training courses	-			
	4. active participation in foreign international conferences (oral presentation; 2 ECTS points for one conference) – max. 2 conferences	-			
Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	6	SDUPWr_W04 SDUPWr_W08	The student knows the methodology and techniques of teaching classes. The student is prepared to teach classes in accordance with teaching methodology.	credit

5. Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme.

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	5	-	1
		English for special purposes	SD>P-ANG(2)	classes	credit	-	30	2
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTER RP(1)	seminar	credit	20	-	3
			SD>KI-INTER RP(2)	seminar	credit	-	20	3
		Data analysis techniques	SD>MPBN-TADiPB(1)	classes	exam	15	-	2
			SD>MPBN-TADiPB(2)	classes	exam	-	15	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Intellectual property protection	SD>W-WI	classes	credit	10	-	1
		Workshop on writing R&D projects	SD>W-PBR	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board - the representative of the discipline	SD>SD-SZSPE C	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKON F	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	-	5	1
		English for special purposes	SD>P-ANG(3)	classes	credit/exam ³	30	-	2
2.	Development of the discipline and related disciplines	Anticipating technological developments	SD>DW-RT	lecture	credit	10		1
3.	Scientific research methodology	Statistical data analysis	SD>DW-S(3)	classes	exam	10		1
			SD>DW-S(4)	classes	exam		10	1
4.	Workshops	Project and resource management	SD>DW-ZP	classes	credit	10	-	2
		Practical and legal considerations of scientific research commercialisation	SD>DW-PPK		credit	-	10	2
5.	Scientific self-development²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – admitting one student to internship for a number of hours in the specific field of study	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

³ An exam is administered in the last semester of the subject entitled “English for Special Purposes.”

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student’s work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences, scientific meetings.

4. Duration of education at the Doctoral School: 4 years.

5. Academic degree obtained by the graduate:

- 1) *Doktor* (PhD) of Exact and Natural Sciences in the discipline of Biological Sciences,
- 2) *Doktor* (PhD) of Engineering and Technical Sciences in the following disciplines:
 - a) Civil Engineering, Geodesy and Transport,
 - b) Environmental Engineering, Mining and Energy.
- 3) *Doktor* (PhD) of Agricultural Sciences in the following disciplines:
 - a) Agriculture and Horticulture,
 - b) Nutrition and Food Technology,
 - c) Animal Science and Fisheries.
- 4) *Doktor* (PhD) of Veterinary Sciences in the discipline of Veterinary Science.
- 5) *Doktor* (PhD) of Social Sciences in the discipline of Social and Economic Geography and Spatial Management.

6. Education at the Doctoral School ends after:

- 1) Completion of the Doctoral School curriculum,
- 2) Completion of the individual research plan,
- 3) Publication of a JCR-indexed paper,
- 4) Submission of the doctoral dissertation.

Doctoral School at Wrocław University of Environmental and Life Sciences

- 1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in scientific fields and disciplines in which the University is allowed to grant the doctoral degree.**
- 2. The main educational goals, including competences acquired by the graduate:**

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest global level. The Doctoral School will enable the graduate to acquire state-of-the-art specialist knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of the doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Definition of learning modules, including the expected learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes for the Doctoral School at Wrocław University of Environmental and Life Sciences		
No.	Competences of a graduate of the Doctoral School at Wrocław University of Environmental and Life Sciences	Reference to characteristics of level 8 of the Polish Qualifications Framework
Knowledge – the graduate knows and understands:		
SDUPWr_W01	current problems discussed in the scientific literature and worldwide scientific and creative output in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W02	theoretical foundations, general issues and selected specific issues in selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences to the extent that the existing state of knowledge can be verified	P8S_WG
SDUPWr_W03	complex aspects of selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and mathematical, statistical or qualitative tools for explaining, modelling and predicting processes concerning the selected scientific discipline	P8S_WG
SDUPWr_W04	principles of selecting scientific tools and methods, planning and conducting research using advanced techniques and research tools in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W05	in an in-depth manner, scientific databases and their resources, with particular emphasis on life and social science databases	P8S_WG
SDUPWr_W06	principles of writing and reviewing scientific papers based on own research and literature data	P8S_WG
SDUPWr_W07	occupational health and safety rules, particularly with regard to laboratory and field tests and other tests posing health hazards	P8S_WK
SDUPWr_W08	Of establishing and developing forms of individual entrepreneurship in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WK
SDUPWr_W09	legal determinants in selected disciplines in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, as well as the general concepts and principles within the scope of industrial property and copyright protection	P8S_WK
Skills – the graduate is able to:		
SDUPWr_U01	proficiently use and critically analyse scientific literature and materials from a variety of sources	P8S_UW
SDUPWr_U02	creatively develop existing theoretical models and concepts, and create their own research concepts	P8S_UW
SDUPWr_U03	use knowledge from a variety of fields to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, and in particular: define the purpose and object of research, formulate a research hypothesis, develop research methods, techniques and tools, and apply them creatively and draw conclusions from research findings	P8S_UW

SDUPW _r _U04	use advanced research techniques and tools to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UW
SDUPW _r _U05	use methodological skills (theoretical and practical) to plan and conduct independent scientific research and prepare expert opinions	P8S_UW
SDUPW _r _U06	comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and to forecast and model complex social and economic and related processes, using advanced research methods and tools	P8S_UW
SDUPW _r _U07	obtain the relevant materials and information from various sources, including from own research, process the collected material and formulate conclusions	P8S_UW
SDUPW _r _U08	write an extended scientific thesis (dissertation) and various smaller scientific papers (articles, polemics, abstracts, reports, reviews), including in English, in a form appropriate to the scientific discipline	P8S_UW
SDUPW _r _U09	teach classes, prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UK
SDUPW _r _U010	express their own opinions about them, formulate hypotheses and verify them, including in a foreign language, in an international scientific and professional environment	P8S_UK
SDUPW _r _U011	plan and carry out an individual and team research or creative project, also in an international environment	P8S_UO
SDUPW _r _U012	manage their own professional or scientific career	P8S_UU
Social competences – the graduate is prepared to:		
SDUPW _r _K01	critically evaluate the scientific output in the discipline in which he/she is pursuing his/her education, as well as recognise its usefulness in the solution of professional problems	P8S_KK
SDUPW _r _K02	identify and resolve professional dilemmas and fulfil the social obligations of researchers and creators	P8S_KO
SDUPW _r _K03	demonstrate responsibility for assessing the risks arising from the research techniques and tools; bear professional ethical responsibility for interference with the living organism	P8S_KO
SDUPW _r _K04	conduct independent research and take up challenges in the professional and public sphere, taking into account: their ethical dimension, responsibility for their consequences and the formulation of good practices in such situations	P8S_KO
SDUPW _r _K05	conduct research with due diligence, respecting the public ownership of research results, taking into account the principles of intellectual property protection	P8S_KR

Characteristics of PQF levels typical of qualifications obtained in the framework of higher education

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

Learning modules with the expected learning outcomes					
Learning modules		ECTS	Reference to expected learning outcomes	Expected learning outcomes	Means of verifying the expected learning outcomes achieved by the doctoral student
Basic	PhD seminar	8	SDUPW _r _W01; SDUPW _r _W02 SDUPW _r _W04 SDUPW _r _U01; SDUPW _r _U02; SDUPW _r _U03; SDUPW _r _U07; SDUPW _r _U09; SDUPW _r _U010;	The graduate is familiar with current problems discussed in the literature, understands the need for systematic reading of scientific journals to improve general and specialist knowledge in the scientific discipline and in related disciplines. The graduate is able to publicly present the latest developments in the relevant scientific discipline and the obtained results of own research in relation to the literature data, as well as the thematic scope, hypotheses and objectives, methodology and results of own research. The graduate can initiate scientific debate and participate in scientific discourse, disseminate research results, including in popular forums.	credit
	English for special purposes	6	SDUPW _r _W01; SDUPW _r _U01; SDUPW _r _U08;	He/she knows and understands current problems discussed in the scientific literature as well as international scientific and creative achievement in the discipline in which he/she pursues his/her education. He/she is able to expertly use scientific literature in English, to analyse it critically, and to write extended scientific papers and various smaller scientific texts in English, in a form appropriate to the scientific field. He/she is able to lead a scientific discussion in English.	exam
	Teaching methodology	1	SDUPW _r _U09; SDUPW _r _U12;	He/she knows and understands the methodology of teaching. He/she is able to conduct classes using methods of self-presentation and voice emission, as well as prepare various forms of presentations and speeches in English. He/she is also able to manage their own professional or academic career.	credit
	Psychology	1			
	Self-presentation	2			
	Voice emission	1			
Development of the discipline and related disciplines	New trends in the discipline and related disciplines	3	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _W03; SDUPW _r _W04;, SDUPW _r _U02; SDUPW _r _U03;	He/she knows and understands current research problems, major development trends and the latest developments relevant to the scientific discipline in the exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she is familiar with current trends and innovations in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she demonstrates the need for and systematically updates knowledge of natural or social sciences for practical use. He/she is able to update knowledge of natural sciences and use it to identify research problems and disseminate results, fulfilling social obligations in maintaining relationships in an international professional environment. He/she is able to solve the most complex problems, create innovative solutions based on research work results. He/she knows and understands new trends and analytical techniques and is able to use them in his/her own research.	credit

Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _U03; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _K04;	He/she knows and understands current issues in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences within a given scientific discipline and related disciplines. He/she is able to apply appropriate advanced research techniques and tools to solve complex scientific problems in the context of solving research problems within a given scientific discipline and from an interdisciplinary perspective. He/she is able to identify directions and opportunities for solving research problems, both within and outside his/her field of specialisation. He/she can relate and embed their research problems and research in the context of conducting interdisciplinary research. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out tasks of a research nature, in particular define the purpose and object of research and formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Design of research	1	SDUPW _r _W04; SDUPW _r _W05; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _U011;	He/she is familiar with current research programmes of national and international scope. He/she is familiar with the principles of health and safety at work especially in relation to field research and experiments posing a risk to health (laboratories). He/she has the ability to apply advanced research techniques and tools to solve complex scientific problems in his/her field of research. He/she is able to define the purpose and object of research, correctly formulate the research hypothesis, develop research methods and techniques, and apply them creatively. He/she can make correct inferences on the basis of research results. He/she can transfer research results to the economic and social sphere.	exam

	Data analysis techniques	4	SDUPWr_W04; SDUPWr_W05; SDUPWr_U04; SDUPWr_U05; SDUPWr_U07; SDUPWr_K04	He/she knows the basics of the theory of statistical hypothesis testing or interpretation of qualitative data for the verification of research hypotheses. He/she knows the main tools used in data analysis. He/she is able to plan research experiments correctly, identify key research hypotheses in a scientific discipline, determine methods for their verification and correctly formulate the research and interpretation process. He/she knows and can apply in practice the basic and fundamental concepts of mathematical statistics or qualitative analysis. He/she is able to use the basic and advanced functions of statistical software to conduct a wide range of statistical analyses or qualitative analysis tools and techniques.	exam

	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K02; SDUPWr_K03; SDUPWr_K05	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to increase existing scientific and creative output, to address professional and publishing challenges taking into account their ethical dimension and responsibility for their consequences, and to develop good practices in such situations. He/she is ready to co-create the rules in their discipline concerning the quality of the conducted scientific activity, the culture of cooperation and fair competition. He/she is able to co-create a culture of quality research in the given scientific discipline and related disciplines.	exam
Workshops	Academic writing	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W08; SDUPWr_W09; SDUPWr_U04; SDUPWr_U06; SDUPWr_U07; SDUPWr_U08; SDUPWr_U010; SDUPWr_K01	He/she is familiar with the tools of scientific writing, in particular with techniques for writing and presenting the results of scientific papers. He/she knows and understands the social and legal issues connected with conducting and commercialising research. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she can efficiently use scientific literature, critically analyse the literature and materials from electronic sources. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit
	Writing research proposals	3			
	Practical and legal considerations of scientific research commercialisation	1			

Scientific self-development	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	-	SDUPWr_W02; SDUPWr_U12; SDUPWr_K01;	He/she understands the need for lifelong self-improvement. He/she is willing to uphold and develop the ethos of the research and creative communities. He/she understands the need for scientific self-improvement in order to expand general and specialist knowledge in their scientific discipline. He-she is ready to acquire the ability to better understand the determinants of a research career and its independent planning.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings				
Teaching practice	3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	-	SDUPWr_W03 SDUPWr_U09	He/she knows and understands teaching methodology and techniques. He/she is able to conduct teaching activities in a methodologically correct manner.	credit
	4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	-			
	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	12			

4. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of research	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-development²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

³ Teaching practice - subject taught throughout the academic year. Credit obtained in the summer semester.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECT S ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG(3)	exercises	credit/ exam ³	30		2
		English for special purposes	SD>P-ANG(4)	exercises	credit/ exam ³		30	2
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(3)	lecture	credit	5		1.5
		New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(4)	lecture	credit		5	1.5
3.	Scientific research methodology	Data analysis techniques	SD>MPBN- TAD	exercises	exam	-	20	2
4.	Workshops	Academic writing	SD>W-ARTN(3)	exercises	credit	15		1
		Academic writing	SD>W-ARTN(4)	exercises	credit		5	1
		Writing research proposals	SD>W-PROJ	exercises	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD- SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD- MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ	-	credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

³ An exam is administered in the last semester of the subject entitled "Specialist English."

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

5. Duration of education at the Doctoral School: 4 years.

6. Academic degree obtained by the graduate:

doctor in scientific fields and disciplines in which the University is allowed to grant the doctoral degree

7. Education at the Doctoral School ends after:

- 1) completion of the doctoral school curriculum,
- 2) completion of the individual research plan,
- 3) publication of JCR-indexed papers,
- 4) submission of the doctoral dissertation.

**Doctoral School
at Wrocław University of Environmental and Life Sciences**

- 1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in scientific fields and disciplines in which the University is allowed to grant the doctoral degree.**
- 2. The main educational goals, including competences acquired by the graduate:**

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest global level. The Doctoral School will enable the graduate to acquire state-of-the-art specialist knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of the doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Definition of learning modules, including the expected learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes for the Doctoral School at Wrocław University of Environmental and Life Sciences		
No.	Competences of a graduate of the Doctoral School at Wrocław University of Environmental and Life Sciences	Reference to characteristics of level 8 of the Polish Qualifications Framework
Knowledge – the graduate knows and understands:		
SDUPWr_W01	current problems discussed in the scientific literature and worldwide scientific and creative output in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W02	theoretical foundations, general issues and selected specific issues in selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences to the extent that the existing state of knowledge can be verified	P8S_WG
SDUPWr_W03	complex aspects of selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and mathematical, statistical or qualitative tools for explaining, modelling and predicting processes concerning the selected scientific discipline	P8S_WG
SDUPWr_W04	principles of selecting scientific tools and methods, planning and conducting research using advanced techniques and research tools in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W05	in an in-depth manner, scientific databases and their resources, with particular emphasis on life and social science databases	P8S_WG
SDUPWr_W06	principles of writing and reviewing scientific papers based on own research and literature data	P8S_WG
SDUPWr_W07	occupational health and safety rules, particularly with regard to laboratory and field tests and other tests posing health hazards	P8S_WK
SDUPWr_W08	principles of establishing and developing forms of individual entrepreneurship in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WK
SDUPWr_W09	legal determinants in selected disciplines in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, as well as the general concepts and principles within the scope of industrial property and copyright protection	P8S_WK
Skills – the graduate is able to:		
SDUPWr_U01	proficiently use and critically analyse scientific literature and materials from a variety of sources	P8S_UW
SDUPWr_U02	creatively develop existing theoretical models and concepts, and create their own research concepts	P8S_UW

SDUPW _r _U03	use knowledge from a variety of fields to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, and in particular: define the purpose and object of research, formulate a research hypothesis, develop research methods, techniques and tools, and apply them creatively and draw conclusions from research findings	P8S_UW
SDUPW _r _U04	use advanced research techniques and tools to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UW
SDUPW _r _U05	use methodological skills (theoretical and practical) to plan and conduct independent scientific research and prepare expert opinions	P8S_UW
SDUPW _r _U06	comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and to forecast and model complex social and economic and related processes, using advanced research methods and tools	P8S_UW
SDUPW _r _U07	obtain the relevant materials and information from various sources, including from own research, process the collected material and formulate conclusions	P8S_UW
SDUPW _r _U08	write an extended scientific thesis (dissertation) and various smaller scientific papers (articles, polemics, abstracts, reports, reviews), including in English, in a form appropriate to the scientific discipline	P8S_UW
SDUPW _r _U09	teach classes, prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UK
SDUPW _r _U010	express their own opinions about them, formulate hypotheses and verify them, including in a foreign language, in an international scientific and professional environment	P8S_UK
SDUPW _r _U011	plan and carry out an individual and team research or creative project, also in an international environment	P8S_UO
SDUPW _r _U012	manage their own professional or scientific career	P8S_UU
Social competences – the graduate is prepared to:		
SDUPW _r _K01	critically evaluate the scientific output in the discipline in which he/she is pursuing his/her education, as well as recognise its usefulness in the solution of professional problems	P8S_KK
SDUPW _r _K02	identify and resolve professional dilemmas and fulfil the social obligations of researchers and creators	P8S_KO
SDUPW _r _K03	demonstrate responsibility for assessing the risks arising from the research techniques and tools; bear professional ethical responsibility for interference with the living organism	P8S_KO
SDUPW _r _K04	conduct independent research and take up challenges in the professional and public sphere, taking into account: their ethical dimension, responsibility for their consequences and the formulation of good practices in such situations	P8S_KO
SDUPW _r _K05	conduct research with due diligence, respecting the public ownership of research results, taking into account the principles of intellectual property protection	P8S_KR

Characteristics of PQF levels typical of qualifications obtained in the framework of higher education

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

4. Learning modules with expected learning outcomes – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme

Learning modules with the expected learning outcomes					
Learning modules		ECTS	Reference to expected learning outcomes	Expected learning outcomes	Means of verifying the expected learning outcomes achieved by the doctoral student
Basic	PhD seminar	6	SDUPWr_W01; SDUPWr_W02; SDUPWr_W03; SDUPWr_W05; SDUPWr_U01 SDUPWr_U05; SDUPWr_U07; SDUPWr_U09;	The graduate understands the need for systematic reading of scientific journals in order to broaden general and specialist knowledge in the scientific discipline and in related disciplines. He/she is able to present the latest developments in the relevant scientific discipline and the results obtained in his/her own research in the context of the literature data. He/she can publicly present the thematic scope, hypotheses and objectives, methodology and results of his/her own research. He/she understands the fundamental dilemmas of modern civilisation. He/she can initiate scientific debate and participate in scientific discourse. He/she can disseminate research results, including in public.	credit
	English for special purposes	4	SDUPWr_W02; SDUPWr_U01; SDUPWr_U07; SDUPWr_U10	He/she acquires skills connected with the preparation, editing and reviewing of scientific papers in English. He/she can freely use English-language literature and is able to engage in scholarly discussion in English. He/she is able to present the results of his/her research and related research issues in the relevant scientific discipline in English. He/she is able to use English to a degree that enables active participation in the international scientific community	exam
Development of the discipline and related disciplines	Anticipating technological developments	1	SDUPWr_W02; SDUPWr_W02; SDUPWr_U02; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02	He/she has knowledge in the area of anticipating technological developments and strategic analysis in technology transfer. He/she can obtain information from literature, databases and other sources, integrate it, interpret it, draw conclusions and form opinions. He/she can apply the acquired knowledge of technology and knowledge transfer to understand the theoretical principles, forms of organisation and general principles of organisational functioning and solve problems that arise. He/she understands that in knowledge and technology transfer, knowledge and skills quickly become obsolete.	credit

Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W02; SDUPWr_W03; SDUPWr_W04; SDUPWr_W07; SDUPWr_U02; SDUPWr_U04; SDUPWr_U09; SDUPWr_U11; SDUPWr_K04	He/she understands the need to better understand the current development of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences in a given scientific discipline and related disciplines. He/she has the ability to apply advanced research techniques and tools to solve complex scientific and research problems in the given scientific discipline and from an interdisciplinary perspective. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, in particular to define the purpose and object of research, formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Data analysis techniques and design of experiments	4	SDUPWr_W03; SDUPWr_W04; SDUPWr_W06; SDUPWr_U02; SDUPWr_U04; SDUPWr_U08; SDUPWr_U09; SDUPWr_K03; SDUPWr_K04;	He/she knows and can practically apply the basic and fundamental concepts of mathematical statistics or qualitative data interpretation. He/she knows the basics of statistical hypothesis testing theory, which is a scientific tool for verifying research hypotheses. He/she knows the key tools used in data analysis. He/she is familiar with current research programmes carried out in home country and abroad. He/she knows the principles of health and safety at work, especially in the context of field studies and experiments that pose health risks (laboratories). He/she is to use his/her knowledge from different disciplines to creatively plan, identify, formulate and innovatively solve complex problems or perform tasks of a research nature. He/she knows how to define the purpose and object of research, correctly formulate a research hypothesis, develop research methods and techniques, and apply them creatively. He/she can draw correct conclusions on the basis of research results. He/she is able to transfer research results to the economic and social sphere. He/she is able to plan research experiments correctly, identify key research hypotheses in his/her discipline, determine methods for their verification and formulate the research and interpretation process correctly. He/she is ready to use the basic and advanced functions of statistical software to conduct a wide range of statistical analyses or qualitative research tools and techniques. He/she has the ability to apply advanced research techniques and tools to solve complex scientific problems in his/her field of research.	exam

	Statistical data analysis	2	SDUPWr_W03; SDUPWr_W04; SDUPWr_U04; SDUPWr_U06; SDUPWr_U09; SDUPWr_K04;	He/she has knowledge of statistical methods and tools, including statistical software. He/she is able to apply appropriate statistical methods to analyse and validate a selected research problem. He/she can design statistical research, verify research hypotheses on the basis of a statistical sample and critically evaluate the research results. He/she can select a statistical method for a specific research problem and solve it.	exam
	Ethics and law in scientific research	1	SDUPWr_W08; SDUPWr_K03; SDUPWr_K04	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is able to co-create a culture of quality research in the given scientific discipline and related disciplines. He/she is ready to conduct research to increase existing scientific and creative output, to address professional and publishing challenges taking into account their ethical dimension and responsibility for their consequences, and to develop good practices in such situations. He/she is ready to co-create the rules in their discipline concerning the quality of the conducted scientific activity, the culture of cooperation and fair competition.	exam
Workshops	Intellectual property protection workshop	1	SDUPWr_W02; SDUPWr_W03; SDUPWr_W08;SDUPWr_U05; SDUPWr_U07; SDUPWr_U11; SDUPWr_K01;SDUPWr_K04	He/she knows and understands the social and legal issues connected with conducting and commercializing research in the R&D area. He/she has knowledge of issues related to the protection of intellectual property. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit
	Workshop on writing R&D projects	1			
	Practical and legal considerations of scientific research commercialisation	2			
	Project and resource management	2	SDUPWr_W0; SDUPWr_W10; SDUPWr_U07; SDUPWr_U09;	He/she knows the interrelationship between team management and the objectives of a social project, and can put this into practice in planning specific activities and selecting appropriate leadership styles He/she can critically evaluate the management of specific projects and teams and identify potential alternative actions He/she is aware of the differences in the project team structure in different entities and institutions implementing social projects and is able to select appropriate management methods.	

			SDUPWr_U10; SDUPWr_K04	He/she is aware of group processes within the project team and is able to recognise their stages and elements.		
Scientific self-development	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	-	SDUPWr_U12; SDUPWr_K03; SDUPWr_K04; SDUPWr_K010;	He/she understands the need for scientific self-improvement in order to expand general and specialist knowledge in their scientific discipline. He/she is willing to uphold and develop the ethos of the research and creative communities. He-she is ready to acquire the ability to better understand the determinants of a research career and its independent planning.	credit	
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings					
	3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	-				
	4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	-				
Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	6	SDUPWr_W02; SDUPWr_U05	He/she has knowledge of teaching methodology and techniques. He/she is well-prepared to conduct teaching activities in a methodologically correct manner.	credit	

5. Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	5	-	1
		English for special purposes	SD>P-ANG(2)	classes	credit	-	30	2
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTER RP(1)	seminar	credit	20	-	3
			SD>KI-INTER RP(2)	seminar	credit	-	20	3
		Data analysis techniques	SD>MPBN-TADiPB(1)	classes	exam	15	-	2
			SD>MPBN-TADiPB(2)	classes	exam	-	15	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Intellectual property protection	SD>W-WI	classes	credit	10	-	1
		Workshop on writing R&D projects	SD>W-PBR	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board - the representative of the discipline	SD>SD-SZSPE C	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKON F	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	-	5	1
		English for special purposes	SD>P-ANG(3)	classes	credit/exam ³	30	-	2
2.	Development of the discipline and related disciplines	Anticipating technological developments	SD>DW-RT	lecture	credit	10		1
3.	Scientific research methodology	Statistical data analysis	SD>DW-S(3)	classes	exam	10		1
			SD>DW-S(4)	classes	exam		10	1
4.	Workshops	Project and resource management	SD>DW-ZP	exercises	credit	10	-	2
		Practical and legal considerations of scientific research commercialisation	SD>DW-PPK	exercises	credit	-	10	2
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – admitting one student to internship for a number of hours in the specific field of study	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

³ At the end of the training cycle in the subject entitled "Specialist English" there is an exam in the last semester.

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		2

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

4. Duration of education at the Doctoral School: 4 years.

5. Academic degree obtained by the graduate:

doctor in scientific fields and disciplines in which the University is allowed to grant the doctoral degree

6. Education at the Doctoral School ends after:

- 1) completion of the doctoral school curriculum,
- 2) completion of the individual research plan,
- 3) publication of JCR-indexed papers,
- 4) submission of the doctoral dissertation.

Doctoral School at Wrocław University of Environmental and Life Sciences

- 1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in scientific fields and disciplines in which the University is allowed to grant the doctoral degree.**
- 2. The main educational goals, including competences acquired by the graduate:**

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest global level. The Doctoral School will enable the graduate to acquire state-of-the-art specialist knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of the doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

1. Definition of learning modules, including the expected learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes for the Doctoral School at Wrocław University of Environmental and Life Sciences		
No.	Competences of a graduate of the Doctoral School at Wrocław University of Environmental and Life Sciences	Reference to characteristics of level 8 of the Polish Qualifications Framework
Knowledge – the graduate knows and understands:		
SDUPWr_W01	current problems discussed in the scientific literature and worldwide scientific and creative output in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W02	theoretical foundations, general issues and selected specific issues in selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences to the extent that the existing state of knowledge can be verified	P8S_WG
SDUPWr_W03	complex aspects of selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and mathematical, statistical or qualitative tools for explaining, modelling and predicting processes concerning the selected scientific discipline	P8S_WG
SDUPWr_W04	principles of selecting scientific tools and methods, planning and conducting research using advanced techniques and research tools in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W05	in an in-depth manner, scientific databases and their resources, with particular emphasis on life and social science databases	P8S_WG
SDUPWr_W06	principles of writing and reviewing scientific papers based on own research and literature data	P8S_WG
SDUPWr_W07	occupational health and safety rules, particularly with regard to laboratory and field tests and other tests posing health hazards	P8S_WK
SDUPWr_W08	Of establishing and developing forms of individual entrepreneurship in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WK
SDUPWr_W09	legal determinants in selected disciplines in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, as well as the general concepts and principles within the scope of industrial property and copyright protection	P8S_WK
Skills – the graduate is able to:		
SDUPWr_U01	proficiently use and critically analyse scientific literature and materials from a variety of sources	P8S_UW
SDUPWr_U02	creatively develop existing theoretical models and concepts, and create their own research concepts	P8S_UW
SDUPWr_U03	use knowledge from a variety of fields to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, and in particular: define the purpose and object of research, formulate a research hypothesis, develop research methods, techniques and tools, and apply them creatively and draw conclusions from research findings	P8S_UW

SDUPW _r _U04	use advanced research techniques and tools to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UW
SDUPW _r _U05	use methodological skills (theoretical and practical) to plan and conduct independent scientific research and prepare expert opinions	P8S_UW
SDUPW _r _U06	comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and to forecast and model complex social and economic and related processes, using advanced research methods and tools	P8S_UW
SDUPW _r _U07	obtain the relevant materials and information from various sources, including from own research, process the collected material and formulate conclusions	P8S_UW
SDUPW _r _U08	write an extended scientific thesis (dissertation) and various smaller scientific papers (articles, polemics, abstracts, reports, reviews), including in English, in a form appropriate to the scientific discipline	P8S_UW
SDUPW _r _U09	teach classes, prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UK
SDUPW _r _U010	express their own opinions about them, formulate hypotheses and verify them, including in a foreign language, in an international scientific and professional environment	P8S_UK
SDUPW _r _U011	plan and carry out an individual and team research or creative project, also in an international environment	P8S_UO
SDUPW _r _U012	manage their own professional or scientific career	P8S_UU
Social competences – the graduate is prepared to:		
SDUPW _r _K01	critically evaluate the scientific output in the discipline in which he/she is pursuing his/her education, as well as recognise its usefulness in the solution of professional problems	P8S_KK
SDUPW _r _K02	identify and resolve professional dilemmas and fulfil the social obligations of researchers and creators	P8S_KO
SDUPW _r _K03	demonstrate responsibility for assessing the risks arising from the research techniques and tools; bear professional ethical responsibility for interference with the living organism	P8S_KO
SDUPW _r _K04	conduct independent research and take up challenges in the professional and public sphere, taking into account: their ethical dimension, responsibility for their consequences and the formulation of good practices in such situations	P8S_KO
SDUPW _r _K05	conduct research with due diligence, respecting the public ownership of research results, taking into account the principles of intellectual property protection	P8S_KR

Characteristics of PQF levels typical of qualifications obtained in the framework of higher education

P = PQF level (8)

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O = responsibility

R = professional role

Learning modules and the expected learning outcomes					
Learning modules		ECTS	Reference to expected learning outcomes	Expected learning outcomes	Means of verifying the expected learning outcomes achieved by the doctoral student
Basic	PhD seminar	6	SDUPW _r _W01; SDUPW _r _W02 SDUPW _r _W04 SDUPW _r _U01; SDUPW _r _U02; SDUPW _r _U03; SDUPW _r _U07; SDUPW _r _U09; SDUPW _r _U010;	The graduate is familiar with current problems discussed in the literature, understands the need for systematic reading of scientific journals to improve general and specialist knowledge in the scientific discipline and in related disciplines. The graduate is able to publicly present the latest developments in the relevant scientific discipline and the obtained results of own research in relation to the literature data, as well as the thematic scope, hypotheses and objectives, methodology and results of own research. The graduate can initiate scientific debate and participate in scientific discourse, disseminate research results, including in popular forums.	credit
	English for special purposes	6	SDUPW _r _W01; SDUPW _r _U01; SDUPW _r _U08;	He/she knows and understands current problems discussed in the scientific literature as well as international scientific and creative achievement in the discipline in which he/she pursues his/her education. He/she is able to expertly use scientific literature in English, to analyse it critically, and to write extended scientific papers and various smaller scientific texts in English, in a form appropriate to the scientific field. He/she is able to lead a scientific discussion in English.	exam
	Teaching methodology	1	SDUPW _r _U09; SDUPW _r _U12;	He/she knows and understands the methodology of teaching. He/she is able to conduct classes using methods of self-presentation and voice emission, as well as prepare various forms of presentations and speeches in English. He/she is also able to manage their own professional or academic career.	credit
	Psychology	1			
	Self-presentation	2			
	Voice emission	1			
Development of the discipline and related disciplines	New trends in the discipline and related disciplines	3	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _W03; SDUPW _r _W04;, SDUPW _r _U02; SDUPW _r _U03;	He/she knows and understands current research problems, major development trends and the latest developments relevant to the scientific discipline in the exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she is familiar with current trends and innovations in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she demonstrates the need for and systematically updates knowledge of natural or social sciences for practical use. He/she is able to update knowledge of natural sciences and use it to identify research problems and disseminate results, fulfilling social obligations in maintaining relationships in an international professional environment. He/she is able to solve the most complex problems, create innovative solutions based on research work results. He/she knows and understands new trends and analytical techniques and is able to use them in his/her own research.	credit

Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _U03; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _K04;	He/she knows and understands current issues in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences within a given scientific discipline and related disciplines. He/she is able to apply appropriate advanced research techniques and tools to solve complex scientific problems in the context of solving research problems within a given scientific discipline and from an interdisciplinary perspective. He/she is able to identify directions and opportunities for solving research problems, both within and outside his/her field of specialisation. He/she can relate and embed their research problems and research in the context of conducting interdisciplinary research. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out tasks of a research nature, in particular define the purpose and object of research and formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Design of research	1	SDUPW _r _W04; SDUPW _r _W05; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _U011;	He/she is familiar with current research programmes of national and international scope. He/she is familiar with the principles of health and safety at work especially in relation to field research and experiments posing a risk to health (laboratories). He/she has the ability to apply advanced research techniques and tools to solve complex scientific problems in his/her field of research. He/she is able to define the purpose and object of research, correctly formulate the research hypothesis, develop research methods and techniques, and apply them creatively. He/she can make correct inferences on the basis of research results. He/she can transfer research results to the economic and social sphere.	exam

	Data analysis techniques	4	SDUPW _r _W04; SDUPW _r _W05; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _K04	He/she knows the basics of the theory of statistical hypothesis testing or interpretation of qualitative data for the verification of research hypotheses. He/she knows the main tools used in data analysis. He/she is able to plan research experiments correctly, identify key research hypotheses in a scientific discipline, determine methods for their verification and correctly formulate the research and interpretation process. He/she knows and can apply in practice the basic and fundamental concepts of mathematical statistics or qualitative analysis. He/she is able to use the basic and advanced functions of statistical software to conduct a wide range of statistical analyses or qualitative analysis tools and techniques.	exam

	Ethics and law in scientific research	1	SDUPW _r _W09; SDUPW _r _K02; SDUPW _r _K03; SDUPW _r _K05	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to increase existing scientific and creative output, to address professional and publishing challenges taking into account their ethical dimension and responsibility for their consequences, and to develop good practices in such situations. He/she is ready to co-create the rules in their discipline concerning the quality of the conducted scientific activity, the culture of cooperation and fair competition. He/she is able to co-create a culture of quality research in the given scientific discipline and related disciplines.	exam
Workshops	Academic writing	3	SDUPW _r _W03; SDUPW _r _W04; SDUPW _r _W08; SDUPW _r _W09; SDUPW _r _U04; SDUPW _r _U06; SDUPW _r _U07; SDUPW _r _U08; SDUPW _r _U010; SDUPW _r _K01	He/she is familiar with the tools of scientific writing, in particular with techniques for writing and presenting the results of scientific papers. He/she knows and understands the social and legal issues connected with conducting and commercialising research. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she can efficiently use scientific literature, critically analyse the literature and materials from electronic sources. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit
	Writing research proposals	3			
	Practical and legal considerations of scientific research commercialisation	1			

Scientific self-development	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	-	SDUPWr_W02; SDUPWr_U12; SDUPWr_K01;	He/she understands the need for lifelong self-improvement. He/she is willing to uphold and develop the ethos of the research and creative communities. He/she understands the need for scientific self-improvement in order to expand general and specialist knowledge in their scientific discipline. He-she is ready to acquire the ability to better understand the determinants of a research career and its independent planning.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings				
Teaching practice	3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	-	SDUPWr_W03 SDUPWr_U09	He/she knows and understands teaching methodology and techniques. He/she is able to conduct teaching activities in a methodologically correct manner.	credit
	4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	-			
	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	12			

2. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School of Wroclaw University of Environmental and Life Sciences

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of research	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wroclaw University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 6 ECTS by participating in courses, training, conferences and scientific meetings.

³ Teaching practice - subject taught throughout the academic year. Credit obtained in the summer semester.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECT S ¹
						term 3	term4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG(3)	exercises	credit/ exam ³	30		2
		English for special purposes	SD>P-ANG(4)	exercises	credit/ exam ³		30	2
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(3)	lecture	credit	5		1.5
		New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(4)	lecture	credit		5	1.5
3.	Scientific research methodology	Data analysis techniques	SD>MPBN- TAD	exercises	exam	-	20	2
4.	Workshops	Academic writing	SD>W-ARTN(3)	exercises	credit	15		1
		Academic writing	SD>W-ARTN(4)	exercises	credit		5	1
		Writing research proposals	SD>W-PROJ	exercises	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD- SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD- MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ	-	credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 6 ECTS by participating in courses, training, conferences and scientific meetings.

³ An exam is administered in the last semester of the subject entitled "Specialist English."

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 6 ECTS by participating in courses, training, conferences and scientific meetings.

3. Duration of education at the Doctoral School: 3 years.

4. Academic degree obtained by the graduate:

doctor in scientific fields and disciplines in which the University is allowed to grant the doctoral degree

5. Education at the Doctoral School ends after:

- 1) completion of the doctoral school curriculum,
- 2) completion of the individual research plan,
- 3) publication of JCR-indexed papers,
- 4) submission of the doctoral dissertation.

Doctoral School at Wrocław University of Environmental and Life Sciences

- 1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in scientific fields and disciplines in which the University is allowed to grant the doctoral degree.**
- 2. The main educational goals, including competences acquired by the graduate:**

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest global level. The Doctoral School will enable the graduate to acquire state-of-the-art specialist knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of the doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Definition of learning modules, including the expected learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes for the Doctoral School at Wrocław University of Environmental and Life Sciences		
No.	Competences of a graduate of the Doctoral School at Wrocław University of Environmental and Life Sciences	Reference to characteristics of level 8 of the Polish Qualifications Framework
Knowledge – the graduate knows and understands:		
SDUPWr_W01	current problems discussed in the scientific literature and worldwide scientific and creative output in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W02	theoretical foundations, general issues and selected specific issues in selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences to the extent that the existing state of knowledge can be verified	P8S_WG
SDUPWr_W03	complex aspects of selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and mathematical, statistical or qualitative tools for explaining, modelling and predicting processes concerning the selected scientific discipline	P8S_WG
SDUPWr_W04	principles of selecting scientific tools and methods, planning and conducting research using advanced techniques and research tools in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W05	in an in-depth manner, scientific databases and their resources, with particular emphasis on life and social science databases	P8S_WG
SDUPWr_W06	principles of writing and reviewing scientific papers based on own research and literature data	P8S_WG
SDUPWr_W07	occupational health and safety rules, particularly with regard to laboratory and field tests and other tests posing health hazards	P8S_WK
SDUPWr_W08	Of establishing and developing forms of individual entrepreneurship in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WK
SDUPWr_W09	legal determinants in selected disciplines in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, as well as the general concepts and principles within the scope of industrial property and copyright protection	P8S_WK
Skills – the graduate is able to:		
SDUPWr_U01	proficiently use and critically analyse scientific literature and materials from a variety of sources	P8S_UW
SDUPWr_U02	creatively develop existing theoretical models and concepts, and create their own research concepts	P8S_UW
SDUPWr_U03	use knowledge from a variety of fields to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, and in particular: define the purpose and object of research, formulate a research hypothesis, develop research methods, techniques and tools, and apply them creatively and draw conclusions from research findings	P8S_UW

SDUPW _r _U04	use advanced research techniques and tools to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UW
SDUPW _r _U05	use methodological skills (theoretical and practical) to plan and conduct independent scientific research and prepare expert opinions	P8S_UW
SDUPW _r _U06	comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and to forecast and model complex social and economic and related processes, using advanced research methods and tools	P8S_UW
SDUPW _r _U07	obtain the relevant materials and information from various sources, including from own research, process the collected material and formulate conclusions	P8S_UW
SDUPW _r _U08	write an extended scientific thesis (dissertation) and various smaller scientific papers (articles, polemics, abstracts, reports, reviews), including in English, in a form appropriate to the scientific discipline	P8S_UW
SDUPW _r _U09	teach classes, prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UK
SDUPW _r _U010	express their own opinions about them, formulate hypotheses and verify them, including in a foreign language, in an international scientific and professional environment	P8S_UK
SDUPW _r _U011	plan and carry out an individual and team research or creative project, also in an international environment	P8S_UO
SDUPW _r _U012	manage their own professional or scientific career	P8S_UU
Social competences – the graduate is prepared to:		
SDUPW _r _K01	critically evaluate the scientific output in the discipline in which he/she is pursuing his/her education, as well as recognise its usefulness in the solution of professional problems	P8S_KK
SDUPW _r _K02	identify and resolve professional dilemmas and fulfil the social obligations of researchers and creators	P8S_KO
SDUPW _r _K03	demonstrate responsibility for assessing the risks arising from the research techniques and tools; bear professional ethical responsibility for interference with the living organism	P8S_KO
SDUPW _r _K04	conduct independent research and take up challenges in the professional and public sphere, taking into account: their ethical dimension, responsibility for their consequences and the formulation of good practices in such situations	P8S_KO
SDUPW _r _K05	conduct research with due diligence, respecting the public ownership of research results, taking into account the principles of intellectual property protection	P8S_KR

Characteristics of PQF levels typical of qualifications obtained in the framework of higher education

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

Learning modules with the expected learning outcomes					
Learning modules		ECTS	Reference to expected learning outcomes	Expected learning outcomes	Means of verifying the expected learning outcomes achieved by the doctoral student
Basic	PhD seminar	8	SDUPW _r _W01; SDUPW _r _W02 SDUPW _r _W04 SDUPW _r _U01; SDUPW _r _U02; SDUPW _r _U03; SDUPW _r _U07; SDUPW _r _U09; SDUPW _r _U010;	The graduate is familiar with current problems discussed in the literature, understands the need for systematic reading of scientific journals to improve general and specialist knowledge in the scientific discipline and in related disciplines. The graduate is able to publicly present the latest developments in the relevant scientific discipline and the obtained results of own research in relation to the literature data, as well as the thematic scope, hypotheses and objectives, methodology and results of own research. The graduate can initiate scientific debate and participate in scientific discourse, disseminate research results, including in popular forums.	credit
	English for special purposes	6	SDUPW _r _W01; SDUPW _r _U01; SDUPW _r _U08;	He/she knows and understands current problems discussed in the scientific literature as well as international scientific and creative achievement in the discipline in which he/she pursues his/her education. He/she is able to expertly use scientific literature in English, to analyse it critically, and to write extended scientific papers and various smaller scientific texts in English, in a form appropriate to the scientific field. He/she is able to lead a scientific discussion in English.	exam
	Teaching methodology	1	SDUPW _r _U09; SDUPW _r _U12;	He/she knows and understands the methodology of teaching. He/she is able to conduct classes using methods of self-presentation and voice emission, as well as prepare various forms of presentations and speeches in English. He/she is also able to manage their own professional or academic career.	credit
	Psychology	1			
	Self-presentation	2			
	Voice emission	1			
Development of the discipline and related disciplines	New trends in the discipline and related disciplines	3	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _W03; SDUPW _r _W04;; SDUPW _r _U02; SDUPW _r _U03;	He/she knows and understands current research problems, major development trends and the latest developments relevant to the scientific discipline in the exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she is familiar with current trends and innovations in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she demonstrates the need for and systematically updates knowledge of natural or social sciences for practical use. He/she is able to update knowledge of natural sciences and use it to identify research problems and disseminate results, fulfilling social obligations in maintaining relationships in an international professional environment. He/she is able to solve the most complex problems, create innovative solutions based on research work results. He/she knows and understands new trends and analytical techniques and is able to use them in his/her own research.	credit

Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _U03; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _K04;	He/she knows and understands current issues in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences within a given scientific discipline and related disciplines. He/she is able to apply appropriate advanced research techniques and tools to solve complex scientific problems in the context of solving research problems within a given scientific discipline and from an interdisciplinary perspective. He/she is able to identify directions and opportunities for solving research problems, both within and outside his/her field of specialisation. He/she can relate and embed their research problems and research in the context of conducting interdisciplinary research. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out tasks of a research nature, in particular define the purpose and object of research and formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Design of experiments	1	SDUPW _r _W04; SDUPW _r _W05; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _U011;	He/she is familiar with current research programmes of national and international scope. He/she is familiar with the principles of health and safety at work especially in relation to field research and experiments posing a risk to health (laboratories). He/she has the ability to apply advanced research techniques and tools to solve complex scientific problems in his/her field of research. He/she is able to define the purpose and object of research, correctly formulate the research hypothesis, develop research methods and techniques, and apply them creatively. He/she can make correct inferences on the basis of research results. He/she can transfer research results to the economic and social sphere.	exam

	Data analysis techniques	4	SDUPWr_W04; SDUPWr_W05; SDUPWr_U04; SDUPWr_U05; SDUPWr_U07; SDUPWr_K04	He/she knows the basics of the theory of statistical hypothesis testing or interpretation of qualitative data for the verification of research hypotheses. He/she knows the main tools used in data analysis. He/she is able to plan research experiments correctly, identify key research hypotheses in a scientific discipline, determine methods for their verification and correctly formulate the research and interpretation process. He/she knows and can apply in practice the basic and fundamental concepts of mathematical statistics or qualitative analysis. He/she is able to use the basic and advanced functions of statistical software to conduct a wide range of statistical analyses or qualitative analysis tools and techniques.	exam

	Ethics and law in scientific research	1	SDUPWr_W09; SDUPWr_K02; SDUPWr_K03; SDUPWr_K05	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to increase existing scientific and creative output, to address professional and publishing challenges taking into account their ethical dimension and responsibility for their consequences, and to develop good practices in such situations. He/she is ready to co-create the rules in their discipline concerning the quality of the conducted scientific activity, the culture of cooperation and fair competition. He/she is able to co-create a culture of quality research in the given scientific discipline and related disciplines.	exam
Workshops	Academic writing	3	SDUPWr_W03; SDUPWr_W04; SDUPWr_W08; SDUPWr_W09; SDUPWr_U04; SDUPWr_U06; SDUPWr_U07; SDUPWr_U08; SDUPWr_U010; SDUPWr_K01	He/she is familiar with the tools of scientific writing, in particular with techniques for writing and presenting the results of scientific papers. He/she knows and understands the social and legal issues connected with conducting and commercialising research. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she can efficiently use scientific literature, critically analyse the literature and materials from electronic sources. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit
	Writing research proposals	3			
	Practical and legal considerations of scientific research commercialisation	1			

Scientific self-development	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	-	SDUPWr_W02; SDUPWr_U12; SDUPWr_K01;	He/she understands the need for lifelong self-improvement. He/she is willing to uphold and develop the ethos of the research and creative communities. He/she understands the need for scientific self-improvement in order to expand general and specialist knowledge in their scientific discipline. He-she is ready to acquire the ability to better understand the determinants of a research career and its independent planning.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings				
Teaching practice	3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	-	SDUPWr_W03 SDUPWr_U09	He/she knows and understands teaching methodology and techniques. He/she is able to conduct teaching activities in a methodologically correct manner.	credit
	4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	-			
	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	12			

4. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of experiments	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

³ Teaching practice - subject taught throughout the academic year. Credit obtained in the summer semester.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECT S ¹
						term 3	term 4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG(3)	exercises	credit/ exam ³	30		2
		English for special purposes	SD>P-ANG(4)	exercises	credit/ exam ³		30	2
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(3)	lecture	credit	5		1.5
		New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(4)	lecture	credit		5	1.5
3.	Scientific research methodology	Data analysis techniques	SD>MPBN- TAD	exercises	exam	-	20	2
4.	Workshops	Academic writing	SD>W-ARTN(3)	exercises	credit	15		1
		Academic writing	SD>W-ARTN(4)	exercises	credit		5	1
		Writing research proposals	SD>W-PROJ	exercises	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD- SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD- MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ	-	credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

³ An exam is administered in the last semester of the subject entitled "Specialist English."

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

5. Duration of education at the Doctoral School: 4 years.

6. Academic degree obtained by the graduate:

doctor in scientific fields and disciplines in which the University is allowed to grant the doctoral degree

7. Education at the Doctoral School ends after:

- 1) completion of the doctoral school curriculum,
- 2) completion of the individual research plan,
- 3) publication of JCR-indexed papers,
- 4) submission of the doctoral dissertation.

Doctoral School at Wrocław University of Environmental and Life Sciences

- 1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in scientific fields and disciplines in which the University is allowed to grant the doctoral degree.**
- 2. The main educational goals, including competences acquired by the graduate:**

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest global level. The Doctoral School will enable the graduate to acquire state-of-the-art specialist knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of the doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

3. Definition of learning modules, including the expected learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes for the Doctoral School at Wrocław University of Environmental and Life Sciences		
No.	Competences of a graduate of the Doctoral School at Wrocław University of Environmental and Life Sciences	Reference to characteristics of level 8 of the Polish Qualifications Framework
Knowledge – the graduate knows and understands:		
SDUPWr_W01	current problems discussed in the scientific literature and worldwide scientific and creative output in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W02	theoretical foundations, general issues and selected specific issues in selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences to the extent that the existing state of knowledge can be verified	P8S_WG
SDUPWr_W03	complex aspects of selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and mathematical, statistical or qualitative tools for explaining, modelling and predicting processes concerning the selected scientific discipline	P8S_WG
SDUPWr_W04	principles of selecting scientific tools and methods, planning and conducting research using advanced techniques and research tools in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W05	in an in-depth manner, scientific databases and their resources, with particular emphasis on life and social science databases	P8S_WG
SDUPWr_W06	principles of writing and reviewing scientific papers based on own research and literature data	P8S_WG
SDUPWr_W07	occupational health and safety rules, particularly with regard to laboratory and field tests and other tests posing health hazards	P8S_WK
SDUPWr_W08	principles of establishing and developing forms of individual entrepreneurship in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WK
SDUPWr_W09	legal determinants in selected disciplines in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, as well as the general concepts and principles within the scope of industrial property and copyright protection	P8S_WK
Skills – the graduate is able to:		
SDUPWr_U01	proficiently use and critically analyse scientific literature and materials from a variety of sources	P8S_UW
SDUPWr_U02	creatively develop existing theoretical models and concepts, and create their own research concepts	P8S_UW

SDUPW _r _U03	use knowledge from a variety of fields to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, and in particular: define the purpose and object of research, formulate a research hypothesis, develop research methods, techniques and tools, and apply them creatively and draw conclusions from research findings	P8S_UW
SDUPW _r _U04	use advanced research techniques and tools to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UW
SDUPW _r _U05	use methodological skills (theoretical and practical) to plan and conduct independent scientific research and prepare expert opinions	P8S_UW
SDUPW _r _U06	comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and to forecast and model complex social and economic and related processes, using advanced research methods and tools	P8S_UW
SDUPW _r _U07	obtain the relevant materials and information from various sources, including from own research, process the collected material and formulate conclusions	P8S_UW
SDUPW _r _U08	write an extended scientific thesis (dissertation) and various smaller scientific papers (articles, polemics, abstracts, reports, reviews), including in English, in a form appropriate to the scientific discipline	P8S_UW
SDUPW _r _U09	teach classes, prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UK
SDUPW _r _U010	express their own opinions about them, formulate hypotheses and verify them, including in a foreign language, in an international scientific and professional environment	P8S_UK
SDUPW _r _U011	plan and carry out an individual and team research or creative project, also in an international environment	P8S_UO
SDUPW _r _U012	manage their own professional or scientific career	P8S_UU
Social competences – the graduate is prepared to:		
SDUPW _r _K01	critically evaluate the scientific output in the discipline in which he/she is pursuing his/her education, as well as recognise its usefulness in the solution of professional problems	P8S_KK
SDUPW _r _K02	identify and resolve professional dilemmas and fulfil the social obligations of researchers and creators	P8S_KO
SDUPW _r _K03	demonstrate responsibility for assessing the risks arising from the research techniques and tools; bear professional ethical responsibility for interference with the living organism	P8S_KO
SDUPW _r _K04	conduct independent research and take up challenges in the professional and public sphere, taking into account: their ethical dimension, responsibility for their consequences and the formulation of good practices in such situations	P8S_KO
SDUPW _r _K05	conduct research with due diligence, respecting the public ownership of research results, taking into account the principles of intellectual property protection	P8S_KR

Characteristics of PQF levels typical of qualifications obtained in the framework of higher education

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

4. Learning modules with expected learning outcomes – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme

Learning modules with the expected learning outcomes					
Learning modules		ECTS	Reference to expected learning outcomes	Expected learning outcomes	Means of verifying the expected learning outcomes achieved by the doctoral student
Basic	PhD seminar	6	SDUPWr_W01; SDUPWr_W02; SDUPWr_W03; SDUPWr_W05; SDUPWr_U01 SDUPWr_U05; SDUPWr_U07; SDUPWr_U09;	The graduate understands the need for systematic reading of scientific journals in order to broaden general and specialist knowledge in the scientific discipline and in related disciplines. He/she is able to present the latest developments in the relevant scientific discipline and the results obtained in his/her own research in the context of the literature data. He/she can publicly present the thematic scope, hypotheses and objectives, methodology and results of his/her own research. He/she understands the fundamental dilemmas of modern civilisation. He/she can initiate scientific debate and participate in scientific discourse. He/she can disseminate research results, including in public.	credit
	English for special purposes	4	SDUPWr_W02; SDUPWr_U01; SDUPWr_U07; SDUPWr_U10	He/she acquires skills connected with the preparation, editing and reviewing of scientific papers in English. He/she can freely use English-language literature and is able to engage in scholarly discussion in English. He/she is able to present the results of his/her research and related research issues in the relevant scientific discipline in English. He/she is able to use English to a degree that enables active participation in the international scientific community	exam
Development of the discipline and related disciplines	Anticipating technological developments	1	SDUPWr_W02; SDUPWr_W02; SDUPWr_U02; SDUPWr_U08; SDUPWr_K01; SDUPWr_K02	He/she has knowledge in the area of anticipating technological developments and strategic analysis in technology transfer. He/she can obtain information from literature, databases and other sources, integrate it, interpret it, draw conclusions and form opinions. He/she can apply the acquired knowledge of technology and knowledge transfer to understand the theoretical principles, forms of organisation and general principles of organisational functioning and solve problems that arise. He/she understands that in knowledge and technology transfer, knowledge and skills quickly become obsolete.	credit

Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W02; SDUPWr_W03; SDUPWr_W04; SDUPWr_W07; SDUPWr_U02; SDUPWr_U04; SDUPWr_U09; SDUPWr_U11; SDUPWr_K04	He/she understands the need to better understand the current development of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences in a given scientific discipline and related disciplines. He/she has the ability to apply advanced research techniques and tools to solve complex scientific and research problems in the given scientific discipline and from an interdisciplinary perspective. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, in particular to define the purpose and object of research, formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Data analysis techniques and design of experiments	4	SDUPWr_W03; SDUPWr_W04; SDUPWr_W06; SDUPWr_U02; SDUPWr_U04; SDUPWr_U08; SDUPWr_U09; SDUPWr_K03; SDUPWr_K04;	He/she knows and can practically apply the basic and fundamental concepts of mathematical statistics or qualitative data interpretation. He/she knows the basics of statistical hypothesis testing theory, which is a scientific tool for verifying research hypotheses. He/she knows the key tools used in data analysis. He/she is familiar with current research programmes carried out in home country and abroad. He/she knows the principles of health and safety at work, especially in the context of field studies and experiments that pose health risks (laboratories). He/she is to use his/her knowledge from different disciplines to creatively plan, identify, formulate and innovatively solve complex problems or perform tasks of a research nature. He/she knows how to define the purpose and object of research, correctly formulate a research hypothesis, develop research methods and techniques, and apply them creatively. He/she can draw correct conclusions on the basis of research results. He/she is able to transfer research results to the economic and social sphere. He/she is able to plan research experiments correctly, identify key research hypotheses in his/her discipline, determine methods for their verification and formulate the research and interpretation process correctly. He/she is ready to use the basic and advanced functions of statistical software to conduct a wide range of statistical analyses or qualitative research tools and techniques. He/she has the ability to apply advanced research techniques and tools to solve complex scientific problems in his/her field of research.	exam

	Statistical data analysis	2	SDUPWr_W03; SDUPWr_W04; SDUPWr_U04; SDUPWr_U06; SDUPWr_U09; SDUPWr_K04;	He/she has knowledge of statistical methods and tools, including statistical software. He/she is able to apply appropriate statistical methods to analyse and validate a selected research problem. He/she can design statistical research, verify research hypotheses on the basis of a statistical sample and critically evaluate the research results. He/she can select a statistical method for a specific research problem and solve it.	exam
	Ethics and law in scientific research	1	SDUPWr_W08; SDUPWr_K03; SDUPWr_K04	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is able to co-create a culture of quality research in the given scientific discipline and related disciplines. He/she is ready to conduct research to increase existing scientific and creative output, to address professional and publishing challenges taking into account their ethical dimension and responsibility for their consequences, and to develop good practices in such situations. He/she is ready to co-create the rules in their discipline concerning the quality of the conducted scientific activity, the culture of cooperation and fair competition.	exam
Workshops	Intellectual property protection workshop	1	SDUPWr_W02; SDUPWr_W03; SDUPWr_W08;SDUPWr_U05; SDUPWr_U07; SDUPWr_U11; SDUPWr_K01;SDUPWr_K04	He/she knows and understands the social and legal issues connected with conducting and commercializing research in the R&D area. He/she has knowledge of issues related to the protection of intellectual property. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit
	Workshop on writing R&D projects	1			
	Practical and legal considerations of scientific research commercialisation	2			
	Project and resource management	2	SDUPWr_W0; SDUPWr_W10; SDUPWr_U07; SDUPWr_U09;	He/she knows the interrelationship between team management and the objectives of a social project, and can put this into practice in planning specific activities and selecting appropriate leadership styles He/she can critically evaluate the management of specific projects and teams and identify potential alternative actions He/she is aware of the differences in the project team structure in different entities and institutions implementing social projects and is able to select appropriate management methods.	

			SDUPWr_U10; SDUPWr_K04	He/she is aware of group processes within the project team and is able to recognise their stages and elements.	
Scientific self-development	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	-	SDUPWr_U12; SDUPWr_K03; SDUPWr_K04; SDUPWr_K010;	He/she understands the need for scientific self-improvement in order to expand general and specialist knowledge in their scientific discipline. He/she is willing to uphold and develop the ethos of the research and creative communities. He-she is ready to acquire the ability to better understand the determinants of a research career and its independent planning.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings				
	3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	-			
	4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	-			
Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	6	SDUPWr_W02; SDUPWr_U05	He/she has knowledge of teaching methodology and techniques. He/she is well-prepared to conduct teaching activities in a methodologically correct manner.	credit

5. Framework curriculum of the Doctoral School at Wrocław University of Environmental and Life Sciences – applicable to doctoral students participating in the Doctoral School under the "Implementation Doctorate" programme

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	5	-	1
		English for special purposes	SD>P-ANG(2)	classes	credit	-	30	2
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTER RP(1)	seminar	credit	20	-	3
			SD>KI-INTER RP(2)	seminar	credit	-	20	3
		Data analysis techniques	SD>MPBN-TADiPB(1)	classes	exam	15	-	2
			SD>MPBN-TADiPB(2)	classes	exam	-	15	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Intellectual property protection	SD>W-WI	classes	credit	10	-	1
		Workshop on writing R&D projects	SD>W-PBR	classes	credit	5	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – not more than 2 specialised training sessions	SD>SD-SZSPE C	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – not more than 2 conferences	SD>SD-MKON F	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>DW-SEM	seminar	credit	-	5	1
		English for special purposes	SD>P-ANG(3)	classes	credit/exam ³	30	-	2
2.	Development of the discipline and related disciplines	Anticipating technological developments	SD>DW-RT	lecture	credit	10		1
3.	Scientific research methodology	Statistical data analysis	SD>DW-S(3)	classes	exam	10		1
			SD>DW-S(4)	classes	exam		10	1
4.	Workshops	Project and resource management	SD>DW-ZP	exercises	credit	10	-	2
		Practical and legal considerations of scientific research commercialisation	SD>DW-PPK	exercises	credit	-	10	2
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – not more than 2 specialised training sessions	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – not more than 2 conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15		2

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

³ At the end of the training cycle in the subject entitled "English for Special Purposes" there is an exam in the last semester.

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – not more than 2 specialised training sessions	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – not more than 2 conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		2

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

Year IV – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 7	term 8	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course)	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – specialised training must be approved by the supervisor and doctoral school board – the representative of the discipline	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference)	SD>SD-MKONF	-	credit	-	-	-

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 8 ECTS by participating in courses, training, conferences and scientific meetings.

4. Duration of education at the Doctoral School: 4 years.

5. Academic degree obtained by the graduate:

doctor in scientific fields and disciplines in which the University is allowed to grant the doctoral degree

6. Education at the Doctoral School ends after:

- 1) completion of the doctoral school curriculum,
- 2) completion of the individual research plan,
- 3) publication of JCR-indexed papers,
- 4) submission of the doctoral dissertation.

Doctoral School at Wrocław University of Environmental and Life Sciences

- 1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in scientific fields and disciplines in which the University is allowed to grant the doctoral degree.**
- 2. The main educational goals, including competences acquired by the graduate:**

The main goal of education at the Doctoral School of Wrocław University of Environmental and Life Sciences is the acquisition by graduates of competences connected with formulating new, previously unknown scientific problems and solving them in an original way based on modern research tools, using analytical methods and techniques at the highest global level. The Doctoral School will enable the graduate to acquire state-of-the-art specialist knowledge in the thematic field of the doctoral dissertation, in the relevant discipline within the exact and natural sciences, agricultural sciences, or engineering and technical sciences, along with an interdisciplinary understanding of functioning in modern society. The preparation of the doctoral dissertation in accordance with the guidelines set by the Doctoral School will enable wide dissemination of the research results in the academic environment and beyond, as well as the transfer of knowledge to the economy. This will help the Doctoral School graduates to enter the international world of science and improve their position in the dynamic market of new technologies connected with a more innovative and competitive economy.

1. Definition of learning modules, including the expected learning outcomes and reference to the characteristics of the 8th level of the Polish Qualifications Framework

Learning outcomes for the Doctoral School at Wroclaw University of Environmental and Life Sciences		
No.	Competences of a graduate of the Doctoral School at Wroclaw University of Environmental and Life Sciences	Reference to characteristics of level 8 of the Polish Qualifications Framework
Knowledge – the graduate knows and understands:		
SDUPWr_W01	current problems discussed in the scientific literature and worldwide scientific and creative output in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W02	theoretical foundations, general issues and selected specific issues in selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences to the extent that the existing state of knowledge can be verified	P8S_WG
SDUPWr_W03	complex aspects of selected disciplines in exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and mathematical, statistical or qualitative tools for explaining, modelling and predicting processes concerning the selected scientific discipline	P8S_WG
SDUPWr_W04	principles of selecting scientific tools and methods, planning and conducting research using advanced techniques and research tools in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WG
SDUPWr_W05	in an in-depth manner, scientific databases and their resources, with particular emphasis on life and social science databases	P8S_WG
SDUPWr_W06	principles of writing and reviewing scientific papers based on own research and literature data	P8S_WG
SDUPWr_W07	occupational health and safety rules, particularly with regard to laboratory and field tests and other tests posing health hazards	P8S_WK
SDUPWr_W08	Of establishing and developing forms of individual entrepreneurship in selected disciplines of exact and life sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_WK
SDUPWr_W09	legal determinants in selected disciplines in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, as well as the general concepts and principles within the scope of industrial property and copyright protection	P8S_WK
Skills – the graduate is able to:		
SDUPWr_U01	proficiently use and critically analyse scientific literature and materials from a variety of sources	P8S_UW
SDUPWr_U02	creatively develop existing theoretical models and concepts, and create their own research concepts	P8S_UW
SDUPWr_U03	use knowledge from a variety of fields to creatively identify, formulate and innovatively solve complex problems or carry out research tasks, and in particular: define the purpose and object of research, formulate a research hypothesis, develop research methods, techniques and tools, and apply them creatively and draw conclusions from research findings	P8S_UW

SDUPWr_U04	use advanced research techniques and tools to solve complex scientific problems in selected disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UW
SDUPWr_U05	use methodological skills (theoretical and practical) to plan and conduct independent scientific research and prepare expert opinions	P8S_UW
SDUPWr_U06	comprehensively analyse the causes and course of social and economic processes connected with exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences, and to forecast and model complex social and economic and related processes, using advanced research methods and tools	P8S_UW
SDUPWr_U07	obtain the relevant materials and information from various sources, including from own research, process the collected material and formulate conclusions	P8S_UW
SDUPWr_U08	write an extended scientific thesis (dissertation) and various smaller scientific papers (articles, polemics, abstracts, reports, reviews), including in English, in a form appropriate to the scientific discipline	P8S_UW
SDUPWr_U09	teach classes, prepare various forms of presentations and talks in Polish and English in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences	P8S_UK
SDUPWr_U010	express their own opinions about them, formulate hypotheses and verify them, including in a foreign language, in an international scientific and professional environment	P8S_UK
SDUPWr_U011	plan and carry out an individual and team research or creative project, also in an international environment	P8S_UO
SDUPWr_U012	manage their own professional or scientific career	P8S_UU
Social competences – the graduate is prepared to:		
SDUPWr_K01	critically evaluate the scientific output in the discipline in which he/she is pursuing his/her education, as well as recognise its usefulness in the solution of professional problems	P8S_KK
SDUPWr_K02	identify and resolve professional dilemmas and fulfil the social obligations of researchers and creators	P8S_KO
SDUPWr_K03	demonstrate responsibility for assessing the risks arising from the research techniques and tools; bear professional ethical responsibility for interference with the living organism	P8S_KO
SDUPWr_K04	conduct independent research and take up challenges in the professional and public sphere, taking into account: their ethical dimension, responsibility for their consequences and the formulation of good practices in such situations	P8S_KO
SDUPWr_K05	conduct research with due diligence, respecting the public ownership of research results, taking into account the principles of intellectual property protection	P8S_KR

Characteristics of PQF levels typical of qualifications obtained in the framework of higher education

P = PQF level (8)

S = a characteristic typical of qualifications obtained in the framework of higher education

W = **knowledge**

G = depth and scope

K = context

U = **skills**

W = use of knowledge

K = communication

O = work organisation

U = learning

K = **social competences**

K = critical assessment

O = responsibility

R = professional role

Learning modules and the expected learning outcomes					
Learning modules		ECTS	Reference to expected learning outcomes	Expected learning outcomes	Means of verifying the expected learning outcomes achieved by the doctoral student
Basic	PhD seminar	6	SDUPW _r _W01; SDUPW _r _W02 SDUPW _r _W04 SDUPW _r _U01; SDUPW _r _U02; SDUPW _r _U03; SDUPW _r _U07; SDUPW _r _U09; SDUPW _r _U010;	The graduate is familiar with current problems discussed in the literature, understands the need for systematic reading of scientific journals to improve general and specialist knowledge in the scientific discipline and in related disciplines. The graduate is able to publicly present the latest developments in the relevant scientific discipline and the obtained results of own research in relation to the literature data, as well as the thematic scope, hypotheses and objectives, methodology and results of own research. The graduate can initiate scientific debate and participate in scientific discourse, disseminate research results, including in popular forums.	credit
	English for special purposes	6	SDUPW _r _W01; SDUPW _r _U01; SDUPW _r _U08;	He/she knows and understands current problems discussed in the scientific literature as well as international scientific and creative achievement in the discipline in which he/she pursues his/her education. He/she is able to expertly use scientific literature in English, to analyse it critically, and to write extended scientific papers and various smaller scientific texts in English, in a form appropriate to the scientific field. He/she is able to lead a scientific discussion in English.	exam
	Teaching methodology	1	SDUPW _r _U09; SDUPW _r _U12;	He/she knows and understands the methodology of teaching. He/she is able to conduct classes using methods of self-presentation and voice emission, as well as prepare various forms of presentations and speeches in English. He/she is also able to manage their own professional or academic career.	credit
	Psychology	1			
	Self-presentation	2			
	Voice emission	1			
Development of the discipline and related disciplines	New trends in the discipline and related disciplines	3	SDUPW _r _W01; SDUPW _r _W02; SDUPW _r _W03; SDUPW _r _W04; SDUPW _r _U02; SDUPW _r _U03;	He/she knows and understands current research problems, major development trends and the latest developments relevant to the scientific discipline in the exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she is familiar with current trends and innovations in the disciplines of exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences. He/she demonstrates the need for and systematically updates knowledge of natural or social sciences for practical use. He/she is able to update knowledge of natural sciences and use it to identify research problems and disseminate results, fulfilling social obligations in maintaining relationships in an international professional environment. He/she is able to solve the most complex problems, create innovative solutions based on research work results. He/she knows and understands new trends and analytical techniques and is able to use them in his/her own research.	credit

Interdisciplinary seminar	Interdisciplinary problem solving	6	SDUPWr_W01; SDUPWr_W02; SDUPWr_U03; SDUPWr_U04; SDUPWr_U05; SDUPWr_U07; SDUPWr_K04;	He/she knows and understands current issues in exact and natural sciences, agricultural sciences, engineering and technical sciences, veterinary sciences and social sciences within a given scientific discipline and related disciplines. He/she is able to apply appropriate advanced research techniques and tools to solve complex scientific problems in the context of solving research problems within a given scientific discipline and from an interdisciplinary perspective. He/she is able to identify directions and opportunities for solving research problems, both within and outside his/her field of specialisation. He/she can relate and embed their research problems and research in the context of conducting interdisciplinary research. He/she is able to use knowledge from different disciplines to creatively identify, formulate and innovatively solve complex problems or carry out tasks of a research nature, in particular define the purpose and object of research and formulate a research hypothesis. He/she knows and understands the economic, legal and other relevant determinants of research activities.	credit
Scientific research methodology	Design of experiments	1	SDUPWr_W04; SDUPWr_W05; SDUPWr_U04; SDUPWr_U05; SDUPWr_U07; SDUPWr_U011;	He/she is familiar with current research programmes of national and international scope. He/she is familiar with the principles of health and safety at work especially in relation to field research and experiments posing a risk to health (laboratories). He/she has the ability to apply advanced research techniques and tools to solve complex scientific problems in his/her field of research. He/she is able to define the purpose and object of research, correctly formulate the research hypothesis, develop research methods and techniques, and apply them creatively. He/she can make correct inferences on the basis of research results. He/she can transfer research results to the economic and social sphere.	exam

	Data analysis techniques	4	SDUPW _r _W04; SDUPW _r _W05; SDUPW _r _U04; SDUPW _r _U05; SDUPW _r _U07; SDUPW _r _K04	He/she knows the basics of the theory of statistical hypothesis testing or interpretation of qualitative data for the verification of research hypotheses. He/she knows the main tools used in data analysis. He/she is able to plan research experiments correctly, identify key research hypotheses in a scientific discipline, determine methods for their verification and correctly formulate the research and interpretation process. He/she knows and can apply in practice the basic and fundamental concepts of mathematical statistics or qualitative analysis. He/she is able to use the basic and advanced functions of statistical software to conduct a wide range of statistical analyses or qualitative analysis tools and techniques.	exam

	Ethics and law in scientific research	1	SDUPW _r _W09; SDUPW _r _K02; SDUPW _r _K03; SDUPW _r _K05	He/she knows and understands the need for ethical and legal aspects of conducting research. He/she is ready to conduct research to increase existing scientific and creative output, to address professional and publishing challenges taking into account their ethical dimension and responsibility for their consequences, and to develop good practices in such situations. He/she is ready to co-create the rules in their discipline concerning the quality of the conducted scientific activity, the culture of cooperation and fair competition. He/she is able to co-create a culture of quality research in the given scientific discipline and related disciplines.	exam
Workshops	Academic writing	3	SDUPW _r _W03; SDUPW _r _W04; SDUPW _r _W08; SDUPW _r _W09; SDUPW _r _U04; SDUPW _r _U06; SDUPW _r _U07; SDUPW _r _U08; SDUPW _r _U010; SDUPW _r _K01	He/she is familiar with the tools of scientific writing, in particular with techniques for writing and presenting the results of scientific papers. He/she knows and understands the social and legal issues connected with conducting and commercialising research. He/she knows and understands the general principles of research funding and knowledge transfer on a national and international scale, including the understanding of databases (bibliographical and citation indexes), project competitions and copyright issues. He/she can efficiently use scientific literature, critically analyse the literature and materials from electronic sources. He/she is able to correctly identify the key research hypotheses in a given scientific discipline, determine methods of their verification and correctly formulate the research and interpretation process. He/she has the ability to collect materials and information from various sources (including from their own research), process the collected material and formulate conclusions. He/she is ready to systematically update their knowledge in natural or social sciences in order to use it in practice to formulate new research hypotheses and obtain external research funding.	credit
	Writing research proposals	3			
	Practical and legal considerations of scientific research commercialisation	1			

Scientific self-development	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	-	SDUPWr_W02; SDUPWr_U12; SDUPWr_K01;	He/she understands the need for lifelong self-improvement. He/she is willing to uphold and develop the ethos of the research and creative communities. He/she understands the need for scientific self-improvement in order to expand general and specialist knowledge in their scientific discipline. He-she is ready to acquire the ability to better understand the determinants of a research career and its independent planning.	credit
	2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings				
Teaching practice	3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	-	SDUPWr_W03 SDUPWr_U09	He/she knows and understands teaching methodology and techniques. He/she is able to conduct teaching activities in a methodologically correct manner.	credit
	4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	-			
	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	12			

2. Curriculum of the Doctoral School

Framework curriculum of the Doctoral School of Wrocław University of Environmental and Life Sciences

Year I – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 1	term 2	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG	classes	credit	-	30	2
		Teaching methodology	SD>P-MPZ	classes	credit	-	5	1
		Psychology	SD>P-PSYCH	classes	credit	-	5	1
		Self-presentation	SD>P-AUTOPR	classes	credit	10	-	2
		Voice emission	SD>P-EG	classes	credit	5	-	1
2.	Interdisciplinary seminar	Interdisciplinary problem solving	SD>KI-INTERRP	seminar	credit	-	20	6
3.	Scientific research methodology	Design of experiments	SD>MPBN-PD	classes	credit	10	-	1
		Data analysis techniques	SD>MPBN-TAD	classes	credit	-	20	2
		Ethics and law in scientific research	SD>MPBN-EP	lecture	exam	10	-	1
4.	Workshops	Academic writing	SD>W-ARTN	classes	credit	10	-	1
		Writing research proposals	SD>W-PROJ	classes	credit	5	-	1
5.	Scientific self-development²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 6 ECTS by participating in courses, training, conferences and scientific meetings.

³ Teaching practice - subject taught throughout the academic year. Credit obtained in the summer semester.

Year II – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECT S ¹
						term 3	term4	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
		English for special purposes	SD>P-ANG(3)	exercises	credit/ exam ³	30		2
		English for special purposes	SD>P-ANG(4)	exercises	credit/ exam ³		30	2
2.	Development of the discipline and related disciplines	New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(3)	lecture	credit	5		1.5
		New trends in the discipline and related disciplines	SD>RDY-DISCIPLINES(4)	lecture	credit		5	1.5
3.	Scientific research methodology	Data analysis techniques	SD>MPBN- TAD	exercises	exam	-	20	2
4.	Workshops	Academic writing	SD>W-ARTN(3)	exercises	credit	15		1
		Academic writing	SD>W-ARTN(4)	exercises	credit		5	1
		Writing research proposals	SD>W-PROJ	exercises	credit	15	-	2
		Practical and legal considerations of scientific research commercialisation	SD>W-PRKOMERC	lecture	credit	10	-	1
5.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD- SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD- MKONF	-	credit	-	-	-
6.	Teaching practice	Teaching practice – in accordance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences	SD>PZ-PZ	-	credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 6 ECTS by participating in courses, training, conferences and scientific meetings.

³ An exam is administered in the last semester of the subject entitled "Specialist English."

Year III – compulsory coursework

No.	Learning module	Name of course	USOS course code	Form of study	Form of course completion	Number of face-to-face hours		ECTS ¹
						term 5	term 6	
1.	Basic	PhD seminar	SD>P-SEM	seminar	credit	10	-	2
2.	Scientific self-development ²	1. training courses outside WUELS – must be accepted by the supervisor and doctoral school board (1 ECTS credit per course) – no more than two courses	SD>SD-KKSZ	-	credit	-	-	-
		2. scientific meetings in institutions referred to in Article 7(1) of the Act of 20 July 2018 – Law on Higher Education and Science, excluding WUELS scientific societies (1 ECTS credit per one scientific meeting) – no more than four scientific meetings	SD>SD-SN	-	credit	-	-	-
		3. multi-day specialist training ending with certification, aim – to learn new research techniques and calculation methods (1 ECTS credit per training course training) – no more than two specialist courses	SD>SD-SZSPEC	-	credit	-	-	-
		4. active participation in international conferences abroad (2 ECTS credits per conference) – no more than two conferences	SD>SD-MKONF	-	credit	-	-	-
3.	Teaching practice	Teaching practice in accordance with the Regulations of the Doctoral School of Wrocław University of Environmental and Life Sciences	SD>PZ-PZ		credit	15 (co-teaching)		4

¹ ECTS – 25-30 hours of doctoral student's work, including: participation in classes, independent preparation for classes as part of the course.

² The module should be done at a time chosen by the doctoral student, between semesters 1–7. In order to pass the entire module, the student has to earn min. 6 ECTS by participating in courses, training, conferences and scientific meetings.

3. Duration of education at the Doctoral School: 3 years.

4. Academic degree obtained by the graduate:

doctor in scientific fields and disciplines in which the University is allowed to grant the doctoral degree

5. Education at the Doctoral School ends after:

- 1) completion of the doctoral school curriculum,
- 2) completion of the individual research plan,
- 3) publication of JCR-indexed papers,
- 4) submission of the doctoral dissertation.



UNIWERSYTET
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DOCTORAL SCHOOL

AN INDIVIDUAL DOCTORAL STUDENT CARD AT UPWR DOCTORAL SCHOOL

Academic year 20..../20.... Semester: winter/summer

PhD student:

.....
(position and full name)

Tel. e-mail:@upwr.edu.pl

Educational discipline in accordance with the discipline of the Doctoral School:

.....

Year of training:.....

Supervisor, Supervisors, Assistant Supervisor

Supervisor:.....

Second Supervisor:

Assistant Supervisor:

.....

.....

Faculty unit:

Discipline

Institute

1. apprenticeships implemented in the learning programme: participation in the provision of classes

Position and full name of the PhD student

Course title	Topic of the course	Lecturer	Date of class/ number of hours *	Teaching supervision (name and surname of the instructor)
Suma				

* the number of hours shall be the number of hours of work: 1h = 45 min

2. Academic self-development completed in the academic year 20.../20... winter/summer semester

Position and full name of the PhD student

Academic self-development:	Lp.	Course title	Date	Certification by the instructors
1. training courses outside UPWr - must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	1			
	2			
2. academic symposium in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at UPWr (1 ECTS for 1 academic symposium) —no more than 4 academic symposiums	1			
	2			
	3			
	4			

3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course) —no more than 2 specialist training courses	1			
	2			
4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference) —no more than 2 conferences	1			
	2			



3. List of awards and distinctions received

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4. The state of advancement of scientific research and the progress of work on doctoral dissertations

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6. Supervisor's opinion on the scientific work of a PhD student

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(date and signature of the supervisor)



UNIwersytet
Przyrodniczy
we Wrocławiu

DOCTORAL SCHOOL

I hereby declare that the information provided in the IDSC form and the attached document enclosures are accurate, up-to-date and compliant with the factual and legal state of affairs.

.....
(date and signature of the doctoral student)

Acceptance of the Head of UPWr Doctoral School

You passed/not passed the semester in an academic year 20.../20...

.....
(date and signature of the Director of the UPWr Doctoral School)



INDIVIDUAL RESEARCH PLAN¹

(title, name and surname)	
e-mail:	@upwr.edu.pl
Tel. no.:	
ORCID:	
Department / Institute in which the doctoral dissertation is carried out:	
Discipline in which the doctoral dissertation is carried out:	
Date of commencement of education at the Doctoral School:	
Supervisor:	(title and/or degree, first name and surname)
principal discipline (declared percentage share):	
Second supervisor:²	(title and/or degree, first name and surname)
principal discipline (declared percentage share): ³	
Auxiliary supervisor:²	(title and/or degree, first name and surname)
principal discipline (declared percentage share): ³	

¹ The Individual Research Plan is a document - a contract between the doctoral student and the supervisor(s). It should be developed in the first year of education, submitted to the Doctoral School Office no later than September 30 of the first year of education in DS. The supervisor(s), by way of discussion with the doctoral student, shall also determine and plan other types of doctoral research activities, e.g. may accelerate the implementation of individual parts of the doctoral dissertation, determine the number of scientific articles or conferences to be attended by the doctoral student, or plan the doctoral student's trip for a foreign scientific internship.

² If applicable

³The percentage must be indicated for persons working at Polish research units

Subject:.....

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⁵ with an indication in the description of the current scientific literature in the selected field

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting or typing. There are no margins, text, or other markings on the page.

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

PLANNED COSTS OF THE RESEARCH^{8;9}

[illegible]

⁸min. 1000 - max. 2000 characters with spaces

⁹Research cost estimate according to the implemented tasks, broken down into positions, among others: purchase of chemical reagents necessary for the implementation of planned research, external services; costs of business trips, consultations and other costs necessary to implement the project.

FINANCING SOURCES¹⁰

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CONSENTS AND PERMISSIONS REQUIRED TO CARRY OUT THE RESEARCH WORK required by current legislation^{8;11}

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¹⁰max 1000 characters with spaces

¹¹ If it concerns ongoing research, the proceedings should be in accordance with the Act of 15 January 2015 on the protection of animals used for scientific or educational purposes (Journal of Laws of 2023, item 465)

REFERENCES¹²

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¹²until 10 - 15 current, most recent literature items related to the doctoral dissertation from 2020-2025

SCHEDULE FOR THE PREPARATION OF THE DOCTORAL DISSERTATION
PLANNED FOR THE YEARS 2024-2028¹³

Objectives to be achieved during the year:	Research task No.	Name of the research task to be performed in the course of the doctoral thesis ¹⁴	Task implementation period (in months)	Planned doctoral student activities¹⁵	Determination of the progress of work after completion of a task in % ¹⁶	Planned effect of the research task
I 2024/2025 (1-12 months)						
REMARKS						
II 2025/2026 (13-24 months)						

¹³To enter further information, e.g. tasks, add lines

¹⁴A research task is not: purchase of equipment, preparation of a report or annual reports, conducting didactic classes or work placements, participation in self-improvement trainings, etc.

¹⁵The research task may include, among others, activities related to the determination of the research area: bibliographic search, development of a research problem, field measurements, processing of observations, development of the methodology of conducted research, performance of planned analyses, preparation of statistical results, preparation of an oral presentation for an international scientific conference, writing a scientific article and also a review article.

¹⁶The percentage share of individual tasks should be determined in relation to all the studies planned in the doctorate (100%)

REMARKS						
III 2026/2027 (25-36 months)						
REMARKS						
IV 2027/2028 (37-48 months)						
REMARKS						

PUBLICATIONS PLANNED,¹⁷
CONFERENCE SPEECHES, SCIENTIFIC MEETINGS

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POPULARIZATION OF RESEARCH RESULTS
planned activities related to the dissemination of the collected results

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PLANNED COOPERATION WITH BUSINESS

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¹⁷Original creative works planned to be submitted in a journal on the current list of the Ministry of Science and Higher Education

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PLANNED SCIENTIFIC COOPERATION, INCLUDING FOREIGN COOPERATION¹⁸

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PATENT APPLICATIONS, PATENTS, IMPLEMENTATIONS

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¹⁸including queries, scientific internships

Planned date of submission of doctoral dissertation¹⁹

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Date and signature of doctoral student

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Date and signature(s) of supervisor(s)

Auxiliary supervisor's opinion:²⁰

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Date and signature of auxiliary supervisor

Submission date²¹

¹⁹The deadline is set no later than until the end of the period of education at the doctoral school, i.e. until 30.09.2028.

²⁰If an auxiliary supervisor is not appointed, this part should be removed from the IRP (Individual Research Plan).

²¹The date of submission of the IRP is entered by the Doctoral School Office



Doctoral School

Report on the Implementation of the Individual Research Plan (IRP)

Part I. Basic information about the doctoral student and dissertation

Name and surname of the student:	
Subject of the dissertation:	
Discipline in which the dissertation is prepared:	
Institute/Department:	
Supervisor(s):	
Assistant supervisor:	
Date of commencement of education at the doctoral school:	
Planned date of submitting the doctoral dissertation (acc. to IRP):	
Progress in the completion of the doctoral dissertation (%):	



Doctoral School

Part II. Implementation of the Individual Research Plan (IRP)

1. Degree of completion of tasks specified in the IRP schedule

Academic year	Research task no.	Description of task	Degree of completion (completed / in progress / not completed)	Result of research task completion (as planned in the IRP)

Changes in the fulfilment of tasks compared to the IRP schedule

(Please provide explanation in the event of failure to complete a planned task and information on how it will affect the submission of the doctoral dissertation by the date specified in IRP – max. 2,000 characters with spaces)



Doctoral School

1. Scientific achievements

Scientific achievements and other activities directly connected with the preparation of the doctoral dissertation in the period covered by the mid-term evaluation (i.e. academic year 2023/2024 and 2024/2025)

List of publications

No	Description	Status of publication (published/accepted for publication/sent)	Publication planned in IRP (YES/NO)
1.	authors, publication title, journal/conference, issue, year of publication, DOI		
2.			
...			

Conference presentations

List of conference presentations given personally by the doctoral student

No	Description	Type of presentation (oral/poster)
1.	authors, publication title, conference, place, date	
2.		
...		

Scientific cooperation

Scientific cooperation with other academic centres, research centres, companies (domestic and foreign) in the period covered by the mid-term evaluation. Please provide the name of the centre, period of cooperation, nature of cooperation (e.g. research internship, incl. the duration of the internship; joint publications, patents, joint preparation of a grant application, etc.)

1.	Name of the centre:	
	Nature of cooperation:	
	Period of cooperation:	
	Main outcomes:	
2.	Name of the centre:	
	Nature of cooperation:	
	Period of cooperation:	
	Main outcomes:	



Doctoral School

Research projects

1. Participation in research projects financed from external sources

(research projects in which the doctoral student actively participated during the period covered by the mid-term evaluation. Persons pursuing a doctorate under the “Implementation Doctorate” programme do not list this programme)

1.	Role in the project (contractor, leader):	
	Project title:	
	Sources of financing:	
	Place of implementation:	
	Implementation period:	
2.	Role in the project (contractor, leader):	
	Project title:	
	Sources of financing:	
	Place of implementation:	
	Implementation period:	

1. **Applying for participation in projects and other sources of research funding, incl. when funding has not been obtained** / short description (max. 2,000 characters with spaces) of the expected role in the project (contractor, leader), institution calling the competition, name of the competition, information whether funding has been obtained)/

Other achievements

Other scientific achievements not listed above, obtained during the period of the mid-term evaluation, e.g. patents, patent applications, utility models, received scientific awards and scholarships, certificates and qualifications, etc..

1. short description of the achievement, date
- 2.



Doctoral School

Part III. Supervisor's assessment of the doctoral student's implementation of the IRP, incl. a description of the progress of work connected with the preparation of the doctoral dissertation (max. 3,000 characters with spaces)

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.....
(date and signature of the supervisor)

Declarations of the doctoral student and supervisor / supervisors / assistant supervisor

I hereby declare that the information provided in the report is true.

.....
(date and signature of the doctoral student)

.....
(date and signature of the supervisor)

.....
(date and signature of second supervisor / assistant supervisor)

List of attachments (e.g. copies of the first pages of the publication, confirmations/certificates of participation in conferences, presentation of papers/posters, confirmation of submission of grant applications, etc.).

- 1.
- 2.
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UNIWERSYTET
PRZYRODNICZY
WE WROCŁAWIU

DOCTORAL SCHOOL

AN INDIVIDUAL DOCTORAL STUDENT CARD AT UPWR DOCTORAL SCHOOL

Implementation Doctorate

Academic year 20..../20.... Semester: winter/summer

PhD student:

.....
(position and full name)

Tel. e-mail:@upwr.edu.pl

Educational discipline in accordance with the discipline of the Doctoral School:

.....

Year of training:.....

Supervisor, Supervisors, Assistant Supervisor

Supervisor:.....

Assistant Supervisor:

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Faculty unit:

Discipline

Institute

1. apprenticeships implemented in the learning programme: participation in the provision of classes

Position and full name of the PhD student

Course title	Topic of the course	Lecturer	Date of class/ number of hours *	Teaching supervision (name and surname of the instructor)
Suma				

* the number of hours shall be the number of hours of work: 1h = 45 min

2. Academic self-development completed in the academic year 20.../20... winter/summer semester

Position and full name of the PhD student

Academic self-development:	Lp.	Course title	Date	Certification by the instructors
1. training courses outside UPWr - must be approved by the supervisor and PhD School Board, (1 ECTS credit for 1 course)—no more than 2 courses	1			
	2			
2. academic symposium in the institutions mentioned in Article 7 section 1 of the Higher Schools and Education Act of 20 July 2018, excluding academic societies at UPWr (1 ECTS for 1 academic symposium) —no more than 4 academic symposiums	1			
	2			
	3			
	4			

3. several days' specialist training ending with the award of a certificate, purpose—to learn new research techniques (1 ECTS credit for one training course) —no more than 2 specialist training courses	1			
	2			
4. active participation in international conferences (oral presentation; 2 ECTS credits for each conference) —no more than 2 conferences	1			
	2			



3. List of awards and distinctions received

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4. The state of advancement of scientific research and the progress of work on doctoral dissertations

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6. Supervisor's opinion on the scientific work of a PhD student

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(date and signature of the supervisor)



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DOCTORAL SCHOOL

I hereby declare that the information provided in the IDSC form and the attached document enclosures are accurate, up-to-date and compliant with the factual and legal state of affairs.

.....
(date and signature of the doctoral student)

Acceptance of the Head of UPWr Doctoral School

You passed/not passed the semester in an academic year 20.../20...

.....
(date and signature of the Director of the UPWr Doctoral School)



INDIVIDUAL RESEARCH PLAN¹
(Implementation Doctorate)

(title, name and surname)	
e-mail:	@upwr.edu.pl
Tel. no.:	
ORCID:	
Department / Institute in which the doctoral dissertation is carried out:	
Discipline in which the doctoral dissertation is carried out:	
Date of commencement of education at the Doctoral School:	
Supervisor:	(title and/or degree, first name and surname)
principal discipline (declared percentage share):	
Second supervisor/auxiliary supervisor:²	(title and/or degree, first name and surname)
principal discipline (declared percentage share): ³	
Assistant supervisor from the company:	(title and/or degree, first name and surname)

¹ The Individual Research Plan is a document - a contract between the doctoral student and the supervisor(s). It should be developed in the first year of education, submitted to the Doctoral School Office no later than September 30 of the first year of education in DS. The supervisor(s), by way of discussion with the doctoral student, shall also determine and plan other types of doctoral research activities, e.g. may accelerate the implementation of individual parts of the doctoral dissertation, determine the number of scientific articles or conferences to be attended by the doctoral student, or plan the doctoral student's trip for a foreign scientific internship.

² If applicable

³The percentage must be indicated for persons working at Polish research units

Subject:.....

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⁵ with an indication in the description of the current scientific literature in the selected field

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⁶ min. 1000 - max. 2000 characters with spaces

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PLANNED COSTS OF THE RESEARCH^{8;9}

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⁸min. 1000 - max. 2000 characters with spaces

⁹Research cost estimate according to the implemented tasks, broken down into positions, among others: purchase of chemical reagents necessary for the implementation of planned research, external services; costs of business trips, consultations and other costs necessary to implement the project.

FINANCING SOURCES¹⁰

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CONSENTS AND PERMISSIONS REQUIRED TO CARRY OUT THE RESEARCH WORK required by current legislation^{8;11}

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¹⁰max 1000 characters with spaces

¹¹ If it concerns ongoing research, the proceedings should be in accordance with the Act of 15 January 2015 on the protection of animals used for scientific or educational purposes (Journal of Laws of 2023, item 465)

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¹²until 10 - 15 current, most recent literature items related to the doctoral dissertation from 2020-2025

SCHEDULE FOR THE PREPARATION OF THE DOCTORAL DISSERTATION
PLANNED FOR THE YEARS 2024-2028¹³

Objectives to be achieved during the year:	Research task No.	Name of the research task to be performed in the course of the doctoral thesis ¹⁴	Task implementation period (in months)	Planned doctoral student activities¹⁵	Determination of the progress of work after completion of a task in % ¹⁶	Planned effect of the research task
I 2024/2025 (1-12 months)						
REMARKS						
II 2025/2026 (13-24 months)						

¹³To enter further information, e.g. tasks, add lines

¹⁴A research task is not: purchase of equipment, preparation of a report or annual reports, conducting didactic classes or work placements, participation in self-improvement trainings, etc.

¹⁵The research task may include, among others, activities related to the determination of the research area: bibliographic search, development of a research problem, field measurements, processing of observations, development of the methodology of conducted research, performance of planned analyses, preparation of statistical results, preparation of an oral presentation for an international scientific conference, writing a scientific article and also a review article.

¹⁶The percentage share of individual tasks should be determined in relation to all the studies planned in the doctorate (100%)

REMARKS						
III 2026/2027 (25-36 months)						
REMARKS						
IV 2027/2028 (37-48 months)						
REMARKS						

PUBLICATIONS PLANNED,¹⁷
CONFERENCE SPEECHES, SCIENTIFIC MEETINGS

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POPULARIZATION OF RESEARCH RESULTS
planned activities related to the dissemination of the collected results

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PLANNED COOPERATION WITH BUSINESS

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¹⁷Original creative works planned to be submitted in a journal on the current list of the Ministry of Science and Higher Education

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PLANNED SCIENTIFIC COOPERATION, INCLUDING FOREIGN COOPERATION¹⁸

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PATENT APPLICATIONS, PATENTS, IMPLEMENTATIONS

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¹⁸including queries, scientific internships

Planned date of submission of doctoral dissertation¹⁹

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Date and signature of the doctoral student

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Date and signature of the supervisor

Second/auxiliary supervisor's opinion:²⁰

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*Date and signature of the second supervisor/
auxiliary supervisor*

.....
*Date and signature of the assistant supervisor
from the partner company*

Submission date²¹

¹⁹The deadline is set no later than until the end of the period of education at the doctoral school, i.e. until 30.09.2028.

²⁰If an auxiliary supervisor is not appointed, this part should be removed from the IRP (Individual Research Plan).

²¹The date of submission of the IRP is entered by the Doctoral School Office



Doctoral School

**Report on the Implementation of the Individual Research Plan (IRP)
(Implementation Doctorate)**

Part I. Basic information about the doctoral student and dissertation

Name and surname of the student:	
Subject of the dissertation:	
Discipline in which the dissertation is prepared:	
Institute/Department:	
Supervisor(s):	
Assistant supervisor:	
Date of commencement of education at the doctoral school:	
Planned date of submitting the doctoral dissertation (acc. to IRP):	
Progress in the completion of the doctoral dissertation (%):	



Doctoral School

Part II. Implementation of the Individual Research Plan (IRP)

1. Degree of completion of tasks specified in the IRP schedule

Academic year	Research task no.	Description of task	Degree of completion (completed / in progress / not completed)	Result of research task completion (as planned in the IRP)

Changes in the fulfilment of tasks compared to the IRP schedule

(Please provide explanation in the event of failure to complete a planned task and information on how it will affect the submission of the doctoral dissertation by the date specified in IRP – max. 2,000 characters with spaces)



Doctoral School

1. Scientific achievements

Scientific achievements and other activities directly connected with the preparation of the doctoral dissertation in the period covered by the mid-term evaluation (i.e. academic year 2023/2024 and 2024/2025)

List of publications

No	Description	Status of publication (published/accepted for publication/sent)	Publication planned in IRP (YES/NO)
1.	authors, publication title, journal/conference, issue, year of publication, DOI		
2.			
...			

Conference presentations

List of conference presentations given personally by the doctoral student

No	Description	Type of presentation (oral/poster)
1.	authors, publication title, conference, place, date	
2.		
...		

Scientific cooperation

Scientific cooperation with other academic centres, research centres, companies (domestic and foreign) in the period covered by the mid-term evaluation. Please provide the name of the centre, period of cooperation, nature of cooperation (e.g. research internship, incl. the duration of the internship; joint publications, patents, joint preparation of a grant application, etc.)

1.	Name of the centre:	
	Nature of cooperation:	
	Period of cooperation:	
	Main outcomes:	
2.	Name of the centre:	
	Nature of cooperation:	
	Period of cooperation:	
	Main outcomes:	



Doctoral School

Research projects

1. Participation in research projects financed from external sources

(research projects in which the doctoral student actively participated during the period covered by the mid-term evaluation. Persons pursuing a doctorate under the “Implementation Doctorate” programme do not list this programme)

1.	Role in the project (contractor, leader):	
	Project title:	
	Sources of financing:	
	Place of implementation:	
	Implementation period:	
2.	Role in the project (contractor, leader):	
	Project title:	
	Sources of financing:	
	Place of implementation:	
	Implementation period:	

1. **Applying for participation in projects and other sources of research funding, incl. when funding has not been obtained** / short description (max. 2,000 characters with spaces) of the expected role in the project (contractor, leader), institution calling the competition, name of the competition, information whether funding has been obtained)/

Other achievements

Other scientific achievements not listed above, obtained during the period of the mid-term evaluation, e.g. patents, patent applications, utility models, received scientific awards and scholarships, certificates and qualifications, etc..

1. short description of the achievement, date
- 2.



Doctoral School

Part III. Supervisor's assessment of the doctoral student's implementation of the IRP, incl. a description of the progress of work connected with the preparation of the doctoral dissertation (max. 3,000 characters with spaces)

.....

.....
(date and signature of the supervisor)

Declarations of the doctoral student and supervisor / supervisors / assistant supervisor

I hereby declare that the information provided in the report is true.

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(date and signature of the doctoral student)

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(date and signature of the supervisor)

.....
(date and signature of the assistant supervisor)

List of attachments (e.g. copies of the first pages of the publication, confirmations/certificates of participation in conferences, presentation of papers/posters, confirmation of submission of grant applications, etc.).

- 1.
- 2.
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Below, we present profiles of five leading academic teachers and research staff at UPWr Doctoral School, who possess the highest qualifications and significantly contribute to the high standard of education in the discipline of **biotechnology**.

Each of the individuals presented holds top-level qualifications and extensive experience in conducting groundbreaking research and innovative projects in the field of biotechnology. Their commitment, broad specialist knowledge and scientific achievements define the unique character and high quality of education at UPWr Doctoral School, ensuring doctoral students access to the latest advancements and support in the development of their academic careers. The profiles below highlight key achievements and contributions to scientific development in the context of the dynamically evolving discipline of biotechnology.

Detailed descriptions of their achievements can be found on the "Knowledge Base" portal via the link included in each profile.

Name and Surname	Ewa Huszcza
Academic Title	Prof. Ph.D., D.Sc., Eng
Unit	Department of Food Chemistry and Biocatalysis
Academic Discipline	Biotechnology 50%, Food and Nutrition Technology 50%

Category of Achievements	Details Achievements
Most important publications	1.Matera, A.; Dulak, K.; Sordon, S.; Huszcza E.; Popłoński J.: 2025. Modular plasmid design for autonomous multi-protein expression in Escherichia coli. Journal of Biological Engineering, 19, 14, https://doi.org/10.1186/s13036-025-00483-2
	2. Dulak, K.; Sordon, S.;, Matera, A.; Wilczak A.; Huszcza E.; Popłoński J.: 2024. Novel enzymatic route to the synthesis of C-8 hydroxyflavonoids including flavonols and isoflavones, Scientific Reports, 14, 18217, https://doi.org/10.1038/s41598-024-68513-5
	3. Tronina, T., Bartmańska, A.; Popłoński, J.; Rychlicka, M.; Sordon, S.; Filip-Psurska, B.; Milczarek, M.; Wietrzyk, J.; Huszcza: 2023. E. Prenylated flavonoids with selective toxicity against human cancers. International Journal of Molecular Sciences, 24, 7408. https://doi.org/10.3390/ijms24087408
Most important research projects conducted	The SynBio4Flav project (no. 814650), funded by Horizon 2020 with over EUR 7.3 million, ran from January 2019 to August 2024. Its goal was to implement an innovative method for flavonoid production, utilizing optimized microbial consortia instead of traditional plant-based methods. Complex flavonoid metabolic pathways were dissected and transferred to genetically engineered microorganisms to increase yield. This modular approach was intended to enable the targeted biosynthesis of hundreds of flavonoids. The project achieved TRL5, validating the technology in an industrial environment. The biosynthesis of difficult-to-obtain functionalized flavonoids was developed on a gram-scale. The fermentation and post-processing processes were optimized, confirming the health-promoting properties of selected flavonoids.
Supervision (Supervisor/auxiliary supervisor)	1. Agata Matera, Preparation of novel flavonoid glycosylating modules by synthetic biology methods, Defense Date: 2025.
	2. Kinga Dulak, Preparation of novel flavonoid hydroxylating modules by synthetic biology methods, (IV year).
	3. Jarosław Popłoński , Obtaining of hops minor flavonoids and their biotransformations, Defense Date: 2015 (doctoral studies).
	4. Anna Madej , Biotransformation of natural polyphenolic compounds and their derivatives, Defense Date: 2014 (doctoral studies).

	5. Sandra Sordon, Obtaining biologically active flavonoids by biotransformations, Defense Date: 2018 (doctoral studies).
	6. Tomasz Tronina, Microbial transformations of biologically active compounds from hops and their derivatives, , Defense Date: 2012 (doctoral studies).
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWre474c27c41cc4abfa18f8aa588719b0f?r

Name and Surname	Anna Gliszczyńska
Academic Title	Prof. Ph.D., D.Sc., Eng
Unit	Department of Food Chemistry and Biocatalysis
Academic Discipline	Biotechnology

Category of Achievements	Details Achievements
Most important publications	1. Gliszczyńska A., Brodelius P.E. Sesquiterpene coumarins. <i>Phytochemistry Rev.</i> , 2012, 11, 77-96 The highest number of citations is 73
	2. Bonilla Vidal L., Świtalska M., Espina M., Wietrzyk J., Garcia M.L., Souto E.B., Gliszczyńska A., Sánchez-López E. Dually active Apigenin loaded nanostructured lipid carriers for cancer treatment, <i>International Journal of Nanomedicine</i> 2023, 18, 6979-6997, doi.org/10.2147/IJN.S429565 Award for the best scientific article published in 2023 in an open-access journal: „Dually Active Apigenin-Loaded Nanostructured Lipid Carriers for Cancer Treatment” awarded by Col·legi de Farmacèutics de Província de Barcelona 04.07.2024
	3. Vaikunthavasan T., Świtalska M., Maciejewska G., Palko-Łabuz A., Bonilla Vidal L., Wietrzyk J., Souto E.B., Sánchez-López E., Gliszczyńska A. Multifunctional indomethacin conjugates for the development of nanosystems targeting cancer treatment, <i>International Journal of Nanomedicine</i> 2024, 19, 12695-12718 doi.org/10.2147/IJ.S477512 IF 8 i 140 pkt
Most important research projects conducted	1. Optimization of the extraction process of biologically active compounds from selected varieties of industrial hemp for the production of a product with high stability and desirable organoleptic and physicochemical properties" (DWD/5/0065/2021) National Centre for Research and Development Project duration: 01.10.2021 – 30.09.2025 Role in the project: Principal Investigator
	2. Development of a new freeze-drying technology using hybrid heat supply in the context of significant product improvement and reduction of process energy consumption POIR.01.01.01-00-2037/20 Under the Smart Growth Operational Programme 2014–2020, co-financed by the European Union from the European Regional Development Fund Project duration: 01.08.2022 – 31.12.2023 Role in the project: Food chemist
	3. Innovative biopreparations with therapeutic activity – chemical and enzymatic methods for obtaining phospholipids containing isoprenoid and polyphenol fragments" National Science Centre, SONATA (NCN 2013/09/D/NZ9/02457) Project duration: 2014–2017

Supervision (Supervisor/auxiliary supervisor)	1. Monika Haczekiewicz Optimization of the extraction process of biologically active compounds from selected varieties of industrial hemp for the production of a product with high stability and desirable organoleptic and physicochemical properties (4 year).
	2. Paweł Moroz Utilization of Yarrowia lipolytica yeast and waste materials for the biosynthesis of secondary metabolites and their lipid formulations with enhanced therapeutic potential, (3 year).
	3. Mariana Garnica Agudelo Enhancing the functional potential of polyphenols through lipid-based delivery systems, (II year).
	4. Thiruchenthoooran Vaikunthavasan Development of lipid nanosystems of Nonsteroidal Anti-inflammatory Drugs (NSAIDs) and their multifunctional boconjugates for targeting cancer treatment, Defense Date: 2024.
	5. Rychlicka Magdalena: Enzymatic methods of obtaining phospholipids containing biologically active phenylpropenoic acids, Defense Date: 2021 (doctoral studies).
	6. Bonilla-Vidal Lorena: Lipid nanoparticles of Apigenin and Melatonin in oncological and ocular pharmacotherapy, 2024, Defense Date: 2024 (doctoral studies).
	7. Okulus Marta: Chemoenzymatic methods of obtaining biologically active phospholipids containing O-methylated phenolic acids, Defense Date: 2022 (doctoral studies).
	Prime Minister's Award for highly rated achievements forming the basis for the conferment of the postdoctoral (habilitation) degree (19.12.2018) Scholarship from the Ministry of Science and Higher Education for an Outstanding Young Scientist No. 1/0680/15 (2015–2018) 1. Gliszczyńska A., Wawrzeńczyk C., Method for obtaining (4S,5S)-5-(4'-methyl-3'-pentenyl)-4-hydroxy-5-methyldihydrofuran-2-one Patent No. 208574. percentage contribution is 70%. 2. Gliszczyńska A., Wawrzeńczyk C., Method for preparing (4S,5S)-5-(4'-methyl-3'-pentenyl)-4-hydroxy-5-methyldihydrofuran-2-one Patent No. 211932. percentage contribution is 70% 3. Gliszczyńska A., Wawrzeńczyk C., Kula J., Bonikowski R., New (S)-(+)-5-methyl-2-(prop-1-en-2-yl)hexan-1,5-diol and new (R)-(-)-5-methyl-2-(prop-1-en-2-yl)hexan-1,5-diol and method for their preparation. Patent No. 212559. Percentage share is 40%. 4. Gliszczyńska A., Wawrzeńczyk C., Method for obtaining (Z)-3,7,11-trimethyldodeca-1,6-dien-3,10,11-triol and (Z)-2,10-dihydroxy-2,6,10-trimethyldodeca-6,11-dien-3-one. Patent No. 212822. Percentage share is 70%.

Most important additional achievements	1. Member of the Polish Chemical Society since 2007 2. Secretary of the Board of the Wrocław Branch of the Polish Chemical Society for the term 2016–2018 3. Treasurer of the Board of the Wrocław Branch of the Polish Chemical Society for the term 2019–2021 4. Member of the Polish Society of Food Technologists since 2015 5. Member of the Committee on Chemistry and Physics in Biology and Medicine of the Wrocław Branch of the Polish Academy of Sciences for the term 2015–2018 6. Member of the Committee on Chemistry and Physics in Biology and Medicine of the Wrocław Branch of the Polish Academy of Sciences for the terms 2019–2022 and 2023–2026 7. Member of the European Society for Nanomedicine (ESNAM) since 2023 8. Member of the Polish Biophysical Society since 2025 Biotechnology for Life and Industry BioTech@Life https://bazawiedzy.upwr.edu.pl/info/team/UPWr15422faddb854f989e349f3407e1d17b?affil=&ps=20&tab=&title=Biotechnology+for+life+and+industry&lang=pl&pn=1&cid=1096818 1. Member of the Organizing Committee of the VIth International Conference on Arthropods: chemical, physiological, biotechnological and environmental aspects, Ochotnica Dolna, 21–26.06.2009. 2. Member of the Organizing Committee of the 41st International Symposium on Essential Oils (ISEO), Wrocław, 05–08.09.2010. 3. Member of the Organizing Committee of the VIIth International Conference on Arthropods: chemical, physiological, biotechnological and environmental aspects, Białka Tatrzańska, 18–23.09.2011. 4. Member of the Organizing Committee of the conference Bioactive Compounds of Natural Origin, Trzebnica, 23–24.01.2017. 5. Member of the Organizing Committee of the 43rd Scientific Session of the Committee on Food and Nutrition Sciences of the Polish Academy of Sciences – Food for the Future, Wrocław, 04–05.07.2017. 6. Member of the Organizing Committee of the 60th Scientific Congress of the Polish Chemical Society, Wrocław, 17–23.09.2017. 7. Vice-Chair of the Organizing Committee of the conference Biotechnology – Research and Industrial Applications, Wrocław, 20–21.06.2018. 8. Vice-Chair of the Organizing Committee and Member of the Scientific Committee of the conference Biotechnology – Research and Industrial Applications, Wrocław, 15–16.09.2022. 9. Member of the Organizing Committee of the 52nd International Symposium on Essential Oils (ISEO 2022), Wrocław, 4–7.09.2022.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?affil=&ps=20&id=UPWr9dfc420dff3c4125b0fbedecba7b78b9&lang=en&pn=1&cid=336527

Name and Surname	Tomasz Janeczko
Academic Title	Ph.D., D.Sc.
Unit	Department of Biocatalysis and Food Chemistry
Academic Discipline	Biotechnology (BT): 50%; biological sciences (BS): 50% N

Category of Achievements	Details Achievements
Most important publications	1. Chlipała P,* Tronina T, Dymarska M, Urbaniak M, Kozłowska E, Stępień Ł, Kostrzewa-Susłow E, Janeczko T.* Multienzymatic biotransformation of flavokawain B by entomopathogenic filamentous fungi: structural modifications and pharmacological predictions. <i>Microbial Cell Factories</i> , 2024, 23:65. https://doi.org/10.1186/s12934-024-02338-9 . (IF = 4,9; 100 pkt MEiN)
	2. Chlipała P,* Bienia J, Mazur M, Dymarska M, Janeczko T.* Efficient Production of 4-Hydroxydihydrochalcones using non-conventional yeast strains. <i>International Journal of Molecular Sciences</i> , 2024, 25(19), 10735; https://doi.org/10.3390/ijms251910735 . (IF = 4,9; 140 pkt MEiN)
	3. Chlipała P,* Matera A, Sordon S, Popłoński J, Mazur M, Janeczko T.* Enzymatic glycosylation of 4'-hydroxychalcones: Expanding the scope of nature's catalytic potential. <i>International Journal of Molecular Sciences</i> , 2024, 25, 11482. https://doi.org/10.3390/ijms252111482 . (IF = 4,9; 140 pkt MEiN)
Most important research projects conducted	1) Modulation of the gut microbiome as a strategy to counteract hormone-dependent disorders (2025–2028). Funded by the National Science Centre (NCN); OPUS project no. 2024/53/B/NZ7/03333; Principal Investigator. Funding amount: PLN 1,248,800.00
	2) Chemo-enzymatic synthesis of dihydrochalcone glycosides and their pro-health activity (2022–2026). Funded by the National Science Centre (NCN); PRELUDIUM BIS 3, project no. 2021/43/O/NZ7/01517; Principal Investigator. Funding amount: PLN 686,800.00
	3) Modulation of steroid metabolism in cultures of selected gut microbiome strains as a factor preventing depressive disorders (2022–2024). “Mistrz” project funded by the Wrocław University of Environmental and Life Sciences. Project no. N090/0015/22; Principal Investigator. Funding amount: PLN 100,000.00
Supervision (Supervisor/auxiliary supervisor)	1. Ewa Kozłowska, Cascade biotransformations of dehydroepiandrosterone, defense date: 2020 (doctoral studies).
	2. Mateusz Łużny, Synthesis and biotransformations of selected flavonoid compounds, defense date: 2021 (doctoral studies).
	3. Paweł Chlipała, Chemo-enzymatic synthesis of dihydrochalcone glycosides and their pro-health activity (III year).

	Awards and distinctions: Recipient of over 35 scientific and academic awards, including: 1. Rector's Awards of Wrocław University of Environmental and Life Sciences (individual and team, 1st to 3rd degree) – for: - publication series in the field of microbial biotransformations (steroids, flavonoids, prochiral ketones, hyaluronic acid), - multiple patent portfolios (including 7, 12, and 17 patents in one year), - organizational achievements (EU grant proposals), - teaching excellence and supervision of awarded theses, - achieving the academic degree of habilitated doctor. 2. Rector's Pro-Quality Financial Awards – annual and multi-year distinctions for outstanding scientific and inventive productivity. 3. International invention medals and honors (2019–2022): - Bronze Medal, Geneva Inventions 2019 – for steroid-based compounds with pharmacological potential, - Bronze Medal, IWIS 2019 – for a series of bioactive steroid inventions, - Special Award for Innovation, Geneva Inventions 2019 – awarded by King Abdulaziz University (Saudi Arabia), - Silver Medal, IWIS 2020 – for a portfolio of bioactive flavonoids, - Silver Medal, Geneva Inventions 2021 – for 45 flavonoid-related inventions, - Silver Medal, Geneva Inventions 2021 – for methods of obtaining dihydrochalcones (sweeteners), - Silver Medal, IWIS 2021 – for a series of inventions involving dihydrochalcone-based sweeteners, - Gold Medal, IWIS 2022 – for 38 inventions related to flavonoid glycosides with antimicrobial potential, - Best National Invention Award, IWIS 2022, - Silver Medal, Geneva Inventions 2022 – for the same series of inventions.
Most important additional achievements	Patents and implementations: I am the author of 230 granted patents and 40 patent applications concerning innovative methods for obtaining compounds with high biological activity potential, which may in the future find application in the pharmaceutical and food industries. The developed technologies focus primarily on steroidal compounds, including derivatives of androstanes, pregnanes, and estrones, as well as flavonoid compounds such as chalcones, flavanones, flavones, and isoflavones. These compounds are modified via enzymatic biotransformation processes carried out using growth cultures of yeasts and filamentous fungi, including entomopathogenic fungal strains. The main transformations include reduction, hydroxylation, and glycosylation, aimed at generating novel chemical structures with enhanced health-promoting properties, including antioxidant, anti-inflammatory, and metabolism-modulating effects.

	Other significant achievements: Awards for Mentoring Students and PhD Candidates Between 2019 and 2022, I served as the scientific supervisor of four interdisciplinary teams of students and doctoral candidates who were awarded four first prizes in consecutive editions of the Polish national Student-Inventor Competition. The awarded invention series (ranging from 24 to 45 applications) focused on the development of bioactive steroidal and flavonoid compounds, including: flavonoid glycosides with potential antimicrobial effects, dihydrochalcones – sweet-tasting, health-promoting natural products, modified derivatives of DHEA, estrone, and progesterone with hormonal activity. The patented methods involved enzymatic biotransformations using yeasts and filamentous fungi, including entomopathogenic strains. Mentorship are included scientific guidance, experimental planning, publication support, and coordination of intellectual property protection.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?affil=&ps=20&id=UPWr3283e6a07a9945bdaeccca2dbb133f1f&lang=en&pn=1&cid=2258150

Name and Surname	Tomasz Janek
Academic Title	Ph.D. D.Sc.
Unit	Department of Biotechnology and Food Microbiology
Academic Discipline	Biotechnology

Category of Achievements	Details Achievements
Most important publications	1. Ciurko, D., Czyżnikowska, Ż., Kancelista, A., Łaba, W., & Janek, T. (2022). Sustainable production of biosurfactant from agro-industrial oil wastes by <i>Bacillus subtilis</i> and its potential application as antioxidant and ACE inhibitor. <i>International Journal of Molecular Sciences</i> , 23(18), 10824.
	2. Janek, T., Gudiña, E. J., Połomska, X., Biniarz, P., Jama, D., Rodrigues, L. R., Rymowicz, W., Lazar, Z. (2021). Sustainable surfactin production by <i>Bacillus subtilis</i> using crude glycerol from different wastes. <i>Molecules</i> , 26(12), 3488.
	3. Janek, T., Łukaszewicz, M., Rezanka, T., & Krasowska, A. (2010). Isolation and characterization of two new lipopeptide biosurfactants produced by <i>Pseudomonas fluorescens</i> BD5 isolated from water from the Arctic Archipelago of Svalbard. <i>Bioresource Technology</i> , 101(15), 6118-6123.
	Remediation of water using biosurfactants and metallothioneins immobilized in bacterial cellulose and alginate microcapsules. Project leader: Tomasz Janek, start date: 02-09-2024, end date: 01-09-2027, OPUS 26, UMO-2023/51/B/NZ9/01660, National Science Centre; The aim of the project is to develop innovative, biodegradable biopolymeric materials based on biosurfactants and metallothioneins immobilized in bacterial cellulose and alginate microcapsules, intended for the removal of heavy metals and organic compounds from wastewater. The project involves fundamental research on the adsorption properties of these materials and an assessment of the impact of lipopeptide biosurfactants produced by <i>Bacillus subtilis</i> and <i>Pseudomonas fluorescens</i> on purification efficiency. The innovation lies in the use of natural, biodegradable components instead of expensive synthetic hydrogels. An important part of the project also includes molecular simulations and toxicity evaluation of the biopolymers on healthy cells. The results obtained may provide a basis for the development of a modern, environmentally friendly water treatment technology.

Most important research projects conducted	Study of novel lipopeptide biosurfactants effect on the stability of a thin liquid film and the formation of a three-phase contact in terms of their use in flotation. Project leader at UPWR: Tomasz Janek, start date: 01-09-2023, end date: 31-08-2026, OPUS 24, UMO-2022/47/B/ST8/03392, National Science Centre; The aim of the project is to investigate the influence of biodegradable lipopeptide biosurfactants, produced by <i>Pseudomonas fluorescens</i> strains, on the stability of thin liquid films in the flotation process. The research includes analysis of biosurfactant adsorption at phase boundaries, observation of gas bubble interactions with solid particle surfaces, and molecular simulations explaining the mechanism of three-phase contact formation. The innovative aspect of the project lies in the application of biological surface-active compounds that have not been previously used in the flotation of hydrophilic minerals and metal sulfides. Optimization of the biosurfactant biosynthesis process and a comprehensive approach combining experimental work with simulation will allow for a better understanding of the fundamental act of flotation. The results obtained may contribute to the development of more ecological and efficient ore processing technologies. Biotechnological potential and antimicrobial activity of biosurfactant-lipase conjugates immobilized on biopolymers. Project leader: Tomasz Janek, start date: 01-02-2021, end date: 31-07-2024, OPUS 21, UMO-2020/37/B/NZ9/01519, National Science Centre; The project evaluated the antibacterial and anti-biofilm activity of synergistic biosurfactant-lipase systems against pathogenic bacteria such as <i>E. coli</i>, <i>S. aureus</i>, <i>P. aeruginosa</i>, and <i>Salmonella</i> spp. Alginate, chitosan-alginate, and cellulose hydrogels with immobilized biosurfactant-lipase conjugates were developed, and changes in their physical properties were analyzed. It was demonstrated that these systems effectively degrade bacterial biofilms and inhibit the growth of pathogenic microorganisms. Additionally, the potential of biosurfactants as biocontrol agents limiting the growth of toxigenic fungi and the production of mycotoxins was confirmed. The results contributed to a better understanding of the mechanisms of action of natural antimicrobial conjugates and their application in biomedicine and the food industry.
Supervision (Supervisor/auxiliary supervisor)	1. Dominika Ciurko, Microbial production of biologically active compounds from agri-food wastes, Defense Date: 2023. 2. Dominika Jama, Studies on the biological activity of biosurfactants and their conjugates with lipases immobilized on the surface of a biopolymer (IV year). 3. Maciej Szwechłowicz, Biological activity and mechanisms of action of new metal complexes with lipopeptide biosurfactants produced by bacteria with broad metabolic capabilities (II year). 4. Kinga Hyla, Chemoenzymatic synthesis and biological activity of sugar and polyol esters of fatty acids (II year).

Most important additional achievements	(1) Rudolf Weigl Award for the presentation titled “Antiadhesive activity of biosurfactant pseudofactin II secreted by Pseudomonas fluorescens BD5 against several pathogenic microorganisms” delivered at the 4th Polish-Ukrainian Weigl Conference on Microbiology, Wrocław – 2011; (2) Distinction of the doctoral thesis by the Scientific Council of the Faculty of Biotechnology at the University of Wrocław – 2013; (3) Two scientific scholarships for young doctors at the University of Wrocław within the project "Development of the potential and educational offer of the University of Wrocław as a chance to increase the competitiveness of the University" – 2014, 2015; (4) Eight individual scientific awards from the Rectors of the University of Wrocław, Medical University of Wrocław, and University of Environmental and Life Sciences in Wrocław. Since 2019, a member of the editorial board of the journal Antibiotics. Member of the Leading Research Team (WZB) BioTech@Life – Biotechnology for Life and Industry; from 2019 to present. Development of a range of disinfectant products for Transvet Sp. z o.o. as part of the project “Development of a globally innovative technology for the production of cleaning agents for membrane installations in the food industry”; Member of the Scientific Committee of the ChemBiotIC - Chemistry & Biotechnology International Conference, 2025.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrc07c7a1add7f46cb97c12b33bcc2faaf?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BTomasz%2BJanek%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=340970

Name and Surname	Zbigniew Lazar
Academic Title	Prof. Ph.D., D.Sc., Eng
Unit	Department of Biotechnology and Food Microbiology
Academic Discipline	Biotechnology

Category of Achievements	Details Achievements
Most important publications	1. Szczepańska, P., Hapeta, P., & Lazar, Z. (2021). Advances in production of high-value lipids by oleaginous yeasts. <i>Critical Reviews in Biotechnology</i> , 42(1), 1–22. https://doi.org/10.1080/07388551.2021.1922353
	2. Hapeta, P.; Szczepańska, P.; Witkowski, T.; Nicaud, J.-M.; Crutz-Le Coq, A.-M.; Lazar, Z. The Role of Hexokinase and Hexose Transporters in Preferential Use of Glucose over Fructose and Downstream Metabolic Pathways in the Yeast <i>Yarrowia lipolytica</i> . <i>Int. J. Mol. Sci.</i> 2021, 22, 9282. https://doi.org/10.3390/ijms22179282
	3. Luo, Z.; Liu, N.; Lazar, Z.; Chatzivasileiou, A.; Ward, V.; Chen, J.; Zhou, J.; Stephanopoulos, G. Enhancing isoprenoid synthesis in <i>Yarrowia lipolytica</i> by expressing the isopentenol utilization pathway and modulating intracellular hydrophobicity. <i>Metab. Eng.</i> 2020, 61, 344–351. https://doi.org/10.1016/j.ymben.2020.07.010 .
Most important research projects conducted	1. The Mysterious Hexokinase – a Protein Linking Carbon and Nitrogen Metabolism, Principal Investigator, 01.07.2024–30.06.2027, OPUS26, NCN
	2. Yeasts from the <i>Yarrowia</i> clade — a new efficient platform for the simultaneous biosynthesis of lipids and extracellular heterologous proteins, Principal Investigator, 01.10.2023–30.09.2027, Preludium Bis, NCN
	3. Utilization of volatile fatty acids for wax biosynthesis by the yeast <i>Yarrowia lipolytica</i> , Principal Investigator, 01.02.2021–31.07.2024, OPUS19, NCN
Supervision (Supervisor/auxiliary supervisor)	1. Bartosz Wąsik, Utilization of <i>Vishniacozyma victoriae</i> yeast as a new biotechnological platform for enhanced production of specific carotenoids from lignocellulosic biomass (I year).
	2. Aleksandra Bartusiak, Yeasts from the <i>Yarrowia</i> clade – a new efficient platform for the simultaneous biosynthesis of lipids and extracellular heterologous proteins (II year).
	3. Paweł Moroz Utilization of <i>Yarrowia lipolytica</i> yeast and waste raw materials for the biosynthesis of secondary metabolites and their lipid-based formulations with enhanced therapeutic potential, (III year).
	4. Kacper Szymański, Unique proteins from <i>Yarrowia lipolytica</i> yeast and their role in the regulation of central carbon metabolism, (III year).

	5. Patryk Kupaj, Characterization of volatile fatty acid metabolism in <i>Yarrowia lipolytica</i> yeast and their use for the biosynthesis of biologically active compounds, Defense Date: 2025. 6. Patrycja Szczepańska, Production of bioactive compounds using <i>Yarrowia lipolytica</i> yeast, Defense Date: 2023 (doctoral studies). 7. Piotr Hapeta, Analysis of sugar and glycerol metabolism regulation in <i>Yarrowia lipolytica</i> yeast, Defense Date: 2021 (doctoral studies).
Most important additional	Awards and Distinctions: - Rector's Award from UPWr for scientific, teaching, and organizational achievements - Recipient of the Scholarship for Outstanding Young Scientists – 2015–2018 - Recipient of the AgreenSkills fellowship under the 7th European Framework – 2013–2015 - Recipient of the Swiss Government Excellence Scholarship for Foreign Scholars (ESKAS) – 2008–2009 Patents and Implementations: - Nicaud JM, Lazar Z, Dulermo T, Crutz-Le Coq AM, Improved lipid accumulation in <i>Yarrowia lipolytica</i> strains by overexpression of hexokinase and new strains thereof. Patent US20170145449A1 - Nicaud JM, Lazar Z, Crutz-Le Coq AM, Gamboa-Meléndez H, Cécile Neuvéglise, Mutant <i>Yarrowia</i> strain capable of degrading galactose. Patent WO2016203004 - Robak M, Lazar Z, Walczak E, The method of bioproducts obtaining using yeast <i>Yarrowia lipolytica</i>, Patent PL216012B1 Membership in Scientific Boards/Committees: - Member of the Biotechnology Committee, Polish Academy of Sciences since 2024 - Member of the Polish Biochemical Society since 2008 - Member of the American Society for Biological Engineering since 2017 - Editorial Board Member of FEMS Yeast Research - Editorial Board Member of Critical Insights in Biotechnology

achievements	Other Notable Achievements: - Organizer of the 38th International Specialized Symposium on Yeasts in 2025 - Member of PhD advisory committees: Akarawit Jenjitwanich (BOKU, Vienna, Austria); Armand Bernard (INRAE, Jouy-en-Josas, France) - Reviewer of international doctoral dissertations: Anna Erian (BOKU, Vienna, Austria), Akarawit Jenjitwanich (BOKU, Vienna, Austria), Eliza Atkinson (ICL, London, UK) Internships and Lectureships: - University of Bari Aldo Moro, Department of Biological Sciences, Biotechnology and Environmental Studies, Bari, Italy – lectures within Bioref – European Master in Biorefinery (team leader: Prof. Gennaro Agrimi), 2023, 2024, 2025 - Sciences Pour l’Oenologie (SPO), INRAE, Montpellier, France – one-month research internships (team leader: Dr Cécile Neuvéglise), 2021, 2022, 2023 - Massachusetts Institute of Technology (MIT), Department of Chemical Engineering, Cambridge, USA – postdoctoral fellowship (team leader: Prof. Gregory Stephanopoulos), 01/02/2016 – 31/01/2018 - BimLip Team, INRA, AgroParisTech, Thiverval-Grignon, France – postdoctoral fellowship (team leader: Dr Jean-Marc Nicaud), 01/02/2013 – 31/01/2015 - Swiss Federal Institute of Technology (ETH Zurich), Institute of Microbiology, Zurich, Switzerland – doctoral internship (team leader: Prof. Markus Aebi), 01/10/2008 – 30/06/2009
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrb66e319982544adb95168459bd28c6e9?r=projectmain&tab=main&title=Profil%2Bosoby%2B%25E2%2580%2593%2BZbigniew%2BLazar%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&lang=pl&pn=1

Below, we present profiles of five key academic teachers and research staff at UPWr Doctoral School, whose contribution is indispensable to the development of the discipline of **social and economic geography and spatial management**. These are recognised specialists of the highest qualifications who deal with the complex relationships between society, economy and space. Their research focuses on the analysis of urbanisation processes, regional development, spatial planning, natural resource management and the impact of globalisation on local communities. Thanks to their knowledge and experience, doctoral students have the opportunity to deepen their understanding of spatial and socio-economic dynamics and to develop innovative solutions for the sustainable development of cities and regions.

All detailed information about their achievements is available on the "Knowledge Base" portal, accessible via the link in each profile.

Name and Surname	Marek Furmankiewicz
Academic Title	Ph.D., D.Sc., Associate Professor
Unit	Institute of Spatial Management
Academic Discipline	Social and economic geography and spatial management

Category of Achievements	Details Achievements
Most important publications	1. Furmankiewicz, M., Hewitt, R. J., & Kazak, J. K. (2021). Can rural stakeholders drive the low-carbon transition? Analysis of climate-related activities planned in local development strategies in Poland. Renewable and Sustainable Energy Reviews, 150, 111419. doi:10.1016/j.rser.2021.111419 citations.
	2. Furmankiewicz, M., & Macken-Walsh, Á. (2016). Government within governance? Polish rural development partnerships through the lens of functional representation. Journal of Rural Studies, 46, 12–22. doi:10.1016/j.jrurstud.2016.05.004
	3. Furmankiewicz, M., Janc, K., & Macken-Walsh, Á. (2016). The impact of EU governance and rural development policy on the development of the third sector in rural Poland: A nation-wide analysis. Journal of Rural Studies, 43, 225–234. doi:10.1016/j.jrurstud.2015.12.011
Most important research projects conducted	“The concept of absorptive and transformational Europeanization of subnational entities on the example of local action groups in Poland”. - Principal Investigator (2020-2024); National Science Centre own research project OPUS 17 2019/33/B/HS4/00176. Research of Local Action Groups in Poland in relation to the concept of “Europeanization”. Research conducted in cooperation with Prof. Krzysztof Janc (University of Wrocław).
	2. “Spatial aspects of structures and power relations in LEADER local action groups in Poland in the context of the concept of territorial governance” - Principal Investigator (2013-2016). National Science Centre own research project OPUS No. 012/07/B/HS4/03011; Research conducted in collaboration with Dr. Aine Macken-Walsh (TEAGASC, Agriculture and Food Development Authority, Ireland). The research dealt with power relations in Local Action Groups in Poland in terms of the concept of territorial governance.
	3. "Territorial partnerships in rural areas in Poland. Regional differentiation and impact on social activity" - Principal Investigator (2009-2012); Own research project funded by the Ministry of Science and Higher Education (Poland) No. NN114 171 036; Research conducted in cooperation with Dr. Krzysztof Janc (University of Wrocław). The research focused on territorial partnerships in rural Poland and their impact on local social activity.
Supervision (Supervisor/auxiliary supervisor)	1. Taniya Choudchury, Assessing local government activity in implementing a low-carbon economy in geographical perspective, Auxiliary Supervisor: Dr Rengin Aslanoğlu, (1 year)
	2. Manu Thomas, Typology and determinants of environmental conflicts in terms of social practice theory, starting education in the 2025/2026 academic year, Auxiliary Supervisor: Dr Karolina Królikowska.
	Awards and distinctions: Team award (with Dr. Aine Macken-Walsh) of the Rector of the University of Life Sciences in Wrocław 1st degree for scientific achievements (2017).
	Membership in scientific councils/scientific committees: Council of the Discipline of Socio-Economic Geography and Spatial Management, Wrocław University of Environmental and Life Sciences

Most important additional achievements	Participation in Research Groups: Participation in the research and implementation project 'IQSell: Organizational Innovations for the Development of Short Food Supply Chains' in the research team at the Wrocław University of Environmental and Life Sciences; Grant number: 00039.DDD.6509.00126.2019.01 (2021-2023); funded by the Ministry of Agriculture and Rural Development, Warsaw, Poland. Other significant achievements: Participation in expert teams of competitions of the National Science Center, Krakow, Poland (2020, 2023).
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/globalResultList.seam?q=Furmankiewicz&oa=false&r=author&ps=20&tab=PEOPLE&lang=en&pn=1&qp=openAccess%3Dfalse&cid=1198056

Name and Surname	Joost van Hoof
Academic Title	Ph.D., D.Sc.
Unit	Department of Systems Research
Academic Discipline	Social and economic geography and spatial management

Category of Achievements	Details Achievements
Most important publications	1. Dikken, J., Kazak, J. K., Pavlovski, D., Ivan, L., Ayalon, L., Perek-Białas, J. M., & van Hoof, J. (2025). Four European typologies of older adults concerning environmental sustainability. Renewable and Sustainable Energy Reviews, 211, 115276. https://doi.org/10.1016/j.rser.2024.115276
	2. van Hoof, J., & Dikken, J. (2024). Revealing sustainable mindsets among older adults concerning the built environment: The identification of six typologies through a comprehensive survey. Building and Environment, 256, 111496. https://doi.org/10.1016/j.buildenv.2024.111496
	3. van Hoof, J., Soebarto, V., Ayalon, L., Marston, H. R., Zander, K. K., Dikken, J., & Kazak, J. K. (2025). Ten questions concerning older people and a sustainable built environment. Building and Environment, 274, 112742. https://doi.org/10.1016/j.buildenv.2025.112742
Most important research projects conducted	1. Co-creating Urban Living Labs for Circular Regenerative Neighbourhoods (Urban-CoLLaR), role: Principal Investigator at THUAS (NL), implementation period: 01-01-2025 - 31-12-2027, funding source: Driving Urban Transitions (JPI Urban EUROPE), brief description: The project aims to accelerate the application of circular solutions in regenerative urban renewal projects at the neighbourhood level, supporting the transition towards a carbon-neutral and circular building stock by 2050 as promoted by the European (EU) Renovation Wave strategy and Circular Economy Action Plan. The project adopts a multilayer approach to frame the availability of environmental resources (e.g. energy, materials, water, etc.) and socio-economic resources (e.g. cultural heritage, local employment, etc.) that characterize a neighbourhood, in turn developing appropriate solutions to increase the recirculation of such resources for urban regeneration.
	2. Pathways towards Age-friendly Neighbourhoods: Transnational research, knowledge transfer, collaborative approaches and capacity building for the transition towards the 15-minute (AGE-15), role: Principal Investigator at THUAS (NL), implementation period: 01-01-2025 - 31-12-2027, funding source: Driving Urban Transitions (JPI Urban EUROPE), brief description: The objectives of AGE-15 are to: understand the role of age-friendly neighbourhoods in relation to the 15mC concept; investigate the relation between the built environment and older adults' everyday life activities, mobility and accessibility in neighbourhoods in Gothenburg (Sweden), Istanbul (Turkey), The Hague (The Netherlands) and Lisbon (Portugal); learn from best practices of collaborative housing for seniors from Sweden and Japan; co-create novel approaches for 15-m and age-friendly neighbourhoods; and build capacity across regions.

	3. Older Adults Co-Creating a Sustainable Age-friendly City (City&Co), role: Principal Investigator of international consortium, implementation period: 22-03-2022 - 21-06-2025, ERA-NET Urban Transformation Capacities - JPI project number 99950200, brief description: The City&Co project aimed to develop an innovative tool to measure the age-friendliness of cities, combining quantitative and qualitative methods. A key objective was to provide a solid basis for cities around the world to evaluate and improve their environment for people over 65. The tool, once validated by the WHO, was intended to allow local governments to make informed, data-driven decisions to contribute to policies better tailored to the needs of an ageing population. As a result, cities were to develop local ecosystems in which older people, researchers and city officials worked together to improve the quality of life for seniors. Through this project, the functioning of cities could be more inclusive and responsive to the needs of all age groups.
Supervision (Supervisor/auxiliary supervisor)	1. Supervision at the Charles Darwin University (Australia): Shokhida Safarova, Doctoral dissertation title: Energy efficiency of houses and best practice urban design in the Top End of the Northern Territory; Defense date: 2021 2. Supervision at the Tilburg University (the Netherlands): Ingrid Goudriaan, Doctoral dissertation title: The impact of light and dynamic lighting in care homes on the health of older people with dementia; on-going part-time studies 3. Supervision at the Technische Universität Wien (Austria): Heidi Elnimr, Doctoral dissertation title: Interactive architecture as a therapeutic environment for people with Alzheimer's disease; Defense date: 2024
Most important additional achievements	Awards and distinctions: Recognition by the Stanford University on the 'World's Top 2% of Scientists List' based on the highest citation count. Recognized in the years: 2021, 2022, 2023, 2024. Foundation for European Dementia Initiatives (EFID) Award 2017 for research on the sense of home atmosphere. Two Literati Emerald Awards in 2019 - Awards for Excellence, presented by Emerald Publishing. Participation in Leading Research Groups: 1. CA23101 - Building Opportunities for Participation and Accessibility through lifelong community Mobility (BOPALiM) – Management Committee Member 2. CA21107 - Work inequalities in later life redefined by digitalization (DIGI-net) – Management Committee Member 3. CA21102 - Toolkit of Care (TOC) – Management Committee Member Other significant achievements 1. From 2016 to 2024 member of the non-executive board of Stichting Habion (social housing association for the elderly) in Utrecht (the Netherlands). 2. from 2018 to 2024 member of the Board of Directors of Stichting Vastgoed Zorgsector (liberalised (free market) housing organisation for the elderly) in Utrecht (the Netherlands).
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr55209b1fff624ddbfbcb49c1293d8a95?r=publication&ps=20&tab=main&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BJoost%2BVan%2BHoof%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=450875

Name and Surname	Jan Kazak
Academic Title	Ph.D., D.Sc., Eng
Unit	Department of Systems Research
Academic Discipline	Social and economic geography and spatial management

Category of Achievements	Details Achievements
Most important publications	1. Dikken, J., Kazak, J. K., Pavlovski, D., Ivan, L., Ayalon, L., Perek-Białas, J. M., & van Hoof, J. (2025). Four European typologies of older adults concerning environmental sustainability. <i>Renewable and Sustainable Energy Reviews</i> , 211, 115276. https://doi.org/10.1016/j.rser.2024.115276
	2. Kamińska, J. A., Turek, T., van Poppel, M., Peters, J., Hofman, J., & Kazak, J. K. (2023). Whether cycling around the city is in fact healthy in the light of air quality – Results of black carbon. <i>Journal of Environmental Management</i> , 337, 117694. https://doi.org/10.1016/j.jenvman.2023.117694
	3. Kazak, J. K. (2023). Intergenerational social housing for older adults: Findings from a Central European city. <i>Habitat International</i> , 142, 102966. https://doi.org/10.1016/j.habitatint.2023.102966
Most important research projects conducted	1. Circular Approaches for the Built Environment (CABE), role: Principal Investigator, implementation period: 01-01-2025 - 31-12-2027, funding source: National Centre for Research and Development (NCBR) (DUT Call 2023), brief description: The CABE project aims to develop and test innovative urban solutions for resource sharing infrastructure and circular solutions for the built environment through the reuse of construction and demolition waste. The creation of a cadastre of circularised materials, tracking mechanisms, solutions for post-disaster waste treatment and a synergistic market for reused materials will contribute to the clean-up of urban regions, reduction of environmental burdens and costs, job creation and security of material supply. The project will result in the development of practical tools to support local governments in implementing sustainability.
	2. New European Bauhaus for Increasing Urban Biodiversity (URBIO BAUHAUS), role: researcher, implementation period: 01-06-2024 - 30-11-2026, funding source: Interreg Central Europe 2021-2027, brief description: The URBIO BAUHAUS project aims to address the decline of urban and peri-urban biodiversity in Central Europe by applying the core values of the New European Bauhaus (NEB), such as sustainability, integration and aesthetics, to Urban Biodiversity Solutions (UBS) as part of a wider urban transformation enabling a resilient society that understands the need for sustainability and integration. In order to effectively address the aforementioned issues, the URBIO BAUHAUS project will develop a joint NEB-based urban biodiversity transformation roadmap as a key solution. The combination of different approaches and actions aims to develop solutions that target halting and reversing biodiversity loss, especially in urban areas.

	3. Older Adults Co-Creating a Sustainable Age-friendly City (City&Co), role: Principal Investigator at UPWr, implementation period: 22-03-2022 - 21-06-2025, funding source: National Science Centre (NCN) (EN-UTC Call 2021), brief description: The City&Co project aimed to develop an innovative tool to measure the age-friendliness of cities, combining quantitative and qualitative methods. A key objective was to provide a solid basis for cities around the world to evaluate and improve their environment for people over 65. The tool, once validated by the WHO, was intended to allow local governments to make informed, data-driven decisions to contribute to policies better tailored to the needs of an ageing population. As a result, cities were to develop local ecosystems in which older people, researchers and city officials worked together to improve the quality of life for seniors. Through this project, the functioning of cities could be more inclusive and responsive to the needs of all age groups.
Supervision (Supervisor/auxiliary supervisor)	1. Aleksandra Lubańska, Perception of Complex Urban Systems by Older People, (I year). 2. Paweł Całka, Development of an ESG system on the example of PGE Polska Grupa Energetyczna SA, (I year) (implementation doctorate). 3. Muhammad Kamran Khan, State of the Environment versus Socio-Economic Development of Pakistan, (II year). 4. Supervision at the Doctoral School at Jagiellonian University in Kraków: Milena Maj, Doctoral dissertation title: A Cross-city Analysis of Age, Space and Exclusion for developing age-friendly cities; 4th year of study.
Most important additional achievements	Awards and distinctions: Recognition by the Stanford University on the 'World's Top 2% of Scientists List' based on the highest citation count. Recognized in the years: 2021, 2022, 2024. Membership in scientific councils/scientific committees: Polish Real Estate Scientific Society, member of the Executive Board (2021-2026), member of the Audit Committee (2018-2021) Participation in Leading Research Groups: 1. COST Action CA23133: Large-scale Interdisciplinary Alliance on Nature-based SoLutions and Health: Indicators, Inequality and Innovation (LILY) – Management Committee Member, Working Group Leader 2. COST Action CA21103: Implementation of Circular Economy in the Built Environment (CircularB) – Management Committee Member Other significant achievements 1. co-author of the expert opinion 'Mid-term evaluation of the Just Transition Fund under the European Funds for Małopolska 2021-2027 programme' (2025) 2. co-author of the expert opinion 'Strategic Environmental Assessment for PKP Polskie Linie Kolejowe S.A. - investment plans for 2021-2030 with an outlook to 2040' (2020) 3. co-author of the expert opinion 'Strategic Environmental Assessment for the Wielkopolska Regional Operational Programme 2014-2020' (2013) 4. co-author of the expert opinion 'Environmental Impact Assessment for the Strategic Adaptation Plan for Sectors and Areas Vulnerable to Climate Change up to 2020, with an Outlook to 2030' (2011)
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr954b7079c8f1407baf99aea34595e8c9?r=supervisedwork&ps=100&tab=main&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BJan%2BKazak%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=2310529

Name and Surname	Paweł Swianiewicz
Academic Title	Prof., Ph.D., D.Sc.
Unit	Institute of Spatial Management
Academic Discipline	Social and economic geography and spatial management

Category of Achievements	Details Achievements
Most important publications	A. Gendźwiłł, A. Kurniewicz, P. Swianiewicz (2021) The impact of municipal territorial reforms on economic performance of local governments. A systematic review of quasi-experimental studies, <i>Space and Polity</i> , 25(1): 37-56, DOI: 10.1080/13562576.2020.1747420
	P. Swianiewicz, J. Łukomska (2019) Is small beautiful? The quasi-experimental analysis of the impact of territorial fragmentation on costs in Polish local governments, <i>Urban Affairs Review</i> , 55(3), 832-855, https://doi.org/10.1177%2F1078087417744676
	Swianiewicz, P. (2014) "An Empirical Typology of Local Government systems in Eastern Europe", <i>Local Government Studies</i> , Vol. 40 (2): 292-311.
Most important research projects conducted	2006-2007 – SOCCOH – The Challenge of Socio-economic Cohesion in the Enlarged European Union (project within EU 6th Research Framework, leader of the Polish research team; project coordinated by the London School of Economics); the most important publications: "Structures, procedures and social capital: the implementation of EU cohesion policies by sub-national governments in Poland", <i>International Journal of Urban and Regional Research</i> , 2013, Vol. 37(4): 1396-1418, <i>Stewards of European gifts: social capital and the implementation of regional policy in Polish voivodeships</i> , Warsaw: Scholar 2008
	2018 – 2021 Territorial reforms in Europe - international comparative perspective, grant NCN Harmonia (2017/26/M/HS5/00152); Project leader; project led to numerous publications including: "Municipal territorial reforms of the 21st century in Europe", Routledge 2022, DOI: 10.4324/9781003022589
	2022-2025 (project in progress), Community power structure and styles of local political leadership in Polish municipalities (NCN Opus, 2021/41/B/HS5/00695, project leader), so far the most important publications include: "The perceived role of non-elected actors in community power structure in Poland: results of a survey experiment", <i>Transylvanian Review of Administrative Sciences</i> , 2024, 71E, p. 63-77, DOI: dx.doi.org/10.24193/tras.71E.4 and "The evolution of local political leadership styles and the gap between residents' preferences and their perception of the actual behavior of mayors (presidents) of cities in Poland", <i>Regional and Local Studies</i> , 2024, 1: 70-84, doi: 10.7366/1509499519505
Supervision (Supervisor/auxiliary supervisor) at the Doctoral School	1. Marta Lackowska, Management of metropolitan areas in Poland, defense date: 2008, University of Warsaw
	2. Paulina Nowicka Spatial variation of using internet by local governments in Poland, defense date: 2012, University of Warsaw
	3. Julita Łukomska Factors of local development, defense date 2012, University of Warsaw
	4. Joanna Krukowska, Variation of development policies implemented through Regional Operating Programmes 2007-2013, defense date 2014, University of Warsaw
	5. Anna Kurniewicz, Impact of change of administrative status on economic development of cities, defense date: 2021, University of Warsaw
	6. Martyna Kopcińska, Divided power in municipal government - scale, reasons, consequences, defense date 2023, University of Warsaw

	7. Wiginia Aksztejn, Rescaling in large Polish cities as a reaction for recentralisation. Case study of 2015-2023 period, dissertation in progress, University of Warsaw
Most important additional achievements	2014 – John Stewart Prize for the best article published in Local Government Studies in 2014 roku, 2018 - award for "the best comparative paper" on Annual NISPAcee (Network of Institutes and Schools of Public Administration in Central and Eastern Europe) conference, Iasi.
	Member of Rada Doskonałości Naukowej (2018-2027), President of European Urban Research Association Board (2006-2010), member of the Steering Committee of the Standing Group for Local Democracy, European Consortium for Political Research (2015-2024), member of ERC panel - Senior Grants (2023, 2025), director of the Doctoral School of Social Sciences, University of Warsaw (2019-2020)
	Member of the coordinating team of "Local Autonomy Index", project financed by the EU Commission, comparative study of local autonomy in European countries 1990-2020; Member of the group conducting European survey of mayors (2003, 2015, following edition planned for 2026), member of the group conducting survey of European municipal councillors (2007 and 2023).
	Organisation of the European Urban Research Association Annual Conference in 2006 and 2017; initiation and organisation of the first CEE-LOC conference (gathering local government scholars in Central and Eastern Europe), Wrocław 2023
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr6ec96ad06c28467c94df1c205f8b40e?r=author&tab=&title=Profil%2Bosoby%2B%25E2%2580%2593%2BPawe%25C5%2582%2BSwianiewicz%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&lang=pl

Name and Surname	Szymon Szewrański
Academic Title	Prof. Ph.D., D.Sc., Eng
Unit	Faculty of Spatial Management and Landscape Architecture
Academic Discipline	social and economic geography and spatial management

Category of Achievements	Details Achievements
Most important publications	1. Aslanoglu R, Kazak J, Szewrański S, Świąder M, Arciniegas G, Chrobak G, Jakóbiak A, Turhan E. Ten questions concerning the role of urban greenery in shaping the future of urban areas. Building and Environment. 2025;267:1–17. https://www.sciencedirect.com/science/article/pii/S036013232400996X . doi:10.1016/j.buildenv.2024.112154
	2. Szewrański S, Mrówczyńska M, Van Hoof J. Biophilia in contemporary design: Navigating future opportunities and challenges. Indoor and Built Environment. 2025;34:3–6. https://journals.sagepub.com/doi/10.1177/1420326X241262626 . doi:10.1177/1420326X241262626
	3. Chrobak G, Aslanoglu R, Lubańska A, Kowalczyk T, Tokarczyk-Dorociak K, Szewrański S, Kazak J. Graph Enhanced Co-Occurrence: Deep dive into urban park soundscape. Ecological Indicators. 2024;165:1–17. https://www.sciencedirect.com/science/article/pii/S1470160X24006290 . doi:10.1016/j.ecolind.2024.112172
Most important research projects conducted	WRO4Digital European Innovation Hub Wrocław 2023-2026 [till 2024]. Aim: development of assumptions for the construction of a business decision support system based on spatial data [eng. location intelligence] addressed to small and medium-sized enterprises [SMEs] interested in implementing their own business analytics system (BI) integrated with elements of the spatial information system (openGIS) with access to open spatial and socio-economic data. Covered by EU Projects /Digital Europe
	An Integrated System for Environmental and Spatial Resource Management at the "Biskupin" Housing Cooperative [2017-2018], The project's aim was to develop a decision-making tool to support environmental resource management for S.M. Biskupin. A unique environmental management system, based on the latest technological solutions, was designed for the organization. The decision model consisted of Geographic Information System (GIS) elements integrated with a Business Intelligence (BI) system. The implementation relied on free software. Covered by: The MOZART Wrocław City Program for Academia-Industry Partnership.

	NCN Grant No. N305 384838: "Indicator-based Assessments of Environmental Changes caused by Unsustainable Urban Sprawl" [2010 – 2013]. The research project aimed to assess the environmental impacts occurring in rural areas due to uncontrolled urban expansion. The study encompassed areas within municipalities surrounding Wrocław, located within the city's sphere of influence and subject to the phenomenon of "urban sprawl." Based on the detailed geoinformation collected, a proprietary spatial database was developed from scratch using ArcGIS and QuantumGIS environments. Data harmonization and the standardization of spatial policy records were considered a pioneering achievement at the time. The research implemented and utilized tools for a systemic indicator-based assessment of environmental and landscape spatial changes. The developed system for forecasting and assessing environmental impacts for spatial and natural resource management was unique and innovative. Funding: National Science Centre.
Supervision (Supervisor/auxiliary supervisor)	1. Joanna Wyrwa, Spatial Differentiation of Soundscape in Urban Planning: A Socio-Economic Assessment of the City (II year). 2. Małgorzata Świąder, The implementation of environmental carrying capacity into spatial management; Defense date: 2021 (doctoral studies). 3. Marta Sylla, Peri – urban ecosystem services assessment; Defense date: 2020 (doctoral studies) 5. Katarzyna Sewerniak, Land use change modeling and projecting in a suburban area; Defense date: 2017 (doctoral studies) 6. Jan Kazak, Scenarios for changes in land use development and assessment of their environmental impact: the case of the Wrocław suburban zone; Defense date: 2016 (doctoral studies)
	Awards and distinctions: Letter of congratulations: Dr. Eng. Jan Krzysztof Kazak (Supervisor), for the dissertation "Scenarios of Spatial Management Changes and Environmental Impact Assessment in the Wrocław Suburban Zone" [22.01.2014 – 06.07.2016]. This dissertation was honored in the 14th Prof. Michał Kulesza Competition for the best doctoral theses on local government topics, organized by Wolters Kluwer SA Publishing House and the Samorząd Terytorialny Editorial Board. Patents and implementations: Research and implementation project under the 6th MOZART Program, No. BWU-24/2017/M6: "Integrated System for Environmental and Spatial Resource Management of the 'Biskupin' Housing Cooperative"

Most important additional achievements	Membership in scientific councils/scientific committees: Chairman of the Scientific Council for the discipline of the Social and Economic Geography and Spatial Management (2021-2024) Deputy Chairman of the Scientific Council for the discipline of the Environmental Engineering, Mining and Energy (2019-2020) Member of the Provincial Urban and Architectural Commission, appointed by the Resolution of the Marshal of the Lower Silesian Voivodeship Member of the Scientific Council of the Hydrological Process Modeling Center Member of the Scientific Council of the Oxy CityLSAB Research and Design Laboratory Participation in Leading Research Groups: City soundscape and sense of place in the planning context City&Co: Older Adults Co-Creating a Sustainable Age-friendly City (City&Co) IQSell: Organizational innovations for the development of short food supply chains (IQSell) Food System Hubs Innovating towards Fast Transition by 2030 (FoodSHIFT2030) Other significant achievements: Co-author of Strategic Environmental Assessments - SEA: Strategy for Responsible Development, Recipient: Ministry of Development (2016) Strategic Adaptation Plan for Sectors and Areas Vulnerable to Climate Change until 2020 with a Perspective to 2030, Recipient: Institute of Environmental Protection (2013) Energy Security and Environment Strategy, Recipient: National Fund for Environmental Protection and Water Management (2011) Mid-term National Development Strategy 2020, Recipient: Ministry of Regional Development (2011)
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr86d34650dcd74d3eaa2585f75e9e0c0?affil=&r=supervisedwork&tab=projectmain&title=Profil%2Bosoby%2B%25E2%2580%2593%2BSzymon%2BSzewra%25C5%2584ski%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&lang=pl&pn=1

Below, we present five outstanding academic teachers and research staff of UPWr Doctoral School, whose exceptional competences reflect the prestige and high standard of education in the discipline of **civil engineering, geodesy and transport**.

The individuals presented are researchers of the highest qualifications, whose work focuses on the design, construction and maintenance of infrastructure, modern transport systems and precise geodetic measurements. Their research includes innovative construction materials, geographic information systems (GIS) and real-time GNSS positioning methods. The involvement of these experts ensures that doctoral students have access to the latest technological and methodological advances, enabling them to make a real contribution to the development of safe and efficient infrastructure.

Detailed profiles of the listed researchers are available on the "Knowledge Base" portal via the link in the profile.

Name and Surname	Paweł Bogusławski
Academic Title	Ph.D., D.Sc., Eng.
Unit	Institute of Geodesy and Geoinformatics
Academic Discipline	Civil Engineering, Geodesy and Transport

Category of Achievements	Details Achievements
Most important publications	1. Boguslawski, P., Gold C., Ledoux, H., 2011, Modelling and Analysing 3D Buildings with a Primal/Dual Data Structure. ISPRS Journal of Photogrammetry and Remote Sensing, 66(2), pp. 188-197. DOI: https://doi.org/10.1016/j.isprsjprs.2010.11.003
	2. Boguslawski, P., Mahdjoubi, L., Zverovich, V., Fadli, F., 2016, Automated construction of variable density navigable networks in a 3D indoor environment for emergency response. Automation in Construction, 72 (2), pp. 115-128. DOI: https://doi.org/10.1016/j.autcon.2016.08.041
	3. Boguslawski, P., Zlatanova, S., Gotlib, D., Wyszomirski, M., Gnat, M., Grzempowski, P., 2022, 3D building interior modelling for navigation in emergency response applications. International Journal of Applied Earth Observation and Geoinformation, 114, 103066. DOI: https://doi.org/10.1016/j.jag.2022.103066
Most important research projects conducted	1. New Multidimensional Data Structure for Varioscale Spatial Model Representation Principal Investigator, 2022-2026, NCN OPUS 21 The aim of the project is to develop a four-dimensional data structure enabling the implementation of a 3D model represented at different levels of detail in a consistent spatial model, where individual elements are mapped between consecutive levels of detail in the fourth spatial dimension. The results to date include the development of a dual structure for building four-dimensional models using dedicated construction operators and connection of 2D layers of different scales into a consistent 3D model using mapping operators. Further work is aimed at mapping three-dimensional objects and creating a 4D model of the real object.
	2. Utilisation of urban digital twins to co-create flexible positive energy systems for districts (DigiTwins4PEDs) Consortium Leader, 2023-2026, NCBR DUT 2022 The project includes the development of an Urban Digital Twin (UDT) of a district in Wroclaw and digital tools integrated in the UDT internet platform. The platform will support the process of public participation in Living Labs in all cities involved in the project, i.e. Wroclaw, Stuttgart, Vienna and Rotterdam. This will allow citizens to accelerate the energy transformation of their communities and make more informed decisions. The project results include a simulation of heat demand based on the spatial model of the Kleczkow district using specialised analytical software and an internet platform containing digital tools for social participation.

	3. Digital Tools for Sustainable Water Resources Management: Integrating impact of change of climate, land use, and optimised solutions (TWIN-Waters) Invesigator (Task Leader), 2024-2027, NCBR Water4All 2022 The aim of the project is a joint action of partners from Sweden, Poland and the United Kingdom enabling the use of the latest achievements and innovations in order to increase the resilience of cities and make them liveable in the face of future climate challenges, especially in relation to water quality. One of the tasks is to develop a 3D GIS web platform for managing, processing and visualizing spatial data from various sources, including: open national collections, sensors, satellites. The result of the cooperation so far is the exchange of experiences between the project partners, access to tools used to study water quality and a prototype of a platform enabling the visualization of measurement data and other data used to conduct spatial analyses.
Supervision (Supervisor/auxiliary supervisor)	1. Amin Gholami, New Multidimensional Data Structure for Vario-scale Spatial Model Representation, (III year).
Most important additional achievements	Awards and distinctions: 1. The best paper published in the ISPRS Journal of Photogrammetry and Remote Sensing in 2011: 'Modelling and Analyzing 3D Buildings with a Primal/Dual Data Structure', 2012, ISPRS 2. Four individual Rector's awards for research and teaching achievements, 2023-2025, UPWr 3. Bronze medal for a product with commercialization potential: 'Rapid Data Acquisition and 3D Model Reconstruction in Indoor Environment', 2013, Industrial Art and Technology Exhibition (INATEX), Malaysia Implementations: 1. Implementation of digital tools at SHH Sp. z.o.o. as part of the Mozart programme supporting collaboration between reserchers and industry, financed by the Wroclaw Academic Center, 2020-2022: 'Database IT tool for 3D analysis of urban areas in the context of underground geological structure' 2. Implementation of digital tools at SHH Sp. z.o.o. as part of the Mozart programme supporting collaboration between reserchers and industry, financed by the Wroclaw Academic Center, 2019-2020: 'Development of an IT solution using a spatial urban model to analyze the sun exposure time of buildings using BIM models' Membership in scientific councils/scientific committees: 1. International Society for Photogrammetry and Remote Sensing (ISPRS), Working Group Co-chair: IV/1 "Spatial Data Representation and Interoperability" (from 2022), IV/1 "Multi-dimensional modelling" (2013-2022) i II/2 "Multiscale n-dimensional Spatial Data Representations, Data Structures and Algorithms" (2012-1016) 2. ISPRS, Working Group II/5 "Multidimensional and mobile data models", Secretary, 2008 – 2012 3. ISPRS UV Helava Award Jury, Jury Member, 2013-2020

	Participation in Leading Research Groups: 1. Participation in the project consotrium 'Utilisation of urban digital twins to co-create flexible positive energy systems for districts (DigiTwins4PEDs)': Hochschule für Technik Stuttgart, Landeshauptstadt Stuttgart, AIT Austrian Institute of Technology GmbH, Stadt Wien, Universität für Bodenkultur Wien, Technische Universiteit Delft, Gemeente Rotterdam, Infosolutions Sp. z o.o., Wroclaw University of Environmental and Life Sciences, 2023-2026 2. Participation in the project consotrium 'Digital Tools for Sustainable Water Resources Management: Integrating impact of change of climate, land use, and optimised solutions (TWIN-Waters)': Lund University, University of the West of England, Wroclaw University of Environmental and Life Sciences, 2024-2027 3. Participation in the project consotrium 'Critical Urban Buildings Emergency Response (CUBER)': University of the West of England, Qatar University, MZ & Partners Architectural & Engineering Consultancy W.L.L., 2014-2017 Other significant achievements: 1. Chairman of the ISPRS Summer School "Geospatial technologies for natural environment management and monitoring", Wroclaw University of Science and Technology, 26-30 August 2019. 2. Chairman and Member of scientific committees of over 30 international conferences 3. Principal investigator and investigator in over 15 research projects
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr9b69cb0b6518468f9e5691d48e368681

Name and Surname	Krzysztof Sośnica
Academic Title	Prof. Ph.D., D.Sc, Eng.
Unit	Institute of Geodesy and Geoinformatics
Academic Discipline	Civil engineering, geodesy and transport

Category of Achievements	Details Achievements
Most important publications	1. Sośnica K., Gałdyn F., Zajdel R., Strugarek D., Najder J., Nowak A., Mikoś M., Kur T., Bosy J., Bury G. "LARES-2 contribution to global geodetic parameters from the combined LAGEOS-LARES solutions". Journal of Geodesy, Vol. 99 No. 1, Berlin - Heidelberg, Germany 2025, pp. 1-17. DOI: 10.1007/s00190-024-01925-3
	2. Gałdyn F., Sośnica K., Zajdel R., Meyer U., Jäggi A. "Long-term ice mass changes in Greenland and Antarctica derived from satellite laser ranging". Remote Sensing of Environment, Vol. 301 No. 113994, New York, USA 2024, pp. 1-19. DOI: 10.1016/j.rse.2024.113994
	3. Sośnica K. "Orbit design for a future geodetic satellite and gravity field recovery". Journal of Geodesy, Vol. 98 No. 77, Berlin Heidelberg, Germany 2024, pp. 1-12. DOI: 10.1007/s00190-024-01884-9
Most important research projects conducted	1. Exploring the Needs for Accurate reFERENCE Frames (E-NAFF), NAVISP EL1-114 Geodesy-Enabled Applications[ESA AO/1-12644/24/NL/MP/dg]. Project leader: Krzysztof Sośnica, start date: 13-06.2025, end date 12.06.2026, in run
	2. Multi-GNSS Precise Point Positioning with stochastic clock modeling [2021/43/O/ST10/00096] Project leader at UPWr: Krzysztof Sośnica, start date 01-10-2022, end date 30-09-2027, in run
	3. EArth's Gravity fieLd Evolution (EAGLE) [2021/42/E/ST10/00020] Project leader at UPWr: Krzysztof Sośnica, start date 01-07-2022, end date 30-06-2027, in run
	1. Jakub Biały, Multi-GNSS Precise Point Positioning based on stochastic clock modeling (II year).
	2. Adrian Nowak, Analysis of the interactions between three pillars of space geodesy: gravity, geometry, and rotation with geophysical interpretations (II year).

Supervision (Supervisor/auxiliary supervisor)	3. Filip Gałdyn, Time-variable Earth's gravity field derived using SLR, GNSS, and GRACE data (III year).
	4. Marcin Mikoś, Modeling of the clock component in Multi-GNSS positioning (III year).
	5. Joanna Najder, simulation of orbit and global geodetic parameters for future geodetic satellite missions (IV year).
	6. Bury Grzegorz, Precise orbit determination of GNSS satellites using microwave and laser ranging data, Defense Date: 2020 (doctoral studies).
	7. Drożdżewski Mateusz, Troposphere delay modeling in satellite laser ranging measurements to geodetic satellites, Defense Date: 2022 (doctoral studies).
	8. Strugarek Dariusz, Satellite Laser Ranging to Low Earth Orbiters for Orbit Validation and Determination of Global Geodetic Parameters, Defense Date: 2022 (doctoral studies).
	9. Zajdel Radosław: Determination of Global Geodetic Parameters using the GPS, GLONASS, and Galileo Satellite Systems, Defense Date: 2021 (doctoral studies).
	10. Kaźmierski Kamil, Real-Time Multi-GNSS Precise Point Positioning, Defense Date: 2018 (doctoral studies).
	Awards and distinctions: 1. Polish Product of the Future, 2022, Polish Agency for Enterprise Development and National Center for Research and Development, 2. START, 2016, Foundation for Polish Science, 3. Award of the Fourth Department of the Polish Academy of Sciences, 2020, Polish Academy of Sciences, 4. Award of the Minister of Science, 2023, Ministry of Science and Higher Education, 4. Award of the European Geosciences Union for Outstanding Young Scientists, 2015, EGU

Most important additional achievements	Patents and implementations: Technology for determining the precise orbits of navigation satellites, in particular the European Galileo system, 2022, description in PARP catalogue: https://www.parp.gov.pl/storage/publications/pdf/katalog-laureatw_PPP.pdf Membership in scientific councils/scientific committees: 1. ESA GNSS GSAC Committee, member, since 2023, 2. Polish Academy of Sciences Geodesy Committee, member, since 2019, 3. GGOS Management Board, member, since 2022, 4. ILRS/NASA Management Board, member, since 2018. Participation in Leading Research Groups: 1. Chair of IAG SC 1.1: Coordination of Space Techniques, International Association of Geodesy Other significant achievements (e.g. organization of conferences, expert opinions for industry): 1. Chair of the Organizing Committee of the ESA 9th International Colloquium on Scientific and Fundamental Aspects of GNSS, 2024
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrbd14633e36ae4108a4aefde1c1e25350?r=publication&tab=supervisedwork&title=Person%2Bprofile%2B%25E2%2580%2593%2BKrzysztof%2BSo%25C5%259Bnica%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUniversity%2Bof%2BEnvironmental%2Band%2BLife%2BSciences&lang=en&pn=1

Name and Surname	Tomasz Hadaś
Academic Title	Ph.D., D.Sc., Eng
Unit	Institute of Geodesy and Geoinformatics
Academic Discipline	Civil engineering, geodesy and transport

Category of Achievements	Details Achievements
Most important publications	1. Hadaś Tomasz, Bosy Jarosław : IGS RTS precise orbits and clocks verification and quality degradation over time, GPS Solutions, 2015, vol. 19, pp.93-105. DOI:10.1007/s10291-014-0369-5
	2. Hadaś Tomasz, Kaźmierski Kamil, Kudłacik Iwona [et al.], IEEE Geoscience and Remote Sensing Letters, 2024, vol. 21, pp.1-5, Article number:8000905. DOI:10.1109/LGRS.2024.3354293
	3. Hadaś Tomasz, Hobiger Thomas, Hordyniec Paweł, GPS Solutions, 2020, vol. 24, no. 4, pp.1-14, Article number:99. DOI:10.1007/s10291-020-01014-w
Most important research projects conducted	1. Simultaneous Troposphere Estimation with Precise Point Positioning, Principal investigator, 04.05.2022 - 01.02.2025, NCN OPUS-LAP. The aim is to develop a method for estimating the refractive field over a GNSS station network together with the estimation of other receiver parameters.
	2. Precise positioning using GNSS in real time - online service, Principal investigator, 01.03.2023 - 01.03.2026, NCBR LIDER. The goal of the project is to establish an online service processing observations from the Global Navigation Satellite Systems (GNSS) in real-time using the Precise Point Positioning (PPP) technique. As the final implementation of the PIGEON, cloudbased service will be developed as a Software as a Service (SaaS), thus it will require minimal support from its developers to maintain operational capabilities. It will allow continuous and absolute real-time GNSS positioning with the accuracy of single centimeters.
	3. Real-Time GNSS for European Troposphere Delay Model, Principal investigator, 16.08.2019 - 15.08.2021, H2020 MSCA-IF. The project aimed at developing a novel real-time model of the troposphere by using Global Navigation Satellite Systems (GNSS) derived troposphere delays, gradient information and water vapor content.
Supervision (Supervisor/auxiliary supervisor)	1. Grzegorz Marut "Potential and limitations of low-cost GNSS receivers in selected geodetic applications", defense date 2025.
	2. Muhammad Arqim Adil "Ionospheric Constraints in Real-Time Precise Point Positioning" (II year).
	3. Maciej Lackowski "Individual calibration of low-cost GNSS antennas – an array approach" (I year).
	4. Kamil Kaźmierski "Precyzyjne pozycjonowanie multi-GNSS w czasie rzeczywistym", Auxiliary supervisor, defense date 2018.
	Awards and distinctions: Scholarship of Polish Ministry of Science and Higher Education for outstanding achievements, 2018

Most important additional achievements	Membership in scientific councils/scientific committees: Polish delegate to Authentication and High Accuracy Working Group (since 2025); Young Scientist Council (2021-23) Participation in Leading Research Groups: International Association of Geodesy, WG 4.4.3: Reliability of Low-cost & Android GNSS in navigation and geosciences (member, 2021-23), WG 4.3.4 Ionosphere and Troposphere Impact on GNSS Positioning (chair, 2015-19) Other significant achievements: Technical Programme Committee Chair of European Navigation Conference 2025, Chief of Organizing Committee of International Association of Geodesy (IAG) Commission 4 Symposium "Positioning and Applications" (2016)
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr44e97b393be1466bb641f4ff5cb82520?r=author&tab=&title=Person%2Bprofile%2B%25E2%2580%2593%2BTomasz%2BHada%25C5%259B%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUniversity%2Bof%2BEnvironmental%2Band%2BLife%2BSciences&lang=en&qp=

Name and Surname	Grzegorz Jóźków
Academic Title	Ph.D., D.Sc., Eng
Unit	Institute of Geodesy and Geoinformatics
Academic Discipline	Civil engineering, geodesy and transport

Category of Achievements	Details Achievements
Most important publications	1.Toth, C., & Jóźków, G. (2016). Remote sensing platforms and sensors: A survey. ISPRS Journal of Photogrammetry and Remote Sensing, 115, 22-36.
	2. Jóźków, G., Toth, C., Quirk, M., & Grejner-Brzezinska, D. (2015). Compression strategies for LiDAR waveform cube. ISPRS Journal of Photogrammetry and Remote Sensing, 99, 1-13.
	3. Wielgocka, N., Jóźków, G., van Leijen, F., Hanssen, R., & Pawłuszek-Filipiak, K. (2025). Linking persistent scatterers to airborne laser scanning points for identifying real objects reflecting SAR signal. Journal of Applied Geodesy.
Most important research projects conducted	Integration of Geodetic and imAging TecHniques for monitoring and modelling the Earth's surface defoRmations and Seismic risk (GATHERS). 2019-2024. Participant and quality manager. Financing: European Commision, Komisja Europejska, Twinning H2020 programme. The aim of the project is to streghten the UPWr research rank in remote sensing techniques such as: Interferometric Synthetic-Aperture Radar (InSAR), Light Detection and Ranging (LiDAR) and Global Navigation Satellite System (GNSS). Current challenges in the field are related to the deformation rate and scale, a non-linear character of terrain movements, seismic magnitude, differentiation between the sources of surface deformations, require an enhancement of the methodological approaches as well as substantial expertise in interpretation of the results. Cooperation with leading scientific centres in these areas (TU Wien - LiDAR technique; TU Delft - InSAR technique; La Sapienza - GNSS seismisity) based on scientific internships, joint workshops, summer schools, B2B meetings will enhance the UPWr research potential. In the scope of a project a cooperation with 3 european research institutions was undertaken. The conducted activities were among others: research trainings, summer schools, hackathons, B2B meetings.
	EPOS - European Plate Observing System (EPOS-PL+). 2020-2023. Participant. Financing: Projekty funduszy strukturalnych 2014-2020 /Program Operacyjny Inteligentny Rozwój (PO IR). Description: The EPOS-PL + project - European Plate Observation System is part of a wider undertaking. The EPOS-PL+ infrastructure built under the project is closely related to the European research infrastructure development program the so-called "Solid Earth" EPOS and will be an integral part of it. The EPOS program is the largest European infrastructure project in Earth sciences. The mission of the EPOS program is to integrate dispersed existing and emerging research infrastructures in the field of Earth sciences in Europe and to create and improve the integrating elements of these infrastructures. The effect of the EPOS Program is to be a pan-European scientific infrastructure open to Member States and associated countries, facilitating the exchange of knowledge and mobility of scientists within the European Research Area and contributing to the dissemination and optimization of research results.

	URSE - UAS remote sensing for flood extent estimation. 2016. Participant, coordinator. Financing: EIT Climete-KIC. Description: This project mainly supports an adoption to consequences of the floods that are the effects of the climate change. Since the traditional methods of data acquisition for flood modeling and prevention using airborne remote sensing technologies have the economic, time, and logistic limitations, the project proposes implementation of the innovative remote sensing method that bases on the UAS (Unmanned Aerial Systems). In particular, the project aims on testing the performance of several UAS sensors in the estimation of the flood extent that is used in the modeling. Consequently, developed method contributes in optimal and sustainable land use. During the project three UAV sensors were tested including RGB camera, thermal camera and laser scanner.
Supervision (Supervisor/auxiliary supervisor)	1. Natalia Wielgocka. Integration of LiDAR and photogrammetric data with InSAR data to improve the quality of surface deformation estimation (IV year). 2. Adam Pałęcki. Crop monitoring by integration of high-resolution remote sensing data for smart farming and environmental management (I year).
Most important additional achievements	Awards and distinctions: Awards of the Rector of the Wrocław University of Environmental and Life Sciences: team award, 1st degree, in the field of scientific research (2008); team award, 2nd degree, for organizational achievements (2011); team award, 2nd degree, for scientific achievements (2012); team award, 2nd degree, in the field of teaching (2017); individual award, 2nd degree, in the field of scientific research (2018); individual award for teaching achievements (2022); individual award for scientific achievements (2025). Membership in scientific councils/scientific committees: Polish Society of Photogrammetry and Remote Sensing - scientific section of the Association of Polish Surveyors. Member since 2019, and Vice-Chairman since 2022. Other significant achievements (e.g. organization of conferences, expert opinions for industry): Member of teams performing scientific expertises: 3 scientific expertises for PGE KWB Turów, 1 expertise for the State Water Management Polish Waters. Member of the team performing court expertise. Supervisor of diploma theses awarded in national competitions.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr3719fc45efdc4a24ae17f595857b47a9?ps=20&lang=en&title=&pn=1&cid=382667

Name and Surname	Witold Rohm
Academic Title	Prof. Ph.D., D.Sc., Eng,
Unit	Institute of Geodesy and Geoinformatics
Academic Discipline	Civil engineering, geodesy and transport

Category of Achievements	Details Achievements
Most important publications	1. Cegła, A., Moeller, G., Hordyniec, P., & Rohm, W. (2024). INTOMO operator for GNSS multi-source tomography based on 3D ray tracing technique. Journal of Geodesy, 98. https://doi.org/10.1007/s00190-024-01915-5
	2. Smolak, K., Kasieczka, B., Fialkiewicz, W., Rohm, W., Siła-Nowicka, K., & Kopańczyk, K. (2020). Applying human mobility and water consumption data for short-term water demand forecasting using classical and machine learning models. Urban Water Journal, 17(1), 32-42.
	3. Haji-Aghajany, S., Rohm, W., Kryza, M., & Smolak, K. (2024). Machine learning-based wet refractivity prediction through GNSS troposphere tomography for ensemble troposphere conditions forecasting. IEEE Transactions on Geoscience and Remote Sensing, 62, 1-18.
Most important research projects conducted	1. New Horizons of Tropospheric Observations Using Next-Generation GNSS Satellites, Satellite Constellation Networks, and Artificial Intelligence (GNSSRS4TROPO), Project Leader, 2024-2027, NCN SHENG. In recent years, the rapid development of space technologies, combined with a new wave of artificial intelligence (AI) and information and communication technologies (ICT), has revolutionized the way we build knowledge about the state of the Earth's atmosphere. In the project, we built: AI-based GNSS data processing techniques to form troposphere forecasts, created a new troposphere model based on GNSS and InSAR data using artificial intelligence methods, combined GNSS data with passive remote sensing data.
	2. Three-Dimensional Integrated Tropospheric Observations Using Ground-Based and Satellite GNSS Observations, Project Leader, 2021-2026, NCN OPUS. The project aimed to develop new techniques for processing ground-based (networks of reference stations) and satellite (constellations of radio occulting satellites) GNSS data to improve the reliability of three-dimensional troposphere models. The project resulted in INTOMO software, which allows for solving tomographic problems using both types of data. The technology's capabilities in researching hazardous weather phenomena and in numerical weather forecast models were also demonstrated.
	3. Research on Resident Behavior Patterns for the Development and Management of Smart Municipal Services (CHASE), contractor, 2018, Climate KIC. The project creates intelligent solutions for the efficient and sustainable use of municipal resources using resident behavior patterns based on mobile phone data. The project results in new models of human mobility and its impact on the use of municipal resources.
Supervision (Supervisor/auxiliary	1. Adam Cegła, 3D integrated sensing of the troposphere using ground- and space-based GNSS observations, defense date: 2025.
	2. Saqib Mehdi, GNSS Troposphere for Weather Monitoring in Future Mega Cities, (III year).

supervisor)	3. Tomasz Górski, Development and implementation of Digital Twin technology to optimize and stabilize the operation of a biogas plant powered by bio-waste with variable quantitative and qualitative characteristics (II year).
	Membership in scientific committees: Committee on Geodesy of the Polish Academy of Sciences, member, 2020 Participation in Leading Research Groups: Space And Close Earth Observation Sciences (SpaceOS) using geodetic techniques SpaceOs, Leader 2019 - 2023 Other significant achievements (e.g. organization of conferences, expert opinions for industry): Establishment of a fundamental network for Tanzania under a World Bank contract, 2025; Co-organization of the European Navigation Conference, 2025
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr4d682756bd1243c58f310f8e07f263af?r=supervisedwork&ps=20&tab=supervisedwork&lang=en&title=Person%2Bprofile%2B%25E2%2580%2593%2BWitold%2BRohm%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUniversity%2Bof%2BEnvironmental%2Band%2BLife%2BSciences&pn=1&cid=172814

Below, we present profiles of five leading academic teachers and research staff of UPWr Doctoral School. These individuals, holding the highest qualifications recognised by UPWr, make a significant contribution to ensuring a high standard of education in the discipline of **biological sciences**.

The following profiles feature supervisors and teaching staff with the highest qualifications, whose achievements set new directions in understanding complex life processes. Thanks to their engagement and pioneering research, doctoral students have a unique opportunity to delve into the latest discoveries and actively participate in shaping the future of biology – from the cellular level to complex ecosystems.

The detailed scientific output of each researcher is available via the link in their profile on the "Knowledge Base" portal.

Name and Surname	Magdalena Wołoszyńska
Academic Title	Ph.D., D.Sc.
Unit	Department of Genetics, Faculty of Biology and Animal Breeding
Academic Discipline	Biological Sciences

Category of Achievements	Details Achievements
Most important publications	1. Wołoszynska M, Le Gall S, Neyt P, Boccardi TM, Grasser M, Längst G, Aesaert S, Coussens G, Dhondt S, Van De Slijke E, Bruno L, Fung-Uceda J, Mas P, Van Montagu M, Inzé D, Himanen K, De Jaeger G, Grasser KD, Van Lijsebettens M. The histone 2B monoubiquitination complex integrates transcript elongation with RNA processing at circadian clock and flowering regulators.Proc Natl Acad Sci U S A. 2019; DOI10.1073/pnas.1806541116
	2. Wołoszynska M, Gagliardi O, Vandenbussche F, De Groeve S, Alonso Baez L, Neyt P, Le Gall S, Fung J, Mas P, Van Der Straeten D and Van Lijsebettens M. 2018 Elongator regulates hypocotyl growth in darkness and during photomorphogenesis. Journal of Cell Science, DOI10.1080/15592324.2017.1422465
	3. Wołoszynska M, Trojanowski D. 2009. Counting mtDNA molecules in Phaseolus vulgaris: sublimons are constantly produced by recombination via short repeats and undergo rigorous selection during substoichiometric shifting. Plant Molecular Biology 70: 511-521, DOI10.1007/s11103-009-9488-83
Most important research projects conducted	1. "The Elongator protein complex integrates transcriptional and translational regulation during photomorphogenesis in Arabidopsis thaliana", principal investigator, 2022 - 2025, National Science Centre. The aim of the project was to explain whether and how two known functions of Elongator during gene expression: regulation of transcription and translation, contribute to shaping early plant growth in the light. To date, the most important achievement of this project has been the finding that Elongator generally regulates different genes at the transcription and translation stages, but ontologically these genes belong to similar classes and their protein products perform similar biological functions.
	2. "Plant Elongator in light signaling – from upstream activators to gene targets and mechanism behind regulation of transcriptional elongation". main researcher , 2011 - 2013 Marie Skłodowska Curie Fellowship. The aim of the project was to elucidate the role of Elongator during the development of Arabidopsis seedlings grown in light or darkness. The most important achievement of the project was the identification of genes regulated by Elongator and constituting four major hubs: the circadian clock, regulators of skoto- and photomorphogenesis, hormonal response pathways, and primary and secondary cell wall biosynthesis. Based on the known interactions between these hubs, a model was proposed detailing the role of Elongator in early plant development in darkness and suggesting a possible role for this complex during photomorphogenesis.

	3. "Recombination and DNA replication in the maintenance and dynamics of heteroplasmy in cultivated lines of common bean." Principal investigator, 2007 – 2009, Ministry of Science and Higher Education. The goal of the project was to understand the molecular mechanism by which sublimones—mitochondrial DNA molecules present in trace amounts in plants—are maintained in mitochondria and inherited by subsequent generations. At the time we addressed this problem, it was believed that sublimones arose from recombination events that occurred too infrequently to continuously generate these molecules and maintain them. The most important achievement was demonstrating that at least some sublimones arose and were maintained by continuously active recombination of short repeated sequences.
Supervision (Supervisor/auxiliary supervisor)	1. Magdalena Jarosz-Ostrówka, title of the doctoral dissertation: "Regulation of photomorphogenesis by the Elongator protein complex in Arabidopsis thaliana", (IV year).
	2. Sidra Amin, "Multi-omics analysis of laying hens' eggshells' formation modulated by biochar with diversified sorption surface", (II year).
	3. Natalia Małecka, "The Elongator complex of Arabidopsis thaliana – a regulator of gene expression during photomorphogenesis" (I year).
Most important additional achievements	1. 2019 Wrocław University of Environmental and Lifesciences Rector's Award for Scientific Achievements
	2. 2023 Wrocław University of Environmental and Lifesciences Rector's Award for Scientific Achievements
	3. Marie Skłodowska Curie Intra-European Fellowship (IEF) Call: FP7-PEOPLE-2010-IEF, 2011 - 2013, VIB (Flemish Institute of Biotechnology) Department of Plant Systems Biology, Ghent University, Belgium
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr4ecca1af86b34c1bbdb073f9c33fcf2c/

Name and Surname	Witold Gładkowski
Academic Title	Ph.D., D.Sc., Eng
Unit	Department of Food Chemistry and Biocatalysis
Academic Discipline	Biological Sciences

Category of Achievements	Details Achievements
Most important publications	1. Włoch A., Sengupta P., Szulc N., Kral T., Pawlak A., Henklewska M., Pruchnik H., Sykora J., Hof M., Gładkowski W. Biophysical and molecular interactions of enantiomeric piperonal-derived trans β -aryl- δ -iodo- γ -lactones with cancer cell membranes, protein and DNA: Implications for anticancer activity. Int. J. Biol. Macromol., 2025, 303, 140476.
	2. Gładkowski W., Skrobiszewski A., Mazur M., Siepka M., Pawlak A., Obmińska-Mrukowicz B., Białońska A., Poradowski D., Drynda A., Urbaniak M. Synthesis and anticancer activity of novel halolactones with β -aryl substituents from simple aromatic aldehydes. Tetrahedron, 2013, 69, 10414-10423.
	3. Gładkowski W., Chojnacka A., Włoch A., Pruchnik H., Grudniewska A., Dunal A., Dudek A., Maciejewska G., Rudzińska M. Conjugates of 1,3- and 1,2 acylglycerols with stigmasterol: synthesis, NMR characterization, and impact on lipid bilayers. ChemPlusChem, 2023, 88, e202300161
	Research and development project within the Operational Programme Innovative Economy, no. POIG.01.03.01-00-133/08 "Innovative technologies for the production of biopreparations based on new generation eggs (OVOCURA)", co-financed by the European Regional Development Fund, 2009-2013, nature of participation: INVESTIGATOR. The aim of the project was highly specialized scientific research on the use of bioactive components of eggs, including phospholipids for the production of dietary supplements that help improve health and quality of life, as well as biomedical preparations used in the prevention and treatment of lifestyle diseases.
	NCN research project no. 2018/31/B/NZ9/00602 "Study of physicochemical and biological properties of sterol glycerides and their products formed during thermal oxidation", 2019-2023, nature of participation: INVESTIGATOR. The aim of the project was to develop a method for the synthesis of structured lipids that are a hybrid of acylglycerols with stigmasterol, to study their physicochemical and biological properties and thermal-oxidative stability.

Most important research projects conducted	Project under the NAWA Strategic Partnerships program "Innovative biovalorization techniques - international research network as a key to creating a Center of Scientific Excellence" ("INBIOWAL"), 01.09.2024-31.08.2026. Nature of participation: RESEARCH TASK COORDINATOR. The basis of the INBIOWAL project is the development of "green" technologies for the valorization of by-products and waste to obtain valuable compounds used in many sectors of the economy. The world level of research on the valorization of agri-food waste, including that from the oil industry, requires strengthening institutional links between the project leader - UPWr and leading universities. The aim of the project is to create an international research network including strategic partners from Italy, Sweden, Croatia and Australia. The project partners have complementary experience and infrastructure in the research areas of the project. This will allow for synergy and maximization of research results, which will result in the development of a concept for the establishment of the "Biorefinery for the Future" Center (BIOREF4FUTURE). In the future, this will be a unique research and development center in Central and Eastern Europe, dealing with the biorefining of agro-food waste using biotechnological methods.
Supervision (Supervisor/auxiliary supervisor)	1. Anna Dunal, Chemoenzymatic synthesis and determination of biological activity of lactones, vanillin derivatives and increasing the efficiency of their delivery to cancer cells", (III year). 2. Paweł Mituła, Preparation and enzymatic hydrolysis of phosphonolipids, Defense date: 2016 (Auxiliary supervision at the Doctoral Studies) 3. Leśniarek Aleksandra, The use of the LecitaseTM Ultra for the preparation of optically active alcohols with the 4-arylbut-3-en-2-ol system, Defense Date: 2021 (Doctoral Studies).
	Awards and distinctions: 1. First degree team award of the Rector of the Agricultural University in Wrocław in the field of scientific research for a series of publications in the field of research on modern means of protecting crops and food and feed storage facilities against insect pests – 15.11.2006. 2. First degree individual award of the Rector of the University of Environmental and Life Sciences in Wrocław in the field of scientific research for the doctoral thesis entitled: "Microbiological functionalization of bicyclic lactones with an alkyl-substituted cyclohexane system" – 14.11.2008. 3. First degree team award of the Rector of the University of Environmental and Life Sciences in Wrocław for scientific achievements, in particular for a series of publications and patents concerning the antifeedant activity of compounds and structural modifications of phospholipids – 15.11.2010. 4. 1st degree team award of the Rector of the University of Environmental and Life Sciences in Wrocław for scientific achievements, and in particular for co-authorship of 5 patents in which the obtained metabolites can be used as antifungal agents or as antifeedants to reduce the population of

	insect pests in storage facilities and plant crops – 14.11.2012.
Most important additional achievements	Patents and implementations: 1. Gładkowski W., Kiełbowicz G., Chojnacka A., Pisarski B., Wawrzeńczyk C., Trziszka T. Method of obtaining phospholipids. Patent application no. 387383 of March 2, 2009. Date of grant: 06-12-2011. Patent no. 212693. Patent publication: WUP 30-11-2012. 2. Kiełbowicz G., Gładkowski W., Mituła P., Wawrzeńczyk C. Method of structural analysis of phosphatidylcholine. Patent application no. 387893 of April 27, 2009. Date of grant: 28-12-2011. Patent no. 211767. Patent publication: WUP 29-06-2012. 3. Gładkowski W., Bąk M., Grabarczyk M., Wawrzeńczyk C. New compound 2-hydroxy-4-methyl-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining it. Patent application no. 387384 of March 2, 2009. Date of grant: 28-12-2011. Patent no. 212692. Patent publication: WUP 30-11-2012. 4. Gładkowski W., Bąk M., Grabarczyk M., Wawrzeńczyk C. New compound 2-hydroxy-5,5-dimethyl-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining it. Patent application no. 387385 of March 2, 2009. Date of grant: 28-12-2011. Patent no. 211933. Patent publication: WUP 31-07-2012.
	Membership in scientific councils/scientific committees: 1. Scientific Committee of the XLIII Scientific Session of the Committee on Food Science and Nutrition of the Polish Academy of Sciences "FOOD FOR THE FUTURE", Wrocław, 04/07/2017-05/07/2017. 2. Scientific Committee of the 2nd National Conference "Bioactive compounds of natural origin", Trzebnica, 09/10/2023.
	Participation in Leading Research Groups: Leading Research Team "Biocatalysis and Biological Activity" (Bioactiv) at UPWr
	Other significant achievements 1. Review of the project "Characterizing the stereoselective toxicity of 1-deoxysphingolipids" applying for research funding within the competition announced by GAČR (Grantová Agentura České Republiky) (2021). 2. Guest Editor function in Special Issues of journals from the JCR list: Symmetry, Catalysts and International Journal of Molecular Sciences. 3. Organization of the 41st International Symposium on Essential Oils (ISEO), Wrocław, 05.09-08.09.2010. 4. Organization of the conference "Bioactive compounds of natural origin", Trzebnica, 23.01-24.01.2017. 5. Organization of the 2nd National Conference "Bioactive compounds of natural origin", Trzebnica, 09.10-10.10.2023.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?affil=&ps=20&id=UPWr993e480ebb5f4fb396256126b3c67ec1&lang=en&pn=1&cid=373316

Name and Surname	Adam Dobrowolski
Academic Title	Ph.D., D.Sc., Associate Professor
Unit	Institute of Biology, Laboratory for Biosustainability
Academic Discipline	Biological Sciences

Category of Achievements	Details Achievements
Most important publications	1.Lipid production from lignocellulosic biomass using an engineered Yarrowia lipolytica strain Author(s): Drzymała-Kapinos K, Mirończuk AM, Dobrowolski A. Journal, Year, Volume, Issue, Pages: Microbial Cell Factories, 2022, Oct 28;21(1):226
	2.Brown seaweed hydrolysate as a promising growth substrate for biomass and lipid synthesis of the yeast yarrowia lipolytica. Author(s): Dobrowolski A, Nawijn W, Mirończuk AM. Journal, Year, Volume, Issue, Pages: Frontiers in Bioengineering and Biotechnology, 2022, Aug 17;10:944228.
	3. Production of tailor-made fatty acids from crude glycerol at low pH by Yarrowia lipolytica Author(s): Dobrowolski A, Drzymała K, Mituła P, Mirończuk AM. Journal, Year, Volume, Issue, Pages: Bioresource Technology, 2020, 314:123746
Most important research projects conducted	1. Study on physiology of Yarrowia lipolytica yeast to use lignocellulosic biomass as a carbon source for lipid biosynthesis, Role PI Funded by National Science Centre Poland Start and end date: 01-10-2024— On-going Reg. No.: 2023/51/B/NZ9/01872 The project is on first stage (start 5 months ago). By using combination of genetic engineering and adaptive laboratory evolution (ALE) are obtained a fast xylose utilizing strains of Y. lipolytica. At this stage, ALE strains are studied through genome and transcriptome analysis.
	2. Study on influence of alternative carbon sources on lipids biosynthesis in yeast Yarrowia lipolytica, Role PI, Funded by National Science Centre Poland Start and end date: 04-06-2018—03-02-2024 Reg. No.: 2017/26/E/NZ9/00975 Amount of funding [PLN]: 1 526 800 The main result obtained: (i) the hydrolysates of brown macroalgae biomass are a suitable substrate for growth and lipid biosynthesis by Y.lipolytica, (ii) Y.lipolytica can produce lipids in media prepared on seawater, (iii) demonstration that EYD1 gene is crucial for promoting mannitol utilisation by the Y.lipolytica, thereby improved a growth and a lipid biosynthesis on mannitol (the main biomass compound of brown algae), (iv) construction of Y.lipolytica strain capable of utilising alginate.

	3. Improvement of microbial oil biosynthesis by <i>Yarrowia lipolytica</i> yeast from waste materials Role PI Source of funding: Ministry of Science and Higher Education - Iuventus Plus Start and end date: 20-06-2013 to 19-03-2016 Project ID: IP2012 008972 Amount of funding [currency]: 234 500 PLN The aim of the project was to increase microbial oil production by <i>Y. lipolytica</i> applying genetic engineering and biotechnology techniques. The results: (i) waste glycerol is an excellent raw material for <i>Y. lipolytica</i>, (ii) optimal culture conditions were established (medium composition, aeration, pH), (iii) genetic modifications: overexpression (OE) DGA1 gene - greatest effect on increasing lipid, OE of GUT1 increased the rate of glycerol utilisation, OE of SCT1 resulted in increased PUFA.
Most important additional achievements	Awards and distinctions: The Prizes of Rector of Wroclaw University and Life Sciences: 2022 10% Top Scientists in group of assistant professors (for period 2017-2021) at Wroclaw University of Environmental and Life Sciences 2021 Team Award the II for Scientific Achievement 2020 Individual Award the III for Scientific Achievement 2020 Individual Award the III for Didactics Achievement 2019 Team Award the II for Scientific Achievement 2018 Team Award the I for Scientific Achievement 2018 Team Award the II for Organizational Achievement 2017 Team Award the II for Scientific Achievement 2016 Team Award the I for Scientific Achievement 2015 Team Award the I for Scientific Achievement 03.2018 Metabolic Engineering -12 Junior Researcher Grant – IMES (Munich, Germany) 06.2015 FEMS Young Scientist Meeting Grant (YSMG) – FEMS (Ghent, Belgium) Patents and implementations: 2018 Method of erythritol synthesis, PAT.230446, The Patent Office of the Republic of Poland 2018 Method of citric acid production, PAT.231760, The Patent Office of the Republic of Poland 2017 Novel compounds 1-alkyl-1-sulfonatobutanepiperidines and a method for obtaining these compounds, PAT.229105, The Patent Office of the Republic of Poland 2017 Novel 1-alkyl-1-sulfonatopropanopiperidines and a method for obtaining these compounds, PAT.229104, The Patent Office of the Republic of Poland Patents applications: 2023 Method of producing biomass from poly(ethylene terephthalate) and its hydrolysis products, Patent application P.447057, The Patent Office of the Republic of Poland 2023 Method of obtaining biomass and added-value compounds, Patent application P.447048, The Patent Office of the Republic of Poland Membership in scientific councils/scientific committees: Polish Society of Microbiologists, member, from 2013 Participation in Leading Research Groups: WBVG – Zespół waloryzacji odpadów i biomasy

	2024 Fellow of NAWA Bekker Programme, visiting scientist, University of Girona, Spain, The Laboratory of Chemical and Environmental Engineering (LEQUIA) and Molecular Microbial Ecology, University of Girona, Spain 2017 Fellow of EMBO short-term fellowship, visiting scientist at DTU, Denmark 2013 Fellow of Top500 Innovators, Stanford University, USA 2019-2024 Member of COST action, Yeast4Bio (Non-Conventional Yeasts for the Production of Bioproducts), Action N° CA18229 International conference organization: 2017 13th RRB conference, Wroclaw, Poland, The Organizing Committee Chairing session on conferences: 2017 13th RRB conference, Wroclaw, Poland, Chairman on the session: Lipid production 2019 15th RRB conference, Toulouse, France, Chairman on the session: Valorization of biomass waste streams
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrb0965c0ec1ea40a98e518ee82f62ee98?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BAdam%2BDobrowolski%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=374406

Name and Surname	Agnieszka Śmieszek
Academic Title	Ph.D., D.Sc.
Unit	Department of Pharmacology and Toxicology
Academic Discipline	Biological sciences (50%); veterinary science (50%)

Category of Achievements	Details Achievements
Most important publications	1. Śmieszek A, Stręk Z, Kornicka K, Grzesiak J, Weiss C, Marycz K. Antioxidant and Anti-Senescence Effect of Metformin on Mouse Olfactory Ensheathing Cells (mOECs) May Be Associated with Increased Brain-Derived Neurotrophic Factor Levels-An Ex Vivo Study. Int J Mol Sci. 2017 Apr 20;18(4):872. doi: 10.3390/ijms18040872. PMID: 28425952; PMCID: PMC5412453.
	2.Smieszek A, Marcinkowska K, Pielok A, Sikora M, Valihrach L, Marycz K. The Role of miR-21 in Osteoblasts-Osteoclasts Coupling In Vitro. Cells. 2020 Feb 19;9(2):479. doi: 10.3390/cells9020479. PMID: 32093031; PMCID: PMC7072787.
	3.Dolnicka A, Fosse V, Raciborska A, Śmieszek A. Building a Therapeutic Bridge Between Dogs and Humans: A Review of Potential Cross-Species Osteosarcoma Biomarkers. Int J Mol Sci. 2025 May 28;26(11):5152. doi: 10.3390/ijms26115152. PMID: 40507962; PMCID: PMC12154051.
	1. Optimization of management and treatment of pediatric patients with histiocytic cell proliferations – the first Polish non-commercial clinical trial POL HISTIO; 23-06-2020 to 23-06-2026; project leader at UPWr; Medical Research Agency (ABM); The aim of the task carried out at UPWr is to develop a cellular model – a line derived from histiocytic lesions – for studies on tumor biology and preclinical evaluation of the therapeutic efficacy of selected drugs. So far, nine primary cell lines have been obtained from tumor-altered tissues. These lines have been characterized in terms of basic cytological parameters such as viability, proliferation, mitochondrial function, and cell cycle. They have also been evaluated for phenotype and karyotype. Ongoing studies include the expression of potential biomarkers of histiocytosis progression (mRNA/miRNA/lncRNA signature analysis) and bioenergetic metabolism regulated by vemurafenib. Project publication: https://doi.org/10.1186/s12885-023-11807-0. A patent application procedure is in progress (no. P.447749). Several conference communications have been published, including presentations within the Histiocytes Society.

Most important research projects conducted	2. Biocompatible materials with theranostic properties for precision medical applications; 03-06-2022 – 02-06-2026; project leader at UPWr; National Science Centre (NCN); The aim of the project is the development and characterization of novel nanostructured biomaterials based on nanocrystalline hydroxyapatite (nHAp) matrices functionalized with rare earth metal ions for theranostic applications. The biomaterials are subjected to a comprehensive evaluation of their physicochemical and biological properties. The part of the project carried out at the University of Environmental and Life Sciences in Wrocław focuses on assessing biomaterial bioactivity using in vitro and in vivo models. The multifunctional scaffolds are tested using human multipotent mesenchymal stromal cells of bone marrow origin (BMSC). Due to their plasticity, these cells enable the determination of the potential use of biomaterials in regenerative medicine. The potential for biomaterial-guided three-lineage differentiation (osteogenic, chondrogenic, and adipogenic) is assessed based on cell morphology, expression of specific phenotypic markers, secretory activity, extracellular matrix specialization, and functional differentiation. Planned in vivo studies (ectopic tissue models) aim to confirm the osteogenic and chondrogenic potential of nHAp-based matrices
Supervision (Supervisor/auxiliary supervisor)	1. Anna Cisto-Pakuluk, The role and significance of extracellular membrane microfragments isolated from stromal progenitor cells derived from human adipose tissue in the course of degenerative retinal diseases in dogs, Defense date: 2021 (Doctoral studies). 2. Mateusz Sikora, The role and significance of small non-coding RNA molecules in the regeneration of osteoporotic bone tissue in aging – a case study of miRNA-21-5p, Defense date: 2024 (Doctoral studies). 3. Sidra Amin, Multi-omics analysis of laying hens' eggshells' formation modulated by biochar with diversified sorption surface (II year). 4. Klaudia Marcinkowska; Functional evaluation of osteoinductive nanomaterials with theranostic properties for applications in regenerative medicine and bone cancer – a translational approach (Doctoral studies). 5. Agnieszka Dolnicka, Identification and profiling of non-invasive molecular and structural biomarkers for precision diagnosis of osteosarcoma in dogs – application of advanced molecular and bioimaging techniques, (Doctoral studies).
	Awards and distinctions: Rector's Award of the Wrocław University of Environmental and Life Sciences for: a) scientific achievements – awarded annually in the years 2015–2023; b) organizational achievements – 2023; c) teaching achievements – 2024.

Most important additional achievements	Participation in Leading Research Groups: The Fight OsteoSarcoma Through European Consortium - Member; FOSTER WP1: Biology and Preclinical Study The consortium brings together experts in cancer biology, translational medicine, and comparative oncology, focusing on innovative strategies to combat osteosarcoma. The team's role is to develop integrated research models and implement novel therapies based on the One Health approach. Veterinary Oncology (OncoVet) – Member: The OncoVet team operates at the intersection of veterinary medicine and experimental oncology, conducting research on companion animal cancers as models for translational medicine. Particular emphasis is placed on the development of targeted therapies and optimization of cancer treatment in dogs and cats. Animal Science for the Future (ASc4Future) – Member The ASc4Future team focuses on research related to animal welfare and sustainable development in animal production. Its goal is to implement modern solutions in animal science, including the use of omics technologies.
Link to Base of Knowledge	Other significant achievements B090/1855/2022: REGBONE Evaluation of the efficacy and safety of regorafenib in patients with treatment-resistant primary bone cancers – a research service commissioned by the Department of Oncology and Surgical Oncology for Children and Youth at the Institute of Mother and Child in Warsaw. The aim of the service is to obtain primary cell lines from patients with osteosarcoma in order to assess the therapeutic efficacy of regorafenib and to investigate its molecular mechanism of action. Funding amount: 320,458.37 PLN Project duration: April 25, 2022 – September 12, 2025 https://bazawiedzy.upwr.edu.pl/info/author/UPWrecff532cc7154463a83db98b8ca2d16c?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BAgnieszka%2B%25C5%259Amieszek%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=302782

Name and Surname	Aleksandra Maria Mirończuk
Academic Title	Prof. Ph.D., D.Sc.
Unit	Institute of Biology, Laboratory for Biosustainability
Academic Discipline	Biological Sciences

Category of Achievements	Details Achievements
Most important publications	1. Metabolic engineering of <i>Yarrowia lipolytica</i> for poly(ethylene terephthalate) degradation. Kosiorowska KE, Biniarz P, Dobrowolski A, Leluk K, Mirończuk AM. Sci Total Environ. 2022 Jul 20;831:154841. doi: 10.1016/j.scitotenv.2022.154841.
	2. Functional overexpression of genes involved in erythritol synthesis in the yeast <i>Yarrowia lipolytica</i> . Mirończuk AM, Biegalska A, Dobrowolski A. Biotechnol Biofuels. 2017 Mar 24;10:77. doi: 10.1186/s13068-017-0772-6
	3. <i>Zophobas morio</i> versus <i>Tenebrio molitor</i> : Diversity in gut microbiota of larvae fed with polymers. Urbanek AK, Rybak J, Hanus-Lorenz B, Komisarczyk DA, Mirończuk AM. Sci Total Environ. 2024 Nov 20;952:176005. doi: 10.1016/j.scitotenv.2024.176005
Most important research projects conducted	1. Funded by National Science Centre Poland, PI Title: Molecular mechanism of polyols assimilation by yeast <i>Yarrowia lipolytica</i> Host institution: UPWr Start and end date: 01-10.2019 /30.09.2024 Reg. No.: 2018/31/B/NZ9/01025 Amount of funding [PLN]: 1 302 000 Short description of results of the project: The aim of the project was studying of the mechanism of erythritol assimilation by yeast <i>Y. lipolytica</i> . Erythritol is a four-carbon polyol produces as an osmoprotectant by the cell in response to osmotic stress. Due to its sweet taste and almost non-caloric impact, from many years it is produced as a natural sweetener by yeast fermentation. Only few microorganisms are able to utilize this untypical carbon source, one of them is yeast <i>Y. lipolytica</i> . We had identified a novel role of the genes involved in polyol metabolisms.
	2. PI, Title: The study of the physiology of yeast <i>Yarrowia lipolytica</i> for decomposing of plastic Host institution: UPWr Start and end date: 26.06.2018 /25-12-2023 Reg. No.: 2017/27/B/NZ9/02218 Amount of funding [PLN]: 1 096 000 Short description of results of the project: In this project, we had tested the capability of the engineered yeast <i>Y. lipolytica</i> to biodegradation of polyesters. By overexpression of heterologous and natives genes, we proved that biodegradation of PET is possible directly in the yeast culture at 28C, without any prior plastic pre-treatment.

	3. PI, 1.Title: Improving the biosynthesis of natural sweeteners from renewable feedstock by the yeast <i>Yarrowia lipolytica</i> Host institution: UPWr Source of funding: NCBiR, Poland Start and end date: 01-01-2015-31-03-2018 Project ID: LIDER/010/207/L-5/13/NCBR/2014 Short description of results of the project: In this project, we have described the metabolic pathway of erythritol biosynthesis in yeast. The metabolic engineering of yeast allowed for significant enhancement of this polyol production from waste glycerol. Finally two patents and 8 scientific articles have been published.
Supervision (Supervisor/auxiliary supervisor)	1. Mateusz Szczepańczyk, Analysis of molecular mechanism of response to osmotic stress in yeast <i>Yarrowia lipolytica</i>, Defence Date 2025 (doctoral studies). 2. Katarzyna Ewa Kosiorowska, Study of the physiological ability of the yeast <i>Yarrowia lipolytica</i> to degrade plastics, Prime Minister of Poland Award for the PhD thesis enter the year of defence, defense date 2023 (doctoral studies). 3. Aneta Krystyna Urbanek, Study of the ability of microorganisms to degrade plastics,defense date 2022 (doctoral studies). 4. Dorota Alicja Rzechonek, Regulation of erythritol metabolism in the yeast <i>Yarrowia lipolytica</i>. Award of the Minister of Science and Higher Education of Poland for the top PhD student, defense date: 2021 (doctoral studies).
Most important additional achievements	Awards and distinctions: Top 2% Cited Scientists List 2024 (Stanford/Elsevier) Patents and implementations: 2018 Method of erythritol synthesis Pat.230446 2018 Method of citric acid production Pat.231760 2015 Method of erythritol production Pat.223055 Membership in scientific councils/scientific committees: 2013- present Member of Polish Society of Microbiologists (member of FEMS -Federation of European Microbiological Societies) Participation in Leading Research Groups:Waste and Biomass Valorization Group (WBVG) - Member Other significant achievements 2025 - 16th Metabolic Engineering Conference , Denmark, Poster Co-chair 2022 - 1st Polish Yeast Conference Member of Scientific Committee 2017- 13th International Conference on Renewable Resources and Biorefineries, Chair in session of Metabolic Engineering
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr3d2c277d8cbe4817a5e66e9c7ad81b81?r=supervisedwork&tab=main&title=Person%2Bprofile%2B%25E2%2580%2593%2BAleksandra%2BMiro%25C5%2584czuk%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUiversity%2Bof%2BEnvironmenta%2Band%2BLife%2BSciences&lang=en&pn=1

This document presents the profiles of five researchers from UPWr Doctoral School, whose contribution is indispensable to the development of the discipline of **agriculture and horticulture**.

The presented profiles feature individuals with the highest qualifications, whose work addresses global challenges related to food production, sustainable development and agricultural innovation. Their research focuses on crop optimisation, plant protection, modern horticultural technologies and the development of resilient agricultural systems, which are essential for food security and environmental sustainability. Under their guidance, doctoral students have the opportunity to gain practical knowledge and develop the skills necessary to shape the future of agriculture and horticulture.

Detailed profiles of each individual are available on the "Knowledge Base" portal via the link in each profile.

Name and Surname	Kamila Nowosad
Academic Title	Prof., Ph.D., D.Sc., Eng
Unit	Department of Genetics, Plant Breeding and Seed Production
Academic Discipline	Agriculture and horticulture

Category of Achievements	Details Achievements
Most important publications	1. Arsenic uptake by <i>Agrostis capillaris</i> , as related to its genotypic diversity in the area of historical ore mining and processing Dradrach Agnieszka, Nowosad Kamila, Kozak Bartosz [i in.], Scientific Reports, 2024, vol. 14, s.1-12, Article number:13488. DOI:10.1038/s41598-024-63830-1
	2. Analysis of Linkage on Interaction of Main Aspects (Genotype by Environment Interaction, Stability and Genetic Parameters) of 1000 Kernels in Maize (<i>Zea mays</i> L.) Nowosad Kamila, Bocianowski Jan, Kianersi Farzad [i in.], Agriculture (Switzerland), 2023, vol. 13, nr 10, s.1-17, Article number: 2005. DOI:10.3390/agriculture13102005
	3. Genotype by environment interaction using AMMI model and estimation of additive and epistasis gene effects for 1000-kernel weight in spring barley (<i>Hordeum vulgare</i> L.) Bocianowski Jan, Warzecha Tomasz, Nowosad Kamila [i in.], Journal of Applied Genetics, 2019, vol. 60, nr 2, s.127-135. DOI:10.1007/s13353-019-00490-2
Most important research projects conducted	1. Identification of the molecular mechanism of winter rye resistance to brown rust, Project manager at UPWR: Kamila Nowosad, start date 01-01-2024, end date 31-12-2024, awarded not started
	2. Identification of the molecular mechanism of winter rye resistance to brown rust, Project manager at UPWR: Kamila Nowosad, start date 01-01-2023, end date 31-12-2023, completed
	3. Identification of the molecular mechanism of winter rye resistance to brown rust, Project manager at UPWR: Kamila Nowosad, start date 01-01-2022, end date 31-12-2022, completed and finally settled
Supervision (Supervisor/auxiliary supervisor)	1. Inna Mashevska, Identification of genes associated with obtaining a more extensive root system by plants of the <i>Secale</i> genus (I year).
	2. Dorczyk Ada, PPyramidization of resistance genes in spring wheat, Wydział Przyrodniczo-Technologiczny, 2024, Defense Date: 2024 (doctoral studies).
Most important additional achievements	Other significant achievements: Rector's Awards 2021-2025
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr60ed5ccd95364870838b47fdd2605c01?r=achievement&ps=20&tab=stats&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BKamila%2BNowosad%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&p n=1&cid=1368890

Name and Surname	Cezary Kabala
Academic Title	Prof. Ph.D., D.Sc.
Unit	Institute of Soil Science Plant Nutrition and Environmental Protection
Academic Discipline	Agriculture and Horticulture

Category of Achievements	Details Achievements
Most important publications	1. Kabala, C., Galka, B., Jezierski, P., 2020. Assessment and monitoring of soil and plant contamination with trace elements around Europe's largest copper ore tailings impoundment. Science of The Total Environment 738, 139918. https://doi.org/10.1016/j.scitotenv.2020.139918
	2. Kabala C., Przybył A., Krupski M., Łabaz B., Waroszewski J., 2019. Origin, age and transformation of Chernozems in northern Central Europe–New data from Neolithic earthen barrows in SW Poland. Catena, 180, 83-102. https://doi.org/10.1016/j.catena.2019.04.014
	3. Kabala, C., Galka, B., Labaz, B., Anjos, L., de Souza Cavassani, R. 2018. Towards more simple and coherent chemical criteria in a classification of anthropogenic soils: A comparison of phosphorus tests for diagnostic horizons and properties. Geoderma, 320, 1-11.
Most important research projects conducted	1. Geoarcheology of buried soils. Transformation of soils in the loess zone of Silesia as indicators of land use in prehistory, 2021-2024, funding: NCN, role: investigator. The project showed the directions and rates of transformation of black soils, dominant in the Lower Silesia region in the Neolithic period, into modern Luvisols and related soils. The main factor of transformation was the duration of agricultural period versus the time of afforestation and the duration of forest period, as well as the time of contemporary deforestation. The project confirmed that extensive agricultural use, dominant from the Neolithic until the time of agricultural intensification, was a factor favorable to the preservation of black soils, while the encroachment of forest stands (especially beech) accelerated the degradation of black soils.
	2. Origins of mollic-bearing soils on loess areas in the south-west of Poland in the context of environmental change and human expansion in the Holocene, 2015-2018, funding: NCN, role: head and principal investigator. The research topic was inspired by the discovery of Chernozems in the Neolithic barrows located in the zone of occurrence of Luvisols on loess, where the presence of Chernozems was not expected. The studies confirmed the regular, if not dominant, occurrence of Chernozems under Neolithic barrows in the entire loess belt in southern Poland, which led to the conclusion that these soils were common in the loess belt at least in the Neolithic period. Studies of Chernozems in the areas of their relic occurrence confirmed at least their Neolithic age, but also led to the conclusion that the persistence of Chernozems during Late Holocene was possible only in areas continuously used for agriculture from the Neolithic to the present.

	3. Origin, properties, occurrence and habitat value of Albeluvisols (FAO-WRB 2006) in geoecological conditions of south-western Poland, 2013-2016, funding: MNiSW/NCN, role: head and principal investigator. The aim of the project was to fill the gap in knowledge about the genesis and occurrence of the so-called Albeluvisols in Poland, the origin and main morphological features of which were commonly associated with the influence of the cold climate in the periglacial period. Research conducted in the Lower Silesia, in the loess belt and in the zone of post-glacial sediments, did not exclude the periglacial origin of particularly deep tongues in Bt horizons, but also showed the common presence of tonguing in much younger soils, which in the middle Holocene represented other typological units, e.g. Chernozems. This means that the albeluvic tonguing in Bt horizons may be of periglacial origin, but may develop due to desiccation in a moderate climate, and may also arise as a result of degradation of the Bt horizon in case of stagnation of rainwater. The results of the project contributed to changing the concept of Albeluvisols and their name to Retisols in the international soil classification (WRB).
Supervision (Supervisor/auxiliary supervisor)	1. Jarosław Waroszewski, Relationships between series of slope covers and morphology and properties of soils in the Sudety Mountains, defense date: 2011 (doctoral studies). 2. Agnieszka Medyńska, The role of humus litter in the cycling of trace elements in afforested post-arable soils impacted by copper industry, defense date: 2011 (doctoral studies). 3. Oskar Bojko, Organic carbon pools in soils of the Sudeten Mts. - spatial variability and predicted changes, defense date: 2018 (doctoral studies).
Most important additional achievements	Editor in Chief of the editorial board of Catena journal (Elsevier, IF 5.7) Chair of the Research Council of the Stolowe Mountains National Park since 2005; member and vice-chair of the Research Council of the Karkonosze Mountains National Park since 2001. Vice-president of the Soil Science Society of Poland since 2012. Chair of Working Group for the World Reference Base for Soil Resources at IUSS (International Union of Soil Science) since 2024 Chair of the Research Council of the discipline Agriculture and Horticulture at WUELS in years of 2021-2024
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr6dbdc7326bc44233b7889163e9913a13?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BCezary%2BKaba%25C5%2582a%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&p=n=1&qp=&cid=1365078

Name and Surname	Agnieszka Medyńska-Juraszek
Academic Title	Ph.D., D.Sc.
Unit	Institute of Soil Science, Plant Nutrition and Environmental Protection
Academic Discipline	Agriculture and Horticulture

Category of Achievements	Details Achievements
Most important publications	1. Medyńska-Juraszek, A., & Jadhav, B. (2022). Influence of Different Microplastic Forms on pH and Mobility of Cu ²⁺ and Pb ²⁺ in Soil. <i>Molecules</i> , 27(5), 1744. https://doi.org/10.3390/molecules27051744
	2. Medyńska-Juraszek, A., & Szczepańska, A. (2023). Microplastic Pollution in EU Farmland Soils: Preliminary Findings from Agricultural Soils (Southwestern Poland). <i>Agriculture</i> , 13(9), 1733. https://doi.org/10.3390/agriculture13091733
	3. Medyńska-Juraszek, A., Rivier, P.-A., Rasse, D., & Joner, E. J. (2020). Biochar Affects Heavy Metal Uptake in Plants through Interactions in the Rhizosphere. <i>Applied Sciences</i> , 10(15), 5105. https://doi.org/10.3390/app10155105
Most important research projects conducted	1. "Biochar as an innovative growing medium" Project PBS3/B8/22/2015, project manager, projects financed by the 3rd Applied Research Program of the National Center for Research and Development, implementation period 2014-2017. The aim of the project was to develop a new substrate for growing vegetables under cover, based on biochar. The studies have shown that biochar is suitable as a substitute for peat and mineral wool in substrates for hydroponic cultivation, and its use brings many benefits such as saving water, fertilizers, better plant health.
	2. "Innovative growing substrate for growing herbs and medicinal plants produced from valorized waste materials generated in agricultural production and energy conversion of biomass" Project manager. Project financed by the Ministry of Science and Higher Education as part of the Innovation Incubator 4.0. Implementation period 2021-2022. The aim of the project was to develop a substrate for growing medicinal plants and herbs based on waste biomass, originating from the stream of kitchen and garden waste and biochar. As part of the project, it was possible to develop a substrate formulation and production method, which are protected by know how.
	3. FARMWISE project Horizon EU, contractor in the project financed under the Horizon Europe program. Implementation period 2024-2026. The project is building databases for AI regarding water saving systems in agriculture, one of the tasks is to transform organic waste that is generated on the farm - biochar and use it as a soil ameliorant.
Supervision (Supervisor/auxiliary supervisor)	1. Magdalena Bednik, Factors determining the degradation of biochar in soil in the context of the possibility of using pyrogenic carbon as a tool for CO ₂ sequestration", Defense date 2024.
	2. Bhakti Jadhav, The role of microplastic pollution in the modification of the physicochemical properties of arable soil and uptake of potential toxic elements by plants, Dissertation submitted for the review, Defense date: July 2025.
	3. Hazrat Amin, Microplastic role in organic compounds mobilization/immobilization under soil conditions" (I year).
	4. Michał Dudek, Contemporary transformation of chernozem soils in Poland with particular emphasis on the properties and transformations of organic matter" - co-supervisor, work carried out as part of doctoral studies in 2019-2023

Most important additional achievements	Individual Award of the Rector of Wrocław University of Environmental and Life Sciences for scientific achievements (2024-2021)
	Know-how Protection "Natural Gardening Substrate"
	Member of the Polish Soil Science Society, secretary of the Wrocław branch of the PTG, member of the Polish Society of Humic Substances, member of the IUSS Commission 3.5, member of the International Society of Trace Elements Biogeochemistry (ISTEB)
	Contractor in three Horizon EU projects: https://symbiorem.eu/ https://georgia-horizon.eu/ https://farmwise-project.eu/ and e-COST action: https://www.cost.eu/actions/CA24110/
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrb9f6b3165ca644198a581291d02c6b36?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BAgnieszka%2BMedy%25C5%2584ska-Juraszek%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=1364245

Name and Surname	Renata Galek
Academic Title	Ph.D., D.Sc., Eng, Associate Professor
Unit	Department of Genetics, Plant Breeding and Seed Production
Academic Discipline	Agriculture and Horticulture

Category of Achievements	Details Achievements
Most important publications	1. Galek Renata, Rurek M., de Jong Walter S. [i in.]: Application of DNA markers linked to the potato H1 gene conferring resistance to pathotype Ro1 of <i>Globodera rostochiensis</i> , Journal of Applied Genetics, 2011, vol. 52, nr 4, s.407-411.DOI:10.1007/s13353-011-0056-y
	2. Kokina Inese, Plaksenkova Ilona, Galek Renata [i in.]: Genotoxic Evaluation of Fe3O4 Nanoparticles in Different Three Barley (<i>Hordeum vulgare</i> L.) Genotypes to Explore the Stress-Resistant Molecules, Molecules, 2021, vol. 26, nr 21, s.1-17, Numer artykułu:6710. DOI:10.3390/molecules26216710
	3. Łyczko Jacek, Piotrowski Krystian, Kolasa Kornelia [i in.]: <i>Mentha piperita</i> L. Micropropagation and the Potential Influence of Plant Growth Regulators on Volatile Organic Compound Composition, Molecules, 2020, vol. 25, nr 11, s.1-18, Numer artykułu:2652.DOI:10.3390/molecules25112652
Most important research projects conducted	2022-2024 – “Improving the genetic map of narrow-leaved lupine and searching for markers linked to utility traits with particular emphasis on protein and alkaloid content” - Task number 18 (Ministry of Agriculture and Rural Development) – contractor The obtained genetic map and the results of field observations for inbred lines of the Emir×LAE-1 mapping population enable reliable mapping of QTL loci. In the LG06 linkage group, the main QTL locus controlling a number of traits related to flowering and ripening date, seed yield, plant height and thousand seed weight is located. In the LG08 linkage group, the main QTL locus controlling pod bursting is located.
	2017-2020 - "Studies on gametic embryogenesis in <i>Lupinus angustifolius</i> L - induction of haploids and analysis of the genetic basis of this process" Task no. 108 Biological Progress. (Ministry of Agriculture and Rural Development) - project manager. Using distant callus crossbreeding, a ploidy level of 2x and 1x was obtained, and only in the case of regenerating ovules of the Karo x <i>L. mutabilis</i> LM 13 variety and the LAE-1 x <i>L. luteus</i> 500 line on P2 medium was the ploidy level of 1 x. The creation of a cDNA library provides a basis for continuing research on the genetic basis of the androgenesis process. The developed FISH markers and probes will be the basis for identifying haploids or doubled haploids.

	2015-2017 - Phenotyping and genotyping of narrow-leaved lupine in terms of selected morphological, yield-forming and technological seed parameters. Task no. 93 Biological Progress. (Ministry of Agriculture and Rural Development) - project manager Analysis from three years allowed to indicate features that are dependent on the influence of the environment based on the existing genotype-environment interaction. Interestingly, there is a significant diversification in the content of protein fractions, which provides a basis for intensifying work using 2D electrophoresis for their precise identification, although the diversified gene expression should be taken into account, because not all proteins occurred in the three years of research. The conducted cross-breeding program provided a basis for deriving the F2 generation and then the F3,4 RILs, necessary for undertaking extensive genotyping and mapping in <i>L. angustifolius</i> in the future. The obtained recombinants with a varied share of pod walls and seed coat and varied quality traits can be used in practical plant breeding. It is necessary to continue research in terms of expanding the pool of molecular markers in order to obtain better recognition - linking genotype with phenotype. The skeleton of another genetic map was created, which after densification with additional markers can be used in QTL analyses of traits related to seed coat thickness Genotyping with SNP markers based on the KASP technique can be successfully used in breeding programs of narrow-leaved lupin.
Supervision (Supervisor/auxiliary supervisor)	1. Agnieszka Gniewek, 'Variability and interdependence of selected utility traits and genetic diversity in the narrow-leaved lupine collection, defense date: 2019. 2. Maciejewska-Hoza Anna, Variability of selected functional traits of narrow-leaved lupine (<i>Lupinus angustifolius</i> L.) RILs lines and the possibility of inducing the haploidization process, defense date: 2023. 3. Maciej Jakobina, 'Phenotyping of narrow-leaved lupine collection in terms of yield-forming traits and the share of seed coat and pod walls, (II year).
Most important additional achievements	- 1st degree team award in the field of scientific research for a series of publications concerning, among others, issues related to genetic and breeding work on the genus <i>Lupinus</i> and the use of biotechnological techniques in various plant species 2007, 2021, individual 1st degree 2013, 2nd degree 2012, 3rd degree 2017 in the field of teaching and organization team awards: 3rd degree 2003, 2004, 2nd degree 2007, 2009, 2012, 2016 Member of the Scientific Council of the Institute of Plant Genetics, reviewer in 3 habilitation proceedings, reviewer in 8 doctoral proceedings 2021-2023 - Internal grant No. 14-95/2021/8 (Fe3O4 nanoparticles as a powerful tool for expression of resistance related molecules in different Latvian origin barley (<i>Hordeum vulgare</i> L.) genotypes against barley powdery mildew (<i>Blumeria graminis</i> f.sp. <i>hordei</i>), Internal grant No.14-95/2022/8 (Nanoparticles as an effective tool for regulation of chlorophyll synthesis in crop plants), Internal grant No. 14-95/2023/9 (Biosynthesis of different nanoparticles using alfalfa (<i>Medicago sativa</i> L.) seedlings and their callus cultures), Daugavpils University Latvia. Type of achievement: performer, expert "Lupin and other legumes in sustainable agriculture and food production" June 23-24, 2025

Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr3d9aacd86ba84a49b0f8b6db7db6f258?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BRenata%2BGalek%2B%25E2%2580%2593%2BUniw%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=1357014

Name and Surname	Wojciech Pusz
Academic Title	Prof. P.hD., D.Sc., Eng.
Unit	Dept. Of Plant Protection
Academic Discipline	Agriculture and horticulture (75%); Forestry (25%)

Category of Achievements	Details Achievements
Most important publications	1. Pusz W., Ogórek R., Uklańska-Pusz C., Zagożdżon P. 2014. Speleomycological research in underground Osówka Complex in Sowie Mountains (Lower Silesia, Poland). International Journal of Speleology 43 (1): 27-34
	2. Pusz W. 2016. Plants' healthiness assessment as part of the environmental monitoring of protected mountainous area in the example of Karkonosze (Giant) Mts. (SW Poland). Environmental Monitoring and Assessment 188 (10): 1-15. DOI 10.1007/s10661-016-5551-5
	3. Pusz W., Baturó-Cieśniewska A., Kaczmarek-Pieńczyńska A., Patejuk K., Czarnota P. 2021. Is the Survivability of Silver Fir under Condition of Strong Ungulate Pressure Related to Mycobiota of Bark-Stripping Wounds? Forests. 12 (8): 976 https://doi.org/10.3390/f12080976
Most important research projects conducted	2011 – 2014 “Studies on the threat to mountain pine (Pinus mugo Turra) in the Karkonosze National Park from fungi infecting needles” NCN grant N304/069940 – principal investigator: The aim of the conducted research was to determine the threat to mountain pine growing in the Karkonosze National Park from pathogens. The most important result of the research was the discovery of a new pathogen of mountain pine needles for world science - Lophodermium corconticum, which is the cause of the first-described disease case - yellow needle spot
	2021 – 2023 “Extreme climate phenomena and biodiversity - the impact of global warming on the temperate zone grassland ecosystem” NCN 2019/35/B/NZ8/03358 - contractor. The aim of the project was to test the research hypothesis, in which the thesis was the impact of global warming on the condition of temperate zone grassland communities. In my part of the research, I checked whether temperature changes affect pathogenic fungi communities. It was found that on objects where the temperature was higher combined with a higher degree of hydration, typical plant pathogens appeared, i.e. Fusarium.
Supervision (Supervisor/auxiliary supervisor)	1. Agnieszka Nawrot, implementation doctorate; Development of agrocenoses taken over by the State Forests and increasing their biodiversity with seedlings of selected tree species produced using biostimulants and substances of natural origin (1 year).
	2. Patejuk Katarzyna, Fungal communities inhabiting selected invasive plants in urbanized areas, Defense Date: 2021 (doctoral studies).
	3. Jacewski Brayan, The impact of Molinia meadow communities usage on the species diversity of plants and microscopic fungi, Defense Date: 2021 (doctoral studies).
Most important additional achievements	Scientific Council of the Wigry National Park (member; 2020-2025); Scientific and Social Council of the "Łasy Rychtańskie" Promotional Forest Complex (member: 2023 - 2027); Member of the Main Board of the Polish Phytopathological Society; Chairman of the Social Communication Committee of the Polish Forest Society; editor-in-chief of "Acta Mycologica".
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr5dcc8e1f3ed4403b9feb431b4237f5aa?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BWojciech%2BPusz%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=1366654

Below, we present profiles of five leading academic teachers and research staff of UPWr Doctoral School, whose work is of fundamental importance for progress in the discipline of **nutrition and food technology**. These are experts of the highest qualifications whose research and innovations are crucial for food safety, quality, nutritional value and sustainable production. Their work encompasses the development of new food products, optimisation of technological processes and topics related to dietetics and the impact of nutrition on human health. Thanks to their dedication and pioneering projects, doctoral students gain a unique opportunity to explore the latest trends and solutions in the food sector, enabling them to shape the future of this dynamically evolving field.

The detailed scientific output of each researcher is available via the link in their profile on the "Knowledge Base" portal.

Name and Surname	Aneta Wojdyło
Academic Title	Prof. Ph.D., D.Sc.
Unit	Departament of Fruit, Vegetable and Plant Nutraceutical Technology
Academic Discipline	Nutrition and food technology

Category of Achievements	Details Achievements
Most important publications	1. Wojdyło Aneta, Oszmiański Jan, Czemerys Renata: Antioxidant activity and phenolic compounds in 32 selected herbs, Food Chemistry, 2007, vol. 105, nr 3, s.940-949. DOI:10.1016/j.foodchem.2007.04.038; citations: 1311
	2. Wojdyło Aneta, Figiel Adam, Lech Krzysztof [i in.]: Effect of convective and vacuum–microwave drying on the bioactive compounds, color, and antioxidant capacity of sour cherries, Food and Bioprocess Technology, 2014, 7, 829-841. DOI:10.1007/s11947-013-1130-8; citations: 337
	3. Wojdyło Aneta, Figiel Adam, Oszmiański Jan: Effect of Drying Methods with the Application of Vacuum Microwaves on the Bioactive Compounds, Color, and Antioxidant Activity of Strawberry Fruits, Journal of Agricultural and Food Chemistry, 2009, 57, 4, 1337-1343. DOI:10.1021/jf802507j; citations: 299
	The role of interactions between <i>Sorbus domestica</i> L. phytonutrients on shaping food with programmed health-promoting properties, bioavailability, and bioaccessibility. NCN, time: 1.03.2024 - 29.02.2028, According to WHO, inadequate diet, stimulants and lack of physical activity are, next to reactive oxygen species (ROS), the elements of our lifestyle that seriously increase the risk of civilization diseases. This is in fact good news, as we have full control over what we eat and what activities we engage in. Dietary as well as nutrigenomic and nutrigenetic studies have confirmed that consciously selected diet may modulate metabolic processes, significantly slow down a disease progression and alleviate its course or even eliminate occurrence of many pathological conditions. Epidemiological studies indicate that a diet rich in phytochemicals contained in such plant derived food as fruits, vegetables or herbs is a factor significantly reducing the risk of civilization diseases and related pathological conditions such as neoplasms, diabetes, cardiac and dementia diseases. So far, human diet has been balanced based on bioactive compounds of common fruits and vegetables mainly apple, oranges, carrot or tomato, while novel and alternative sources of phytochemicals have been constantly looked for. Considering this search, special attention should be focused on very rich source of bioactive substances, that is berries, leaves, and flowers of <i>Sorbus domestica</i> L. species and hybrid.

Most important research projects conducted

Leaves of fruits trees as donors of natural bioactive substances used in preventive strategies of selected civilisation diseases. NCN, time: 31.10.2019 - 31.10.2024. role: PI. Dynamic development of our civilization has contributed to huge advances in science and technology and considerably improved our living conditions. However, it also brought about numerous health related problems and exacerbated the issue of population aging. The most serious problems in the field of civilization and epidemiological diseases include increasing occurrence of diseases with anti-inflammatory background, growing morbidity of diabetes in people of all ages or commonness of neurodegenerative diseases that are on the rise and have reached a status of an epidemic and a top problem of 21st century. The most effective strategy in the prevention and treatment of these conditions is a conscious approach to diet through the supply of biologically active compounds and a healthy lifestyle. So far, human diet has been balanced based on bioactive compounds of plant products such as fruits, vegetables and herbs, while novel and alternative sources of phytochemicals have been constantly looked for. Considering this search, special attention should be focused on an unconventional and very rich source of bioactive substances, that is fruit tree leaves. The aim of the project is a multidimensional analysis of phytochemicals in an unconventional material, i.e. the leaves of fruit trees (sour cherry, sweet cherry, plum, apricot, peach, pear, quince, and apple) and verification of their biological potential in treatment of diseases and medical conditions of 21st century. The project outcomes will be used for designing a model beverage with programmed health-promoting properties aimed at the prevention and treatment of the civilization diseases. In summary, the experiments conducted during this project will result in: - Identification of the bioactive fraction in the unconventional biological material, i.e. the leaves of selected fruit trees (by LC-MS QToF and UPLC-PDA-FL), - Confirmation of lack of cytotoxicity and genotoxicity towards selected organs and cells of human alimentary tract, including gastric mucosa, intestinal epithelium and liver, - Identification of biological properties in a model matrix in vitro - Designing a new innovative product with targeted health-promoting properties in the form of innovative model beverages with acceptable sensory properties.

	The development of functional, high-protein vegetable pastes is a breakthrough on the food market dedicated to people at risk of diet-related diseases and inflammations of the body(VEGEpast). Time: 01.06.2023 - 01.06.2026 - Role: PI; The aim of the project, implemented by the Consortium, is to develop a product innovation in the form of functional, high-protein vegetable spreads. These applications have not been previously used in the vegetable processing industry, which makes them innovative both domestically and internationally. The unique characteristics of the project's results will be achieved through R&D work aimed at developing new recipes and methods for producing vegetable preserves, such as high-protein vegetable spreads based on chickpeas, lentils, and beans. With particular emphasis on modulating the digestibility of plant-based protein and/or high dietary fiber content, these being key aspects of the resulting formulations' functionality. The project will address identified consumer needs (particularly the needs of individuals undergoing regeneration, recovery, and convalescence, as well as those at risk of inflammatory conditions and/or diet-related diseases, for a natural source of plant-based protein, a key ingredient in these processes), who seek foods with specific functionality, high health and nutritional value, and that are easy and convenient to consume. The Project's results will be implemented by incorporating the R&D results into the Consortium Leader's (Company's) own operations and commencing production of a range of improved products using the developed methods and recipes immediately after Project completion (the innovative product will be offered under the Łowicz brand). The Project's results will be achieved through R&D work, primarily based on the human and technical resources and know-how of the consortium members.
Supervision (Supervisor/auxiliary supervisor)	1. Monika Siniawska, The role of interactions between Sorbus domestica L. phytonutrients on shaping food with programmed health-promoting properties, bioavailability, and bioaccessibility (II year). 2. Dmytro Slivinskyi, Technological Aspects of the Production of Functional Plant-Based Beverages (I year).
Most important additional achievements	Patents and implementations: Figiel Adam, Lech Krzysztof, Nawirska-Olszańska Agnieszka, Wojdyło Aneta, Szumny Antoni, Invention, Protected, Application number: 400135, Patent/rights number: 219810, Application date: 25-07-2012, Patent (decision) date: 03-11-2014, Publication of patent: [WUP 31-08-2015] Patents and implementations: Wojdyło Aneta, Fichna Jakub, Sałaga Maciej, Talar Marcin, Mosińska Paula, Tarasiuk Aleksandra, Krajewska Julia, Fabisiak Adam, Binienda Agata, Bartoszek Adrian, Dziedziczak Katarzyna, Niewinna Karolina, Invention, Protected, Application number: 441851, Patent/rights number: 244268, Application date: 27-07-2022, Patent (decision) date: 09-10-2023, Publication of patent: [WUP 27-12-2023] Membership in scientific councils: NCN (2018-2022); Corresponding Member of the Polish Academy of Sciences

	Leading grup: Plants Processing & Technology for Bioactive Food (plants4FOOD): https://bazawiedzy.upwr.edu.pl/info/team/UPWrc4d4cb81c2484ddc9e382dee2ed564e4?r=activity&ps=20&lang=en&title=Profil%2Bzespo%25C5%2582u%2B%25E2%2580%2593%2B%25C5%25BBwyno%25C5%259B%25C4%2587%2Bfunkcjonalna%2Bpochodzenia%2Bro%25C5%259Blinnego%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu+title&pn=1&cid=1350551
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrddc7b8146ee3404388e919cda02deef?ps=20&lang=en&title=&pn=1&cid=377951

Name and Surname
Academic Title
Unit
Academic Discipline

Paulina Nowicka
 Ph.D, D.Sc Eng.
 Department of Fruit, Vegetable and Plant Nutraceutical Technology
 Nutrition and food technology

Category of Achievements	Details Achievements
Most important publications	1. Nowicka Paulina, Wojdyło Aneta, Samoticha Justyna. 2016. Evaluation of phytochemicals, antioxidant capacity, and antidiabetic activity of novel smoothies from selected Prunus fruits. Journal of Functional Foods, 25, 397 – 407. DOI: 10.1016/j.jff.2016.06.024
	2. Nowicka Paulina, Wojdyło Aneta. 2019. Anti-Hyperglycemic and anticholinergic effects of natural antioxidant contents in edible flowers. Antioxidants, 8(8):308. doi:10.3390/antiox8080308.
	3. Nowicka Paulina, Wojdyło Aneta, Lech Krzysztof, Figiel Adam. 2015. Influence of osmodehydration pretreatment and combined drying method on the bioactive potential of sour cherry fruits. Food and Bioprocess Technology: An International Journal, 8, 824-836. DOI:10.1007/s11947-014-1447-y3
	1. Research project (LIDER IX LIDER/25/0102/L-9/17/NCBR/2018 - Development of innovative high-fiber snack products based on plant raw materials for use in the daily diet of children and adolescents (VITA SNACK))) as Project manager. Time: 01.05.2019 - 30.09.2023 Source of financing: National Centre for Research and Development (NCBiR) Adequate nutrition in childhood and early adolescence has a large impact on the condition and appropriate physical and psychological development. In addition, it might be one of the most important factors reducing the risk of diet-related diseases or at least, imposing their milder course in the adulthood. Therefore, the aim of the proposed project is to develop innovative solid and semi-liquid, fruit and vegetable-based products, which will significantly enlarge the current offer of snacks intended for children and adolescents. The newly developed snack products are expected to have a high nutritional and health-promoting value, but also attractive sensory properties; they will also allow effective promotion of a healthy diet among this group of consumers. In order to achieve the objective and fully validate the assumptions of this project, the interdisciplinary research combining life science in the field of food technology and nutrition, as well as medical science will be conducted. A range of native raw plant materials with a high health-promoting potential, similar to those classified as super fruits will be used in this study. Additionally, herbs and edible flowers with high health-promoting properties and rich in bioactive compounds will be applied in order to diversify the nutritional value and sensory properties of final products. The realization of this project will lead to the development of completely new semi-liquid and solid snack products intended for children and adolescents, which might result in far-reaching economic and social benefits. It will expand the offer of health-promoting products and increase the demand for high quality Polish fruits and vegetables. In the further perspective, the project and its results might be used in the promotions or campaigns, which will contribute to effective prevention of diet-related diseases and popularisation of intake of fruit and vegetable as well as their products

**Most important research projects
conducted**

2. Research project (Sonata 15 2019/35/D/NZ9/02951 - **Nanoemulsions as a Method for Modulating Health-Promoting Properties and Bioavailability of Bioactive Compounds Isolated from Various Plant Matrices**) as Project manager.

Time: 30.11.2020 - 29.09.2026

Source of financing: National Science Centre (NCN)

Advances in medical sciences and results of the latest research have emphasized that bioactive compounds present in edible plants are of particular interest for the prevention of chronic and neurodegenerative diseases. The largest range of pro-health properties is attributed to secondary metabolites such as polyphenols, carotenoids, and chlorophylls, which exhibit strong antioxidative properties that protect the defense systems of the body against destructive effects of free radicals. However, natural, plant bioactive compounds are unstable and susceptible to oxidative degradation. Additionally, the application of pure bioactive compounds is very limited because of their rapid release, poor bioavailability, and easy deterioration in the presence of environmental stresses. Therefore, for several years new methods of effective protection of natural bioactive compounds have been investigated. One of these methods is emulsification technique, especially single or multiple nanoemulsion methods. Nanoemulsions are method to improve the efficiency of the formation of emulsions, and they are emerging as a strong alternative to conventional emulsions to protect and deliver functional components. Although the data presented thus far are extremely promising, there is a lack of information that could contribute to broaden the application of this process to other compounds, including mixtures of secondary metabolites. It is difficult to predict how the interactions between individual compounds will affect the efficiency, loading capacity, bioavailability, health-promoting properties, and stability of the resulting capsules. Therefore, the main aim of the proposed project is to evaluate the possibility of using single and double nanoemulsions to encapsulate a mixture of polyphenolic and carotenoid compounds and to investigate how the emulsification technique affects the health-promoting properties, bioavailability, and stability of bioactive compounds isolated from different types of plant matrices. Thus, the formulated research objectives will allow to completely verify the research hypothesis that assumes that (1) emulsification techniques are an excellent tool to protect bioactive compounds from environmental degradation and to modulate their health-promoting properties and bioavailability and (2) the use of natural biopolymers to create the outer coating is a modern approach that increases the efficiency of the encapsulation process.

	3. Research project (Preludium bis 3 2021/43/O/NZ9/01518 - Possibility of creating plant micromatrices from different morphological parts of one species and modulating their health-promoting properties in a combined emulsification and drying process) as Project manager. Time: 01.10.2022 - 30.09.2026 Source of financing: National Science Centre (NCN); Project Description: Scientific research confirms the health benefits of consuming fruit, but other plant parts also contain valuable bioactive compounds. However, these compounds are susceptible to degradation and poorly absorbed by the body. This project aims to test whether combining emulsification with vacuum drying or freeze-drying will allow the creation of stable microstructures from various plant parts. The plan is to use juices, seed oils, and leaves from berries, pome fruits, and stone fruits. The research aims to assess the feasibility of obtaining multicomponent, stable plant microstructures with programmed health-promoting properties and increased bioavailability. Additionally, the use of inulin and fructooligosaccharides aims to reduce the use of emulsifiers and impart prebiotic properties to the resulting structures.
Supervision (Supervisor/auxiliary supervisor)	1. <u>Emel Hasan Yusuf</u>, <i>Novel carrot snacks with desired health benefits</i>, defense date: 2023 r. 2. <u>Kamil Haładyn</u>, Nanoemulsions and microemulsions as a method of modulating the health-promoting properties and bioavailability of bioactive compounds isolated from various plant matrices, (IV year). 3. <u>Martyna Szydlowska</u>, The possibility of creating plant micromatrices from different morphological parts of a single species and modulating their health-promoting properties through a combined emulsification and drying process (III year).
Most important additional achievements	1. Minister's scholarships for outstanding young scientists 2018 2. START 2017 (FNP) Stipends for young, talented researchers – employees or doctoral students at an institution of higher learning in Poland or other Polish institution whose chartered purposes include conducting scientific research – at the outset of their career, who have already achieved some success in their field. 3. First Prize of the Polish Society of Food Technologists for the best Doctoral Dissertation in the Field of Food Science in 2015 Patent application: 1. High-fiber snack and method of producing a high-fiber snack. P.444405 [WIPO ST 10/C PL444405]. 14.04.2023. The Patent Office of the Republic of Poland. Authors: Paulina Nowicka, Krzysztof Lech, Aneta Wojdyło, Kamil Haładyn 2. Functional fruit and vegetable smoothie drink and method for producing a functional fruit and vegetable smoothie drink. P.444673 [WIPO ST 10/C PL444673]. 28.04.2023. The Patent Office of the Republic of Poland. Authors: Paulina Nowicka, Aneta Wojdyło, Kamil Haładyn Member of the Committee on Food and Nutrition Sciences – Section for the Development of Early-Career Researchers, Polish Academy of Sciences Member of the Leading Research Team – Plant4Foods Reviewer of research projects: • the National Research and Development Agency (ANID) of the Ministry of Science, Technology, Knowledge and Innovation of Chile • the Croatian Science Foundation • Wrocław Medical University (the Competition System - Subsidy 2023) • Qatar Research, Development, and Innovation (QRDI) Council • National Science Centre - Member of the review committee (2025)

Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWrdc120aa9a2b54bd9bf49b672442012f5?ps=20&lang=en&title=&pn=1&cid=379759

Name and Surname	Antoni Szumny
Academic Title	Prof., Ph.D., D.Sc.
Unit	Department of Food Chemistry and Biocatalysis
Academic Discipline	Nutrition and food technology

Category of Achievements	Details Achievements
Most important publications	1. Łyczko, J., Kiełtyka-Dadasiewicz, A., Skrzyński, M., Klisiewicz, K., & Szumny, A. (2023). Chemistry behind quality–The usability of herbs and spices essential oils analysis in light of sensory studies. <i>Food Chemistry</i> , 411, 135537.
	2. Amini-Harandi, M., Rahimmalek, M., Haghighi, M., Sabzalian, M. R., & Szumny, A. (2025). Phytochemical, physiological and morphological alterations in <i>Hyssopus officinalis</i> L. as affected by light emitting diodes (LEDs) and water deficit. <i>Industrial Crops and Products</i> , 233, 121432.
	3. Pachura, N., Gavahian, M., Jałoszyński, K., Surma, M., & Szumny, A. (2025). Changes in bioactive and aroma compounds in flower elderberry as affected by innovative drying method. <i>Industrial Crops and Products</i> , 233, 121352.
Most important research projects conducted	1. identification and biological activity of plant constituents from <i>Ilex taxon</i> - in vitro and in vivo studies - manager, NCN, OPUS 2015/19/B/NZ9/02971 The project resulted in the publication of 5 publications in JCR-listed journals and the acquisition of 4 patents, the realisation of 3 Master's theses and one PhD thesis (Dr Natalia Pachura)
	2. MILD INNOVATIVE TREATMENT FOR WINE STABILISATION - Polish task leader, NCBR 2020-2023 The aim of the project was to determine the effect of modern wine treatment on the quality of wines, taking into account sensory and chemical quality. The project resulted in three publications submitted for evaluation. The high effectiveness of the developed materials based on inorganic titanium compounds was also demonstrated.
	3. Innovative surface impregnation method as a way to ensure high quality of lyophilised products in the logistic cycle from production to consumption B130/0012/23 2020-2023. As a result of the planned operation, an innovative technology of surface impregnation of freeze-dried products has been developed, which eliminates the causes of deterioration of the quality of these products, thus allowing the manufacture of a significantly improved product in the form of a freeze-dried product with reduced water absorption and improved texture, i.e. a more flexible external structure of the material, which will reduce the notch effect leading to the propagation of cracks causing material defragmentation.
Supervision (Supervisor/auxiliary supervisor)	1. Marta Klemens, Drying as a method of shaping the quality of herbal raw materials, (III year).
	2. Łukasz Sobol, The influence of torrefaction process parameters on the emission of dioxins and furans, in progress, (III year).
	3. Jordan Sycz, Modulation of permeability parameters of selected active substances in special-purpose foods, dietary supplements and medical devices, (IV year).
	4. Pachura Natalia, Forgotten medicinal plants - analysis of composition and biological properties, Defense Date: 2025.
	5. Jacek Łyczko, The Influence of Drying on Qualitative and Quantitative Chemical Composition of Selected Medicinal and Aromatic Plants, Defense Date: 2021.
	6. Andrzej Kwaśnica, Development of procedures for determining the origin of plant material using chromatographic and genetic methods, Defense Date: 2024.
	7. Hubert Iwiński, Analysis of the antiparasitic and antitubercular properties of selected herbal extracts. Defense Date: 2023.
	8. Nöfer Joanna: Influence of selected drying methods on the content of volatile compounds in edible mushrooms, Defense Date: 2018.
	Awards and distinctions: First Class Academic Achievement Awards for the years: 2024-2019 awarded by the Rector of UPWr. Special Award in 2025 for scientific achievements.

Most important additional achievements	2024 P244952: Method of obtaining saponin fractions and use of a mixture of saponin compounds, P 244951 Method of obtaining saponin fractions and use of a mixture of saponin compounds; P. 244950 Method of obtaining terpenoid fractions and use of a mixture of terpenoid compounds; P 244949.
	Member of the Council for Agriculture and Rural Affairs to the President of the Republic of Poland. From 2020-2025; Member of the Scientific Council of the Spice and Beverage Research Institute (SBRI), Chinese Academy of Tropical Agricultural Sciences (CATAS); Member of the Food Analysis Section of the Committee on Food and Nutrition Sciences of the Polish Academy of Sciences and Member of the Food, Raw Materials and Food Products Analytical Team of the Committee on Analytical Chemistry of the Polish Academy of Sciences for the term 2020-2023.
	Other relevant achievements: In October 2014, I performed a counter-expertise in a case and appeared as an expert witness in the District Court Wrocław-Śródmieście; In May 2015, I performed a counter-expertise in a criminal case in the District Court Wrocław-Psie Pole; in December 2017, I was appointed to perform and performed a forensic expert opinion for the Central Bureau of Investigation of the Police in Wrocław; August 2020, I was appointed as an expert witness in a case concerning dietary supplements and herbal medicines; 2023 and 2024 - opinions for the Courts and the Public Prosecution. 42 NCN projects (Opus, Predudium). c) Member of the Expert Panel of La Caixa Foundation, Barcelona, evaluating projects for the InPhInity project, within the Maria-Skłodowska Curie programme; reviewing an application project for Research Foundation - Flanders (FWO) within SBO (Strategic Basic Research), Belgium. The value of the project is approximately €1,200k; review of a scientific project for the Israeli Ministry of Agriculture; reviews of NCBR projects (Fast Track, Smart, Leader); reviews of projects of the Łukasiewicz Research Network; reviews of projects for the Qatar Academy of Sciences; reviews of PhDs of Poland (12) Italy, Egypt.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr5697b20a79564c8494844fa4b63adc84?r=supervisedwork&ps=20&tab=main&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BAntoni%2BSzumny%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=376924

Name and Surname	Malgorzata Korzeniowska
Academic Title	Ph.D., D.Sc. Eng.
Unit	Department of Functional Food Products Development
Academic Discipline	Nutrition and Food technology

Category of Achievements	Details Achievements
Most important publications	1. Korzeniowska M., Cheung I.W., Li-Chan E.C.Y. 2013. Effects of fish protein hydrolysate and freeze-thaw treatment on physicochemical and gel properties of natural actomyosin from pacific cod. Food Chemistry, 138, 1967-1975. doi:10.1016/j.foodchem.2012.09.150
	2. Naibaho J., Pudło A., Korzeniowska M., Lu Y., Yang B. 2022. Alteration of volatile compounds profile of brewers' spent grain by bath-ultrasonication and its combination with conventional water-bath and autoclave treatment. Ultrasonics Sonochemistry, 90, 106192. doi:10.1016/j.ultsonch.2022.106192
	3. Godswill Awuchi C., Nyakundi Ondari E., Ogbonna C.U., Upadhyay A.K., Baran K., Okpala C.O.R., Korzeniowska M., Guiné R.P.F. 2021. Mycotoxins affecting animals, foods, human, and plants: From types, occurrence, toxicities, action mechanisms, to
Most important research projects conducted	1. 2019-2021. ERA-NET CO-FUND Horyzont 2020 - FACCE SURPLUS Sustainable and Resilient Agriculture for Food and Non-Food Systems. PROWASTE Protein-fibre fibre biorefinery for scattered material streams. - lider The aim of the international PROWASTE project was to develop and implement a biorefinery concept based on maximum operational simplicity, raw material diversity, and the lowest possible costs, maximizing the use of by-products, including rapeseed meal, oat hulls, and barley spent grains, for the production of protein-fiber isolates. The obtained preparations were characterized and potential applications demonstrated in the production of innovative foods with added nutritional and/or biological value. The superior suitability of enzymatic treatment and autoclaving over fermentation in bioreactors for increasing protein and fiber extractability was demonstrated, as well as the final physicochemical characterization of the obtained isolates. Processes were scaled from 0.7 liters to 7-8 liters using the most effective enzyme preparations, and the most appropriate drying technology was optimized. The technology for producing food with brewer's spent grain and oat hull isolates was optimized. Maximum levels of 25%, 5%, and 20% added isolates were indicated without compromising the sensory and technological characteristics of the products, with little impact on the final nutritional value of the products. Increased fiber content is an added value in the analyzed products.
	2. N N312 253938 financed by Polish Ministry of Science and Higher Education entitled: Developing of the quality and pro-health properties of chicken meat by increasing its antioxidative potential 2010-2013 - lider The aim of the study was to improve the quality and health benefits of chicken breast and leg meat by increasing total antioxidant potential, including antioxidant enzyme activity and the content of lipo- and hydrophilic antioxidants naturally occurring in muscle, through supplementation of the birds' diet with selenium compounds and methionine. A key aspect of the study was the analysis of the relationship between meat quality and nutrition, which influences the physiological and immunological status of broiler chickens. The main conclusion from the project was that the use of selenium at a level of 0.5 mg/kg of feed, both in the form of organic and inorganic compounds, has a beneficial effect on the quality and total antioxidant potential of chicken breast and leg muscles and can be successfully used in large-scale production.

	3. 2005-2007 project 2 P06 T 04428 MNiSzW: Limitation of the lipids, cholesterol and proteins oxidation processes in meat products by the addition of chosen natural groups of polyphenolics substances isolated from plant sources. – leader of the project. The aim of the study was to determine the effect of adding natural polyphenolic antioxidants obtained from unconventional plant sources on lipid and protein oxidation processes under model conditions, using raw poultry meat and convenience meat products subjected to heat treatment and stored under refrigerated conditions. Methods were developed to isolate natural polyphenolic compounds exhibiting strong antioxidant properties from inexpensive, domestic plant sources, such as hawthorn leaves and buckwheat husks. Based on the research, it can be concluded that polyphenolic preparations with strong antioxidant properties obtained from hawthorn leaves, buckwheat husks, Baikal skullcap roots (<i>Scutellaria baicalensis</i> Georgi), and rosemary needles can be used in convenience meat products, such as hamburgers and pâtés. It is beneficial to limit the dose of these preparations to 1000 ppm, i.e., 0.1%.
Supervision (Supervisor/auxiliary supervisor)	1. Joncer Naibaho, supervisor: Modification of brewers' spent grain chemical composition to improve their techno-functionality and antioxidant capabilities, defense date: 2023. 2. Charles Okpala, supervisor: The effect of marination process on meat quality in relation to the relevance of quality management in the agrifood sector, defense date: 2023. 3. Aigerim Koishibayeva, co-supervisor. Development of technology of cooked sausage products with the use of plant additive» on educational programme 8D07201 – «Food technology» Technological University of Almaty, Kazakhstan, defense date: 2025. 4. Marek Damski, co-supervisor: Interactions of thermally modified semi-raffinate of κ-carrageenan with proteins, defense date: 2023. 5. Dorota Bączyńska, co-supervisor: Procesy izolacji dipeptydów histydynowych z surowców drobiarskich z zastosowaniem wybranych technik rozdziału, defense date: 2023. 6. Katarzyna Leicht - supervisor. Interactions of selected bioactive compounds from <i>Centella asiatica</i> and chicken breast myofibrillar proteins: effects on their physicochemical and functional properties (IV year). 7. Katarzyna Krupińska (implementation doctorat) -supervisor. Optimizing the production and packaging of an innovative product with increased functionality intended for older people, (IV year). 8. Filip Herzyk (implementation doctorat) supervisor. Obtaining preparations containing biologically active substances from plant by-products using the supercritical extraction technique (scCO₂) combined with freeze-drying (DF) (IV year). 9. Aleksandra Rajewska - supervisor. Molecular and physiological mechanism of food pathogens' response to selected natural bioactive compounds used in the food industry (II year).
	Leader of the Project NAWA Katamaran: B-Innova –Master in Food Technology - on the development of double diploma master degree by Uniwersytet Przyrodniczy we Wrocławiu and University Miguel Hernandez de Elche in the discipline Food technology and nutrition (2019-2021). The project developed the complete double degree programme which was implemented in 2021 with successful recruitment process and has already 18 promoted graduates. The programme continues this academic year and next editions are planned.

Most important additional achievements	Founder and member of Leading Research Group: DroPower from stable to table. The Group aims to develop and improve all possible aspects related to poultry, from genetics via breeding, health issues and processing to waste management. Member of Leading Research Group: Plants4FOOD – Plants Processing & Technology for Bioactive Food, which aims to characterization and implementation, also through valorization process, plant food materials, with the special attention to new products with superior quality and health properties development. In 2022-2024 leader of the NAWA founded project entitled: International Interdisciplinary Doctoral School - at the HEART of BioBased University (I2PhD@BBUniHEART), that focused on the internationalization of the Doctoral School. The project gave a lot of opportunities for PhD students to go for an internships all over the world and also work together with recognized researchers and PhD students from different countries to build the scientific network, improve the skills and competences, and as well participate in various scientific events and initiatives. The project supported also development of soft skills of UPWr professors and supervisors. Organizer and chairman of the biennial international conference on the Quality and Safety in the Food Production Chain (since 2000, 10 editions organized)
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr366b117da5914ad6b25f0e7e7e43bc49?r=author&tab=&title=Person%2Bprofile%2B%25E2%2580%2593%2BMa%25C5%2582gorzata%2BKorzeniowska%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUniversity%2Bof%2BEnvironmental%2Band%2BLife%2BSciences&lang=en

Name and Surname	Anna Michalska-Ciechanowska
Academic Title	Prof. Ph.D., D.Sc.
Unit	The Department of Fruit, Vegetable and Plant Nutraceutical Technology
Academic Discipline	Nutrition and food technology

Category of Achievements	Details Achievements
Most important publications	1. Michalska-Ciechanowska A., Brzezowska J., Wojdylo A., Gajewicz-Skretna A., Ciska E., Majerska J. (2021) Chemometric contribution for deeper understanding of thermally-induced changes of polyphenolics and the formation of hydroxymethyl-L-furfural in chokeberry powders. Food Chemistry, 342, 128335
	2. Michalska-Ciechanowska A., Masztalerz K, Mangieri N., Foschino R., Lech K., Wojdyło A., Nowiska P., Brzezowska J. (2023) Unlocking the potential of oil by-products: Investigating the influence of co-culture fermentation on phenolic acid degradation in side stream blends from oil and dairy industry. Future Foods, 9, 100324.
	3. Zielinska, M., Michalska, A. (2016) Microwave-assisted drying of Blueberry (<i>Vaccinium corymbosum</i> L.) fruits: drying kinetics, polyphenols, anthocyanins, antioxidant capacity, colour and texture. Food Chemistry, 212, 671-680.
	1. Interactions of Bioactive Compounds with Carriers during the Drying Process of Fruit Juices (Project Leader), 30 October 2020 – 30 June 2024, National Science Centre (NCN) Project description: The project focused on the use of fruit powders as an alternative to seasonal fresh fruits, offering a year-round source of bioactive compounds. Their potential was analysed in the context of enhancing food functionality, application as natural colourants, and substitutes for artificial additives. However, one of the main challenges was the production of high-quality fruit powders, which required the use of large amounts of carriers during the drying process. The research concentrated on developing effective drying methods for fruit juices rich in bioactive compounds, using carriers such as inulin, trehalose, and isomaltulose. Juices from dog rose (<i>Rosa canina</i>) and blue honeysuckle (<i>Lonicera caerulea</i>) were studied to assess changes in bioactive content during dehydration. Particular attention was given to food safety aspects, including the formation of Maillard reaction and caramelisation products, such as furans and acrylamide. The project investigated how the retention of valuable compounds and the reduction of undesirable substances depended on juice composition, the type of carrier used, and drying parameters. Model systems were applied to better understand interactions between polyphenols and carriers. Additionally, extracts from white mulberry (<i>Morus alba</i>) leaves and hawthorn (<i>Crataegi inflorescentia</i>) flowers were incorporated to improve powder quality and limit the formation of harmful compounds.

Most important research projects conducted	2. Fermentation-induced valorization of side stream blends from oilseed and dairy industry (FERBLEND)(Principal Investigator - polish side), 1.05.2021 - 1.05.2024, ERA-NET SUSFOOD and CORE Organic Funds (NCBR); The project focused on sustainable food production, particularly on waste reduction and increasing resource efficiency. Its aim was to process oilseed press cakes and whey from cheese production through fermentation to create products with improved nutritional and technological properties. The project mainly supported small and medium-sized enterprises in the vegetable oil and dairy sectors by helping them effectively utilize their by-products. As a result, innovative products such as beverages, spreads, and snacks were developed, while also reducing CO₂ emissions and energy consumption. Partners from Denmark, Germany, Italy, and Poland, as well as institutes from Spain and Turkey, participated in the project, and its results were addressed to organizations and companies from five EU countries. 3. Unleashing the flavour potential of plant-based foods via fermentation (FlavourFerm) (researcher, PI on the polish side); Grant agreement ID: 101181661; 11.01.2024 - 30.04.2028, EU, Short description: With growing consumer interest in plant-based foods that are both healthy and flavourful, the EU-funded FlavourFerm project aims to advance fermentation technologies to meet these expectations. The project focuses on improving the flavour and nutritional value of plant-based products by refining various fermentation approaches, including precision, biomass, and traditional methods. Key innovations include developing plant-based dairy alternatives, such as milk and cheese made with animal-free recombinant casein via precision fermentation, as well as plant-based meat using fungal mycelia derived from legume fermentation. These new ingredients and products will be produced at pilot and pre-commercial scales, in close collaboration with SMEs and larger industry partners.
Supervision (Supervisor/auxiliary supervisor)	1. Jessica Brzezowska, Creation of high-quality plant-based powders with targeted health-oriented properties, defense date 2023. 2. Alicja Kucharska-Guzik, The influence of selected drying methods of extracts with targeted biological properties on the pharmaceutical availability of developed fruit and herbal preparations (IV year). 3. Mariusz Kułaga, Development and optimization of the production process of non-hemp phytocannabinoid extract as a raw material for supplement products, (IV year). 4. Nesa Dibagar, Valorization of medicinal and aromatic plants' (MAPs) by-products into functional food prototypes using sustainable green approaches, (II year).

Most important additional achievements	2023 – Individual Award of the Rector of Wrocław University of Environmental and Life Sciences for Organizational Achievements 2022 – Team Award of the Rector of Wrocław University of Environmental and Life Sciences for Organizational Achievements 2022 – Individual Award of the Rector of Wrocław University of Environmental and Life Sciences for Scientific Achievements 2020 – Polish Intelligent Development Award 2020 – Pro-Quality Award of the Rector of Wrocław University of Environmental and Life Sciences 2019 – Third-Degree Team Award of the Rector of Wrocław University of Environmental and Life Sciences for a Series of Publications on the Impact of Osmotic Dehydration on Selected Physicochemical Properties of Raw Materials or Food Products 2018 – Third-Degree Team Award of the Rector of Wrocław University of Environmental and Life Sciences for a Series of Publications on Drying Kinetics and the Impact of Drying Parameters on Selected Properties of Raw Materials and Food Products 2017 – Habilitation Scholarship of the L'Oréal-UNESCO For Women in Science Program, organized in cooperation with the Polish UNESCO Committee, the Ministry of Science and Higher Education, and the Polish Academy of Sciences (October 22, 2017) Team for Internationalization, Chair, Polish National Agency for Academic Exchange (since 2018) Participation in Leading Research Groups: Plants4Foods Organization of International Scientific Conferences: Main Organizer of the 4th Nordic Baltic Drying Conference, 2022 (https://nbdc2022.upwr.edu.pl), Organizer and Vice-Chair of the International Scientific Conference SEASONED in 4 Seasons (June 25, 2025) (https://www.seasonedproject.eu/seasoned-4-seasons-en.html)
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?ps=20&id=UPWr4302a969a91b4e5dade70651426ff899&lang=en&pn=1&cid=380176

Below are profiles of five academic teachers and research staff of UPWr Doctoral School. These individuals, possessing the highest qualifications, contribute significantly to maintaining a high level of education in the discipline of **animal science and fisheries**.

Each of the featured specialists is distinguished by exceptional qualifications and extensive experience in conducting pioneering research and innovative scientific projects. Their broad expertise and substantial research output shape the unique profile and outstanding quality of education offered by UPWr Doctoral School. As a result, doctoral students are provided with access to the latest findings in animal science and fisheries, as well as effective support in the development of their academic career paths.

Detailed descriptions of achievements are available on the "Knowledge Base" portal, accessible via the link in each profile.

Name and Surname	Joanna Szyda
Academic Title	Prof., Ph.D., D.Sc., Eng.
Unit	Institute of Genetics
Academic Discipline	Animal science and fisheries 50% Biological Sciences 50%

Category of Achievements	Details Achievements
Most important publications	1. Słomian, D., Szyda, J., Dobosz, P., Stojak, J., Michalska-Foryszewska, A., Sypniewski, M., Liu, J., Kotlarz, K., Suchocki, T., Mroczek, M., Stępień, M., Sztromwasser, P., & Król, Z. J. (2023). Better safe than sorry—Whole-genome sequencing indicates that missense variants are significant in susceptibility to COVID-19. PLoS ONE, 18, Article 1. https://doi.org/10.1371/journal.pone.0279356
	2. Kotlarz, K., Kosińska-Selbi, B., Cai, Z., Sahana, G., & Szyda, J. (2022). Application of mixed linear models for the estimation of functional effects on bovine stature based on SNP summary statistics from a whole-genome association study. <i>Genetics Selection Evolution</i>, 54, 1–6. https://doi.org/10.1186/s12711-022-00771-1
	3. Czech, B., Guldbrandtsen, B., & Szyda, J. (2020). Patterns of DNA variation between the autosomes, the X chromosome and the Y chromosome in Bos taurus genome. <i>Scientific Reports</i>, 10, Article 1. https://doi.org/10.1038/s41598-020-70380-9
Most important research projects conducted	1. Biodiversity within and between European Red dairy breeds – conservation through utilization (ReDiverse), Beginning date: 01-09-2018 End date: 30-09-2021, ERA-NET CO-FUND SUSAN.
	2. The application of deep learning methods in the analysis of livestock genomes, Beginning date: 01-10-2020 End date: 30-09-2024, National Science Center (Poland).
	3. Bioinformatic modelling of the impact of probiotic supplementation on microbiomes of breeding ponds and of digestive tract of the Common carp (<i>Cyprinus carpio</i>). Beginning date: 01-04-2022 End date: 31-03-2026, National Science Center (Poland).
Supervision (Supervisor/auxiliary supervisor)	1. Kotlarz Krzysztof, The application of deep learning methods in the analysis of livestock genomes, Defense Date: 2025.
	2. Czech Bartosz, The application of bioinformatics tools for the analysis of the genetic background of heat stress resistance in cattle, Defense Date: 2024.
	3. Suchocki Tomasz, Modeling the effects of genes located on chromosome six of Bos taurus as time-varying using mixed models with random regressions, Defense Date: 2011
	4. Kosińska-Selbi Barbara, The analysis of genetic structure of selected dairy cattle breeds, Defense Date: 2023.

Most important additional achievements	Member of the scientific council of the Research Institute for Farm Animal Biology (FBN), Dummerstorf, Germany
	Participation in Leading Research Groups: THETA – The Biostatistic Group (Principal Investigator)
	Other significant achievements (e.g. organization of conferences, expert opinions for industry): [Description of the achievement, year]
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr0b20a261b6864df1b93c3a1feb84e5cc?ps=20&tab=&lang=en&pn=1&cid=1006516

Name and Surname	Robert Kupczyński
Academic Title	Prof., P.hD., D.Sc
Unit	Department of Environment Hygiene and Animal Welfare
Academic Discipline	Animal Science and Fisheries

Category of Achievements	Details Achievements
Most important publications	1. Śpitalniak-Bajerska, K., Szumny, A., Pogoda-Sewerniak, K., Kupczyński, R.: Effects of n-3 fatty acids on growth, antioxidant status, and immunity of preweaned dairy calves. Journal of Dairy Science, 103(3), 2020, 2864-2876.
	2. Pachura, N., Włodarczyk, M., Bażanów, B., Pogorzelska, A., Gębarowski, T., Kupczyński, R., Szumny, A. (2024). Antiviral and Cytotoxic Activities of Ilex aquifolium Silver Queen in the Context of Chemical Profiling of Two Ilex Species. Molecules, 29(13), 3231.
	3. Kowalczyk, A., Wrzecińska, M., Czerniawska-Piátkowska, E., Kupczyński, R. (2022). Exosomes–Spectacular role in reproduction. Biomedicine & Pharmacotherapy, 148, 112752.
	1. 2020–2025 – Volatile compounds as modulators of rumen fermentation, methane production, and functional traits of cow milk. Funding: National Science Centre (NCN), OPUS 20 call, project no. UMO-2020/39/B/NZ9/02741. Role: Principal Investigator. Basic and applied research on the effects of essential oils and their enantiomers on rumen fermentation, methanogenesis, and the potential to obtain functional products (milk). Impact of the developed products on the rumen microbiome and biohydrogenation of fatty acids. Production of functional dairy products while minimizing the negative environmental impact of animal production (methane emission reduction). 2020–2025 – Volatile compounds as modulators of rumen fermentation, methane production, and functional traits of cow milk. Funding: National Science Centre (NCN), OPUS 20 call, project no. UMO-2020/39/B/NZ9/02741. Role: Principal Investigator. Basic and applied research on the effects of essential oils and their enantiomers on rumen fermentation, methanogenesis, and the potential to obtain functional products (milk). Impact of the developed products on the rumen microbiome and biohydrogenation of fatty acids. Production of functional dairy products while minimizing the negative environmental impact of animal production (methane emission reduction).

Most important research projects conducted	2. 2020–2022 – Project "Innovation Incubator 4.0" under the programme of the Minister of Education and Science, implemented with funds from the European Regional Development Fund as part of the non-competitive project titled "Support for research management and commercialization of R&D results in research units and enterprises". Measure 4.4 of the Smart Growth Operational Programme 2014–2020. Agreement no. MNiSW/2020/334/DIR dated 28.09.2020. Task leader: "Development of functional feed additives for dairy cows." The research resulted in the development of innovative feed additives that improve cow health and productivity while reducing methane emissions (2 patent applications).
	3. 2020–2021 – Research implementation as part of the NCBR Fast Track project. Task title: "In vivo study to evaluate the effect of boluses developed within the project on rumen fermentation and metabolism in fistulated animals", conducted under the NCBR project titled: "Development of sustained-release bolus formulations containing plant essential oils to reduce the risk of subacute ruminal acidosis (SARA) and improve production parameters in dairy cows." (Role: Principal Investigator for the R&D component of the task). Validation of the developed intraruminal boluses in in vivo studies. Execution of pilot tests to assess the release rate and impact on rumen fermentation processes under real animal conditions. Assessment of the bolus formulation's effect on rumen fermentation during induced subclinical ruminal acidosis. Demonstration of preventive effects of boluses containing essential oils, effectively replacing ionophore antibiotic-based preparations (e.g., monensin). 2020–2021 – Research implementation as part of the NCBR Fast Track project. Task title: "In vivo study to evaluate the effect of boluses developed within the project on rumen fermentation and metabolism in fistulated animals", conducted under the NCBR project titled: "Development of sustained-release bolus formulations containing plant essential oils to reduce the risk of subacute ruminal acidosis (SARA) and improve production parameters in dairy cows." (Role: Principal Investigator for the R&D component of the task). Validation of the developed intraruminal boluses in in vivo studies. Execution of pilot tests to assess the release rate and impact on rumen fermentation processes under real animal conditions. Assessment of the bolus formulation's effect on rumen fermentation during induced subclinical ruminal acidosis. Demonstration of preventive effects of boluses containing essential oils, effectively replacing ionophore antibiotic-based preparations (e.g., monensin).
	1. Kamila Lewandowska, The effect of multiple pregnancy and targeted supplementation on the fatty acid profile and selected physiological parameters in sheep. Research conducted as part of the UPWr Innovative Scientist project. (III year).

Supervision (Supervisor/auxiliary supervisor)	2. Kik Izabela, Physiological and behavioral reaction of calves during dehorning, Wydział Biologii i Hodowli Zwierząt, Defense Date: 2017. 3. Budny-Walczak Anna, Effect of iron chelate on metabolic, immunological and production parameters in calves, Defense Date: 2019. 4. Zwyrzykowska-Wodzińska Anna, Identification and activity of biologically active substances contained in various species of holly (Ilex sp.) - in vitro and in vivo studies, 2022, Defense Date: 2022. 5. Śpitalniak-Bajerska Kinga, The influence of polyunsaturated fatty acids on the physiological indexes and effectiveness of rearing of the calves, Defense Date: 2018.
Most important additional achievements	Awards and distinctions: Rector's Award of the Wrocław University of Environmental and Life Sciences: 2023 (1), 2025 (2) Patents and implementations: Method of obtaining saponin fractions and application of a mixture of saponin compounds. Kupczyński Robert, Szumny Antoni, Kuropka Piotr, Zwyrzykowska-Wodzińska Anna, Bąbelewski Przemysław, Pachura Natalia, Nowaczyk Renata, Jarosz Bogdan, Sycz Jordan, Włodarczyk Maciej. Invention, Protected Application number (in the first country of filing above): 437250. Patent/Right number: 244952 Date of application (in the first country of filing above): 09-03-2021 Date of granting of the right: 23-01-2024. Patent/design publication: [WUP 08-04-2024] Method of obtaining saponin fractions and application of a mixture of saponin compounds. Kupczyński Robert, Szumny Antoni, Kuropka Piotr, Zwyrzykowska-Wodzińska Anna, Bąbelewski Przemysław, Pachura Natalia, Nowaczyk Renata, Łyczko Jacek, Sycz Jordan, Włodarczyk Maciej. Invention, Protected Application number (in the first country of filing above): 437249. Patent/Right number: 244951. Date of application (in the first country of filing above): 09-03-2021 Date of granting of the right: 23-01-2024 Patent/design publication: [WUP 08-04-2024]. Method of obtaining terpenoid fractions and application of a mixture of terpenoid compounds. Szumny Antoni, Kupczyński Robert, Kuropka Piotr, Zwyrzykowska-Wodzińska Anna, Bąbelewski Przemysław, Pachura Natalia, Nowaczyk Renata, Wińska Katarzyna Invention, Protected. Application number (in the first country of filing above): 437123. Patent/Right number: 244950. Date of application (in the first country of filing above): 25-02-2021. Date of granting of the right: 23-01-2024 Patent/design publication: [WUP 08-04-2024]. Method of obtaining terpenoid fractions and application of a mixture of terpenoid compounds. Szumny Antoni, Kupczyński Robert, Kuropka Piotr, Zwyrzykowska-Wodzińska Anna, Bąbelewski Przemysław, Pachura Natalia, Nowaczyk Renata, Wińska Katarzyna. Invention, Protected. Application number (in the first country of filing above): 437122. Patent/Right number: 244949. Date of application (in the first country of filing above): 25-02-2021. Date of granting of the right: 23-01-2024. Patent/design publication: [WUP 08-04-2024].

	Participation in Leading Research Groups: Member of the research team “Animal Science for the Future (ASc4Future)”, Wrocław University of Environmental and Life Sciences (UPWr) Other significant achievements (e.g. organization of conferences, expert opinions for industry): Expert of the National Centre for Research and Development, 2023–2025
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr5aa558ccb72c4fd99116bf01dbf34f67?ps=20&lang=en&title=&pn=1&cid=183831

Name and Surname	Artur Kowalczyk
Academic Title	Prof., Ph.D., D.Sc.
Unit	Institute of Animal Husbandry and Breeding
Academic Discipline	Animal science and fisheries

Category of Achievements	Details Achievements
Most important publications	1. Kowalczyk A., Łukaszewicz E.: (2012). The possibility of obtaining intergeneric hybrids via White Kołuda® (<i>Anser anser</i> L.) goose insemination with fresh and frozen-thawed Canada goose (<i>Branta canadensis</i> L.) gander semen. <i>Theriogenology</i>, 77: 507-513.
	2. Kowalczyk A., Łukaszewicz E.: (2015). Simple and effective methods of freezing capercaillie (<i>Tetrao urogallus</i> L.) semen. <i>PLoS ONE</i> 10(1): DOI:10.1371/journal.pone.0116797
	3. Kowalczyk A., Łukaszewicz E., Strzała T., Partyka A., Rosenberger J.: (2020). Characteristics of capercaillie (<i>Tetrao urogallus</i>) semen analysed with flow cytometry combined with fertility results. <i>Reprod. Dom. Anim.</i>, 55 (8): 984-991.
	1. Project of the National Science Centre N311 081040: “Evaluation of the use of artificial insemination and semen cryopreservation in the reproduction and conservation of capercaillies (<i>Tetrao urogallus</i> L.), and the development of a genetic profile database for individuals of this species.” Implementation period: 2011–2014 – Project contractor The aim of the study was to: develop methods for short- and long-term storage of capercaillie semen, establish a method for semen collection from wild-living birds, genotype birds involved in the project and, based on that, create a database of genetic profiles to help maintain an appropriate level of intraspecific genetic diversity. As a result of the project, techniques for semen storage and artificial insemination were developed, leading to the successful production of healthy chicks. A capercaillie semen bank was established, containing 250 straws of semen obtained from 14 males. A genetic profile was created for each individual based on 10 microsatellite DNA loci, allowing for individual identification. The genetic profile database enabled the analysis of the genetic structure of the reintroduced population.

Most important research projects conducted	2. Project of the National Science Centre MO2016/21/B/NZ9/02084: "Analysis of the relationship between selected reproductive traits and male homozygosity and the genetic distance of parents in a protected capercaillie population (<i>Tetrao urogallus</i>)." Implementation period: 2016–2020 – Project contractor The aim of the study was to: determine the threshold of genetic variability in capercaillies (male inbreeding levels and parental relatedness), investigate the relationship between semen quality in males and their inbreeding level, analyze reproductive behavior in capercaillies. It was shown that in closed breeding conditions, the birds exhibited natural reproductive behavior, with egg fertilization occurring mainly by the dominant male within a given group. By analyzing the relationship between semen quality and male heterozygosity, diagnostic traits were identified that can likely be used to assess reproductive potential in population studies.
	3. Project of the National Science Centre No. 2021/43/B/NZ9/01550: "The mechanism of action of pesticides and their impact on rooster fertility." Implementation period: 2022–2025 – Project contractor The main objective of the proposed project is to evaluate the effects of three commonly used substances—tebuconazole, imidacloprid, and glyphosate—and their combinations on semen quality and fertility in roosters.
Supervision (Supervisor/auxiliary supervisor)	1. Joanna Rosenberger, Physical characteristics of Capercaillie (<i>Tetrao urogallus</i> L.) eggs in relation with embryonic development and breeding period, Defense Date: 2019. (doctoral studies). 2. Justyna Zawadzka-Jurochnik, Development of method for cryopreservation of semen from drakes ancesing from wild Mallard duck <i>Anas platyrhynchos</i>, Defense Date 2022. (doctoral studies).
Most important additional achievements	Working Group on the Protection of Poultry Genetic Resources Operating under the National Research Institute of Animal Production (IZ-PIB) in Balice, member since 2015.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?ps=20&id=UPWr85a7f9e61b66424395ef01a9a440a9ba&lang=en&pn=1&cid=371048

Name and Surname	Mariusz Korczyński
Academic Title	Prof. Ph.D., D.Sc., Eng
Unit	Department of Animal Nutrition and Feed Science
Academic Discipline	Animal science and fisheries

Category of Achievements	Details Achievements
Most important publications	1. Krysiak K., Konkol D., Korczyński M.: Overview of the Use of Probiotics in Poultry Production, <i>Animals</i> , 2021, 11 (6), 1-24, http://dx.doi.org/10.3390/ani11061620 , praca z kandydatką do SD.
	2. Konkol D., Jonuzi E., Popiela E., Sierżant K., Korzeniowska M., Leicht K., Gumowski M., Krasowska A., Łukaszewicz M., Korczyński M.: Influence of solid fermentation with <i>Bacillus subtilis</i> 67strain on the nutritional value of rapeseed meal and its effects on performance and meat quality of broiler chickens, <i>Poultry Science</i> , 2023, 102:102742. https://doi.org/10.1016/j.psj.2023.102742
	3. Chojnacka K., Mikuła K., Izydorczyk G., Skrzypczak D., Witek-Krowiak A., Gersz A., Moustakas K., Iwaniuk J., Grzędzicki M., Korczyński M.: Innovative high digestibility protein feed materials reducing environmental impact through improved nitrogen-use efficiency in sustainable agriculture, <i>Journal of Environmental Management</i> , 2021, 291, 112693, http://dx.doi.org/10.1016/j.jenvman.2021.112693
Most important research projects conducted	“Innovative production of eggs biofortified with selected microelements”, measure M16 “Cooperation” of the Rural Development Programme 2014-2020, co-financed by the European Agricultural Fund for Rural Development. Aid agreement no. 00008.DDD.6509.00035.2018.01 of 02 December 2019. PI.
	Determination of immunomodulatory properties of levan as a feed additive for poultry. Project financed by the National Science Centre, Preludium programme, contract number 2021/41/N/NZ9/00696. Scientific supervisor of the person implementing the project – “Mentor”.
	Research and development work of Agrolok Sp. z o. o. in the development of innovative high-protein feed components based on soy and rapeseed in order to increase protein security in the EU. No. POIR.01.01.01-00-1102/19, financing from the European Regional Development Fund under the Smart Growth Operational Programme for 2014-2020; Programme: Fast Track, NCBiR. R&D team leader.
	1. Qurat ul ain, The effect of phytic acid on mineral absorption in horses and the enhancement of phytic phosphorus digestibility through exogenous microbial phytase supplementation (II year).

Supervision (Supervisor/auxiliary supervisor)	2. DVM, mgr Muhammad Asghar, implemented topic: The use of new forms of protein concentrates in poultry nutrition (III year).
	3. Marcin Gumowski, Development and application of a preparation based on natural plant ingredients in the prophylaxis of broiler chicken rearing, Defense date 2023.
Most important additional achievements	First degree award "For outstanding achievements in the field of technology" realized in 2009 granted by the Wrocław Council of the Federation of Scientific and Technical Associations NOT - co-author of the study entitled "Mineral-bacterial preparation and the method of obtaining it", Patent application no. P-387418.
	1st Degree Team Award of the Rector of the Medical University of Silesia in Katowice in the field of scientific activity "for achievements in the field of work on the incorporation of iodine into yeast cells" – 2012.
	Diploma of the Minister of Science and Higher Education for the Institute of Fermentation Technology and Microbiology of the Lodz University of Technology, for the project entitled "Biopreparat for removing odors from chicken droppings", authors: B. Gutarowska, S. Borowski, M. Korczyński, R. Kołacz.
	Member of the Scientific Council of the National Research Institute of Animal Production in Kraków.
	Member of the Committee on Animal Physiology and Nutrition, Polish Academy of Sciences, Committee on Animal Sciences and Aquaculture.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr693b76729b04497ab2e4fa9745b99466?affil=&r=supervisedwork&ps=20&tab=supervisedwork&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BMariusz%2BKorczy%25C5%2584ski%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=371899

Name and Surname	Sebastian Opaliński
Academic Title	Ph.D., D.Sc.
Unit	Department of Environment Hygiene and Animal Welfare
Academic Discipline	animal science and fisheries

Category of Achievements	Details Achievements
Most important publications	1. Kopler, I., Marchaim, U., Tikász, I. E., Opaliński, S. , Kokin, E., Mallinger, K., ... & Banhazi, T. (2023). Farmers' Perspectives of the Benefits and Risks in Precision Livestock Farming in the EU Pig and Poultry Sectors. <i>Animals</i> , 13(18), 2868. https://doi.org/10.3390/ani13182868
	2. Konkol, D., Popiela, E., Skrzypczak, D., Izydorczyk, G., Mikuła, K., Moustakas, K., Opaliński, S. , Korczyński, M., Witek-Krowiak, A., & Chojnacka, K. (2022). Recent innovations in various methods of harmful gases conversion and its mechanism in poultry farms. <i>Environmental Research</i> , 214, 1–13. https://doi.org/10.1016/j.envres.2022.113825
	3. Kalus, K., Konkol, D., Korczyński, M., Kozieł, J. A., & Opaliński, S. (2020). Effect of Biochar Diet Supplementation on Chicken Broilers Performance, NH3 and Odor Emissions and Meat Consumer Acceptance. <i>Animals</i> , 10, 1–13. https://doi.org/10.3390/ani10091539 .
Most important research projects conducted	1. Principal investigator of the project LivestockSense : "Enhancing environmental sustainability of livestock farms by removing barriers for adoption of ICT technologies", funded by the National Centre for Research and Development (NCBR), agreement no. ICTAGRIFOOD/I/LIVESTOCKSENSE/01/21, within the European Union's Horizon 2020 research and innovation programme under grant agreement No 862665 ERA-NET ICT-AGRI-FOOD, 2021-2023 ; the main objectives of the LivestockSense were (1) to improve the economic and environmental viability of livestock farms through application of advanced information and communication technologies AND (2) to identify/remove social barriers for technology adoption to achieve a wider use of ICT on farms.
	2. Principal investigator of the project ET4D : "Development of a practical data management system with embedded sensors for improved environmental management and transparency of dairy farming", funded by the National Centre for Research and Development (NCBR), agreement no. ICTAGRIFOOD/II/ET4D/03/2023, within the European Union's Horizon 2020 research and innovation programme under grant agreement No 862665 ERA-NET ICT-AGRI-FOOD, 2023-2026 ; In ET4D, we will collect on-farm environmental data and feed it to an online DMS. To this end, dependable wireless connectivity will be implemented on-farm. Data will be processed in accordance with the information needs of different target groups, which will be determined based on the social diagnosis conducted within the project. A web app will permit farmers and other interest groups to obtain reports tailored to their respective information needs.

	3. Principal investigator of the NCN project: "Biochar in the diet of laying hens and the expression of genes and proteins affecting the structure and physicochemical properties of eggs", National Science Centre funding, OPUS 24 program, decision number DEC-2022/47/B/NZ9/02182, 2023-2026; the research hypotheses are: (1) supplementation of laying hens' diet with biochar affects the expression of uterus genes related to eggshell formation, which is positively correlated with biochar surface area, (2) increased gene expression caused by biochar, with a specific surface area, leads to a higher concentration of proteins responsible for the eggshell formation, (3) dietary biochar inducing increased concentration of proteins responsible for eggshell formation contributes to improving eggshell quality, structure and better resistance to mechanical damages.
Supervision (Supervisor/auxiliary supervisor)	1. Sepideh Fallahi, "Cannabidiol - a Feed Additive that Improves Birds' Welfare and the Efficiency of Poultry Production" (IV year). 2. Katarzyna Olejnik, "Precision livestock farming tools and poultry welfare and production efficiency" (III year). 3. Błażej Wolański, "Biochar in the diet of laying hens and the structure and physicochemical properties of eggs" (I year). 4. Kalus Kajetan, Biochar as a Factor Mitigating Emissions of Odorous Substances from Poultry Production, Wydział Biologii i Hodowli Zwierząt, 2021, Defense Date: 2021 (doctoral studies).
Most important additional achievements	UPWr Rector's Awards for Academic Teachers for Scientific and Organizational Achievements, 2021, 2022, 2024 Co-author of 3 patents: PL214915, The aero filter, especially for livestock buildings, 30.09.2013 WUP 09/13, PL230792, Calcium organo-mineral formulation and a method for producing calcium organic-mineral formulation, 31.12.2018 WUP 12/18, PL236695, Fodder component, method of its production and applications in feeding animals, 08.02.2021 WUP 03/21 Organizing Vice-President (2017-2019) and Member at Large (2019-present) of the Executive Board of the International Society for Animal Hygiene (ISAH) Leader of the leading research group – Animal Science for Future (ASc4Future), member of the leading research group - Poultry – from stable to table (DroPOWER), Wrocław University of Environmental and Life Sciences, Faculty of Biology and Animal Science, 2019-present Expert at the National Centre for Research and Development (NCBR), reviewer of research project proposals, and scientific assessor of ongoing and finished projects, 2019-present
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr042d8442ed8e494f97809881607fa68f?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BSebastian%2BOpali%25C5%2584ski%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=2212131

Below, we present five leading academic teachers and research staff of UPWr Doctoral School in the discipline of **veterinary science**.

These are academic teachers and researchers who, through their top-level qualifications and extensive experience, enhance animal welfare. Their work focuses on innovative approaches to the diagnosis, treatment and prevention of animal diseases, which directly impacts both clinical and scientific practice. The involvement of these experts guarantees doctoral students access to knowledge based on the latest discoveries and the opportunity to work on real challenges in the field of animal health, both companion and farm animals.

Detailed information about their achievements can be found on the "Knowledge Base" portal, accessible via the link in each profile.

Name and Surname	Agnieszka Noszczyk-Nowak
Academic Title	Prof. Ph.D., D.Sc.
Unit	Department of Internal Medicine and Clinic of Diseases of Horses, Dogs and Cats
Academic Discipline	Veterinary science

Category of Achievements	Details Achievements
Most important publications	1. Derejko P, Janus I, Kułakowski P, Kuśnierz J, Baran J, Hangiel U, Proszek J, Frydrychowski P, Michałek M, Noszczyk-Nowak A. Bipolar endo-epicardial RF ablation: Animal feasibility study. Heart Rhythm. 2024 Jun;21(6):790-798. doi: 10.1016/j.hrthm.2024.02.009. Epub 2024 Feb 8. PMID: 38336196.
	2. Bogucki S, Noszczyk-Nowak A. Short-term heart rate variability (HRV) in healthy dogs. Pol J Vet Sci. 2015;18(2):307-12. doi: 10.1515/pjvs-2015-0040. PMID: 26172180.
	3. Janus I, Noszczyk-Nowak A, Nowak M, Cepiel A, Ciaputa R, Paśławska U, Dziągiel P, Jabłońska K. Myocarditis in dogs: etiology, clinical and histopathological features (11 cases: 2007-2013). Ir Vet J. 2014 Dec 24;67(1):28. doi: 10.1186/s13620-014-0028-8. PMID: 25642323; PMCID: PMC4311452.
Most important research projects conducted	Histological and structural remodeling of tendon cords and their mechanical strength in light of progression of degenerative changes in canine mitral valve myxomatous degeneration (MMVD). BIS Prelude, NCN, 2020/39/O/NZ5/01238 1.10.2021-30.09.2025, project leader. Degeneration affects the biomechanical properties of the mitral valve tendon cords in dogs, as confirmed by tendon cord stress studies.
	Biomechanical and morphometric study of the relationship of the papillary muscle and tendon cords in the canine mitral heart valve. Opus, NCN, 2024/53/B/ST8/03343 1.09.2025-31.08.2028
	Development of a novel inhibitor of MMP metalloproteinases as a first-in-class drug to modify the course of MMVD and SAS in dogs.NCBIr, FENG.01.01-IP.01-AOGW/24. 1.01.2025-30.12.2029.
Supervision (Supervisor/auxiliary supervisor)	1. Maksymilian Lewicki, Implementation of a new strategy for the treatment of mitral valve disease (MVD) with ACE inhibitors based on the analysis of the occurrence of angiotensin-converting enzyme (ACE) gene variants in dogs and its role in the response to treatment with ACE inhibitors (III year)
	2. Joanna Niewiadomska, Analysis of the biological potential of a polyphenolic extract from the peels of Punica granatum L. in a rat model of metabolic syndrome, Defense date: 2023 (doctoral studies).
	3. Justyn Gach, Histological and structural remodeling of tendon cords and their mechanical strength in light of the progression of degenerative changes in myxomatous mitral valve degeneration (MMVD) in dogs. Defense scheduled for October 2025 (paper in review)
	4. Bogucki Szymon, Short-term HRV analysis in healthy dogs and selected heart diseases, Defense date: 2017 (doctoral studies).
	5. Kumiega Ewa, Assessment of red blood cell parameters and iron metabolism in dogs with heart failure, Defense date: 2023 (doctoral studies).
	6. Michałek Marcin, Evaluation of selected oxidative stress markers in dogs with mitral valve disease and cats with hypertrophic cardiomyopathy, Defense date: 2020 (doctoral studies).
	7. Cepiel-Kośmiejka Alicja, The analysis of electrophysiological parameters of the heart in healthy dogs and their use in the diagnosis of conduction system disturbances, Defense date: 2014 (doctoral studies).

	8. Wodecki Marta, Possibilities of modulating the gastrointestinal microbiome with polyphenols in metabolic syndrome in an animal model, Defense date: 2023 (doctoral studies). 9. Frydrychowski Piotr: Assessment of the cardioprotective effect of intracoronary acetylsalicylic acid in a porcine model of ischemia/reperfusion - in vivo study, Defense date: 2023 (doctoral studies).
Most important additional achievements	Distinction for a young scientist of the Pro Scientia et Vita Foundation 2010, numerous awards of the Rector of the University of Life Sciences for scientific and organizational activities Member of the National Ethical Committee, vice-chairman of the Commission of Biomedical Engineering of the Polish Academy of Sciences Wrocław, member of the board of COST CA21139 - 3Rs concepts to improve the quality of biomedical science (IMPROVE) Associate Editor in Veterinary and Animal Science Editor of the cardiology section in ""Veterinary Medicine in Practice"". Elamed Publishing House, Scientific Director of the conference Multiforum of Veterinary Medicine - Different viewpoints in clinical practice (2022, 2023, 2024), Polish Academy of Sciences; Committee of Veterinary Science and Reproductive Biology - member
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr7486647982834849b2558575025ac050?r=author&ps=20&tab=&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BAgnieszka%2BNoszczyk-Nowak%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=1435860

Name and Surname	Aleksandra Pawlak
Academic Title	Ph.D., D.Sc.
Unit	Department of Pharmacology and Toxicology
Academic Discipline	Veterinary science

Category of Achievements	Details Achievements
Most important publications	1. Pawlak, A., Rapak, A., Drynda, A., Poradowski, D., Zbyryt, I., Dzimira, S., Suchański, J., & Obmińska-Mrukowicz, B. (2016). Immunophenotypic characterization of canine malignant lymphoma: a retrospective study of cases diagnosed in Poland Lower Silesia, over the period 2011–2013. <i>Veterinary and Comparative Oncology</i> , 14, 52–60. https://doi.org/10.1111/vco.12112
	2. Pawlak, A., Bajzert, J., Bugiel, K., Hernandez Suarez, B., Justyna, K., Rapak, A., Hildebrand, W., Obmińska-Mrukowicz, B., Freire, R., & Smits, V. A. J. (2021). Ubiquitin-specific protease 7 as a potential therapeutic target in dogs with hematopoietic malignancies. <i>Journal of Veterinary Internal Medicine</i> , 35, 1041–1051. https://doi.org/10.1111/jvim.16082
	3. Pawlak, A., Ziolo, E., Kutkowska, J., Błazejczyk, A., Wietrzyk, J., Krupa, A., Hildebrand, W., Dziągł, P., Dzimira, S., Obmińska-Mrukowicz, B., Strządą, L., & Rapak, A. (2017). A novel canine B-cell leukaemia cell line. Establishment, characterisation and sensitivity to chemotherapeutics. <i>Veterinary and Comparative Oncology</i> , 15, 1218–1231. https://doi.org/10.1111/vco.12257
Most important research projects conducted	1. Study on the use of primary cultures and established cell lines of canine lymphoma in the diagnosis and treatment of lymphomas in dogs, Principal Investigator, 2011-12-01 – 2014-11-30, NCN PRELUDIUM. The project aimed to develop a flow cytometry-based method for the diagnosis of lymphomas and leukemias in dogs and to determine the sensitivity of canine lymphoma/leukemia cells to cytostatic drugs in order to create tests that support drug selection for therapy. As a result, the study identified the frequency of various lymphoma/leukemia types in dogs and initiated the development of personalized anticancer therapies based on the drug sensitivity profile of individual patient cells.
	2. Development of a new therapeutic protocol for hemangiosarcoma in dogs – in vitro studies on enhancing the efficacy of commonly used anticancer drugs, Principal Investigator, 2020-10-02 – 2024-09-30, MNiSW. The project aimed to: (1) develop a new therapeutic protocol for canine hemangiosarcoma; (2) identify new therapeutic targets. Results: a new treatment regimen for canine hemangiosarcoma was developed including doxorubicin and propranolol; deubiquitinases were identified as potential therapeutic targets.

	3. First-in-species organoid/immune-cell co-culture for prediction of immunotherapy response in canine bladder cancer, Co-investigator, 2024-01-05 – 2026-04-30, Morris Animal Foundation. Project objectives: (1) development of co-cultures of immune cells with canine bladder cancer cells; (2) development of a platform for testing immunotherapies in canine tumors. Results: the first predictive model for assessing immunotherapy response in canine bladder cancer was developed, with translational relevance.
Supervision (Supervisor/auxiliary supervisor)	1. Łukasz Nowak; Evaluation of next-generation biomarkers in predicting the clinical course of high-risk bladder cancer; Defense date: 2023.
	2. Beatriz Hernandez-Suarez; The role of tumor associated proteins in DNA damage and Unfolded Protein Responses and their use as target for the development of novel canine cancer therapy; Defense date 2023.
	3. Katarzyna Bugiel-Stabla; The role of estrogens in the development or prevention of lymphoma in dogs; Defense date: 2025.
	4. Karolina Kapturska; Development of new therapeutic protocols for hemangiosarcoma in dogs – in vitro studies on enhancing the effects of commonly used anticancer drugs; Defense date: 2025.
	5. Jayson Pasaol; A Novel Therapeutic Approach Using Poly ADP Ribose Polymerase (PARP) Inhibitors in Canine Cancer Cells (IV year).
	6. Ewa Dejnaka; Molecular basis of expression and the role of estrogen receptors in hematopoietic tumors in dogs (II year).
	Awards and distinctions: Scholarship of the Minister of Science and Higher Education for Outstanding Young Scientists; 2019

Most important additional achievements

Patents and Implementations: 1. 1-(1'-Hydroxyethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining 1-(1'-hydroxyethyl)-9-oxabicyclo[4.3.0]nonan-8-one, 2021, Patent No.: 243849; 2. Method of obtaining 1-(1'-hydroxyethyl)-9-oxabicyclo[4.3.0]nonan-8-one, 2021, Patent No.: 243851; 3. Method of obtaining 1-(1'-hydroxyethyl)-9-oxabicyclo[4.3.0]nonan-8-one, Invention, 2021, Patent No.: 243850; 4. Method of manufacturing 1-(5'-bromo-2'-hydroxyphenyl)-3-phenylpropan-1-one, Invention, 2020, Patent No.: 245627; 5. (-)-rel-(1R,6R,1'R)-1-(1'-Bromoethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining it, 2019. Patent No.: 238079; 6. (-)-rel-(1R,6R,1'R)-1-(1'-Chloroethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining it, 2019, Patent No.: 238103; 7. (-)-rel-(1R,6R,1'R)-1-(1'-Iodoethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining (-)-rel-(1R,6R,1'R)-1-(1'-iodoethyl)-9-oxabicyclo[4.3.0]nonan-8-one, 2019. Patent No.: 239567; 8. (+)-rel-(1R,6R,1'R)-1-(1'-Bromoethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining it, 2019, Patent No.: 238102; 9. (+)-rel-(1R,6R,1'R)-1-(1'-Chloroethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method of obtaining it, 2019.

Patent No.: 238104; 10. (+)-rel-(1R,6R,1'R)-1-(1'-Iodoethyl)-9-oxabicyclo[4.3.0]nonan-8-one and method; 11. Canine NK-type cell line, 2019, Patent No.: 238159; 12. (4R,5R,6S)-5-t-bromo-4-r-(2',5'-dimethylphenyl)-6-c-methyltetrahydropyran-2-one and method of obtaining it, 2018, Patent No.: 235029; 13. (4S,5S,6R)-5-t-bromo-4-r-(2',5'-dimethylphenyl)-6-c-methyltetrahydropyran-2-one and method of obtaining it, 2018, Patent No.: 235028; 14. cis-(4R,5R,6S)-5-(1-bromoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and method of obtaining it, 2018, Patent No.: 238122; 15. cis-(4S,5S,6R)-5-(1-bromoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and method of obtaining it, 2018, Patent No.: 238121; 16. trans-(4R,5S,6R)-5-(1-bromoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and method of obtaining it, 2018, Patent No.: 236838; 17. cis-(4R,5R,6S)-5-(1-iodoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and trans-(4R,5S,6R)-5-(1-iodoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and method of simultaneous production, 2016, Patent No.: 229558; 18. cis-(4S,5S,6R)-5-(1-iodoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and trans-(4S,5R,6S)-5-(1-iodoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and method of simultaneous production, 2016, Patent No.: 229559; 19. trans-(4R,5S,6R)-4-(benzo[d][1,3']-dioxol-5'-yl)-5-(1-iodoethyl)-dihydrofuran-2-one and method of obtaining it, 2016,

	Patent No.: 231187; 20. trans-(4S,5R,6S)-4-(benzo[d][1',3']-dioxol-5'-yl)-5-(1-iodoethyl)-dihydrofuran-2-one and method of obtaining it, 2016, Patent No.: 231188; 21. cis-(4R,5R,6S)-5-(1-iodoethyl)-4-(4'-isopropylphenyl)-dihydrofuran-2-one and trans-(4R,5S,6R)-5-(1-iodoethyl)-4-(4'-isopropylphenyl)-dihydrofuran-2-one and method of simultaneous production, 2013, Patent No.: 221299; 22. cis-(4S,5S,6R)-5-(1-iodoethyl)-4-(4'-isopropylphenyl)-dihydrofuran-2-one and trans-(4S,5R,6S)-5-(1-iodoethyl)-4-(4'-isopropylphenyl)-dihydrofuran-2-one and method of simultaneous production, 2013, Patent No.: 221300; 23. trans-(4S,5R,6S)-5-(1-bromoethyl)-4-(2',5'-dimethylphenyl)-dihydrofuran-2-one and method of obtaining it, 2013, Patent No.: 236837.
	Membership in Scientific Boards/Committees: 1. Biomedical Research and Therapeutics, member of the journal's scientific board, since 2020; 2. Doctoral School Council of Wrocław University of Environmental and Life Sciences (UPWr), Member, since 2020.
	Participation in Research Teams: OncoVet (Team Leader) The team's goal is to conduct research in the field of comparative oncology, including: consolidation of staff from the Faculty of Veterinary Medicine involved in veterinary oncology; creation of a platform/environment for exchanging experiences and ideas to develop innovative research projects; establishment of a joint network of contacts with national and international partners; initiation of new scientific collaborations domestically and abroad; formation of a research group conducting current studies in veterinary oncology; establishment of commercial collaborations and partnerships with industry; and acquisition of external funding to support the research directions selected by the team.
	Other Significant Achievements: scholarship holder of the Kościuszko Foundation - Kosciuszko Foundation Exchange Program to the United States, 2023
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr47f609eaf62b45fe8c36e0554b607aff?ps=20&lang=en&title=&pn=1&cid=1438641

Name and Surname	Błażej Poźniak
Academic Title	Ph.D., D.Sc.
Unit	Department of Pharmacology and Toxicology
Academic Discipline	Veterinary Science

Category of Achievements	Details Achievements
Most important publications	1. Poźniak, B., Tikhomirov, M., Motykiewicz-Pers, K., Bobrek, K., & Światała, M. (2020). The influence of age and body weight gain on enrofloxacin pharmacokinetics in turkeys—Allometric approach to dose optimization. <i>Journal of Veterinary Pharmacology and Therapeutics</i> , 43(1), 67-78, 10 citations.
	2. Bello, A., Mochel, J. P., Jajor, P., Bobrek, K., Światała, M., & Poźniak, B. (2024). Population pharmacokinetics and absolute oral bioavailability of lasalocid after single intravenous and intracrop administration in laying hens. <i>Journal of Agricultural and Food Chemistry</i> , 72(23), 13348-13359 1 citation.
	3. Piotrowski, W. M., Kniec-Stec, K., Suta, M., Bogielski, B., Pozniak, B., & Marciniak, L. (2023). Positive luminescence thermal coefficient of Mn ²⁺ ions for highly sensitive luminescence thermometry. <i>Chemical Engineering Journal</i> , 464, 142492, 16 citations.
Most important research projects conducted	1. "Effects of rapid weight gain on tylosin and enrofloxacin pharmacokinetics in turkeys - dosage modelling and validation based on pharmacokinetic-pharmacodynamic integration", Principal Investigator, 2017–2020, project funded by the National Science Centre (NCN, Sonata, 2016/21/D/NZ7/01053). The aim of the project was to assess the impact of age and body weight of turkeys on the pharmacokinetics of model antibiotics, enrofloxacin and tylosin, and to develop tools for optimizing the dosing of these drugs. Increasing evidence suggests that standard dosing of antibacterial drugs produces different effects in young and older birds, which can lead to ineffective therapy, development of antimicrobial resistance, environmental contamination, and the risk of drug residues in meat. The project consisted of three stages: pharmacokinetic studies during various growth phases, development of mathematical models describing the relationships between body weight and pharmacokinetic parameters, and verification of the effectiveness of these models in practice. The goal was to develop a nonlinear dosing strategy that would allow for more effective and safer use of antibiotics in poultry, supporting the concept of prudent antibiotic use and contributing to public health protection, environmental safety, and animal welfare. 2. "Innovative sp³ carbon-based electrode materials and electrochemical reactors for degradation of mixtures of environmental pollutants", Head of a Research Task, 2025–2028, project funded by the National Science Centre (NCN, Opus-Lap, 2023/51/I/ST8/02863). The aim of the project is to investigate whether electrochemical degradation of veterinary drugs and pesticides using novel reactors with carbon-based electrodes can effectively and safely reduce their toxicity and environmental impact. The research will include the design and testing of reactors, the breakdown of model pollutant mixtures, the identification of degradation products, and the evaluation of their toxicity at the cellular and ecological levels. As part of a collaboration between institutions from Poland and the Czech Republic, innovative materials and methods will be developed that may be applied to the treatment of real wastewater from slaughterhouses and livestock farms, contributing to the development of effective.

	3. "Development of a chromatographic analytical method for measuring the concentration of selected drugs from the group of macrolides, lincosamides, pleuromutilin derivatives, and fluoroquinolones in turkey plasma", Principal Investigator, 2016, funding: Leading National Research Centre (KNOW) (2014–2018), Wrocław Centre for Biotechnology (2/PB/2016/KNOW). The project aimed to develop, optimize, and validate analytical methods for determining the concentrations of selected drugs in turkey plasma. The tools developed within the project enabled the acquisition of external funding for a separate research project focused on the pharmacokinetics of these drugs in birds.
Supervision (Supervisor/auxiliary supervisor)	1. Marta Tikhomirov, "Intravenous lipid emulsions as a treatment in acute opioid poisoning - pharmacokinetic and pharmacodynamic evaluation in the rabbit model", defence 2021 2. Abubakar Bello, "Pharmacokinetic modeling of lasalocid disposition kinetics in laying hens and residue depletion in eggs", defence 2025 3. Desiye Tesfaye Tegegne, "The development of an in vitro pharmacokinetic-pharmacodynamic model of catheter-associated urinary tract infections related to bacterial biofilm" (III year) 4. Karolina Motykiewicz-Pers, "Wpływ intensywnego wzrostu na eliminację metronidazolu z tkanek indyków [The effect of the intensive growth on the tissue depletion of metronidazole in turkeys]", defence 2022, auxiliary supervisor
Most important additional achievements	Awards and distinctions: Scholarship of the Minister of Science and Higher Education for Outstanding Young Scientists, 2018 Rector's Award of the Wrocław University of Environmental and Life Sciences for Scientific Achievements: 2014, 2016, 2019, 2021, 2022, 2023, 2024 Membership in scientific councils/scientific committees: 1. Head of the Pharmacology and Toxicology Section of the Polish Society of Veterinary Sciences (PTNW) (terms: 2020–2023, 2024–2027) 2. Member of the Editorial Board of the Journal of Veterinary Pharmacology and Toxicology 3. Member of the Editorial Board of the Bulgarian Journal of Veterinary Medicine Participation in Leading Research Groups: OncoVet Team (UPWr) – comprehensive research in the field of veterinary oncology Other significant achievements: Secretary of the Scientific and Organizing Committees of the 14th Congress of the European Association for Veterinary Pharmacology and Toxicology (EAVPT), Wrocław, 2018
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?ps=20&id=UPWr49ccb711c034216ba37ea5dcf20339d&lang=en&pn=1&cid=1439959

Name and Surname	Wojciech Niżański
Academic Title	Prof., Ph.D, D.Sc.
Unit	Department of Reproduction and Clinic of Farm Animals
Academic Discipline	Veterinary science

Category of Achievements	Details Achievements
Most important publications	1. Age-related changes in the cytoplasmic ultrastructure of feline oocytes Brągiel Natalia, Perrin John, Młodawska Wiesława [et al.], Scientific Reports, 2025, vol. 15, pp.1-14, Article number:12668. DOI:10.1038/s41598-025-96983-8
	2. Addition of low concentration of cholesterol-loaded cyclodextrin (CLC) has a positive effect on cryopreserved canine spermatozoa evaluated by andrological and biophysical methods Ligocka-Kowalczyk Zuzanna, Partyka Agnieszka, Bonarska-Kujawa Dorota [et al.], BMC Veterinary Research, 2024, vol. 20, no. 7, pp.1-13. ID DOI:10.1186/s12917-023-03851-6
	3. Factors determining semen sample collection and semen quality parameters in African penguins Spheniscus demersus Borecki Paweł, Mucha Anna, Niżański Wojciech [et al.], Scientific Reports, 2024, vol. 14, pp.1-14, Article number:24261. DOI:10.1038/s41598-024-76303-2
Most important research projects conducted	1. Multicentric international science platform as the key to effective research [PPI/APM/2019/1/0044/DEC/1] Project leader at UPWr: Wojciech Niżański, start date 01-01-2020, end date 30-09-2022, finished, implemented.
	2. Innovative cattle breeding methods to obtain the best quality Lower Silesian beef [00006/DDD.6509.00003.2018.01] Project leader at UPWr: Jan Twardoń, start date 01-10-2019, end date 30-09-2021, finished, finally settled
	3. Semiochemical communication mechanisms in canids in the context of sexual behaviour: studies using the domestic dog (Canis familiaris) as a model species. Project leader at UPWr: Wojciech Niżański, start date 01-03-2016, end date 29-02-2020, finished, implemented
Supervision (Supervisor/auxiliary supervisor)	1. Michele Vieira Meco, Awakening the mitochondria-the key to retard reproductive aging, (I year).
	2. Kenneth Owoicho Abah, Mechanism of Reproductive Aging - Studies on Domestic Dog (Canis familiaris) as Model Animal, (IV year).
	3. Maria Agata Eberhardt, Research on the in vitro properties and fertilizing capacity of wisent (Bison bonasus) spermatozoa in terms of improving methods of cryopreservation of male gametes of this species, defense date: 2023.
	4. Mrowiec Patrycja, Changes in the integrity of nuclear chromatin of fibroblasts depending on the donor age of selected felid species (Felidae), defense date: 2022 (doctoral studies).
	5. Zuzanna Ligocka-Kowalczyk , The effect of modification of the membrane fluidity of canine sperm cells on their selected properties in cryopreserved semen,defense date: 2024 (doctoral studies).
	6. Joanna Pasikowska , The influence of osaterone acetale and desloreline acetale on reproductive system in dogs with benign prostatic hyperplasia, defense date: 2016 (doctoral studies).
	7. Patrycja Wacławik , The application of assisted reproduction techniques in the American mink (Neogale vison), defense date: 2022 (doctoral studies).

	8. Bartłomiej Jaśkowski , Relationship between morphology of the corpus luteum and its endocrine function, selected reproductive indicators and the efficiency of embryo transfer in cows, defense date: 2020 (doctoral studies). 9. Natalia Mikołajewska, The effect of vitrification on the developmental competence of domestic cat oocytes, defense date: 2013 (doctoral studies). 10. Marta Gotowiecka , Semen preservation, seminal plasma, antioxidant system, antioxidants, defense date: 2018 (doctoral studies). 11. Natalia Krasowska-Zuber, Possibilities of using selected ultrasound techniques to monitor ovarian cycle in bitch, defense date: 2023 (doctoral studies). 12. Agnieszka Antończyk , Computer assisted analysis of sperm motility and morphology in fresh and frozen thawed dog semen, defense date: 2013 (doctoral studies). 13. Sylwia Prochowska , The analysis of characteristics and fertilization competence of spermatozoa collected from urethra and epididymis from domestic cats, defense date: 2017 (doctoral studies).
Most important additional achievements	Awards and distinctions: Rector's Award for academic teachers for scientific achievements (2024); Rector's Award for academic teachers for organisational achievements (2024); Rector's Award for academic teachers – special (2023); Rector's Award for academic teachers for scientific achievements (2022); Rector's Award for academic teachers for scientific achievements (2021); Rector's Award for academic teachers for second-degree scientific achievements. Patents and implementations: [Title of the patent/implementation, year, patent number/description of the implementation] Membership in scientific councils/scientific committees: [Name of the council, function, period of membership] Participation in Leading Research Groups: Leader of the Leading Research Team of UPWr, Wojciech Niżański: Innovative diagnostics and veterinary therapy (Inno-WET), 2019 - currently active Other significant achievements (e.g. organization of conferences, expert opinions for industry): [Description of the achievement, year]
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr13e4e9dc71204461b94356a482f67e9c?r=achievement&tab=teams&title=Person%2Bprofile%2B%25E2%2580%2593%2BWojciech%2BNi%25C5%25BCa%25C5%2584ski%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUniversity%2Bof%2BEnvironmental%2Band%2BLife%2BSciences&lang=en&pn=1

Name and Surname	Paulina Jawor
Academic Title	Ph.D., D.Sc.
Unit	Faculty of Veterinary Medicine, Department of Immunology, Pathophysiology and Veterinary Preventive Medicine
Academic Discipline	veterinary sciences

Category of Achievements	Details Achievements
Most important publications	1. Baran, R., Bajzert, J., Stefaniak, T., & Jawor, P. (2025). Precolostral antibody reactivity against Histophilus somni conserved proteins and Escherichia coli whole cells in stillborn and live calves. Immunobiology, 230, https://doi.org/10.1016/j.imbio.2025.152874
	2. Jawor, P., Stefaniak, T., & Mee, J. (2017). Immune and inflammatory biomarkers in cases of bovine perinatal mortality with and without infection in utero. Journal of Dairy Science, 100, https://doi.org/10.3168/jds.2016-11825
	3. Jawor, P., Huzzey, J. M., LeBlanc, S. J., & von Keyserlingk, M. A. G. (2012). Associations of subclinical hypocalcemia at calving with milk yield, and feeding, drinking, and standing behaviors around parturition in Holstein cows. Journal of Dairy Science, 95, https://doi.org/10.3168/jds.2011-4586
	1. Diagnosis of intrauterine infection in low-viability and stillborn calves. Evaluation of selected parameters as potential diagnostic markers (project leader), 01-11-2013 – 28-02-2017, NCBR. The aim of the project was to assess the prevalence of intrauterine infection in stillborn and low-viability calves in Poland, as well as to select parameters that are most reliable in diagnosing this condition and most commonly altered during intrauterine infection. Based on the studies conducted on collected samples, the following conclusions were drawn: • bacterial infection does not appear to be a significant cause of death in stillborn calves; Indirect evidence (such as a serological response) of intrauterine infection is more frequently observed than direct evidence (detection of pathogens or their genetic material); • the percentage of calves diagnosed with intrauterine infection is higher than in the available literature, which may be due to differences in herd health status or the lack of widespread diagnostic procedures for stillborn calves; • in the studied Polish population, a significant proportion of calves showed evidence of Neospora caninum infection; • determining the gestation length may be a useful indicator in diagnosing intrauterine infection. In the case of single pregnancies (twin pregnancies are usually slightly shorter), 50% (out of 22 cases) of calves with diagnosed intrauterine infection had a gestation length ≤ 275 days. Among calves without confirmed infection, 21% had gestation lengths ≤ 275 days (out of 71 cases). Farms should provide staff training in obstetric assistance, assessment of calving situations, and calf resuscitation methods, as these may significantly reduce perinatal mortality.

Most important research projects conducted	2. Development of subunit vaccines for cattle and pigs based on recombinant Hsp60, OMP40 antigens, and the core part of LPS from Gram-negative bacteria (contractor), 01.01.2015 – 31.12.2017, NCBR. The aim of the project was to evaluate the effectiveness of immunizing calves and piglets with three variants of subunit vaccines and to select the optimal variant to enhance their resistance to multiple species of Gram-negative bacteria. Based on the conducted studies in calves, the following conclusions were made: • subcutaneous hyperimmunization of cattle with the experimental vaccine induces a strong immune response, expressed by high antibody reactivity to rHsp60 H. somni and rOMP40 H. somni antigens, with the most intense response observed in the IgG1 subclass; • a three-time immunization is sufficient to induce a strong immune response in hyperimmune serum donors, as reflected by high antibody reactivity to rHsp60 H. somni and rOMP40 H. somni antigens, although increasing the number of immunizations can enhance antibody reactivity even further; • in the experimental serum obtained from pooled sera collected from hyperimmunized cows during P5–P7 sampling, no significant increase in anti-LPS antibody reactivity against <i>Actinobacillus pleuropneumoniae</i> was found across all classes and subclasses compared to the baseline sample before immunization; • prophylactic use of serum from immunized cows reduced disease incidence regardless of the season; • subcutaneous administration of the serum, as a supplement to antibiotic and NSAID treatment of respiratory tract infections in heifer calves, shortened the duration and severity of clinical symptoms compared to calves that did not receive the serum; • prophylactic and supportive use of the experimental serum did not significantly improve weight gain. Innovative cattle farming methods aimed at achieving the highest quality of Lower Silesian beef (“Beef from the Green Valley”) (contractor), 01-10-2019 – 30-09-2021, Agency for Restructuring and Modernization of Agriculture (ARiMR). The aim of the project was to achieve the highest quality meat through the implementation of innovative cattle farming methods and to develop regionally recognized food products and semi-finished products in Poland and abroad, made from beef with unique health-promoting properties, originating from farms in Lower Silesia. In the studied farms, sera were obtained through hyperimmunization of selected animals. The use of the obtained serum in calves from the examined herds did not affect any of the measured parameters, except for an increase in specific reactivity in the IgG1 and IgG2 classes against the proteins used in serum production. This effect was mainly observed during the first month after serum administration. Calf morbidity and mortality rates were low in all herds.
Supervision (Supervisor/auxiliary supervisor)	1. Dawid Król, Analysis of the Causes of Perinatal Calf Mortality, defense date: 2023, Assistant Supervisor (doctoral studies). 2. Assistant Supervisor – Krzysztof Blicharski, Passive Immunotherapy and Immunoprophylaxis Using an Innovative Serum Targeting rHsp60 and rOMP40 and Their Conjugates with LPS Oligosaccharide, defense date 2023, Assistant supervisor (doctoral studies).
	Awards and distinctions: Second-degree award from the Wrocław Council of the Federation of Scientific and Technical Associations -NOT (2009); Individual and team awards from the Rector of the Wrocław University of Environmental and Life Sciences (2012, 2014 ×2, 2016, 2019 ×2, 2020, 2021, 2024).

Most important additional achievements	Patents and implementations: Method for detecting haptoglobin in cattle (Patent No. 219720, 2008); Feed additive and feed (Patent No. 225611, 2013); Immunogenic composition and its application (Patent No. 235730, 2017).
	Membership in scientific councils/scientific committees: since 2018, Secretary of the Main Board of the Polish Association of Buiatrics; since 2020, Head of the Section of Physiology and Pathology of Ruminants at the Polish Society of Veterinary Sciences (PTNW); since 2024, Member of the Polish Academy of Sciences – Committee of Veterinary Sciences and Reproductive Biology.
	Participation in Leading Research Groups: Innovative Veterinary Diagnostics and Therapy (Inno-WET) – Member. The team focuses, among other things, on innovative therapies for infectious and non-infectious diseases as well as population prophylaxis in production animal herds.
	Other significant achievements Participation in the organizing committee of recurring bovine veterinary conferences: in Wrocław (2006–2011, 2013–2019, 2022–2024) and in Polanica Zdrój (2021–2024).
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info.seam?affil=&ps=20&id=UPWr21b580f7b84946fe8cb3f963a8462e34&lang=en&pn=1&cid=207227

Below, we present profiles of five key academic teachers and research staff of UPWr Doctoral School, whose contribution is indispensable to the development of the discipline of **environmental engineering, mining and energy**.

The following profiles feature recognised specialists of the highest qualifications whose research focuses on sustainable management of natural resources, environmental protection, energy efficiency and innovative mining technologies. Their work covers a wide range of topics, from renewable energy sources and land reclamation of degraded areas to advanced methods of resource extraction. Thanks to their knowledge and experience, doctoral students have the opportunity to work on global challenges related to climate change, energy efficiency and sustainable resource use, preparing themselves to become leaders in this discipline that is key to the future.

All detailed information about their achievements is available on the "Knowledge Base" portal, accessible via the link in each profile.

Name and Surname	Arkadiusz Dyjakon
Academic Title	Prof. Ph.D., D.Sc., Eng.
Unit	Energy, Environment and Society Centre
Academic Discipline	Environmental engineering, mining and energy

Category of Achievements	Details Achievements
Most important publications	1. Sobol, Ł., Dyjakon, A., & Długogorski, B. Z. (2025). Dioxin-Like Polychlorinated Biphenyls (dl-PCB) in Hydrochars and Biochars: Review of Recent Evidence, Pollution Levels, Critical Gaps, Formation Mechanisms and Regulations. Journal of Hazardous Materials, 486. https://doi.org/10.1016/j.jhazmat.2024.136615
	2. Dyjakon, A., Noszczyk, T., & Smędzik, M. (2019). The Influence of Torrefaction Temperature on Hydrophobic Properties of Waste Biomass from Food Processing. Energies, 12, Article 24. https://doi.org/10.3390/en12244609
	3. Sobol, Ł., Dyjakon, A., & Soukup, K. (2023). Dioxins and furans in biochars, hydrochars and torreficates produced by thermochemical conversion of biomass: a review. Environmental Chemistry Letters, 21, Article 4. https://doi.org/10.1007/s10311-023-01600-7
	1. Unlocking the community energy potential to support the market uptake of bioenergy heating technologies (akronim: BECoop - 952930), Kierownik projektu, 01.11.2020-31.10.2023. Project H2020: Secure, clean and efficient energy, Call topic: Market Uptake support. The project aims to support the broader introduction of renewable energy sources to the market, focusing on the promotion of biomass technology in the heating sector. The concept of energy communities (cooperatives) aims to increase the social, technical, business, and financial feasibility of bioenergy solutions. Due to the lack of understanding of the specific factors hindering the existence of bioenergy cooperatives (communities), the project will identify the drivers and barriers to biomass heating among citizens and their participation in developing appropriate community initiatives. To this end, an analysis of cases in which bioenergy has been successfully integrated into local community energy initiatives will be conducted, defining positive success factors and barriers (e.g., social, environmental, financial, supply chain, etc.). The project's results include initiating activities to establish energy cooperatives in rural areas across the EU, developing an information platform and best practices for their formation, and significantly increasing knowledge of the principles, regulations, and technical solutions for establishing energy cooperatives within local communities.

Most important research projects conducted	2. Development and implementation of a new, and non-existent, logistic chain on biomass from pruning (akronim: Europruning – 312078), Kierownik projektu, 15.04.2013-15.06.2016, Project FP7-KBBE financed by EC The project's goal was to develop a comprehensive approach and technology for practical management of biomass from fruit tree prunings, with a view to its optimal use for energy purposes, while also determining the potential of this type of biomass fuel depending on the source and location. A key task was to investigate the impact of harvesting and processing biomass from fruit tree prunings on soil changes, the methods of its shredding, transport, and storage, as well as to determine the impact of a given biomass management method on the natural environment (on a local and global scale), economic, and social aspects. Furthermore, due to the lack of equipment specifically adapted to the harvesting of fruit tree prunings, the project involved the design and construction of two machines (a shredding and a baling machine) to streamline branch harvesting in orchards and fruit tree plantations. The machines were subjected to practical verification tests in various orchards in selected regions of Europe. A comprehensive environmental analysis using Life Cycle Assessment (LCA) was also conducted, along with economic and social analyses, which allowed for comprehensive comparisons with other technologies. A business model for managing this waste biomass was also developed, along with a guide to good practices, aimed at familiarizing and preparing entities interested in using orchard waste from tree candling and maintenance for energy purposes. 3. Replicable business models for modern rural economies (akronim: Rubizmo - 773621), Kierownik projektu, 01.05.2018-31.10.2021, Projekt H2020 Call topic: RUR-09 "Business models for modern rural economies" - Research and Innovation Action. The project aimed to change the current trend and contribute to job creation and development in highly diverse rural areas by stimulating and implementing successful, innovative business models in the agri-food sector on a large scale, based on the biology of value chains, environmental protection, and the concept of sustainable development. To achieve this goal, the RUBIZMO project identified and selected 50 successful business cases and 20 new business models to analyze the conditions for replication and develop four practical, user-oriented tools: (i) a virtual library of business cases (to inspire and inform potential entrepreneurs about business opportunities), (ii) guidelines for creating favorable conditions for implementing innovative business models (to help public authorities and rural networks create a framework for innovation), (iii) a toolkit for clustering and network development in rural areas, and (iv) transition support tools (to help individual entrepreneurs understand which business models are best suited to their situation and how to implement change).

Supervision (Supervisor/auxiliary supervisor)	1. Łukasz Sobol, Toxicity of char produced in torrefaction processes in terms of concentrations of dioxins, furans and dioxin-like compounds (III year).
	2.Tomasz Noszczyk, The influence of lignin, cellulose and hemicellulose content on the activation energy in the thermal conversion of biomass (doctoral studies)
	Awards and distinctions: 2004: Dean's Award of the Faculty of Mechanical and Power Engineering for overall scientific and teaching achievements. 2. 2012: Rector's Award of the Wrocław University of Environmental and Life Sciences for organizational activities, in particular for the development of the Renewable Energy Sources Laboratory. 3. 2014: Third-degree Rector's Award of the Wrocław University of Environmental and Life Sciences for teaching activities, in particular for developing the "Energy from Biomass" course book. 4. 2014: Third-degree Rector's Award of the Wrocław University of Environmental and Life Sciences for organizational activities, in particular for preparing the "Continuous All Inclusive" project and launching and managing the "Renewable Energy Sources and Waste Management" postgraduate studies at the Faculty of Natural Sciences and Technology of the Wrocław University of Environmental and Life Sciences.
	Patents and implementations: 1.Urządzenie do plazmowego zapłonu rozpylonych paliw ciekłych, 2008, No 196651 2.Sposób i urządzenie do uruchamiania palników plazmowych, 2006, No 207901 3.Sposób i urządzenie do uruchamiania palników plazmowych, 2016, No 224369 4.Maszyna do zbierania i podawania materiału drzewnego pozostałego po ścinie gałęzi, odrostów drzew i młodych krzewów, 2016, No 222933

Most important additional achievements

Membership in scientific councils/scientific committees: 1. Member of the Scientific Committee of the 3rd International Student Scientific Conference, Wrocław University of Science and Technology, May 23-25, 2005, Wrocław. 2. Member of the Scientific Committee of the 4th International Student Scientific Conference, Wrocław University of Science and Technology, May 22-24, 2006, Wrocław. 3. Member of the Scientific Committee of the 5th International Student Scientific Conference, Wrocław University of Science and Technology, May 21-23, 2007, Wrocław. 4. Member of the Scientific Committee of the 6th International Student Scientific Conference, Wrocław University of Science and Technology, May 12-14, 2008, Wrocław. 5. Member of the Scientific Committee of the 7th International Student Scientific Conference, Wrocław University of Science and Technology, May 18-20, 2009, Wrocław.

Participation in Leading Research Groups: 1. KBN Young Researcher Grant PB1717/T10/2000/19, registration no. 8T10B01319 (350426): Effect of Electric Field on Coal Dust Ignition, Project Manager, 2000-2001 2. KBN Supervisor's Grant (1719/T10/2001/21, 8T10B02921 (350440)): Stabilization of Dust Flame with Plasma, Main Investigator, 2001-2004. 3. KBN Grant (1164/T10/2003/24, 4T10B00824 (350495)): Plasma Ignition of Liquid Fuels, Project Manager, 2003-2004. 4. Project financed by the Netherlands Agency for Energy and Environment (SenterNovem, contract EOSLT06002): Combustion and co-combustion of biomass in utility power plants (2008-2010). 5. FP7 Project – Europruning (312078): Development of new or improved logistics for lignocellulosic biomass harvest, storage, and transport – Project Manager at the Wrocław University of Environmental and Life Sciences (April 15, 2013–July 14, 2016, total budget: EUR 4,583,018.87, UPWr budget: EUR 173,960). Work Package Leader: Environmental, Economic, and Social Aspects

Other significant achievements: 1. Member of the European Biomass Research Network (EUBREN) – 2015-2017.
2. Member of the Organizing Committee: Seminar "Development of Cogeneration Investments in Poland", September 29, 2015, Wrocław
3. Member of the Organizing Committee: Conference and Trade Fair for Renewable Energy and Energy Efficiency - InEnergy, 3rd Agriculture Day Conference, "Farmer with Energy. Renewable Energy: The Future of Polish Agriculture" April 12, 2017, Wrocław
4. Member of the Organizing Committee: International Conference "Cooperation and Development in the Field of Agricultural Research and Teaching". Date: July 20, 2018, Wrocław University of Science and Technology, TOPAS project
5. Court expert in the field of energy and biomass use (appointed in 2016)

Expertise: 1. Lichota J., Dyjakon A., Wiśniewski T., Tomczuk K., Głąbik R. (2004): Analysis of the complex modernizations of units 1, 2, 5, and 8 carried out in the Dolna Odra power plant, with designation of the further modernization needs according to the newest development trends in power engineering, Raporty Inst. Tech. Ciepl. PWroc., Ser. SPR No. 18
2. Dyjakon A., Pietrowicz S. (2004): Opinion referring to the cooling technology with the use of a modernized cooling system with the application of ecological agent R410A, Reports of the Inst. Tech. Ciepl. PWroc., Ser. SPR No. 27
3. Kordylewski W., Dyjakon A., Klineciewicz M. (2004): Expertise of explosibility hazards of the installation of exhaust gases recirculation in the boiler K-3 in the Nitrogen Plant Tarnów-Mościce, Reports of the Inst. Tech. Ciepl. PWroc., Ser. SPR No. 29, 15 pp.
4. Kordylewski W., Salmonowicz M., Dyjakon A., Bukowski P. (2005): Modification of coal-fired boiler start-up systems to reduce costs and pollutant emissions - comprehensive economic analysis, R&D Project Report, 17 pp., December 2005, Wrocław. Project implemented for EDF R&D and EDF Polska within the framework of the Consortium of Polish Universities and EDF.
5. Kordylewski W., Dyjakon A. (2005): Description of a technical test start-up of a KW-70 boiler using a plasma burner, Scientific and Research Report.
Other significant achievements: 1. Member of the European Biomass Research Network (EUBREN) – 2015-2017. 2. Member of the Organizing Committee: Seminar "Development of Cogeneration Investments in Poland", September 29, 2015, Wrocław

	3. Member of the Organizing Committee: Conference and Trade Fair of Renewable Energy and Energy Efficiency - InEnerg, 3rd Agriculture Day Conference, "Farmer with Energy. Renewable Energy: the Future of Polish Agriculture" April 12, 2017, Wrocław 4. Member of the Organizing Committee: International Conference "Cooperation and Development in the Field of Agricultural Research and Teaching". Date: 20/07/2018, Wrocław University of Environmental and Life Sciences, TOPAS project 5. Court expert in the field of energy and biomass use (appointed since 2016) Link to Knowledge Base https://bazawiedzy.upwr.edu.pl/info/author/UPWr9a785c66df034fa586ba0e4b3c094682?r=publication&tab=supervisedwork&title=Profil%2Bosoby%2B%25E2%2580%2593%2BArkadiusz%2BDyjakon%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&lang=pl&pn=117 pp., Prepared for Wrocław Power Plant. SPR No. 9 (classified).
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr9a785c66df034fa586ba0e4b3c094682?r=publication&ps=20&tab=supervisedwork&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BArkadiusz%2BDyjakon%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=1405089

Name and Surname	Krzysztof Lejcuś
Academic Title	Prof. Ph.D., D.Sc.
Unit	Institute of Environmental Engineering
Academic Discipline	Environmental engineering, mining and energy

Category of Achievements	Details Achievements
Most important publications	1. Circular Economy in Action: Transforming Textile Waste into sustainable soil additives - physicochemical properties and biodegradability Marczak Daria, Lejcuś Krzysztof, Grzybowska-Pietras Joanna [et al.], Journal of Cleaner Production, 2024, vol. 480, pp.1-15, Article number:144093. DOI:10.1016/j.jclepro.2024.144093
	2. Sustainable Innovation: Turning Waste into Soil Additives Marczak Daria, Lejcuś Krzysztof, Lejcuś Iwona [et al.], Materials, 2023, vol. 16, no. 7, pp.1-17, Article number:2900. DOI:10.3390/ma16072900
	3. Towards circular economy: Sustainable soil additives from natural waste fibres to improve water retention and soil fertility Marczak Daria, Lejcuś Krzysztof, Kulczycki Grzegorz [et al.], Science of the Total Environment, 2022, vol. 844, no. 20, pp.1-15, Article number:157169. Go to the document by digital ID DOI:10.1016/j.scitotenv.2022.157169
Most important research projects conducted	1. Green dEal cOmpliant iRriGation Increasing Europe's Agriculture resilience to drought, [101181572 - GEORGIA] Project leader at UPWr: Krzysztof Lejcuś, start date 01-02-2025, end date 31-01-2028, in run
	2. Digital Tools for Sustainable Water Resources Management: Integrating impact of climate change, land use, and optimised solutions, Project leader at UPWr: Radosław Stodolak, start date 01-04-2024, end date 31-03-2027, in run
	3. Enabling rapid and far-reaching positive change for a climate-resilient community system: framework comprising INNOvation PACKages to reactivate European regions and communities [4426/GGPJ5-21/H2020/0] Project leader at UPWr: Krzysztof Lejcuś, start date 24-02-2022, end date 24-05-2022, finished, finally settled
Supervision (Supervisor/auxiliary supervisor)	1. Ahmed Abderrafaa Tamma, Sustainable technology of phytoextraction of metals from soil with the use of water absorbing geocomposite, (III year).
	2. Jakub Misiewicz, Effect of soil loading on the retention capacity of superabsorbents, Defense Date: 2023.
	3. Daria Marczak, The durability of biodegradable water absorbing geocomposites, Defense Date: 2023.
Most important additional achievements	Awards and distinctions: Rector's Award for academic teachers for scientific achievements (2025); Rector's Award for academic teachers for obtaining an academic degree (2025).

Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWRd66ea4caf32645989ce400bf2981f03b?r=achievement&ps=20&tab=cooperation&lang=en&title=Profil%2Bosoby%2B%25E2%2580%2593%2BKrzysztof%2BLEjcu%25C5%259B%2B%25E2%2580%2593%2BUniwersytet%2BPrzyrodniczy%2Bwe%2BWroc%25C5%2582awiu&pn=1&cid=1396477

Name and Surname	Przemysław Bukowski
Academic Title	P.h.D., D.Sc., Eng.
Unit	Institute of Agricultural Engineering
Academic Discipline	Environmental Engineering, Mining and Energy

Category of Achievements	Details Achievements
Most important publications	Bukowski at all. Recycling of Polyurethane Foams via Glycolysis: A Review, Materials, September 2024; 17(18):4617. DOI:10.3390/ma17184617
	Bukowski at all. Influence of Catalytic Additive Application on the Wood-Based Waste Combustion Process, Energies, ISSN 1996-1073, 2023. DOI: 10.3390/en16042055
	Bukowski at all. Comparison of Selected Technologies to Improve the Quality of Exhaust Gases from Landfill Gas Combustion, Energies, ISSN 1996-1073, 2023. DOI: 10.3390/en15030778
Most important research projects conducted	1. Bonus on Horizon 2 (Increasing the use of energy cooperatives to support the development of the bioenergy market based on heating technologies under the Horizon 2020 program, under contract no. 952930, hereinafter referred to as the "project" (BECoop)). Period January - December 2021. Contractor
	2. Projects financed by the Ministry of Science and Higher Education. Implementation PhD. Development of technology and multi-criteria optimization of the glycolysis process of waste polyurethane foams, taking into account environmental, economic, and energy aspects. Period: October 1, 2022 – September 30, 2026. Project manager.
	3. EkoMleko 2024 Project. Project title: Developing a UHT milk production process to reduce milk microflora and its impact on the target product while minimizing negative environmental impact, confirmed by reduced carbon footprint for the final product. Financing: ARiMR, Rural Development Program 2014-2020, co-financed by the European Agricultural Fund for Rural Development. Implementation period: January – December 2024. Project manager.
Supervision (Supervisor/auxiliary supervisor)	1. Bernard Knutel, A universal methodology for assessing energy-saving projects, taking into account the social aspect. Thesis defended in February 2025.
	2. Paulina Wojtko, Methodology for assessing the impact of biomass combustion on the efficiency of boiler furnaces (IV year).
	3. Bryan Romankiewicz, Research on the impact of the use of a catalytic binder on the process of energy use of biomass.
Most important additional achievements	Awards and distinctions: First-degree award "For outstanding achievements in the field of technology" awarded in 2021. Award granted in 2023 by the Wrocław Council of the Federation of Scientific and Technical Associations (NOT). https://www.not.pl/rozsądniecie-konkursu-za-wybitne-osiagniecia-w-dziedzinie-techniki-zrealizowany-w-2021-roku/
	Awards and distinctions: UPWr Rector's Award "For scientific achievements." Award granted on June 5, 2024.
	Patents and implementations: Bukowski P. et al.: Method of monitoring the corrosion hazard of membrane walls of pulverized coal boilers, invention project registered with the Office of Intellectual Property Protection and Patent Information on 05.12.2005 under no. 83/z/2005.
	Other significant achievements: Preparing students for the International Competition "Trends and Development Visions of Offshore Wind Farms." Second place. https://pm.szczecin.pl/pl/uczelnia/aktualnosci/gala-konkursu-mewy-2025/
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr1b2200e0d0444674816a228a56061840/

Name and Surname	Paweł Lochyński
Academic Title	P.h.D., D.Sc., Eng.
Unit	Institute of Environmental Engineering
Academic Discipline	Environmental Engineering, Mining and Energy

Category of Achievements	Details Achievements
Most important publications	1. Lochyński, P., Szymańska, M., Charazińska, S., Poznańska, E., & Kubicz, J. (2023). Raman spectroscopy and XRF identification: First step in industrial wastewater management. <i>Water Resources and Industry</i> , 30, 1–11. https://doi.org/10.1016/j.wri.2023.100216
	2. Charazińska, S., Burszta-Adamiak, E., & Lochyński, P. (2022). Recent trends in Ni(II) sorption from aqueous solutions using natural materials. <i>Reviews in Environmental Science and Bio-Technology</i> , 21, Article 1. https://doi.org/10.1007/s11157-021-09599-5
	3. Brycht, M., Lochyński, P., Barek, J., Skrzypek, S., Kuczewski, K., & Schwarzova-Peckova, K. (2016). Electrochemical study of 4-chloro-3-methylphenol on anodically pretreated boron-doped diamond electrode in the absence and presence of a cationic surfactant. <i>Journal of Electroanalytical Chemistry</i> , 771, 1–9. https://doi.org/10.1016/j.jelechem.2016.03.031
	Innovative sp ³ carbon-based electrode materials and electrochemical reactors for degradation of mixtures of environmental pollutants, Principal Investigator of the Polish group of entities, 02-01-2025 to 01-01-2028, funding source National Science Center, The aim of this project is to assess whether electrochemical degradation of selected veterinary drugs and pesticides using tailored electrochemical reactors (ECRs) with innovative sp ³ carbon-based electrodes can effectively and safely reduce their environmental impact and toxicity. This hypothesis will be verified through a series of interdisciplinary studies, including the design, construction, and testing of ECRs with prototype electrodes and their use to decompose test mixtures containing common veterinary drugs and pesticides found in the environment. Resulting solutions will be subjected to physicochemical tests to assess the removal efficiency of xenobiotics with respect to the electrode/ECR type, and toxicological tests to identify the resulting breakdown products and their effect on model cell lines and living organisms. The prime novelty of this project is based on the development of innovative sp ³ carbon-based electrodes embedded in tailored batch and flow-through ECRs for electrochemical xenobiotic decomposition, the identification of decomposition products and the toxicity assessment of mixtures of different, specifically selected analytes at concentrations corresponding to environmental levels.

Most important research projects conducted	Innovative model for monitoring the contamination of electropolishing processing baths (IonsMonit), Principal Investigator, 01-01-2017 to 30-09-2020, funding source National Center for Research and Development, The electropolishing services industry is awaiting the answer to the questions: what level of contamination of the processing bath with ferric, chromium and nickel ions makes the process gradually less profitable and how does it influence the quality of steel surface after electropolishing? This interdisciplinary problem that encompasses issues from the overlapping fields of chemical technology, environmental protection, surface engineering and mathematics, still remains a scientific and economic challenge. The project foresees the development of an innovative mathematical model that will allow for the determination of the threshold contamination of the baths used in the industrial process of stainless steel electropolishing. Additionally, the model will be applicable even in the event of changing costs of chemical reagents and electric energy. The project involves the realisation of the following tasks: conducting studies on processing bath contamination in laboratory conditions and on a technical scale, an analysis of changes in the quality of electropolished surfaces with the increase in processing bath contamination, the identification and analysis of process costs on a technical scale, including also the cost of hazardous waste neutralisation. the development of a mathematical model that will enable to monitor bath contamination and to determine the threshold pollution of the bath that is justified with respect to costs, preimplementation works, including the verification of the developed multifactorial mathematical model on a technical scale. Electropolishing of austenitic steel type 304, main researcher position of promoter grant, period of realization from 29.09.2010 to 28.09.2012, source of funding Ministry of Science and Higher Education, the main result of the project was the development of a method of correction of industrial baths for electropolishing of chromium-nickel steels and supervision of implementation at ECM Sp. z o.o., June-September 2012.
Supervision (Supervisor/auxiliary supervisor)	1. Magdalena Polerowicz, Implementation PhD, Development of technology for the preparation of a mixture of wastewater of variable composition from metal surface treatment, taking into account the efficiency of the treatment process, (III year). 2. Sylwia Charazinska; Nickel removal from chromium-nickel steel processing wastewater, 2023, Auxiliary supervision - Doctoral Studies
	Awards and distinctions: 1. Scientist of the Future Award 2021 in the category of science for a better life in the future; Intelligent Development Forum Foundation. 2. Centennial Medal of Regaining Independence, 2020, for social activities, President of the Republic of Poland. 3. Award Prof. Żak Prize for doctoral thesis, Polish Electroplating Society, 2014 Implementations: 1. "Implementation of a chemical cleaning and passivation service for soldered copper and brass products" at ECM Sp. z o.o., February 2015. 2. "Development of a method of correcting industrial baths for electropolishing chrome-nickel steels" and supervision of implementation at ECM Sp. z o.o., June-September 2012

Most important additional achievements	Participation in Leading Research Groups: member of the Leading Research Group Water - Climate - Environment Other achievements: 1. PRINCE2 Foundation in Project Management certificate, PeopleCert (2023). 2. Academic tutor certificate, Collegium Wratislaviense (2023). 3. Cooperation with the industry: applicant and investigator of two 18-month projects "Nickel plating of soldered copper and brass components and increasing the safety of implemented technological processes" (2017-2019) and "Development of applied and introduction of new services in the field of chemical and electrochemical surface treatment of metals" (2014-2016) within the framework of the Municipal Support Program for Partnership of Higher Education and Science and Economic Activity Sector "MOZART". 4. Laureate of the DRESDEN Fellowship Program - Technische Universität Dresden (Germany), 2015.
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWreb314ad0f08045c9bc4632c05bc002c6?r=projectmain&ps=20&title=Person%2Bprofile%2B%25E2%2580%2593%2BPawe%25C5%2582%2BLochy%25C5%2584ski%2B%25E2%2580%2593%2BWroc%25C5%2582aw%2BUniversity%2Bof%2BEnvironmental%2Band%2BLife%2BSciences&lang=en

Name and Surname	Katarzyna Pawęska
Academic Title	Ph.D., D.Sc., Eng, Associate Professor
Unit	Institute of Environmental Engineering, Faculty of Environmental Engineering and Geodesy
Academic Discipline	Environmental engineering, mining and energy

Category of Achievements	Details Achievements
Most important publications	Marek K, Pawęska K, Bawiec A. Wastewater management in motor rest area - A review article. Science of the Total Environment. 2023;889:1–14. https://www.sciencedirect.com/science/article/pii/S0048969723027067?via%3DiHub . doi:10.1016/j.scitotenv.2023.164085
	Kilian S, Pawęska K, Bawiec A. Evaluation of post-treatment after wastewater stabilization ponds at municipal wastewater treatment plant. Scientific Reports. 2024;14:1–10. https://www.nature.com/articles/s41598-024-72995-8 . doi:10.1038/s41598-024-72995-8
	Kilian S, Bawiec A, Pawęska K. Floating Islands Supported by LED Lighting: an Ecological Solution of Nutrients Removal from Municipal Wastewater? Water Air and Soil Pollution. 2022;233:1–10. https://link.springer.com/article/10.1007/s11270-022-05821-4 . doi:10.1007/s11270-022-05821-4
Most important research projects conducted	Framework for Organisational Decision-Making Process in Water Reuse for Smart Cities (SMART WATERDomain) - project Manager at Wrocław University of Environmental and Life Sciences (UPWr; Coordinator of the consortium on behalf of the Polish partners: UPWr and University of Łódź). The project was implemented under the European Interest Group (EIG) CONCERT-Japan programme and funded by the National Centre for Research and Development (NCBR). Project duration: 01.09.2020 – 31.01.2024. The primary objective of the project was to define a decision-making framework for organizational planning processes at both governmental and institutional levels (including private enterprises and public utilities) to facilitate the implementation of water/wastewater reuse practices. The project outcomes are intended to support policymakers and stakeholders in formulating procedures and making informed decisions regarding wastewater reuse, based on environmental data, climate change scenarios, case studies, and business justifications. The project analyzed key technical, legal, and policy-related factors affecting the feasibility of wastewater reuse investments. This included evaluations of technical viability, regulatory constraints, political acceptance, and benefits to sustainable development across environmental, economic, and social dimensions. The innovative aspect of the project lies in the integration of technological and regulatory-organizational solutions, bridging the gap between theoretical frameworks and the real-world implementation potential of water reuse systems across diverse European countries and Japan. Based on the collected data and analyses, a decision-support tool was developed, capable of operating with both real-time and projected datasets. This tool may facilitate the adoption of strategies aimed at enhancing public acceptance of wastewater reuse practices.

	Symbiotic, circular bioremediation systems and biotechnology solutions for improved environmental, economic and social sustainability in pollution control (SYMBIOREM) - Project Participant. The project is implemented under the HORIZON EUROPE Programme, Pillar II – Global Challenges, Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture & Environment. Project duration: 01.01.2022 – 31.08.2026. The SYMBIOREM project aims to enhance the efficiency of bioremediation and revitalization strategies, such as the removal of polycyclic aromatic hydrocarbons (PAHs) and heavy metals from contaminated soils. It also focuses on ensuring the sustainability of these strategies by increasing the safety of the applied agents and developing closed-loop systems capable of recovering approximately 60% of nutrients and metals from polluted environments. Researchers from the Wrocław University of Environmental and Life Sciences (UPWr) are responsible for developing a bioremediation method for surface water in an urban water reservoir located in Tołpa Park, Wrocław. The method utilizes Extended Floating Islands (EFIs)—hydrophyte-based systems with an expanded active surface—where immobilized microorganisms conduct biological water purification processes. Based on laboratory-scale experiments assessing the efficiency of floating treatment wetlands, full-scale systems have been developed, deployed in situ, and are currently undergoing continuous monitoring in the context of water quality improvement. An important component of the project is the active involvement of local residents in both the design and observation of the water purification systems, reinforcing community engagement in environmental restoration efforts.
Supervision (Supervisor/auxiliary supervisor)	1. Kinga Marek, Treatment of wastewater with a difficult composition using alternative treatment systems, (IV year). 2. Kilian Szymon, Research on the use of wetland artificial floating islands (WAFIs) to improve the efficiency of water and wastewater treatment, (III year). 3. Rosik Joanna, Application of integrated processing processes for upcycling dairy waste, (I year).
	Awards and distinctions: 2024 – Individual Rector’s Award (UPWr) for organizational achievements 2023 – Team Rector’s Award (UPWr) for excellence in teaching 2023 – Team Rector’s Award (UPWr) for organizational achievements 2022 – Team Rector’s Award (UPWr) for excellence in teaching Participation in Leading Research Groups: Member of the Leading Research Team "Water–Climate–Environment (WCE)" The team’s primary mission, shared by its members, is to conduct interdisciplinary research, maintain high scientific standards, and represent the institution both nationally and internationally. Additional responsibilities include establishing contacts, developing scientific collaborations, and securing research funding. Member of the Leading Teaching Team at the Faculty of Environmental Engineering and Geodesy The team focused on improving the quality of education and enhancing the internationalization of study programmes.

Most important additional achievements	Other significant achievements (e.g. organization of conferences, expert opinions for industry): Chair of the Organizing Committee of the 2nd International Scientific Conference on Ecological and Environmental Engineering (COEE), held on 30 June – 2 July 2021. Expert opinion on wastewater treatment in treatment plants located at Motorway Service Areas (MOPs): Syców North/South, Jonas North/South – prepared in 2014 for external stakeholders. Environmental assessment of the urban moat system in Wrocław, conducted under a contract with MPWiK S.A. (Municipal Water and Sewage Company) in 2022. Experience in the analysis of greywater as a potential irrigation medium – conducted in 2023 as part of a commissioned study for an external entity. Organization of the Summer School “Sustainable State of Nature”, held on 11–15 September 2023, for 22 students from Ukraine, within the framework of the project "Creating New Pathways for Internationalisation through the EU GREEN Consortium" (INTERACT). Coordinator of the International Interdisciplinary Doctoral School – "at the HEART of BioBased University", acronym: I2PhD@BBUniHEART, organized in 2024 as part of the STER Programme – Internationalisation of Doctoral Schools, funded by the Polish National Agency for Academic Exchange (NAWA). Member of the project team that secured funding for the continuation of the International Interdisciplinary Doctoral School – I2PhD@BBUniHEART within the SPINAKER programme (2025–2026), also funded by the Polish National Agency for Academic Exchange (NAWA).
Link to Base of Knowledge	https://bazawiedzy.upwr.edu.pl/info/author/UPWr9f92c1aca9114d249231190a40d37cd7?ps=20&tab=&lang=en&pn=1&cid=1391603

Rules of the School of PhD Education at Wrocław University of Environmental and Life Sciences

Pursuant to Article 205 and in connection with Article 198 of the Higher Schools and Education Act of 20 July 2018 (Dz. U. [Journal of Laws], item 1668, as amended) and the University Statute:

The following terms used in these Rules shall have meanings as set out in the definitions below:

1. **PhD student:** a person enrolled at the School of PhD Education;
2. **School (of PhD Education):** an organised form of PhD education provided by Wrocław University of Environmental and Life Sciences, concluding with the submission of a PhD dissertation;
3. **School (of PhD Education) Board:** a board composed of the University's employees having either a professorial title or a post-doctoral degree conferred in the disciplines in which the School provides education, and including a member of the PhD student body;
4. **School Director:** a person in charge of the School of PhD Education;
5. **Act:** the Higher Schools and Education Act of 20 July 2018 (Dz. U. [Journal of Laws], item 1668, as amended);
6. **Statute:** the founding statute of Wrocław University of Environmental and Life Sciences;
7. **Programme of Education:** a specification of expected educational outcomes consistent with Level 8 of the Polish Qualifications Framework and with the university syllabus, and describing the educational process designed to produce the aforementioned outcomes;
8. **Educational outcomes:** a set of knowledge, abilities, and social skills learned by PhD students in the course of their education;
9. **ECTS credits:** credits in the European Credit Transfer and Accumulation System reflecting the volume of learning based on the defined learning outcomes and their associated workload;
10. **Professional training:** professional training that comprises conducting university classes and participating in teaching.

I. RECRUITMENT PROCEDURE

§1

1. Recruitment to the School of PhD Education shall have the form of a competition and shall be in conformity with the terms specified in the WUELS Senate Resolution mentioned in section 3. The results of this recruitment are open for perusal.
2. Admission to the School of PhD Education shall be effective on entering one's name in the PhD student register.
3. The recruitment procedure for the academic year 2019/2020 shall be in conformity with the WUELS Senate Resolution regarding the terms of recruitment to the School for the academic year 2019/2020.
4. Prior to the beginning of the academic year 2019/2020, the terms mentioned in section 1 and the programme of education specified in Article 201 section 3 of the Act shall be publicised, for the first time, by 31 May 2019 and, in the following years, no later than 5 months prior to the beginning of recruitment.

§2

Foreigners shall be entitled to enrol at the School on terms specified in Article 323 of the Act. No fees shall be charged to PhD students (including PhD students who are foreign nationals) for their education.

II. ORGANISATION OF THE SCHOOL OF PHD EDUCATION

§3

1. The WUELS School of PhD Education is established in the following scientific fields and disciplines:
 - 1) exact and natural sciences in the **discipline** of biological science;
 - 2) technical engineering in the following **disciplines**:
 - a. civil engineering and transport,
 - b. environmental engineering, mining, energy engineering;
 - 3) agricultural science in the following **disciplines**:
 - a. farming and horticulture,
 - b. food science and nutrition,
 - c. veterinary medicine
 - d. zootechnology and fishery.
2. The School of PhD Education shall be supervised by the School Board.
3. The School Board shall be composed of:
 - 1) one academic teacher having a professorial title or a post-doctoral degree, from each of the scientific fields or disciplines in which the School provides education, appointed by the Rector.
 - 2) a representative of the PhD student community selected by the competent student body.
4. The School Board shall have the following tasks:
 - 1) review the School's draft rules of recruitment and appoint the recruitment commission;
 - 2) review the School's draft programme of education;
 - 3) approve the individual research plan of each PhD student;
 - 4) evaluate candidate supervisor(s) and candidate auxiliary supervisor(s);
 - 5) provide mid-term assessment of PhD students, as specified in §8 of these Rules;
 - 6) deal with any other matter presented for consideration by the School Director.
5. The School Director shall:
 - 1) be in charge of the School's budget;
 - 2) have responsibility for implementing the programme of education and providing mid-term assessment;
 - 3) present the candidate supervisor(s) and candidate auxiliary supervisor(s) to the discipline board;
 - 4) issue administrative decisions under authority of the Rector, in respect of individual PhD students, with the exception of decisions refusing admission to the School;
 - 5) be responsible for PhD student scholarships;
 - 6) issue to PhD students credits for the years of education they have completed;
 - 7) extend, in cases where this is justified, the time-limit for submitting the PhD dissertation by no more than 2 years, having duly considered the relevant PhD student's periodic reports and supervisor assessments;
 - 8) oversee the framework programme of education;
 - 9) ensure compliance with the Rules of the School;
 - 10) annually review the implementation of the programme of education, the quality of research and progress in the writing of PhD dissertations by verifying periodic reports submitted by PhD students and progress assessments issued by their supervisors prior to the end of the academic year;
 - 11) give notice to PhD students regarding the results of the annual review and of its positive or negative result;

- 12) annually report to the Rector on the operation of the School;

§4

1. The term of education at the School shall comprise 8 semesters and shall progress in conformity with the programme of education and the individual research plan.
The academic year shall begin on 1 October and end on 30 September.
2. PhD education shall be free of charge but one may at any given time be enrolled in only one School of PhD Education.
3. PhD education may involve cooperating with another entity, in particular a commercial enterprise or a research institution.
4. The progress of education at the School shall be overseen by the University Studies System ("USOS").
5. The Department of Studies shall keep a register of PhD students in electronic form. The register shall include in particular:
 - 1) a candidate card,
 - 2) an individual research plan,
 - 3) a classwork and examination credit sheet,
 - 4) reports and mid-term assessment records,
 - 5) other documents specified by the School Board.
6. The University shall issue the PhD student with a student card.

§5

1. The programme of education shall specify:
 - 1) expected educational outcomes as required by Level 8 of the Polish Qualifications Framework;
 - 2) a syllabus containing a specification of the educational process designed to produce the outcomes and specifying in particular:
 - a. class modules required to complete the education,
 - b. a minimum number of classes and ECTS credits assigned to each class module,
 - c. the method of assessment for class modules covered by the programme of education.
2. The PhD student body shall review the programme of education within 7 days from its submission for review.
3. In exceptional cases, the School Director may, at the PhD student's request, allow an individual path of education. In such a case, the School Director shall, in consultation with the supervisor and the PhD student, set out the individual path of education and a schedule of tasks to be completed by the PhD student in order to graduate from the School.
4. Educational outcomes shall be verified through examinations or final tests. The method of verification of educational outcomes shall be specified in the framework programme of education.
5. Examinations and final tests on coursework included in the programme of education shall end by awarding a mark according to the following scale:
 - 1) very good: 5.0
 - 2) good plus: 4.5
 - 3) good: 4.0
 - 4) satisfactory plus: 3.5
 - 5) satisfactory: 3.0

- 6) fail: 2.0
6. The PhD student shall awarded ECTS (European Credit Transfer and Accumulation System) credits for completed coursework and other activities covered under the programme of education.

§6

1. Within 3 months of admission of a candidate to the School of PhD education, the competent discipline board shall, at the School Director's request, appoint (a) supervisor(s) and auxiliary supervisor complying with the terms specified in the Act.
2. A PhD student's request to change the supervisor or auxiliary supervisor shall be reviewed by the School Board. The decision changing the supervisor or the auxiliary supervisor shall be made by the discipline board at the School Director's request.

§7

1. Within 12 months from the date of enrolment, the PhD student shall submit an individual research plan approved by the supervisor.
2. By the end of each academic year, the PhD student shall submit:
 - 1) a progress report on the individual research plan;
 - 2) a partial individual research plan for the next academic year;
 - 3) the supervisor's opinion
 - 4) other documents required by the School Board.

§8

1. Halfway through the term of education, the PhD student shall undergo mid-term assessment as required by Article 202 of the Act.
2. The assessment shall be provided by a commission composed of three members, i.e:
 - 1) a School Board member;
 - 2) a person having a professorial title or a post-doctoral degree in the discipline, to which the PhD dissertation relates, and not employed by the entity operating the School;
 - 3) School Director as chairman.
3. The mid-term assessment shall be based on:
 - 1) a written progress report on the individual research plan, approved by the supervisor;
 - 2) annual reports submitted to the School Director together with supervisor assessment, relating to coursework performance, stage of research and progress in the writing of the PhD dissertation
 - 3) speech at an open seminar.
4. An interview held by the commission with the PhD student and supervisor may be an additional stage in the assessment.
5. The mid-term assessment shall end with a positive or negative result. The results and their justification shall be open for perusal.
6. In the case of a negative result, the PhD student shall be stricken off from the School's record of PhD students.

§9

1. A PhD student who does not hold a PhD degree shall receive a PhD scholarship.
2. The total period in which the PhD scholarship can be collected from the School of PhD Education out shall be no more than 4 years.
3. The period mentioned in section 2 shall not include the time in which education is suspended, nor the period of education at the School in the event mentioned in Article 206 section 2 of the Act.
4. The minimum per-month amount of the PhD scholarship shall be:
 - 1) 37% of a professor's salary: until the month in which mid-term assessment is made
 - 2) 57% of a professor's salary: after the month in which mid-term assessment is made.The amount of the PhD scholarship mentioned in section 4 point 1 and 2 may depend on the PhD student's achievements.
5. If the School of PhD Education obtains additional funds, PhD students may receive an additional incentive scholarship on terms specified in separate regulations.
6. In the period in which education is suspended, the amount of PhD scholarship is determined on the basis of provisions on determining a maternity benefit. The basis for calculation of the monthly scholarship shall be the amount of the monthly PhD scholarship, mentioned in section 4, due as at the day when the application for suspension is filed.
7. A PhD student with a certificate of disability, a certificate of the degree of disability or a certificate mentioned in Article 5 and Article 62 of the Act on the Professional and Social Rehabilitation and Employment of Persons with Disabilities of 27 August 1997, shall receive a PhD scholarship in the amount increased by 30% of the amount mentioned in section 4 point 1.
8. Without prejudice to provisions in section 2, a PhD student who has submitted their PhD dissertation earlier than the closing date of education set out in the programme of education, shall continue to receive the PhD education until the closing date of education, but in any case no longer than for 6 months.
9. The PhD scholarship shall be paid out monthly by the entity operating the School, no later than the fourth day of each month.
10. A PhD student shall not be employed as an academic teacher or research worker. Exemption from this rule shall cover PhD student employment:
 - 1) for the purpose of performing a research project mentioned in Article 119 section 2 points 2 and 3 of the Act;
 - 2) following a positive mid-term assessment; however, if the working hours exceed more than half-time employment, the amount of the scholarship shall be reduced to 40% of the monthly scholarship amount mentioned in section 4 point 2;
 - 3) of a PhD student who is not entitled to a PhD scholarship

IV. RIGHTS AND OBLIGATIONS OF A PHD STUDENT

§10

A PhD student shall be entitled to:

1. participate in the University's scholarly activities;
2. use the library and the reading room;
3. use the University equipment free of charge for purposes related to performing their individual research plan;
4. be covered by health insurance, unless they are obliged to be covered by health insurance on other legal grounds, on terms specified in separate regulations;

5. have the time-limit for submitting the PhD dissertation extended on terms specified in these Rules and in the Act;
6. take a leave of absence of no longer than 8 weeks a year after prior consultation of holiday dates with their supervisor;
7. engage in scholarships and carry out research in other Polish or foreign research centres, with the consent of the School Director and subject to the supervisor's positive assessment; the period of such scholarship shall be counted towards the term of education with the possibility of obtaining ECTS credits for classes, as appropriate for their length and type, completed during the scholarship;
8. have access, for the entire term of education, to academic supervision and support in their individual research work, provided by the supervisor;
9. apply for a change of supervisor or auxiliary supervisor.

§11

A PhD student shall be obliged to:

- 1) comply with the vows, PhD student's code of ethics, Rules of the School, and other regulations applicable to the University;
- 2) practise self-study under the care and instruction of the supervisor and as appropriate for their educational path;
- 3) deliver timely progress in the writing of their PhD dissertation as required by the milestones set out in the individual research plan and specified in these Rules and other regulations;
- 4) comply with the programme of education, engage in scientific research, and file in a timely manner the documents specified in §8;
- 5) complete professional training. In the first year of study, PhD students shall provide assistance in conducting classes—60 class hours a year. In years 2 and 3, they shall conduct classes—30 class hours, and provide assistance in conducting classes—30 class hours a year. In year 4, PhD students shall not be required to conduct any classes;
- 6) progress towards delivery of the individual research plan and participate (for at least 30 hours a week) in the work of the organizational entity in which the PhD student is writing their PhD dissertation;
- 7) immediately notify the School Director and the supervisor of any change in their given name and personal data required by the School;
- 8) comply with the laws, including the laws on intellectual property protection and classified information.

§12

1. A PhD student shall be called on by the disciplinary commission to account for any breach of regulations applicable to the University and for any actions unbecoming to a PhD student.
2. The manner of disciplinary procedure is set out in the Act and the University Statute.

V. PHD EDUCATION

§13

1. The individual research plan specifies the time-limit for submitting the PhD dissertation. The time-limit may be extended on terms specified in these Rules by no longer than 2 years.
2. The School Director, at the PhD student's request, may extend the time-limit for submitting the PhD dissertation, by no longer than a year in total, where:
 - 1) the PhD student is suffering from a long-standing medical condition;
 - 2) the PhD student must personally take care of a sick family member;
 - 3) the PhD student must personally take care of a child up to the age of four or a child with a certificate of disability;
 - 4) the PhD student has a certificate of disability.
3. The School Director, at the PhD student's request, may extend the time-limit for submitting the PhD dissertation where this is justified by the need for long-standing research necessary to complete the PhD dissertation. This extension is possible only if the PhD student is the main author (responsible for at least 50% of the content, as confirmed by a statement from the co-authors) of at least one original peer-reviewed JCR-listed article.
4. The extension mentioned in sections 2 and 3 may not amount in total to more than 2 years.
5. The application for extending the time-limit for submitting the PhD dissertation shall specify:
 - 1) PhD student's personal data: name, surname, PESEL number or—if no such number exists—a number confirming the PhD student's identity, as well as their year of study;
 - 2) statement of reasons;
 - 3) supervisor's assessment;
 - 4) updated individual research plan.
6. The application for extending the time-limit for submitting the PhD dissertation shall be enclosed with a document confirming compliance with conditions specified in sections 2 and 3.
7. At the PhD student's request, education shall be suspended for a period corresponding to the period of maternity leave, leave equivalent to a maternity leave, paternity leave or parental leave, as specified in the Labour Code of 26 June 1974.
8. Receiving a credit for a year of education shall be conditional upon the PhD student's positive assessment of educational progress in the mandatory subjects included in the programme for the relevant academic year, a passing mark for the PhD seminar and professional training as well as a positive assessment of the individual research plan.
9. Where the PhD student is engaged in a scholarship of a duration of at least 6 months, the PhD student shall be obliged to pass the year of study on terms specified in section 8, on an individual pathway, subject to the School Director's consent.
10. The supervisor's negative assessment of the PhD student's progress and a risk of missing the time-limit for obtaining a PhD degree shall result immediately in the School Board instituting an investigation procedure.
11. A PhD student, may at their own request, be conditionally allowed by the School Director to continue education in the next academic year if they have failed to obtain credit for one of the mandatory subjects in the current academic year or failed the PhD seminar.
12. Where the PhD student has been conditionally allowed to continue their education in a given academic year, they shall be obliged to rectify any failure from the previous academic year.
13. A person who has failed to graduate from the School of PhD Education may, at their written request, be issued with a statement of progress history.

§14

1. The School shall be audited on terms specified in the Act and the executive provisions to the Act.
2. The first audit of academic standards provided by the School shall take place no later than 5 years from the launch of the School or, before expiry of that period, at the minister's request.

VI. HOLIDAYS AND LOANS

§15

1. A PhD student shall be entitled to a leave of absence of no longer than 8 weeks a year, subject to consultation with the supervisor.
2. For PhD students who obtained their PhD degree by graduating from the School of PhD Education, the period of education at the School (no longer than 4 years) shall be counted towards the length of service which determines employee entitlements.
3. For PhD students who have failed to graduate from the School of PhD Education due to:
 - 1) being employed as an academic teacher or research worker,
 - 2) resignation from further education in a given discipline;
– the period of education at that School, no longer than 4 years, shall be counted towards the length of service which determines employee entitlements as long as they have obtained a PhD degree

§16

A PhD student may apply for a student loan. The provisions on student loads are applied accordingly, with the following reservations:

- 1) a student loan may be granted to a PhD student under the age of 35;
- 2) a student loan is granted for the period of education at the School of PhD Education only once and for no longer than 4 years.

§17

A PhD student may apply for:

- 1) accommodation in the University hall of residence;
- 2) accommodate for their spouse or child in the University hall of residence
- on terms specified in the regulations on student benefits.

§18

1. All PhD students without a PhD degree shall receive a PhD scholarship.
2. The PhD scholarship may be granted to a PhD student by a local self-government entity on terms specified in Article 96 sections 2 and 3 of the Act.
3. The PhD scholarship may be granted to a PhD student by a natural person or a legal person that is not a state agency or local government agency on terms specified in Article 97 section 2 of the Act.

§19

A local self-government entity may be grant discounts to PhD students for public transport fares.

§20

PhD students shall constitute a PhD student body on terms specified in the Rules of the PhD student body.

VII. SUPERVISION

§21

The School Director is the direct superior of all PhD students. Supervision of the School Director and education at the School is the responsibility of the Vice-Rector for Research under authority of the Rector.

§22

1. A PhD student shall be for the period of their education placed under the care of a supervisor.
 - 1) A PhD student's supervisor may be a person in active employment with a professorial title or post-doctoral degree in the relevant or related scientific discipline, who has a record of academic achievements in the last 5 years.
 - 2) A supervisor may be a person without a professorial title or post-doctoral degree, who is employed by a foreign university or research centre, as long as the discipline board deems such a person to be sufficiently qualified in the subject-matter of the PhD dissertation.
 - 3) A PhD student's auxiliary supervisor may be a person with a PhD degree in the relevant or related scientific discipline but without authority to act as a PhD supervisor. Such a person shall carry out assistant functions in PhD student supervision, relating in particular to assistance with research planning, performance and analysis of outcomes.
2. The supervisor shall, in compliance with the framework programme of education,:
 - 1) work with the PhD student to agree upon the individual research plan in the first year and a detailed programme of education for every subsequent year of education;
 - 2) teach the PhD student about the subject-matter of the PhD dissertation and the appropriate research methods and techniques;
 - 3) decide on the PhD student's educational pathway and self-study regime and verifies their progress;
 - 4) aid the PhD student in applying for research grants, for example, NCN [National Science Centre], Innovative PhD student and other from other sources, to obtain the funds necessary to prepare a PhD dissertation;
 - 5) provide on-going oversight of the PhD student's work progress and presentation of findings;
 - 6) review the PhD student's annual report submitted to the School Director;
 - 7) review the PhD student's application for extending the time-limit for submitting the PhD dissertation under circumstances specified in §13;
 - 8) attend PhD seminars where their PhD students delivers papers.
3. In cases where this is justified, the PhD student may, in consultation with their supervisor, request the School Director to change their research subject and individual research plan. The request should specify the reasons and be filed prior to mid-term assessment.

§23

1. The supervisor, auxiliary supervisor, and reviewer engaged in the procedure to confer a PhD degree shall be entitled to one-time remuneration.
2. The supervisor's and the auxiliary supervisor's remuneration shall be 83% and 50%, respectively, of a professor's remuneration to be paid out after the closure of the procedure to confer a PhD degree, in which such a degree is effectively conferred.
3. The reviewer's remuneration in a procedure to confer a PhD degree is 27% of a professor's remuneration.

§24

Where the supervisor has been stripped of the powers to act as a supervisor or where they have resigned from their position, died or become permanently diseased, the discipline board shall, in compliance with these Rules, appoint a new supervisor. The School Director shall, at the PhD student's request, may in such a case decide to extend the time-limit for submitting the PhD dissertation.

VII. CLOSURE OF EDUCATION AT THE SCHOOL AND CONFERRAL OF THE PHD DEGREE

§25

A PhD student's education shall end when:

- 1) they have authored JCR-listed publications;
- 2) they have completed the programme of education;
- 3) they have submitted their PhD dissertation.

§26

1. The PhD degree shall be conferred in a procedure to confer a PhD degree.
2. The PhD degree is certified by a diploma.

§27

1. The PhD student shall submit their PhD dissertation to supervisor within the time-limit specified in the individual research plan.
2. The procedure to confer a PhD degree shall be carried out by the relevant discipline board.

VIII. FINAL PROVISIONS

§28

1. The PhD student shall be stricken off from the register of PhD students:
 - 1) in the case of a negative mid-term assessment;
 - 2) in the case of failure to submit the PhD dissertation within the time-limit specified in the individual research plan;
 - 3) if the PhD student has resigned from education;
 - 4) when the PhD student has been expelled from the School.
2. The PhD student may be stricken off from the record of PhD students:
 - 1) in the case of failure to make satisfactory progress on their PhD dissertation;
 - 2) in the case of failure to perform any of the obligations set out in these Rules.
3. A PhD student may be stricken off from the register of PhD students by administrative decision of the School Director. The PhD student shall be entitled to apply with the School Director to appeal the decision for review.

§29

1. The School Director shall be entitled to make decisions ex officio or at a request in any matters not covered under these Rules or other regulations.
2. The School Directors decisions regarding individual PhD students may be appealed for review.

3. The School of PhD Education shall be supervised by the relevant Vice-Rector for Research.

§30

These Rules shall become effective on 1 October 2019.

Approved by
Rector

Prof. dr hab. inż Tadeusz Trziszka

The Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences

Pursuant to Article 205 of the Act of 20 July 2018 – The Law on Higher Education and Science (Journal of Laws 2020, item 85, as amended) and the University Statute

§ 1

The terms used in these Regulations shall mean respectively:

- 1) **Doctoral student** – a person studying at the Doctoral School;
- 2) **Doctoral School** – an organised form of education for doctoral students, operated by Wrocław University of Environmental and Life Sciences, ending with the submission of a doctoral dissertation;
- 3) **Doctoral School Board** – a board consisting of persons employed at the University, holding the title of professor or the degree of habilitated doctor (*doktor habilitowany*) in the fields or disciplines which are taught at the Doctoral School; a representative of doctoral students also sits on the Doctoral School Board;
- 4) **Director of the Doctoral School** – a person who manages the functioning of the Doctoral School;
- 5) **Act** – the Act of 20 July 2018 – The Law on Higher Education and Science (Journal of Laws 2020, item 85, as amended);
- 6) **Statute** – the Statute of Wrocław University of Environmental and Life Sciences, as amended;
- 7) **Curriculum** – a description of the assumed learning outcomes, consistent with the eighth level of the Polish Qualifications Framework and the study programme, which is a description of the educational process leading to achieving these effects;
- 8) **Learning outcomes** – knowledge, skills and social competences acquired by a doctoral student in the process of education;
- 9) **ECTS credits** – credits defined in the European Credit Transfer and Accumulation System as a standard means of comparing the average workload of a learner, necessary to achieve the assumed learning outcomes;
- 10) **Teaching practice** – consists of teaching or co-teaching didactic classes.

I. ORGANISATION OF THE DOCTORAL SCHOOL

§ 2

1. The Doctoral School at Wrocław University of Environmental and Life Sciences is established in the following fields and disciplines:
 - 1) Natural Sciences in the discipline of Biological Sciences;
 - 2) Engineering and Technology in the following disciplines:
 - a. Civil Engineering and Transport;
 - b. Environmental Engineering, Mining and Energy;
 - 3) Agricultural Sciences in the disciplines of:
 - a. Agriculture and Horticulture;
 - b. Nutrition and Food Technology;
 - c. Veterinary Medicine;
 - d. Animal Science and Fisheries.
2. Substantive supervision over the activity of the Doctoral School is exercised by the School Board.
3. The School Board consists of:

- 1) one academic teacher holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*) for each field or discipline taught at the Doctoral School; members of the School Board are appointed by the rector,
 - 2) a representative of doctoral students elected by the competent body of the doctoral student council.
4. The tasks of the School Board include in particular:
- 1) passing opinions on the draft rules of recruitment to the Doctoral School and appointing the recruitment commission;
 - 2) passing opinions on the draft curriculum at the Doctoral School;
 - 3) approving doctoral students' individual research plans;
 - 4) reviewing candidates for supervisors, supervisors, assistant supervisors or, in the case of doctoral students participating in the "Implementation Doctorate" (*doktorat wdrożeniowy*) programme – tutors;
 - 5) organising and participating in the mid-term evaluation of doctoral students in accordance with § 11 of these Regulations;
 - 6) evaluation of academic information sheets submitted by supervisors;
 - 7) evaluation of other matters raised by the Director of the Doctoral School.

§ 3

1. The Director of the Doctoral School is authorised by the rector in particular to:
 - 1) head the Doctoral School;
 - 2) allocate the budget of the Doctoral School;
 - 3) coordinate the ongoing functioning of the Doctoral School;
 - 4) take responsibility for the implementation of the curriculum and conducting of the mid-term evaluation;
 - 5) forward documents submitted by the doctoral students regarding the appointment of the supervisor, supervisors, assistant supervisor, tutor to the relevant scientific discipline board;
 - 6) issue administrative decisions in individual doctoral students' cases, with the exception of the decision to refuse admission to the Doctoral School;
 - 7) take responsibility for doctoral students' scholarships;
 - 8) confirm the completion of the subsequent years of education by the doctoral students;
 - 9) in justified individual cases, extend the deadline for submitting the doctoral dissertation for a total of no more than two years, taking into account the doctoral student's periodic reports and the supervisor's assessment;
 - 10) organise the implementation of the framework curriculum;
 - 11) ensure compliance with the Regulations of the Doctoral School;
 - 12) perform an annual evaluation of the implementation of the curriculum, assess the advancement of scientific research and the progress of work on doctoral dissertations by checking reports submitted by doctoral students and their supervisors before the end of each academic year;
 - 13) inform doctoral students about the results of the annual evaluation of their work progress, completion or failure to complete of an academic year;
2. The Director of the Doctoral School submits an annual report on the activities of the Doctoral School to the rector.

§ 4

1. The Director of the Doctoral School is the direct superior of doctoral students.

2. Supervision over the work of the Director of the Doctoral School and education at the Doctoral School is exercised by the vice-rector responsible for science on behalf of the rector.

§ 5

1. Recruitment to the Doctoral School is based on a competition whose rules are set out in the resolution of the Senate of Wrocław University of Environmental and Life Sciences on the requirements and recruitment procedure for the Doctoral School. The competition results are public.
2. Admission to the Doctoral School takes effect by entering the student on the list of doctoral students.

§ 6

Foreigners may undertake education at the Doctoral School under the conditions specified in Article 323 of the Act.

II. EDUCATION AT THE DOCTORAL SCHOOL

§ 7

1. Education at the Doctoral School lasts 8 semesters and is conducted on the basis of the curriculum and an individual research plan.
The academic year begins on 1 October and lasts until 30 September of the following year.
2. The education of doctoral students, including foreigners, is free of charge.
3. A doctoral student may be enrolled only at one Doctoral School at the same time.
4. Education of doctoral students may be conducted in cooperation with another entity, in particular an entrepreneur or scientific institution.
5. The course of education at the Doctoral School is managed through the “USOS” University Study Service System.
6. The Science Department maintains the Register of Doctoral Students in an electronic form and the documentation of the course of education in paper form.
7. The documentation of the course of education is stored in the doctoral student’s personal file.
8. The documentation of the course of education includes in particular:
 - 1) card of the candidate for the Doctoral School,
 - 2) individual research plan,
 - 3) a credit and exam card,
 - 4) reports and documentation connected with mid-term evaluation,
 - 5) other documents specified by the Doctoral School Board.
9. After completing education, the doctoral student’s personal files shall be transferred to the University Archive.
10. The doctoral student’s personal files shall be kept in the University Archive for at least 50 years.
11. The University issues an electronic identity card to the doctoral student, which is a document confirming the status of a doctoral student acquired after taking the oath and signing the act of oath.
12. A doctoral student who has been removed from the list of doctoral students loses the right to have the student identity card and is obliged to return it.

§ 8

1. The curriculum shall specify:
 - 1) a description of the assumed learning outcomes, consistent with the eighth level of the Polish Qualifications Framework;
 - 2) a description of the learning process leading to these effects, including:
 - a) a list of courses necessary to complete education at the Doctoral School with ECTS points assigned to them, the learning outcomes and content of each course, and the method for verifying and assessing the learning outcomes,
 - b) the number of hours and form of teaching of the courses.
2. Education at the Doctoral School is conducted in the Polish language, with selected courses available in English.
3. The curriculum is reviewed by the doctoral student council within seven days from the date of receiving it.
4. In particularly justified cases, at the request of a doctoral student, the Director of the Doctoral School may agree on an individual course of education. In this case, the Director in agreement with the supervisor and the doctoral student sets an individual curriculum and schedule of the tasks necessary to complete education at the Doctoral School.
5. The learning outcomes are verified in the form of exams or credits. The form of verification of learning outcomes is specified in the framework curriculum, which leads to achieving the learning outcomes for PQF level 8 qualifications; in particular, it leads to achieving learning outcomes in the areas of:
 - 1) knowledge at an advanced level – general knowledge, relevant to the discipline of research, including current scientific achievements, and specialist knowledge, corresponding to the subject of research, including the latest scientific achievements;
 - 2) skills related to research methods and methodology;
 - 3) teaching skills and professional qualifications in the area of modern methods and techniques of teaching;
 - 4) social competences connected with research, teaching activities, cooperation between the scientific and socio-economic environment, including entities functioning in this environment, and the social role of the scholar.
6. Exams and credits in courses covered by the curriculum finish with a grade awarded according to the following scale:
 - 1) very good – 5.0;
 - 2) good plus – 4.5;
 - 3) good – 4.0;
 - 4) satisfactory plus – 3.5;
 - 5) satisfactory – 3.0;
 - 6) unsatisfactory – 2.0.
7. Doctoral students are awarded points for completing courses and other tasks covered by the curriculum, in accordance with the European Credit Transfer and Accumulation System (ECTS).
8. In the event of failure to complete a course, a doctoral student is obliged to retake it on the conditions specified by the Doctoral School Board.
9. In the event of a justified absence of a doctoral student (e.g. illness or other unforeseen absence, conferences or scientific internships lasting no more than 4 weeks), at the written request of the doctoral student addressed to the Director, the hours of compulsory teaching practice may be counted as completed in accordance with the individual curriculum in the given semester.

§ 9

1. Within three months of accepting a candidate to the Doctoral School, at the request of the Director of the Doctoral School, the relevant scientific discipline board shall appoint a supervisor or supervisors, or a supervisor and assistant supervisor, who meet the conditions specified in the Act.
2. Within three months of accepting a candidate to the Doctoral School, at the request of the Director of the Doctoral School, the rector or a person authorised by the rector shall appoint a tutor who meets the criteria set out in the Announcement of the Minister of Science and Higher Education on establishing the “Implementation Doctorate” programme and the call for applications.
3. Changing the supervisor or assistant supervisor is reviewed by the Doctoral School Board at the request of a doctoral student or supervisor. The decision to change the supervisor or assistant supervisor is made by the relevant scientific discipline board at the request of the Director of the Doctoral School.

§ 10

1. Within twelve months of the commencement of education, a doctoral student shall submit an individual research plan approved by the supervisor or supervisors. If an assistant supervisor has been appointed, the plan shall be presented after being approved by this supervisor.
2. By the end of each semester, the doctoral student shall submit:
 - 1) the doctoral student’s individual card;
 - 2) report on the implementation of the individual research plan, beginning from the 3rd semester of study at the Doctoral School;
 - 3) the individual research plan in the event of its modification;
 - 4) the supervisor’s opinion;
 - 5) other reports required by the School Board.
3. The deadline for submitting the individual research plan and other documents listed in section 2 is announced by the Director.

§ 11

1. In the middle of the education period, doctoral students shall be subject to mid-term evaluation in accordance with Article 202 of the Act.
2. The mid-term evaluation at the Doctoral School is made by a three-person committee consisting of:
 - 1) member of the Doctoral School Board;
 - 2) one person holding a postdoctoral degree (*doktor habilitowany*) or the title of professor in the discipline in which the doctoral dissertation is being prepared, employed by an entity other than the one operating the Doctoral School;
 - 3) Director of the Doctoral School as chairman of the committee.
3. Doctoral students shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor’s opinion;
 - 2) end-of-semester reports submitted to the Director of the Doctoral School regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor’s assessment;
 - 3) presentation at an open scientific seminar, where the doctoral student presents the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that

issues a written assessment indicating the strengths and weaknesses of the dissertation.

4. A conversation between the committee, the doctoral student and the supervisor may constitute an additional element of the mid-term evaluation.
5. The mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

§ 12

1. The individual research plan specifies the date of submitting the doctoral dissertation. This date may be postponed by no more than two years, in accordance with the conditions set out in these Regulations.
2. At the request of a doctoral student, the Director of the Doctoral School may extend the deadline for submitting the doctoral dissertation, by no more than one year in total, in the event of:
 - 1) the doctoral student's long-lasting disease;
 - 2) the need to provide personal care for a sick family member;
 - 3) the need to provide personal care for a child of up to four years of age or a child with a disability certificate;
 - 4) having a disability certificate.
3. At the request of a doctoral student, the Director of the Doctoral School may extend the deadline for submitting the doctoral dissertation in cases justified by the need to conduct long-term scientific research necessary to prepare the doctoral dissertation. The extension of the deadline is possible provided that the doctoral student is the main author (with a contribution of at least 50%, confirmed by the statements of the co-authors) of at least one original reviewed article published in a journal from the Journal Citation Reports list.
4. The extension referred to in sections 2 and 3 may not last more than two years in total.
5. The application for the extension of the deadline for submitting the doctoral dissertation shall contain:
 - 1) the doctoral student's details: first name, last name, PESEL number, and in the absence of the PESEL number – identity document number, and indication of the year of education;
 - 2) justification;
 - 3) the supervisor's opinion;
 - 4) updated individual research plan.
6. The doctoral student shall attach a document confirming the existence of the conditions described in sections 2 and 3 to the application for the extension of the deadline for submitting the doctoral dissertation.
7. To pass a year of education, the doctoral student shall obtain positive grades on the verification of learning outcomes from compulsory courses included in the curriculum for a given academic year, obtain a credit for the doctoral seminar and teaching practice, and obtain a positive assessment of the implementation of the individual research plan.
8. In case of doing a scientific internship, the doctoral student is required to complete the year of education under the conditions specified in section 7 in an individual mode, having obtained the consent of the Director of the Doctoral School.
9. The supervisor's negative opinion on the progress made by the doctoral student, which threatens the possibility of obtaining the doctoral degree within the agreed period,

results in the commencement of explanatory proceedings by the Doctoral School Board within 14 days of submitting the opinion.

10. At the request of the doctoral student, the doctoral student may be conditionally allowed by the Director of the Doctoral School to continue education in the next academic year.
11. In the event of being conditionally allowed to continue education in a given academic year, the doctoral student is obliged to meet the condition that was not fulfilled in the previous academic year.
12. At the request of a doctoral student, education may be suspended for a period corresponding to the duration of:
 - 1) maternity leave,
 - 2) leave on the conditions of maternity leave,
 - 3) paternity leave and parental leave,– specified in the Act of 26 June 1974 – Labour Code.
13. A doctoral student's written request to suspend education shall be submitted no later than within 21 days from the date of occurrence of the circumstances specified in section 12. The request shall be accompanied by documents justifying the suspension of education.
14. When approving the request to suspend education for a period other than an academic year, the Director of the Doctoral School shall determine the conditions applicable to the doctoral student after the suspension period has ended, in particular the deadlines for the fulfilment of individual obligations arising from the education process and these Regulations.
15. Within seven days of the end of the suspension period, the doctoral student shall submit to the Director of the Doctoral School a written statement concerning the doctoral student's willingness to continue education. Failure to submit the statement constitutes the basis for initiating the procedure of removing the doctoral student from the list of doctoral students due to resignation from education.
16. The deadlines for the fulfilment of the doctoral student's duties resulting from the individual research plan shall be extended by a time period for which education at the Doctoral School was suspended.
17. During the suspension, the doctoral student does not implement the curriculum and the individual research plan, but retains the rights of a doctoral student (the right to the doctoral student's identity card, the right to a scholarship in the amount determined in accordance with Article 209(6) of the Act).

§ 13

1. A doctoral student shall be removed from the list of doctoral students in case of:
 - 1) a negative result of mid-term evaluation;
 - 2) failure to obtain the extension of the deadline for submitting the doctoral dissertation;
 - 3) failure to submit the doctoral dissertation within the deadline specified in the individual research plan;
 - 4) submitting a written declaration of resignation from education;
 - 5) simultaneously being a doctoral student at another doctoral school;
 - 6) expulsion from the University as disciplinary punishment.
2. The doctoral student may be removed from the list of doctoral students in case of:
 - 1) failure to submit the request for the appointment of a supervisor or supervisors, or a supervisor and an assistant supervisor, in the manner and time specified by the Director of the Doctoral School;

- 2) failure to submit the individual research plan in the manner specified in § 10;
 - 3) failure to comply with the obligation to implement the individual research plan and not receiving credit for the next semester;
 - 4) failure to submit reports in the manner and time specified by the Director of the Doctoral School;
 - 5) unsatisfactory progress in the preparation of the doctoral dissertation;
 - 6) failure to comply with the obligations arising from these Rules.
3. The removal from the list of doctoral students takes place by way of an administrative decision of the Director of the Doctoral School. The doctoral student may submit a motion for reconsideration within 14 days of receiving the decision.

§ 14

1. The evaluation of the Doctoral School is based on the provisions of the Act and secondary legislation to the Act.
2. The first evaluation of the quality of education at the Doctoral School shall be carried out after a period of at least five years following the date of the commencement of education within the School, or at an earlier time at the minister's request.

III. RIGHTS AND OBLIGATIONS OF DOCTORAL STUDENTS

§ 15

A doctoral student shall have the right to:

1. participate in the academic life of the University;
2. use the library and reading room;
3. use university equipment free of charge, for purposes related to the implementation of the individual research plan;
4. receive universal health insurance, unless he/she is subject to mandatory health insurance based on other provisions;
5. have the deadline for submitting their doctoral dissertation extended, in accordance with the principles set out in these Regulations and the Act;
6. use a rest break of maximum eight weeks per year, after prior arrangement with the supervisor;
7. do scientific internships and conduct research in other national and foreign scientific centres, having obtained the consent of the Director of the Doctoral School and a positive opinion from the supervisor; the internship period is included in the education period and ECTS points may be awarded for courses completed during the internship, taking into account their nature and duration;
8. use the supervisor's scientific expertise and support in independent research work throughout the entire period of education;
9. request a change of the supervisor or assistant supervisor, but no later than by the end of the second year of education, before the mid-term evaluation;
10. apply for:
 - 1) accommodation in the University's residence hall;
 - 2) accommodation of a spouse or child in the University's residence hall – pursuant to the rules and procedure specified in the regulations of student benefits;
11. apply for a student loan. The provisions on student loans shall apply accordingly, except that:
 - 1) the loan may be granted to a doctoral student under the age of 35;
 - 2) the loan may be granted only once for the period of education at the Doctoral School, for a period not longer than 4 years.

§ 16

A doctoral student shall be obliged to:

1. act in accordance with the content of the oath, the doctoral student's Code of Ethics, the Regulations of the Doctoral School, and other provisions in force at the University;
2. pursue independent study under the guidance and instructions of the supervisor and in accordance with the adopted education profile;
3. comply with the deadlines for the preparation of the doctoral dissertation included in the individual research plan and set out in these Regulations and other provisions;
4. implement the current curriculum, conduct scientific research and submit the documents indicated in § 10 within the prescribed deadlines;
5. do teaching practice. In the first year of studies, doctoral students co-teach 60 hours of classes per year. In the second and third years, they teach 30 didactic hours of classes individually and co-teach 30 hours a year. In the fourth year of studies, doctoral students do not teach;
6. implement the individual research plan and participate in the work of an organisational unit in which the doctoral student prepares the doctoral dissertation for at least 30 hours a week;
7. have the ORCID identifier and indicate affiliation to Wrocław University of Environmental and Life Sciences when publishing the results of research carried out as part of the doctoral dissertation;
8. immediately inform the Director of the Doctoral School and the supervisor of the change of name and other personal data required by the Doctoral School;
9. comply with other legal provisions, including those regarding the protection of intellectual property and classified information.

§ 17

1. Doctoral students shall be liable to the disciplinary committee for violation of the provisions in force at the University and for acts unbecoming to the doctoral student.
2. The proceedings before the disciplinary committee are specified in the Act and the University Statute.

IV. TRANSFER AND RESUMPTION

§ 18

1. In justified cases, with the consent of the Director of the Doctoral School, a doctoral student may transfer to the Doctoral School at Wrocław University of Environmental and Life Sciences from another doctoral school. Admission to the Doctoral School is granted in accordance with the rules specified in the provisions concerning the recruitment to the Doctoral School at Wrocław University of Environmental and Life Sciences.
2. With the consent of the Director of the Doctoral School, a doctoral student may remain under the tutorship of the supervisor(s) from the doctoral school from which the transfer was made.
3. At the request of a doctoral student, the Director of the Doctoral School, after consulting the supervisor(s), decides on the recognition of courses completed at another doctoral school and sets the deadline for fulfilling duties and obtaining credits in a given academic year.
4. Recognition of courses is only possible if at least one year of education has been completed.

5. When deciding on the recognition of courses completed at another doctoral school, the Director of the Doctoral School is guided by the convergence of learning outcomes, the syllabus of the course, the form and duration of the course, the form of obtaining course credit, and the requirements of the didactic process.
6. The transfer may result in the modification of the individual research plan and changing the deadline for submitting the doctoral dissertation established at the doctoral school from which the doctoral student is being transferred.
7. A person who has been removed from the list of doctoral students for reasons specified in § 13(1)(3, 4) and § 13(2)(5, 6) of these Regulations may apply for resumption of education at the School, provided that the first year of education has been completed.
8. The decision to resume education is made at the request of a doctoral student by the Director of the Doctoral School after consulting the potential supervisor and the Doctoral School Board, and appointing the supervisor(s) by the relevant scientific discipline board. The Director of the Doctoral School decides in which year the doctoral student shall resume education, taking into account the need to obtain the missing credits. The decision may depend on a test of knowledge, skills and competences required at the School.
9. If the consent to resume education is granted, the Director of the Doctoral School sets the deadlines and procedure for compensating for any differences in the curriculum, and also describes the completed period of education in the language of the learning outcomes according to the curriculum applicable at the Doctoral School at the time when the decision is made.
10. It is possible to apply for resumption of education only once, within two calendar years from the moment when the decision to remove the doctoral student from the list of doctoral students became final.
11. Resumption of education results in the modification of the individual research plan and changing the deadline for submitting the doctoral dissertation, determined before being removed from the list of doctoral students.
12. If the doctoral student has obtained permission to resume education in the year of education in which he or she already received the scholarship, the payment of the doctoral scholarship after the resumption is continued from the month following the month in which the doctoral student finished receiving the doctoral scholarship before being removed.
13. Persons expelled from university pursuant to § 13(1)(6) of these Regulations and persons removed from the list of doctoral students for reasons described in § 13(1)(1) of these Regulations shall not be entitled to apply for resumption of education.
14. The application for resumption of education shall be submitted to the Director of the Doctoral School by 31 August of the year in which resumption is to take place. The decision on the resumption of education may be subject to reconsideration at the request of the person applying for the resumption of education. The motion for reconsideration shall be submitted to the Rector within 14 days of receiving the decision. The rector's decision is final.
15. Within one month of receiving the decision on the transfer or resumption, the doctoral student is obliged to present the supervisor's opinion on a new schedule for the preparation of the doctoral dissertation, resulting from the modified individual research plan.

V. DOCTORAL SCHOLARSHIP

§ 19

1. A doctoral student who does not hold a doctoral degree shall receive a doctoral scholarship.
2. The total period of receiving a doctoral scholarship at the Doctoral School shall not exceed 4 years.
3. The period referred to in section 2 shall not include the period of suspension and the period of education at the Doctoral School referred to in Article 206(2) of the Act.
4. The amount of the monthly doctoral scholarship shall be at least:
 - 1) 37% of a professor's remuneration – until the month in which the mid-term evaluation is conducted;
 - 2) 57% of a professor's remuneration – after the month in which the mid-term evaluation is carried out.
5. The amount of the doctoral scholarship referred to in section 4(1, 2) may depend on the doctoral student's achievements.
6. If the Doctoral School obtains additional financial resources, doctoral students may be awarded an additional pro-quality scholarship – specified in separate rules.
7. Doctoral students with documented achievements in their field/discipline should apply for scholarships for outstanding young scientists, e.g. scholarships awarded under the programmes of the Polish Science Foundation or the Ministry of Science and Higher Education, at the beginning of their scientific careers.
8. Doctoral students should actively attempt to obtain financial resources for the purposes related to the preparation of their doctoral dissertation by participating in calls for projects, programmes or competitions, in particular those financed from external sources, and in the case of obtaining the funds, doctoral students shall seek to independently finance research and other activities leading to the submission of the doctoral dissertation.
9. During the period of suspension of education, the provisions concerning the determination of the amount of the maternity allowance shall apply accordingly to the determination of the amount of the doctoral scholarship, except that the basis for the amount of the allowance shall be the monthly doctoral scholarship referred to in section 4, applicable on the day the application for suspension.
10. A doctoral student who has a disability certificate, a certificate on the degree of disability, or a certificate referred to in Article 5 and Article 62 of the Act of 27 August 1997 on Vocational and Social Rehabilitation and Employment of Disabled Persons shall receive a doctoral scholarship in the amount increased by 30% of the amount indicated in section 4(1).
11. A doctoral student who has submitted their doctoral dissertation before the date of completion of education specified in the curriculum shall receive the doctoral scholarship until the date of expiry of the deadline for the completion of education, but not longer than for six months. The provisions section 2 shall apply.
12. The doctoral scholarship shall be paid by the entity operating the Doctoral School, every month, not later than by the fourth day of each month.
13. A doctoral student may not be employed as an academic teacher or research staff member. This prohibition shall not apply to the employment of a doctoral student:
 - 1) implementing a research project referred to in Article 119(2)(2, 3) of the Act;
 - 2) after a mid-term evaluation with a positive result, except that in the case of employment for more than half of the full-time equivalent, the scholarship shall amount to 40% of the monthly scholarship referred to in section 4(2);
 - 3) who is not entitled to a doctoral scholarship.

14. A scholarship may be granted to a doctoral student by a local government unit in accordance with the provisions set out in Article 96(2, 3) of the Act.
15. A scholarship for academic performance may be granted to a doctoral student by a natural person or a legal entity that is not a state or local government legal entity, pursuant to the provisions specified in Article 97(2) of the Act.

VI. SCIENTIFIC SUPERVISION

§ 20

1. A doctoral student receives education under the supervisor's scientific supervision:
 - 1) A doctoral student's supervisor may be a person holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*) in a given scientific discipline or, in the case of an interdisciplinary dissertation – in a related scientific discipline, who is scientifically active and has had academic achievements in the previous three years,
 - 2) A supervisor may be a person without an academic title or degree of habilitated doctor (*doktor habilitowany*) who is an employee of a foreign university or scientific institution, if the scientific discipline board acknowledges that this person has significant achievements in the scientific area in which the doctoral dissertation is being prepared,
 - 3) An assistant supervisor may be a person with a doctoral degree in a given or related scientific discipline. This person performs an auxiliary function in the supervision of the doctoral student, in particular in the process of research planning, research implementation and analysis of results.
2. A supervisor may be a person who has presented an academic information sheet in accordance with the rules specified in the recruitment regulations for a given academic year.
3. A supervisor shall not be a person who in the previous five years:
 - 1) supervised four doctoral students who were removed from the list of doctoral students due to negative mid-term evaluation, or
 - 2) supervised the preparation of dissertations by at least two candidates for the doctoral degree who did not receive positive reviews of the dissertation from at least two reviewers.
4. In accordance with the framework curriculum, the supervisor:
 - 1) agrees with the doctoral student on an individual research plan for the first year of education and a detailed programme for each subsequent year of education;
 - 2) introduces the doctoral student to the subject of the dissertation and appropriate research methods and techniques;
 - 3) determines the course of the doctoral student's education and self-education, and controls its course;
 - 4) supports the doctoral student in applying for research projects, e.g. financed by the National Science Centre and from other sources, in order to obtain the funds necessary to prepare the doctoral dissertation;
 - 5) constantly supervises the doctoral student's progress of work and presentation of results;
 - 6) issues opinions on the doctoral student's annual reports submitted to the Director of the Doctoral School;
 - 7) issues opinions on the doctoral student's application for the extension of the deadline for submitting the doctoral dissertation in the case specified in § 12;
 - 8) attends doctoral seminars at which her/his doctoral student delivers lectures.

5. In justified cases, the doctoral student in consultation with the supervisor may apply to the Director of the Doctoral School for a change of the subject matter and the individual research plan. The application shall contain a justification and shall be submitted before the mid-term evaluation.
6. A supervisor should not simultaneously supervise more than five doctoral students, and an assistant supervisor – more than three doctoral students.

§ 21

In the event of depriving a supervisor of the right to supervise a doctoral student, or in the event of the supervisor's resignation, death or loss of health, the relevant scientific discipline board shall appoint a new supervisor in accordance with these Regulations. At the request of the doctoral student, the Director of the Doctoral School may decide to extend the deadline for submitting the doctoral dissertation in this case.

§ 22

1. The supervisor and assistant supervisor in the proceedings for the conferment of the doctoral degree shall be entitled to a one-time remuneration.
2. The supervisor's remuneration shall be 83% of a professor's salary, and the assistant supervisor's remuneration shall be 50% of a professor's salary. The remuneration shall be paid after the completion of the proceedings for the conferment of the doctoral degree under which the degree was awarded.

VII. COMPLETION OF EDUCATION AT THE DOCTORAL SCHOOL AND OBTAINING OF THE DOCTORAL DEGREE

§ 23

1. A doctoral student's education shall end with:
 - 1) having publication achievements in accordance with Article 186(1)(3) of the Act (list of journals of the Ministry of Science and Higher Education);
 - 2) completing the curriculum;
 - 3) submitting a doctoral dissertation with a positive opinion of the supervisor or supervisors.
2. A doctoral student is required to submit a dissertation to the supervisor within the time limit specified in the individual research plan.
3. Immediately before submitting a doctoral dissertation, a doctoral student shall present the research results at a seminar organised by the chairman of the relevant scientific discipline board.

§ 24

1. The doctoral degree is awarded as a result of the proceedings for the conferment of the doctoral degree.
2. The activities in the proceedings for the conferment of the doctoral degree shall be made by the appropriate scientific discipline board.
3. A doctoral student who has met the requirements specified in § 23, the requirements specified by the relevant scientific discipline board and has obtained positive reviews of the doctoral dissertation from at least two reviewers may be admitted to defend his or her doctoral dissertation.
4. The conferment of the doctoral degree is confirmed by a diploma.

5. A person who has been awarded the doctoral degree receives a doctoral diploma and a copy of this diploma. At the request of that person, a copy of the diploma in a foreign language shall be issued.

§ 25

1. In the case of a doctoral student who has obtained a doctoral degree as a result of graduation from the Doctoral School, the period of education at the Doctoral School, not exceeding four years, shall be included in the period of work on which employee entitlements depend.
2. In the case of a doctoral student who has not completed education at the Doctoral School due to:
 - 1) taking up employment as an academic teacher or researcher,
 - 2) discontinuation of education for doctoral students in a given discipline– the period of education at the Doctoral School, not exceeding four years, shall be included in the period of work on which employee entitlements depend, provided that they have obtained a doctoral degree.
3. A person who has not completed education at the Doctoral School may, upon a written request, receive a certificate on the course of education.

VIII. FINAL PROVISIONS

§ 26

1. The relevant local government unit may grant doctoral students the right to a reduced fare for using public transport.
2. Doctoral students shall establish the doctoral student council on the terms set out in the Rules of the Doctoral Student Council.
3. In matters concerning the rules and procedures of participating in the Doctoral School that are not regulated by these Regulations or other legal provisions, the Director of the Doctoral School shall be authorised to make decisions ex officio or at the request of the interested party.
4. The decisions of the Director of the Doctoral School regarding doctoral students' individual cases are subject to a motion for reconsideration.
5. Supervision over the Doctoral School is exercised by the vice-rector responsible for science.

§ 27

These Regulations shall enter into force on 1 October 2020.

Resolution no. 2/ 2021 of the Senate of Wrocław University of Environmental and Life Sciences of 29 January 2021
on introducing amendments to the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences, brought into force by Resolution no. 26/2020 of the Senate of Wrocław University of Environmental and Life Sciences of 24 April 2020

Pursuant to Article 28(1)(16) and Article 205(2) and (3) of the Act of 20 July 2018 – Law on Higher Education and Science (Journal of Laws of 2020, item 85, as amended) and § 12(1)(24) and § 105(2) and (3) of the Statute of Wrocław University of Environmental and Life Sciences adopted on 28 June 2019 by Resolution no. 56/2019 of the Senate of Wrocław University of Environmental and Life Sciences, as amended, it is resolved as follows:

§ 1

1. The following changes are made to the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences:

1) § 1(10) shall read as follows: “Teaching practice – consisting in participation in teaching classes or, in the case of foreigners, in the support of the relevant organisational unit in the didactic process.”

2) In § 2(1), point 4) shall be added to read as follows: “Social Sciences in the discipline of Socio-Economic Geography and Land Management.”

3) In § 2(4)(3), the word “approving” shall be replaced by “giving opinions on.”

4) In § 2(4), points 6) and 7) shall be deleted.

5) § 9 shall read as follows:

“Section 1. Within 3 months of undertaking education by a doctoral student at the Doctoral School, at the request of the doctoral student presented by the Director of the Doctoral School, the relevant discipline board shall appoint the supervisor or supervisors, or supervisor and assistant supervisor, who meet the conditions specified in the Act.

Section 2. Within 3 months of undertaking education by a doctoral student at the Doctoral School, at the request of the doctoral student presented by the School Director, the relevant discipline board shall appoint an assistant supervisor who meets the conditions specified in the Announcement of the Minister of Science and Higher Education on the establishment of the “Implementation Doctorate” programme and the call for applications.

Section 3. The change of the supervisor or assistant supervisor takes place by way of a resolution of the discipline council at the request of the doctoral student presented by the Director of the Doctoral School.”

6) In § 10(2), point 4) is deleted and the existing point 5) becomes point 4).

7) § 16(5) shall read as follows: “do teaching practice:

- in the first, second and third year of education, doctoral students co-teach 15 hours of classes per year,

- foreign doctoral students may complete teaching practice by providing support in the teaching process of the relevant organisational unit,

- in the fourth year of education, doctoral students do not teach classes.”

8) In § 16(6), the semicolon is changed to a full stop and the following text is added: “The supervisor or the head of the organisational unit is responsible for assigning tasks. The obligation to participate in the work of the organisational unit does not apply to doctoral students studying under the “Implementation Doctorate” programme;

9) § 19(12) is replaced by the following: “The doctoral scholarship shall be paid by the entity operating the Doctoral School every month, not later than by the fourth day of each month, with the proviso that the doctoral scholarship for the month of October may be paid to doctoral students enrolled in the first year of education by the end of October.”

§ 2

The other provisions of the Regulations remain unchanged.

§ 3

The resolution comes into force on the date of its adoption with effect from 1 October 2021, with the exception of § 1(1)(2), which shall enter into force on the date of obtaining the right to confer a doctoral degree in the discipline of Socio-economic Geography and Land Management by Wrocław University of Environmental and Life Sciences

Chairman of the Senate
prof. dr hab. inż. Jarosław Bosy

The Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences

§ 1

The terms used in these Regulations shall mean respectively:

- 1) Doctoral student – a person studying at the Doctoral School;
- 2) Doctoral School – an organised form of education for doctoral students, operated by Wrocław University of Environmental and Life Sciences, ending with the submission of a doctoral dissertation;
- 3) Doctoral School Board – a board consisting of persons employed at the University, holding the title of professor or the degree of habilitated doctor (*doktor habilitowany*) in the fields or disciplines which are taught at the Doctoral School. The Doctoral School Board includes a representative of doctoral students appointed by the Doctoral Students' Self-government. Members of the Doctoral School Board are appointed at the request of the director of the Doctoral School, after consulting the relevant discipline board;
- 4) Doctoral School Office – an organisational unit in charge of the current affairs of the Doctoral School;
- 5) Director of the Doctoral School – a person who manages the functioning of the Doctoral School;
- 6) Act – the Act of 20 July 2018 – Law on Higher Education and Science;
- 7) Statute – the Statute of Wrocław University of Environmental and Life Sciences;
- 8) Curriculum – a description of the assumed learning outcomes, consistent with the eighth level of the Polish Qualifications Framework and the study programme, which is a description of the educational process leading to the achievement of these effects;
- 9) Learning outcomes – knowledge, skills and social competences acquired by the doctoral student in the process of education;
- 10) ECTS credits – credits defined in the European Credit Transfer and Accumulation System as a standard means of comparing the average workload of a learner, necessary to achieve the assumed learning outcomes;

- 11) Teaching practice – participation in practical teaching activities or, in the case of foreigners, in supporting an organisational unit in the didactic process.

I. ORGANISATION OF THE DOCTORAL SCHOOL

§ 2

1. The Doctoral School at Wrocław University of Environmental and Life Sciences is established in the following fields and disciplines:
 - 1) Natural and Environmental Sciences in the discipline of Biological Sciences;
 - 2) Engineering and Technology in the following disciplines:
 - a. Civil Engineering and Transport;
 - b. Environmental Engineering, Mining and Energy;
 - 3) Agricultural Sciences in the disciplines of:
 - a. Agriculture and Horticulture;
 - b. Nutrition and Food Technology;
 - c. Veterinary Medicine;
 - d. Animal Science and Fisheries.
2. Substantive supervision over the activity of the Doctoral School is exercised by the Doctoral School Board.
3. The Doctoral School Board shall consist of:
 - 1) one academic teacher holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*) for each field or discipline taught at the Doctoral School; members of the School Board are appointed by the rector,
 - 2) a representative of doctoral students elected by the competent body of the Doctoral Students' Self-government.
4. The Doctoral School Board shall appoint the Chairperson of the Council from among its members by voting.
5. The tasks of the Doctoral School Board include in particular:
 - 1) preparing the draft rules of recruitment to the Doctoral School and appointing the recruitment commission;
 - 2) preparing the draft curriculum of the Doctoral School;
 - 3) organising the mid-term evaluation of doctoral students in accordance with § 11 of these Regulations;
 - 4) implementation of tasks delegated by the Director of the Doctoral School.

§ 3

1. The Director of the Doctoral School is authorised by the Rector in particular to:
 - 1) head the Doctoral School;
 - 2) allocate the budget of the Doctoral School;
 - 3) coordinate the ongoing functioning of the Doctoral School;
 - 4) take responsibility for the implementation of the curriculum and conducting of the mid-term evaluation;
 - 5) forward documents submitted by the doctoral students regarding the appointment of the supervisor, supervisors, assistant supervisor, tutor to the relevant scientific discipline board;
 - 6) issue administrative decisions in individual doctoral students' cases, with the exception of the decision to refuse admission to the Doctoral School;
 - 7) take responsibility for the doctoral students' scholarships;
 - 8) confirm the completion of subsequent years of education by the doctoral students;
 - 9) in justified individual cases, extend the deadline for submitting the doctoral dissertation for a total of no more than two years, taking into account the doctoral student's periodic reports and the supervisor's assessment;
 - 10) organise the implementation of the framework curriculum;
 - 11) ensure compliance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences;
 - 12) perform an annual evaluation of the implementation of the curriculum, assess the advancement of scientific research and the progress of work on doctoral dissertations by checking reports submitted by doctoral students and their supervisors before the end of each academic year;
 - 13) inform doctoral students about the results of the annual evaluation of their work progress, completion or failure to complete of an academic year;
2. The Director of the Doctoral School shall submit an annual report on the activities of the Doctoral School to the Rector.

§ 4

1. The Director of the Doctoral School is the direct superior of the doctoral students.
2. Supervision over the work of the Director of the Doctoral School and education at the Doctoral School is exercised by the vice-rector for science on behalf of the Rector.

§ 5

1. Recruitment to the Doctoral School is based on a competition whose rules are set out in the resolution of the Senate of Wrocław University of Environmental and Life Sciences on the requirements and recruitment procedure for the Doctoral School. The results of the competition are public.
2. Admission to the Doctoral School takes effect by entering the student on the list of doctoral students.

§ 6

Foreigners may undertake education at the Doctoral School under the conditions specified in Article 323 of the Act.

II. EDUCATION AT THE DOCTORAL SCHOOL

§ 7

1. Education at the Doctoral School lasts 8 semesters and is conducted on the basis of the curriculum and an individual research plan.
2. The academic year begins on 1 October and lasts until 30 September of the following year.
3. The education of doctoral students, including foreigners, is free of charge.
4. A doctoral student may be enrolled only at one Doctoral School at the same time.
5. Education of the doctoral students may be conducted in cooperation with another entity, in particular an enterprise or scientific institution.
6. The course of education at the Doctoral School is managed by means of the “USOS” University Study Service System and the software “Curriculum – Doctoral School.”
7. The Doctoral School Office maintains the Register of Doctoral Students in an electronic form and the documentation of the course of education in paper form.
8. The documentation of the course of education shall be stored in the doctoral student’s personal file.
9. The documentation of the course of education shall include in particular:
 - 1) Candidate Card for the Doctoral School,
 - 2) an individual research plan,
 - 3) a credit and exam card,

- 4) reports and documentation connected with mid-term evaluation,
 - 5) other documents specified by the Doctoral School Board.
10. After the completion of education, the doctoral student's personal files shall be transferred to the University Archive.
11. The University shall issue the doctoral students with an electronic identity card, which is a document confirming the doctoral student's status acquired after taking the oath and signing the act of oath.
12. A doctoral student who has been removed from the list of doctoral students shall lose the right to have the student identity card and is obliged to return it.
13. The University shall provide all persons, including persons with special needs, with the right conditions to fully participate in the life of the University and the academic community, including during the process of recruitment to the Doctoral School, education at the Doctoral School and conducting research activities.

§ 8

1. The curriculum shall specify:
- 1) a description of the assumed learning outcomes, consistent with the eighth level of the Polish Qualifications Framework;
 - 2) a description of the learning process leading to these effects, including:
 - a) a list of courses necessary to complete education at the Doctoral School, with ECTS points assigned to them, the learning outcomes and content of each course, and the method for verifying and assessing the learning outcomes,
 - b) the number of hours and form of teaching of the courses.
- The curriculum is created taking into account the principles of universal design, including § 23(2) of these Regulations.
2. Education at the Doctoral School is conducted in Polish and English.
3. The curriculum shall be reviewed by the Doctoral Students' Self-government within seven days from the date of receiving it.
4. In particularly justified cases, including for health reasons, at the request of a doctoral student, the Director of the Doctoral School may agree to an individual course of education. In this case, the Director of the Doctoral School in agreement with the supervisor and the doctoral student shall set an individual curriculum and schedule of the tasks necessary to complete education at the Doctoral School.

5. The learning outcomes are verified in the form of exams or credits. The form of verification of learning outcomes is specified in the framework curriculum, which leads to the achievement of the learning outcomes for PQF level 8; in particular, it leads to the achievement of learning outcomes in the areas of:
 - 1) knowledge at an advanced level – general knowledge, relevant to the discipline of research, including current scientific achievements, and specialist knowledge, corresponding to the subject of research, including the latest scientific achievements;
 - 2) skills related to research methods and methodology;
 - 3) teaching skills and professional qualifications in the area of modern methods and techniques of teaching;
 - 4) social competences connected with research and teaching activities, cooperation between the scientific and socio-economic environment, including entities functioning in this environment, and the social role of the scholar.
6. Exams and credits in courses covered by the curriculum shall finish with a grade awarded according to the following scale:
 - 1) very good – 5.0;
 - 2) good plus – 4.5;
 - 3) good – 4.0;
 - 4) satisfactory plus – 3.5;
 - 5) satisfactory – 3.0;
 - 6) unsatisfactory - 2.0.
7. Doctoral students are awarded points for the completion of courses and other tasks covered by the curriculum, in accordance with the European Credit Transfer and Accumulation System (ECTS).
8. In the event of failure to complete a course, the doctoral student is obliged to retake it on the conditions specified by the Director of the Doctoral School.
9. In the event of a doctoral student's justified absence (e.g. illness or other unforeseen absence, conference or scientific internship lasting no more than 4 weeks), at the written request of the doctoral student addressed to the Director of the Doctoral School, the hours of compulsory teaching practice may be counted as completed in accordance with the individual curriculum in the given semester.

1. Within three months of the commencement of education at the Doctoral School, at the request of the doctoral student, the relevant scientific discipline board shall appoint a supervisor or supervisors, or a supervisor and assistant supervisor, who meet the conditions specified in the Act.
2. Within three months of the commencement of education at the Doctoral School, at the request of the doctoral student, the relevant scientific discipline board shall appoint a tutor who meets the criteria set out in the Announcement of the Minister of Science and Higher Education on establishing the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme and the call for applications.
3. Changing the supervisor or assistant supervisor may take place at the request of the doctoral student, motivated by special circumstances, by way of a resolution of the relevant scientific discipline board.
4. The requests mentioned in points 1-3 above shall be submitted by the doctoral student to the Doctoral School Office.

§ 10

1. Within twelve months of the commencement of education, the doctoral student shall submit to the Doctoral School Office an individual research plan approved by the supervisor or supervisors. If an assistant supervisor has been appointed, the plan shall be presented after being approved by this supervisor.
2. The individual research plan shall be submitted for the approval of the relevant discipline board.
3. By the end of each semester, the doctoral student shall submit:
 - 1) the doctoral student’s individual card;
 - 2) report on the implementation of the individual research plan, beginning from the 3rd semester of study at the Doctoral School;
 - 3) the individual research plan in the event of its modification, with the approval of the Director of the Doctoral School;
 - 4) other reports required by the School Board.
4. The deadline for submitting the individual research plan and other documents listed in point 3 above shall be announced by the Director of the Doctoral School.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with Article 202 of the Act.
2. Mid-term evaluation at the Doctoral School is conducted for each discipline by a three-person committee appointed by the vice-rector for science at the request of the Director of the Doctoral School. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The Director of the Doctoral School and a member of the Doctoral School Council in a given discipline shall act as observers.
3. The doctoral student shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-semester reports submitted to the Director of the Doctoral School regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
 - 3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.
4. A conversation between the committee, the doctoral student and the supervisor may constitute an additional element of the mid-term evaluation.
5. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

§ 12

1. To pass a year of education, the doctoral student shall obtain positive grades on the verification of learning outcomes from compulsory courses included in the curriculum for a given academic year, obtain a credit for the doctoral seminar and teaching

practice, and obtain a positive assessment of the implementation of the individual research plan.

2. In the event of doing a scientific internship, the doctoral student is required to complete the year of education under the conditions specified in point 1 in an individual mode, having obtained the consent of the Director of the Doctoral School.
3. The supervisor's negative opinion on the progress made by the doctoral student, which threatens the possibility of obtaining the doctoral degree within the agreed period, shall result in the commencement of explanatory proceedings by the Doctoral School Board within 14 days of submitting the opinion.
4. At the request of the doctoral student, the Director of the Doctoral School may conditionally allow the doctoral student to continue education in the next academic year.
5. In the event of being conditionally allowed to continue education in a given academic year, the doctoral student is obliged to meet the condition that was not fulfilled in the previous academic year.
6. At the request of the doctoral student, education may be suspended for a period corresponding to the duration of:
 - 1) maternity leave,
 - 2) leave on the conditions of maternity leave,
 - 3) paternity leave and parental leave,– specified in the Act of 26 June 1974 – The Labour Code.
7. The doctoral student's written request to suspend education shall be submitted no later than within 21 days from the date of occurrence of the circumstances specified in point 6. The request shall be accompanied by documents justifying the suspension of education.
8. When approving the request to suspend education for a period other than an academic year, the Director of the Doctoral School shall determine the conditions applicable to the doctoral student after the suspension period has ended, in particular the deadlines for the fulfilment of individual obligations arising from the education process and these Regulations.
9. Within seven days of the end of the suspension period, the doctoral student shall submit to the Director of the Doctoral School a written statement indicating the doctoral student's willingness to continue education. Failure to submit the statement

constitutes the basis for initiating the procedure of removing the doctoral student from the list of doctoral students due to resignation from education.

10. The deadlines for the fulfilment of the doctoral student's duties resulting from the individual research plan shall be extended by a time period for which education at the Doctoral School was suspended.
11. During the suspension period, the doctoral student does not implement the curriculum and the individual research plan, but retains the doctoral student's rights (the right to the doctoral student's identity card, the right to a scholarship in the amount determined in accordance with Article 209(6) of the Act).

§ 13

1. The doctoral student shall be removed from the list of doctoral students in the event of:
 - 1) a negative result of mid-term evaluation;
 - 2) failure to obtain the extension of the deadline for submitting the doctoral dissertation;
 - 3) failure to submit the doctoral dissertation within the deadline specified in the individual research plan;
 - 4) submitting a written declaration of resignation from education;
 - 5) simultaneously being a doctoral student at another doctoral school;
 - 6) expulsion from the University as disciplinary punishment.
2. The doctoral student may be removed from the list of doctoral students in the event of:
 - 1) failure to submit the request for the appointment of a supervisor or supervisors, or a supervisor and an assistant supervisor, in the manner and time specified by the Director of the Doctoral School;
 - 2) failure to submit the individual research plan in the manner specified in § 10;
 - 3) failure to comply with the obligation to implement the individual research plan and not receiving credit for the next semester;
 - 4) failure to submit reports in the manner and time specified by the Director of the Doctoral School;
 - 5) unsatisfactory progress in the preparation of the doctoral dissertation;
 - 6) failure to comply with the obligations arising from these Rules.

3. The removal from the list of doctoral students shall take place by way of an administrative decision of the Director of the Doctoral School. The doctoral student may submit a motion for reconsideration within 14 days of receiving the decision.

§ 14

1. The evaluation of the Doctoral School shall be based on the provisions of the Act and secondary legislation to the Act.
2. The first evaluation of the quality of education at the Doctoral School shall be carried out after a period of at least five years following the date of the commencement of education at the School, or at an earlier time at the minister's request.

III. RIGHTS AND OBLIGATIONS OF THE DOCTORAL STUDENT

§ 15

The doctoral student shall have the right to:

1. participate in the academic life at the university, including in the education process, and conduct research activities;
2. use the library and reading room;
3. use university equipment free of charge, for purposes related to the implementation of the individual research plan;
4. receive universal health insurance, unless s/he is subject to mandatory health insurance based on other provisions;
5. have the deadline for submitting the doctoral dissertation extended, in accordance with the principles set out in these Regulations and the Act;
6. use a rest break of maximum eight weeks per year, after prior arrangement with the supervisor;
7. do scientific internships and conduct research in other national and foreign scientific centres, having obtained the approval of the Director of the Doctoral School and a positive opinion from the supervisor; the internship period shall be included in the education period and ECTS points may be awarded for courses completed during the internship, taking into account their nature and duration;
8. use the supervisor's scientific expertise and support in independent research work throughout the entire period of education;

9. request a change of the supervisor or assistant supervisor, but no later than by the end of the second year of education, before mid-term evaluation;
10. apply for:
 - 1) accommodation in the University's residence hall;
 - 2) accommodation for a spouse or child in the University's residence hall
 - pursuant to the rules and procedure specified in the regulations of granting benefits to students;
11. apply for a student loan. The provisions on student loans shall apply accordingly, except that:
 - 1) the loan may be granted to a doctoral student under the age of 35;
 - 2) the loan may be granted only once for the period of education at the Doctoral School, for a period not longer than 4 years.

§ 16

The doctoral student shall be obliged to:

1. act in accordance with the content of the oath, the doctoral student's Code of Ethics, the Regulations of the Doctoral School, and other provisions in force at Wrocław University of Environmental and Life Sciences;
2. pursue independent study under the guidance and instructions of the supervisor and in accordance with the adopted education profile;
3. comply with the deadlines for the preparation of the doctoral dissertation included in the individual research plan and set out in these Regulations and other provisions;
4. implement the current curriculum, conduct scientific research and submit the documents indicated in § 10 within the prescribed deadlines;
5. do the teaching practice:
 - a) in the 1st, 2nd and 3rd year of education, the doctoral students participate in teaching 15 didactic hours per year,
 - b) foreign doctoral students may do the teaching practice in the form of support in the didactic process of an organisational unit;
6. implement the individual research plan and participate in the work of an organisational unit in which the doctoral student prepares the doctoral dissertation for at least 30 hours a week. The supervisor or the head of the organisational unit shall be responsible for assigning tasks. The obligation to participate in the work of an

organisational unit does not apply to doctoral students pursuing education under the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme;

7. receive the ORCID identifier and indicate affiliation to Wrocław University of Environmental and Life Sciences when publishing the results of research carried out as part of the doctoral dissertation;
8. immediately inform the Director of the Doctoral School and the supervisor of the change of name and other personal data required by the Doctoral School;
9. comply with other legal provisions, including those regarding the protection of intellectual property and classified information.

§ 17

1. The doctoral student shall be liable to the disciplinary committee for violation of the provisions in force at the University and for acts unbecoming to the doctoral student.
2. The proceedings before the disciplinary committee are specified in the Act and the University Statute.

IV. TRANSFER AND RESUMPTION

§ 18

1. In justified cases, with the consent of the Director of the Doctoral School, the doctoral student may transfer to the Doctoral School at Wrocław University of Environmental and Life Sciences from another doctoral school. Admission to the Doctoral School is granted in accordance with the rules specified in the provisions concerning the recruitment to the Doctoral School at Wrocław University of Environmental and Life Sciences.
2. With the consent of the Director of the Doctoral School, the doctoral student may remain under the tutorship of the supervisor(s) from the doctoral school from which the transfer was made.
3. At the request of the doctoral student, after consulting the supervisor(s), the Director of the Doctoral School shall decide on the recognition of courses completed at another doctoral school and set the deadline for fulfilling duties and obtaining credits in a given academic year.
4. Recognition of courses is only possible if at least one year of education has been completed.

5. When deciding on the recognition of courses completed at another doctoral school, the Director of the Doctoral School shall be guided by the congruence of learning outcomes, the syllabus of the course, the form and duration of the course, the form of obtaining course credit, and the requirements of the didactic process.
6. The transfer may result in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation established at the doctoral school from which the doctoral student is being transferred.
7. A person who has been removed from the list of doctoral students for reasons specified in § 13(1)(3, 4) and § 13(2)(5, 6) of these Regulations may apply for resumption of education at the Doctoral School, provided that the first year of education has been completed.
8. The decision to resume education is made at the request of the doctoral student by the Director of the Doctoral School after consulting the potential supervisor and the Doctoral School Board, and appointing the supervisor(s) by the relevant scientific discipline board. The Director of the Doctoral School decides in which year the doctoral student shall resume education, taking into account the need to obtain the missing credits. The decision may depend on a test of knowledge, skills and competences required at the Doctoral School.
9. If the consent to resume education is granted, the Director of the Doctoral School shall specify the deadlines and procedure for compensating for any differences in the curriculum, and describe the completed period of education in the language of the learning outcomes according to the curriculum applicable at the Doctoral School at the time when the decision is made.
10. It is possible to apply for resumption of education only once, within two calendar years from the moment when the decision to remove the doctoral student from the list of doctoral students became final.
11. Resumption of education shall result in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation which had been set before being removed from the list of doctoral students.
12. If the doctoral student has obtained permission to resume education in the year of education in which s/he already received the scholarship, the payment of the doctoral scholarship after the resumption is continued from the month following the month in which the doctoral student finished receiving the doctoral scholarship before being removed.

13. Persons expelled from the University pursuant to § 13(1)(6) of these Regulations and persons removed from the list of doctoral students for reasons described in § 13(1)(1) of these Regulations shall not be entitled to apply for the resumption of education.
14. The application for the resumption of education shall be submitted to the Director of the Doctoral School by 31 August of the year in which resumption is to take place. The decision on the resumption of education may be subject to reconsideration at the request of the person applying for the resumption of education. The motion for reconsideration shall be submitted to the Director of the Doctoral School within 14 days of receiving the decision. The decision of the Director of the Doctoral School is final.
15. Within one month of receiving the decision on the transfer or resumption, the doctoral student is obliged to present the supervisor's opinion on a new schedule for the preparation of the doctoral dissertation, resulting from the modified individual research plan.

V. DOCTORAL SCHOLARSHIP

§ 19

1. The doctoral student who does not hold a doctoral degree shall receive a doctoral scholarship.
2. The total period of receiving a doctoral scholarship at the Doctoral School shall not exceed 4 years.
3. The period referred to in point 2 shall not include the period of suspension and the period of education at the Doctoral School referred to in Article 206(2) of the Act.
4. The amount of the monthly doctoral scholarship shall be at least:
 - 1) 37% of a professor's remuneration – until the month in which the mid-term evaluation is conducted;
 - 2) 57% of a professor's remuneration – after the month in which the mid-term evaluation is carried out.
5. The amount of the doctoral scholarship referred to in point 4(1, 2) may depend on the doctoral student's achievements.
6. The doctoral scholarship shall not be awarded to a doctoral student receiving remuneration in the amount of at least 150% of the amount of the doctoral scholarship to which s/he is entitled pursuant to point 4 resulting from employment in connection

with the implementation of a research project referred to in Art. 119(2)(2, 3) of the Act, by the entity running the doctoral school in which the doctoral student is receiving education, for the duration of this employment.

7. If the Doctoral School obtains additional financial resources, the doctoral students may be awarded an additional pro-quality scholarship – subject to separate rules.
8. A doctoral student with documented achievements in their field/discipline shall apply for a scholarship for outstanding young scientists, e.g. scholarship awarded under the programmes of the Polish Science Foundation or the Ministry of Science and Higher Education, at the beginning of their scientific career.
9. The doctoral student shall actively try to obtain financial resources for the purposes related to the preparation of their doctoral dissertation by participating in calls for projects, programmes or competitions, in particular those financed from external sources, and in the case of obtaining the funds, the doctoral students shall seek to independently finance research and other activities leading to the submission of the doctoral dissertation.
10. During the period of suspension of education, the provisions concerning the determination of the amount of the maternity allowance shall apply accordingly to the determination of the amount of the doctoral scholarship, except that the basis for the amount of the allowance shall be the monthly doctoral scholarship referred to in point 4, applicable on the day the application for suspension.
11. A doctoral student who has a disability certificate, a certificate on the degree of disability, or a certificate referred to in Article 5 and Article 62 of the Act of 27 August 1997 on Vocational and Social Rehabilitation and Employment of Disabled Persons shall receive a doctoral scholarship in the amount increased by 30% of the amount indicated in point 4(1).
12. A doctoral student who has submitted their doctoral dissertation before the date of completion of education specified in the curriculum shall receive the doctoral scholarship until the date of expiry of the deadline for the completion of education, but not longer than for six months. The provisions of point 2 shall apply.
13. The doctoral scholarship shall be paid by the entity operating the Doctoral School, every month, not later than by the fourth day of each month, with the proviso that the doctoral students enrolled in the first year of education may receive the doctoral scholarship for the month of October by the end of October.

14. The doctoral student may not be employed as an academic teacher or research staff member. This prohibition shall not apply to the employment of a doctoral student:
 - 1) in order to implement a research project referred to in Article 119(2)(2, 3) of the Act;
 - 2) after mid-term evaluation with a positive result, except that in the case of employment for more than half of the full-time equivalent, the scholarship shall amount to 40% of the monthly scholarship referred to in point 4(2);
 - 3) who is not entitled to the doctoral scholarship.
15. A scholarship may be granted to the doctoral student by a local government unit in accordance with the provisions set out in Article 96(2, 3) of the Act.
16. A scholarship for academic performance may be granted to the doctoral student by a natural person or a legal entity that is not a state or local government legal entity, pursuant to the provisions specified in Article 97(2) of the Act.

VI. SCIENTIFIC SUPERVISION

§ 20

1. The doctoral student shall receive education under the supervisor's scientific supervision:
 - 1) the supervisor of the doctoral student may be a person holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*) in a given scientific discipline or, in the case of an interdisciplinary dissertation – in a related scientific discipline, who is scientifically active and has had academic achievements in the previous three years,
 - 2) the supervisor may be a person without an academic title or degree of habilitated doctor (*doktor habilitowany*), who is an employee of a foreign university or scientific institution, if the scientific discipline board recognises that this person has significant achievements in the scientific area in which the doctoral dissertation is being prepared,
 - 3) the assistant supervisor may be a person with a doctoral degree in a given or related scientific discipline. This person performs an auxiliary function in the supervision of the doctoral student, in particular in the process of research planning, research implementation and analysis of results.

2. The supervisor shall be a person who has presented the academic information sheet in accordance with the rules specified in the recruitment regulations for a given academic year.
3. The supervisor shall not be a person who in the previous five years:
 - 1) has supervised four doctoral students who were removed from the list of doctoral students due to negative mid-term evaluation,
or
 - 2) has supervised the preparation of dissertations by at least two candidates for the doctoral degree who did not receive positive reviews of the dissertation from at least two reviewers.
4. In accordance with the framework curriculum, the supervisor shall:
 - 1) agree with the doctoral student on an individual research plan for the first year of education and a detailed programme for each subsequent year of education;
 - 2) introduce the doctoral student to the subject of the dissertation and appropriate research methods and techniques;
 - 3) determine the course of the doctoral student's education and self-education, and control its course;
 - 4) support the doctoral student in applying for research projects, e.g. financed by the National Science Centre and from other sources, in order to obtain the funds necessary to prepare the doctoral dissertation;
 - 5) constantly supervise the doctoral student's progress of work and presentation of results;
 - 6) issue opinions on the doctoral student's annual reports submitted to the Director of the Doctoral School;
 - 7) issue opinions on the doctoral student's application for the extension of the deadline for submitting the doctoral dissertation in the case specified in § 25;
 - 8) attend doctoral seminars at which her/his doctoral student delivers lectures.
5. In justified cases, the doctoral student in consultation with the supervisor may apply to the Director of the Doctoral School for a change of the subject matter and the individual research plan. The application shall contain a justification and shall be submitted before the mid-term evaluation.
6. The supervisor shall not simultaneously supervise more than five doctoral students, and an assistant supervisor – more than three doctoral students. These limits do not include doctoral students who have secured financing for the implementation of their

doctorate that covers the cost of their doctoral scholarship and the cost of their research for a period of at least 36 months under research projects financed from external sources, and beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.

7. The supervisor is obliged to undergo a one-off training organised by the Doctoral School intended to increase the competence of the relationship between the supervisor and the doctoral student.

§ 21

In the event of depriving the supervisor of the right to supervise the doctoral student, or in the event of the supervisor’s resignation, death or loss of health, the relevant scientific discipline board shall appoint a new supervisor in accordance with these Regulations. At the request of the doctoral student, the Director of the Doctoral School may decide to extend the deadline for submitting the doctoral dissertation in this case.

§ 22

1. The supervisor and assistant supervisor in the proceedings for the conferment of the doctoral degree shall be entitled to a one-time remuneration.
2. The supervisor’s remuneration shall be 83% of a professor’s salary, and the assistant supervisor’s remuneration shall be 50% of a professor’s salary. The remuneration shall be paid after the completion of the proceedings for the conferment of the doctoral degree under which the degree was awarded.

VII. DOCTORAL STUDENTS WITH SPECIAL NEEDS, INCLUDING DOCTORAL STUDENTS WITH DISABILITIES, AND MEDICAL EXAMINATIONS

§ 23

1. The University shall provide doctoral students with special needs, including doctoral students with disabilities, with the right conditions to fully participate in the life of the University and the academic community, including in the process of education and in scientific research. The provision of these conditions shall consist, in particular, of the rights and forms of support specified in point 2. The unit responsible for the support

and coordination of activities for people with disabilities is the Support and Accessibility Centre (hereinafter: the Centre).

2. If justified by their special needs, a doctoral student with special needs, including a doctoral student with a disability, shall be entitled to the rights and services specified in the Regulations of Support, under the conditions specified in the Regulations of Support, including:
 - 1) ensuring the accessibility of the teaching and research process through, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) ensuring the accessibility of teaching materials.
 - 2) ensuring the accessibility of the process of learning outcomes verification, including in particular the equivalence of the form and objectivity of the assessment by, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) conducting learning outcomes verification within deadlines that take into account the special needs of the student,
 - c) enabling the student to obtain credits in an individual mode,
 - d) verification of learning outcomes in sign languages.
 - 3) Postponing or accommodating deadlines, in particular those referred to in § 3(1), § 10(1, 3), § 12(7–9), § 13(2)(1, 4), § 13(3), § 15(6, 9), § 16(3, 4), § 18(3, 9–11, 14, 15), § 20(5), as far as possible.
 - 4) Eliminating or reducing harmful, inconvenient and hazardous factors that may occur during education, including:
 - a) the possibility of requesting the referral for medical examinations mentioned in § 24 at an earlier date; this right is automatic and shall not require justification,
 - b) the possibility of requesting the reduction or elimination of harmful, inconvenient and hazardous factors; this right is automatic and shall not require justification.
3. The Director of the Doctoral School shall ensure or support the implementation of the granted rights and services.

4. Requests submitted to the Director of the Doctoral School by a doctoral student with special needs, including a doctoral student with a disability, which concern the doctoral student's health condition, shall be considered in cooperation with the Centre and on the basis of the Centre's position, including on the basis of a statement of the granted services and rights listed in the Regulations of Support. Documentation concerning the student's state of health (medical certificates, etc.) shall be included in the Centre's documentation and not in the doctoral student's personal file, while the above-mentioned opinion of the Centre may be included in the doctoral student's personal file.

§ 24

1. A list of harmful, inconvenient and hazardous factors (hereinafter: harmful factors) that may occur during education in individual disciplines is presented on the website for candidates.
2. In order for the doctoral student to participate in classes taught in a discipline in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to undergo education in this discipline – subject to point 4.
3. Candidates to study at the Doctoral School in a discipline referred to in point 2, including persons transferring from another doctoral school, and doctoral students before the date of the next medical examination indicated on the medical certificate, shall receive a referral for medical examinations.
4. The University shall strive to enable the widest possible group of people to undertake and continue education at the Doctoral School, in particular by eliminating or limiting harmful factors in individual cases.
5. The persons referred to in point 3 have the right to apply to the Centre or the Occupational Health and Safety and Fire Protection Department for the right to receive a referral for a medical examination at an earlier date.
6. A person who presents a medical certificate demonstrating the existence of health contraindications for education in a given discipline may exercise the right to request the elimination or reduction of harmful factors. In the event of limiting the harmful factors, this person shall be referred for a medical examination concerning exclusively these limited harmful factors.
7. In order for the doctoral student to participate in teaching practice in a discipline in

which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to participate in teaching practice in this discipline – subject to points 4, 5, 6, respectively.

8. Detailed rules for the administration of medical examinations are set out in the ordinance on medical examinations of candidates and students.

VIII. COMPLETION OF EDUCATION AT THE DOCTORAL SCHOOL AND OBTAINING THE DOCTORAL DEGREE

§ 25

1. The doctoral student's education shall end with:
 - 1) having publication achievements in accordance with Article 186(1)(3) of the Act (list of journals of the Ministry of Science and Higher Education);
 - 2) completing the curriculum;
 - 3) submitting the doctoral dissertation with a positive opinion of the supervisor or supervisors.
2. The doctoral student shall submit the dissertation to the supervisor within the time limit specified in the individual research plan.
3. The individual research plan specifies the deadline for submitting the doctoral dissertation. This deadline may be extended in accordance with the terms set out in these Regulations.
4. At the request of the doctoral student, the Director of the Doctoral School may extend the deadline for submitting the doctoral dissertation, by no more than 1 year in total, in the event of:
 - 1) special needs resulting from the state of health, including disability;
 - 2) the necessity to provide personal care for a sick family member;
 - 3) the need to provide personal care for a child under four years of age or a child with a disability certificate.
5. At the request of the doctoral student, the Director of the Doctoral School may extend the deadline for submitting the doctoral dissertation in cases justified by the necessity to conduct long-term research required to prepare the doctoral dissertation. The extension is possible provided that the doctoral student is the main author (with a

contribution of at least 50%, confirmed by the co-authors' statements) of at least one original peer-reviewed article from the Journal Citation Reports list.

6. The extension referred to in points 4 and 5 may not be longer than 2 years in total.
7. The application for the extension of the deadline for submitting the doctoral dissertation shall include:
 - 1) the doctoral student's personal details: name, surname, PESEL number, and in the absence of this number – the number of a document confirming the identity, and information about the year of education;
 - 2) justification;
 - 3) the supervisor's opinion;
 - 4) updated individual research plan.
8. The doctoral student shall enclose a document confirming the existence of the circumstances described in points 4 and 5. § 23(4) shall apply.
9. Immediately before submitting the doctoral dissertation, the doctoral student shall present the research results at a seminar organised by the chairman of the relevant scientific discipline board.

§ 26

1. The doctoral degree is awarded as a result of the proceedings for the conferment of the doctoral degree.
2. The activities in the proceedings for the conferment of the doctoral degree shall be performed by the appropriate scientific discipline board.
3. A doctoral student who has met the requirements specified in § 23, the requirements specified by the relevant scientific discipline board, and has obtained positive reviews of the doctoral dissertation from at least two reviewers may be admitted to defend his or her doctoral dissertation.
4. The conferment of the doctoral degree is confirmed by a diploma.
5. A person who has been awarded the doctoral degree receives a doctoral diploma and a copy of this diploma. At the request of this person, a copy of the diploma in a foreign language shall be issued.

§ 27

1. If the doctoral student has obtained the doctoral degree as a result of graduation from the Doctoral School, the period of education at the Doctoral School, not exceeding

four years, shall be included in the period of work on which employee entitlements depend.

2. If the doctoral student has not completed education at the Doctoral School due to:
 - 1) taking up employment as an academic teacher or researcher,
 - 2) discontinuation of education for doctoral students in a given discipline– the period of education at the Doctoral School, not exceeding four years, shall be included in the period of work on which employee entitlements depend, provided that they have obtained a doctoral degree.
3. A person who has not completed education at the Doctoral School may, upon a written request, receive a certificate on the course of education.

IX. FINAL PROVISIONS

§ 28

1. The relevant local government unit may grant the doctoral students the right to a reduced fare for using public transport.
2. The doctoral students shall establish the Doctoral Students' Self-Government in accordance with the terms set out in the Regulation of the Self-Government of Doctoral Students.
3. In matters concerning the terms and conditions of participating in the Doctoral School that are not regulated by these Regulations or other legal provisions, the Director of the Doctoral School shall be authorised to make decisions ex officio or at the request of the interested party.
4. The decisions of the Director of the Doctoral School regarding the doctoral students' individual cases are subject to a motion for reconsideration submitted to the Rector through the Director of the Doctoral School.
5. Supervision over the Doctoral School is exercised by the vice-rector responsible for science.

§ 29

These Regulations shall enter into force on 1 October 2022.

The Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences

§ 1

The terms used in these regulations shall mean respectively:

- 1) doctoral student – a person studying at the doctoral school;
- 2) doctoral school – an organised form of education for doctoral students, operated by Wrocław University of Environmental and Life Sciences, ending with the submission of a doctoral dissertation;
- 3) director of the doctoral school – a person who manages the functioning of the doctoral school;
- 4) doctoral school board – an advisory and consultative body at the doctoral school;
- 5) doctoral school office – an organisational unit in charge of the current affairs of the doctoral school;
- 6) act – the act of 20 July 2018 – Law on Higher Education and Science;
- 7) statute – the Statute of Wrocław University of Environmental and Life Sciences;
- 8) curriculum – a description of the assumed learning outcomes, consistent with the eighth level of the Polish Qualifications Framework and the study programme, which is a description of the educational process leading to the achievement of these effects;
- 9) learning outcomes – knowledge, skills and social competences acquired by the doctoral student in the process of education;
- 10) ECTS credits – credits defined in the European Credit Transfer and Accumulation System as a standard means of comparing the average workload of a learner, necessary to achieve the assumed learning outcomes;
- 11) teaching practice – participation in practical teaching activities or, in the case of foreigners, in supporting an organisational unit in the didactic process.

I. ORGANISATION OF THE DOCTORAL SCHOOL

§ 2

1. The doctoral school at Wrocław University of Environmental and Life Sciences is established in the disciplines in which the University is allowed to grant the doctoral degree.
2. Substantive supervision over the activity of the doctoral school is exercised by the doctoral school board.
3. The composition of the doctoral school board is specified by the statute.
4. The doctoral school board members are appointed by the rector on the request of the director of the doctoral school, having sought the opinion of the relevant discipline board.
5. The doctoral school board shall appoint a person to act as chair of the board from among its members by means of a vote.
6. The tasks of the doctoral school board shall be defined in the statute.

§ 3

1. The Director of the doctoral school is authorised by the rector in particular to:
 - 1) manage the doctoral school;
 - 2) dispose of the budget of the doctoral school;
 - 3) coordinate the ongoing functioning of the doctoral school;
 - 4) prepare the draft curriculum of the doctoral school;
 - 5) organise mid-term evaluation of doctoral students pursuant to § 11 herein;
 - 6) is responsible for the implementation of the curriculum and conducting the mid-term evaluation;
 - 7) prepare draft rules for recruitment to the doctoral school and appoint an admissions committee;
 - 8) pass opinion on the templates of the individual research plan, the individual doctoral student card, the report on the implementation of the individual research plan;
 - 9) forward documents submitted by the doctoral students regarding the appointment of the supervisor, supervisors, assistant supervisor to the relevant scientific discipline board;
 - 10) issue administrative decisions in individual doctoral students' cases, with the exception of the decision to refuse admission to the doctoral school;
 - 11) take responsibility for the doctoral students' scholarships;
 - 12) confirm the completion of subsequent years of education by the doctoral students;

- 13) in justified individual cases, extend the deadline for submitting the doctoral dissertation for a total of no more than two years, taking into account the doctoral student's periodic reports and the supervisor's assessment;
 - 14) organise the implementation of the framework curriculum;
 - 15) ensure compliance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences;
 - 16) perform an annual evaluation of the implementation of the curriculum, assess the advancement of scientific research and the progress of work on doctoral dissertations by checking reports submitted by doctoral students and their supervisors before the end of each academic year;
 - 17) inform doctoral students about the results of the annual evaluation of their work progress, completion or failure to complete of an academic year;
2. The director of the doctoral school shall submit an annual report on the activities of the doctoral school to the rector.

§ 4

1. The director of the doctoral school is the direct superior of the doctoral students.
2. Supervision over the work of the director of the doctoral school and education at the doctoral school is exercised by the vice-rector for science on behalf of the rector.

§ 5

1. Admission to the doctoral school is based on a competition whose rules are set out in the resolution of the Senate of Wrocław University of Environmental and Life Sciences on the requirements and admissions procedure for the doctoral school. The results of the competition are public.
2. Admission to the doctoral school takes effect by entering the student on the list of doctoral students.

§ 6

Foreigners may undertake education at the doctoral school under the conditions specified in Article 323 of the act.

II. EDUCATION AT THE DOCTORAL SCHOOL

§ 7

1. Education at the doctoral school lasts 8 semesters and is conducted on the basis of the curriculum and an individual research plan.
2. The academic year begins on 1 October and lasts until 30 September of the following year.
3. The education of doctoral students, including foreigners, is free of charge.
4. A doctoral student may be enrolled only at one doctoral school at the same time.
5. Education of the doctoral students may be conducted in cooperation with another entity, in particular an enterprise or scientific institution.
6. The course of education at the doctoral school is managed by means of the “USOS” University Study Service System and the software “Curriculum – Doctoral School.”
7. The doctoral school office maintains the Register of Doctoral Students in an electronic form and the documentation of the course of education in paper form.
8. The documentation of the course of education shall be stored in the doctoral student’s personal file.
9. The documentation of the course of education shall include in particular:
 - 1) the card of the candidate for the doctoral school,
 - 2) an individual research plan,
 - 3) the doctoral student’s card for each semester,
 - 4) reports and documentation connected with mid-term evaluation,
 - 5) other documents specified by the doctoral school board.
10. After the completion of education, the doctoral student’s personal files shall be transferred to the university archive.
11. The university shall issue the doctoral students with an electronic identity card, which is a document confirming the doctoral student’s status acquired after taking the oath and signing the act of oath.
12. A doctoral student who has been removed from the list of doctoral students shall lose the right to have the student identity card and is obliged to return it.
13. The university shall provide all persons, including persons with special needs, with the right conditions to fully participate in the life of the university and the academic community, including during the admission process, education at the doctoral school and conducting research activities.

§ 8

1. The curriculum shall specify:
 - 1) a description of the assumed learning outcomes, consistent with the eighth level of the Polish Qualifications Framework;
 - 2) a description of the learning process leading to these effects, including:
 - a) a list of courses necessary to complete education at the doctoral school, with ECTS points assigned to them, the learning outcomes and content of each course, and the method for verifying and assessing the learning outcomes,
 - b) the number of hours and form of teaching of the courses.The curriculum is created taking into account the principles of universal design, including § 23(2) of these regulations.
2. Education at the doctoral school is conducted in Polish and English.
3. The curriculum shall be reviewed by the doctoral students' self-government within seven days from the date of receiving it.
4. In particularly justified cases, including for health reasons, at the request of a doctoral student, the director of the doctoral school may agree to an individual course of education. In this case, the director of the doctoral school in agreement with the supervisor and the doctoral student shall set an individual curriculum and schedule of the tasks necessary to complete education at the doctoral school.
5. The learning outcomes are verified in the form of exams or credits. The form of verification of learning outcomes is specified in the framework curriculum, which leads to the achievement of the learning outcomes for PQF level 8; in particular, it leads to the achievement of learning outcomes in the areas of:
 - 1) knowledge at an advanced level – general knowledge, relevant to the discipline of research, including current scientific achievements, and specialist knowledge, corresponding to the subject of research, including the latest scientific achievements;
 - 2) skills related to research methods and methodology;
 - 3) teaching skills and professional qualifications in the area of modern methods and techniques of teaching;
 - 4) social competences connected with research and teaching activities, cooperation between the scientific and socio-economic environment, including entities functioning in this environment, and the social role of the scholar.
6. Exams and credits in courses covered by the curriculum shall finish with a grade awarded according to the following scale:

- 1) very good – 5.0;
 - 2) good plus – 4.5;
 - 3) good – 4.0;
 - 4) satisfactory plus – 3.5;
 - 5) satisfactory – 3.0;
 - 6) unsatisfactory - 2.0.
7. Doctoral students are awarded points for the completion of courses and other tasks covered by the curriculum, in accordance with the European Credit Transfer and Accumulation System (ECTS).
 8. In the event of failure to complete a course, the doctoral student is obliged to retake it on the conditions specified by the director of the doctoral school.
 9. In the event of a doctoral student's justified absence (e.g. illness or other unforeseen absence, conference or scientific internship lasting more than 4 weeks), at the written request of the doctoral student addressed to the director of the doctoral school, the hours of compulsory teaching practice may be counted as completed in accordance with the individual curriculum in the given semester.

§ 9

1. Within three months of the commencement of education at the doctoral school, at the request of the doctoral student, the relevant scientific discipline board shall appoint a supervisor or supervisors, or a supervisor and assistant supervisor, who meet the conditions specified in the Act. Another supervisor or assistant supervisor may be appointed at a later date in justified cases at the request of the doctoral student, but no later than the date of the mid-term evaluation.
2. Changing, appointing or resigning from a supervisor, new supervisor or assistant supervisor may be effected by a resolution of the relevant discipline board at the request of the doctoral student or the supervisor, motivated by special circumstances.
3. The requests mentioned in points 1-3 above shall be submitted by the doctoral student at the doctoral school office.

§ 10

1. Within twelve months of the commencement of education, the doctoral student shall submit to the doctoral school office an individual research plan approved by the supervisor or supervisors, or a supervisor and assistant supervisor.

2. The individual research plan shall be submitted for the approval of the relevant discipline board.
3. By the end of each semester, the doctoral student shall submit:
 - 1) the doctoral student's individual card;
 - 2) the individual research plan in the event of its modification with the approval of the Director of the Doctoral school;
 - 3) other reports required by the doctoral school board.
4. The deadline for submitting the individual research plan and other documents listed in point 3 above shall be announced by the director of the doctoral school.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with article 202 of the act.
2. Mid-term evaluation at the doctoral school is conducted for each discipline by a three-person committee appointed by the vice-rector for science at the request of the director of the doctoral school. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The director of the doctoral school, a member of the doctoral school board and the supervisor of the evaluated doctoral student may act as observers.
3. The doctoral student shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-semester reports submitted to the director of the doctoral school regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
 - 3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.
 - 4) the doctoral student's conversation with the committee.

4. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
5. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

§ 12

1. To pass a year of education, the doctoral student shall obtain positive grades on the verification of learning outcomes from compulsory courses included in the curriculum for a given academic year, obtain a credit for the doctoral seminar and teaching practice, and obtain a positive assessment of the implementation of the individual research plan.
2. In the event of doing a scientific internship, the doctoral student is required to complete the year of education under the conditions specified in point 1 in an individual mode, having obtained the consent of the director of the doctoral school.
3. The supervisor's negative opinion on the progress made by the doctoral student, which threatens the possibility of obtaining the doctoral degree within the agreed period, shall result in the commencement of explanatory proceedings by the doctoral school board within 14 days of submitting the opinion.
4. At the request of the doctoral student, the director of the doctoral school may conditionally allow the doctoral student to continue education in the next academic year.
5. In the event of being conditionally allowed to continue education in a given academic year, the doctoral student is obliged to meet the condition that was not fulfilled in the previous academic year.
6. At the request of the doctoral student, education may be suspended for a period corresponding to the duration of:
 - 1) maternity leave,
 - 2) leave on the conditions of maternity leave,
 - 3) paternity leave and parental leave,– specified in the Act of 26 June 1974 – The Labour Code.
7. The doctoral student's written request to suspend education shall be submitted no later than within 21 days from the date of occurrence of the circumstances specified in point 6. The request shall be accompanied by documents justifying the suspension of education.

8. When approving the request to suspend education for a period other than an academic year, the director of the doctoral school shall determine the conditions applicable to the doctoral student after the suspension period has ended, in particular the deadlines for the fulfilment of individual obligations arising from the education process and these regulations.
9. Within seven days of the end of the suspension period, the doctoral student shall submit to the director of the doctoral school a written statement indicating their willingness to continue education. Failure to submit the statement constitutes the basis for initiating the procedure of removing the doctoral student from the list of doctoral students due to resignation from education.
10. The deadlines for the fulfilment of the doctoral student's duties resulting from the individual research plan shall be extended by a time period for which education at the doctoral school was suspended.
11. During the suspension period, the doctoral student does not implement the curriculum and the individual research plan, but retains the doctoral student's rights (the right to the doctoral student's identity card, the right to a scholarship in the amount determined in accordance with article 209(6) of the act).

§ 13

1. The doctoral student shall be removed from the list of doctoral students in the event of:
 - 1) a negative result of mid-term evaluation;
 - 2) failure to obtain the extension of the deadline for submitting the doctoral dissertation;
 - 3) failure to submit the doctoral dissertation within the deadline specified in the individual research plan;
 - 4) submitting a written declaration of resignation from education;
 - 5) simultaneously being a doctoral student at another doctoral school;
 - 6) expulsion from the University as disciplinary punishment.
2. The doctoral student may be removed from the list of doctoral students in the event of:
 - 1) failure to submit the request for the appointment of a supervisor or supervisors, or a supervisor and an assistant supervisor, in the manner and time specified by the director of the doctoral school;
 - 2) failure to submit the individual research plan in the manner specified in § 10;

- 3) failure to comply with the obligation to implement the individual research plan and not receiving credit for the next semester;
 - 4) failure to submit reports in the manner and time specified by the director of the doctoral school;
 - 5) unsatisfactory progress in the preparation of the doctoral dissertation;
 - 6) failure to comply with the obligations arising from these regulations.
3. The removal from the list of doctoral students shall take place by way of an administrative decision of the director of the doctoral school. The doctoral student may submit a motion for reconsideration within 14 days of receiving the decision.

§ 14

1. The evaluation of the doctoral school shall be based on the provisions of the act and secondary legislation to the act.
2. The first evaluation of the quality of education at the doctoral school shall be carried out after a period of at least five years following the date of the commencement of education at the school, or at an earlier time at the minister's request.

III. RIGHTS AND OBLIGATIONS OF THE DOCTORAL STUDENT

§ 15

The doctoral student shall have the right to:

- 1) participate in the academic life at the university, including in the education process, and conduct research activities;
- 2) use the library and reading room;
- 3) use university equipment free of charge, for purposes related to the implementation of the individual research plan;
- 4) receive universal health insurance, unless s/he is subject to mandatory health insurance based on other provisions;
- 5) have the deadline for submitting the doctoral dissertation extended, in accordance with the principles set out in these regulations and the act;
- 6) use a rest break of maximum eight weeks per year, after prior arrangement with the supervisor;

- 7) do scientific internships and conduct research in other national and foreign scientific centres, having obtained the approval of the director of the doctoral school and a positive opinion from the supervisor; the internship period shall be included in the education period and ECTS points may be awarded for courses completed during the internship, taking into account their nature and duration;
- 8) use the supervisor's scientific expertise and support in independent research work throughout the entire period of education;
- 9) request a change of the supervisor, another supervisor or assistant supervisor, but no later than by the end of the second year of education, before mid-term evaluation;
- 10) apply for:
 - a) accommodation in the university's residence hall;
 - b) accommodation for a spouse or child in the university's residence hall
 - pursuant to the rules and procedure specified in the regulations of granting benefits to students;
- 11) apply for a student loan. The provisions on student loans shall apply accordingly, except that:
 - a) the loan may be granted to a doctoral student under the age of 35;
 - b) the loan may be granted only once for the period of education at the Doctoral school, for a period not longer than 4 years.

§ 16

The doctoral student shall be obliged to:

- 1) act in accordance with the content of the oath, the doctoral student's Code of Ethics, the Regulations of the Doctoral School, and other provisions in force at Wrocław University of Environmental and Life Sciences;
- 2) pursue independent study under the guidance and instructions of the supervisor and in accordance with the adopted education profile;
- 3) comply with the deadlines for the preparation of the doctoral dissertation included in the individual research plan and set out in these regulations and other provisions;
- 4) implement the current curriculum, conduct scientific research and submit the documents indicated in § 10 within the prescribed deadlines;
- 5) do the teaching practice:
 - a) in the 1st, 2nd and 3rd year of education, the doctoral students participate in teaching 15 didactic hours per year,

- b) foreign doctoral students may do the teaching practice in the form of support in the didactic process of an organisational unit;
 - c) doctoral students in the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme may, as part of their teaching practice, accept a student for a placement or internship in a cooperating entity. The doctoral student’s supervision of the intern shall be confirmed by a document in the form of a programme approved by the supervisor and assistant supervisor, attached to the doctoral student’s individual card;
- 6) implement the individual research plan and participate in the work of an organisational unit in which the doctoral student prepares the doctoral dissertation for at least 30 hours a week. The supervisor or the head of the organisational unit shall be responsible for assigning tasks. The obligation to participate in the work of an organisational unit does not apply to doctoral students pursuing education under the “Implementation Doctorate” programme;
 - 7) receive the ORCID identifier and indicate affiliation to Wrocław University of Environmental and Life Sciences when publishing the results of research carried out as part of the doctoral dissertation;
 - 8) immediately inform the director of the doctoral school and the supervisor of the change of name and other personal data required by the doctoral school;
 - 9) comply with other legal provisions, including those regarding the protection of intellectual property and classified information.

§ 17

- 1. The doctoral student shall be liable to the disciplinary committee for violation of the provisions in force at the university and for acts unbecoming to the doctoral student.
- 2. The proceedings before the disciplinary committee are specified in the act and the university statute.

IV. TRANSFER AND RESUMPTION

§ 18

- 1. In justified cases, with the consent of the director of the doctoral school, the doctoral student may transfer to the doctoral school at Wrocław University of Environmental

and Life Sciences from another doctoral school. Admission to the doctoral school is granted in accordance with the rules specified in the provisions concerning the recruitment to the doctoral school at Wrocław University of Environmental and Life Sciences.

2. With the consent of the director of the doctoral school, the doctoral student may remain under the tutorship of the supervisor(s) from the doctoral school from which the transfer was made.
3. At the request of the doctoral student, after consulting the supervisor(s), the director of the doctoral school shall decide on the recognition of courses completed at another doctoral school and set the deadline for fulfilling duties and obtaining credits in a given academic year.
4. Recognition of courses is only possible if at least one year of education has been completed.
5. When deciding on the recognition of courses completed at another doctoral school, the director of the doctoral school shall be guided by the congruence of learning outcomes, the syllabus of the course, the form and duration of the course, the form of obtaining course credit, and the requirements of the didactic process.
6. The transfer may result in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation established at the doctoral school from which the doctoral student is being transferred.
7. A person who has been removed from the list of doctoral students for reasons specified in § 13(1)(3, 4) and § 13(2)(5, 6) of these regulations may apply for resumption of education at the doctoral school, provided that the first year of education has been completed.
8. The decision to resume education is made at the request of the doctoral student by the director of the doctoral school after consulting the potential supervisor and the doctoral school board, and appointing the supervisor(s) by the relevant scientific discipline board. The director of the doctoral school decides in which year the doctoral student shall resume education, taking into account the need to obtain the missing credits. The decision may depend on a test of knowledge, skills and competences required at the doctoral school.
9. If the consent to resume education is granted, the director of the doctoral school shall specify the deadlines and procedure for compensating for any differences in the curriculum, and describe the completed period of education in the language of the

learning outcomes according to the curriculum applicable at the Doctoral school at the time when the decision is made.

10. It is possible to apply for resumption of education only once, within two calendar years from the moment when the decision to remove the doctoral student from the list of doctoral students became final.
11. Resumption of education shall result in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation which had been set before being removed from the list of doctoral students.
12. If the doctoral student has obtained permission to resume education in the year of education in which s/he already received the scholarship, the payment of the doctoral scholarship after the resumption is continued from the month following the month in which the doctoral student finished receiving the doctoral scholarship before being removed.
13. Persons expelled from the university pursuant to § 13(1)(6) of these regulations and persons removed from the list of doctoral students for reasons described in § 13(1)(1) of these regulations shall not be entitled to apply for the resumption of education.
14. The application for the resumption of education shall be submitted to the director of the doctoral school by 31 August of the year in which resumption is to take place. The decision on the resumption of education may be subject to reconsideration at the request of the person applying for the resumption of education. The motion for reconsideration shall be submitted to the director of the doctoral school within 14 days of receiving the decision. The decision of the director of the doctoral school is final.
15. Within one month of receiving the decision on the transfer or resumption, the doctoral student is obliged to present the supervisor's opinion on a new schedule for the preparation of the doctoral dissertation, resulting from the modified individual research plan.

V. DOCTORAL SCHOLARSHIP

§ 19

1. The doctoral student who does not hold a doctoral degree shall receive a doctoral scholarship.
2. The total period of receiving a doctoral scholarship at the doctoral school shall not exceed four years.

3. The period referred to in point 2 shall not include the period of suspension and the period of education at the doctoral school referred to in article 206(2) of the act.
4. The amount of the monthly doctoral scholarship shall be at least:
 - 1) 37% of a professor's remuneration – until the month in which the mid-term evaluation is conducted;
 - 2) 57% of a professor's remuneration – after the month in which the mid-term evaluation is carried out.
5. The amount of the doctoral scholarship referred to in point 4(1, 2) may depend on the doctoral student's achievements.
6. The doctoral scholarship shall not be awarded to a doctoral student receiving remuneration in the amount of at least 150% of the amount of the doctoral scholarship to which s/he is entitled pursuant to point 4 resulting from employment in connection with the implementation of a research project referred to in art. 119(2)(2, 3) of the act, by the entity running the doctoral school in which the doctoral student is receiving education, for the duration of this employment.
7. If the doctoral school obtains additional financial resources, the doctoral students may be awarded an additional pro-quality scholarship – subject to separate rules.
8. A doctoral student with documented achievements in their field/discipline shall apply for a scholarship for outstanding young scientists, e.g. scholarship awarded under the programmes of the Polish Science Foundation or the Ministry of Science and Higher Education, at the beginning of their scientific career.
9. The doctoral student shall actively try to obtain financial resources for the purposes related to the preparation of their doctoral dissertation by participating in calls for projects, programmes or competitions, in particular those financed from external sources, and in the case of obtaining the funds, the doctoral students shall seek to independently finance research and other activities leading to the submission of the doctoral dissertation.
10. During the period of suspension of education, the provisions concerning the determination of the amount of the maternity allowance shall apply accordingly to the determination of the amount of the doctoral scholarship, except that the basis for the amount of the allowance shall be the monthly doctoral scholarship referred to in point 4, applicable on the day the application for suspension.
11. A doctoral student who has a disability certificate, a certificate on the degree of disability, or a certificate referred to in article 5 and article 62 of the Act of 27 August

1997 on Vocational and Social Rehabilitation and Employment of Disabled Persons shall receive a doctoral scholarship in the amount increased by 30% of the amount indicated in point 4(1).

12. A doctoral student who has submitted their doctoral dissertation before the date of completion of education specified in the curriculum shall receive the doctoral scholarship until the date of expiry of the deadline for the completion of education, but not longer than for six months. The provisions of point 2 shall apply.
13. The doctoral scholarship shall be paid by the entity operating the doctoral school, every month, not later than by the fourth day of each month, with the proviso that the doctoral students enrolled in the first year of education may receive the doctoral scholarship for the month of October by the end of October. The indicated deadline for payment of the doctoral scholarship does not apply to doctoral students studying under the “Implementation Doctorate” programme, in which case the deadline shall depend on the programme assumption.
14. The doctoral student may not be employed as an academic teacher or research staff member. This prohibition shall not apply to the employment of a doctoral student:
 - 1) in order to implement a research project referred to in article 119(2)(2, 3) of the act;
 - 2) after mid-term evaluation with a positive result, except that in the case of employment for more than half of the full-time equivalent, the scholarship shall amount to 40% of the monthly scholarship referred to in point 4(2);
 - 3) who is not entitled to the doctoral scholarship.
15. Where a doctoral student is employed as an academic teacher or researcher in research projects referred to in point 14(1), the doctoral student shall be obliged to inform the office of the doctoral school of the employment within seven days of the conclusion of the agreement.
16. A scholarship may be granted to the doctoral student by a local government unit in accordance with the provisions set out in article 96(2, 3) of the act.
17. A scholarship for academic performance may be granted to the doctoral student by a natural person or a legal entity that is not a state or local government legal entity, pursuant to the provisions specified in article 97(2) of the act.

VI. SCIENTIFIC SUPERVISION

§ 20

1. The doctoral student shall receive education under the supervisor's scientific supervision:
 - 1) the supervisor of the doctoral student may be a person holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*), who in the previous three years has had scientific achievements in the discipline in which the doctoral thesis will be prepared and in which the university is authorised to confer the doctoral degree,
 - 2) the supervisor may be a person without an academic title or degree of habilitated doctor (*doktor habilitowany*), who is an employee of a foreign university or scientific institution, if the scientific discipline board recognises that this person has significant achievements in the scientific area in which the doctoral dissertation is being prepared,
 - 3) the assistant supervisor may be a person with a doctoral degree in a given or related scientific discipline. This person performs an auxiliary function in the supervision of the doctoral student, in particular in the process of research planning, research implementation and analysis of results.
2. The supervisor shall be a person who has presented the academic information sheet in accordance with the rules specified in the recruitment regulations for a given academic year.
3. The supervisor shall not be a person who in the previous five years:
 - 1) has supervised two doctoral students who were removed from the list of doctoral students due to negative mid-term evaluation,
or
 - 2) has supervised the preparation of dissertations by at least two candidates for the doctoral degree who did not receive positive reviews of the dissertation from at least two reviewers.
4. In accordance with the framework curriculum, the supervisor shall:
 - 1) agree with the doctoral student on an individual research plan for the first year of education and a detailed programme for each subsequent year of education;
 - 2) introduce the doctoral student to the subject of the dissertation and appropriate research methods and techniques, and ensures that proper occupational health and safety instruction is provided by the head of the unit in which the doctoral student will carry out the research work;

- 3) determine the course of the doctoral student's education and self-education and control its course;
 - 4) support the doctoral student in applying for research projects, e.g. financed by the National Science Centre and from other sources, in order to obtain the funds necessary to prepare the doctoral dissertation;
 - 5) constantly supervise the doctoral student's progress of work and presentation of results;
 - 6) issue opinions on the doctoral student's annual reports submitted to the director of the doctoral school;
 - 7) issue opinions on the doctoral student's application for the extension of the deadline for submitting the doctoral dissertation in the case specified in § 25;
 - 8) attend doctoral seminars at which her/his doctoral student delivers lectures.
5. In justified cases, the doctoral student in consultation with the supervisor may apply to the director of the doctoral school for a change of the subject matter and the individual research plan. The application shall contain a justification and shall be submitted before the mid-term evaluation.
6. The supervisor shall not simultaneously supervise more than five doctoral students, while an assistant supervisor – more than three doctoral students. These limits do not include doctoral students who have secured financing for the implementation of their doctorate that covers the cost of their doctoral scholarship and the cost of their research for a period of at least 36 months under research projects financed from external sources, and beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniwy*) programme.

§ 21

In the event of depriving the supervisor of the right to supervise the doctoral student, or in the event of the supervisor's resignation, death or loss of health, the relevant scientific discipline board shall appoint a new supervisor in accordance with these regulations. At the request of the doctoral student, the director of the doctoral school may decide to extend the deadline for submitting the doctoral dissertation in this case.

§ 22

1. The supervisor and assistant supervisor in the proceedings for the conferment of the doctoral degree shall be entitled to a one-time remuneration.

2. The supervisor's remuneration shall be 83% of a professor's salary, and the assistant supervisor's remuneration shall be 50% of a professor's salary. The remuneration shall be paid after the completion of the proceedings for the conferment of the doctoral degree under which the degree was awarded.

VII. DOCTORAL STUDENTS WITH SPECIAL NEEDS, INCLUDING DOCTORAL STUDENTS WITH DISABILITIES, AND MEDICAL EXAMINATIONS

§ 23

1. The university shall provide doctoral students with special needs, including doctoral students with disabilities, with the right conditions to fully participate in the life of the university and the academic community, including in the process of education and in scientific research. The provision of these conditions shall consist, in particular, of the rights and forms of support specified in point 2. The unit responsible for the support and coordination of activities for people with disabilities is the Support and Accessibility Centre (hereinafter: the Centre).
2. If justified by their special needs, a doctoral student with special needs, including a doctoral student with a disability, shall be entitled to the rights and services specified in the Regulations of Support for Persons with Special Needs (hereinafter: Regulations of Support), under the conditions specified in the Regulations of Support, including:
 - 1) ensuring the accessibility of the teaching and research process through, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) ensuring the accessibility of teaching materials.
 - 2) ensuring the accessibility of the process of learning outcomes verification, including in particular the equivalence of the form and objectivity of the assessment by, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) conducting learning outcomes verification within deadlines that take into account the special needs of the student,
 - c) enabling the student to obtain credits in an individual mode,

- d) verification of learning outcomes in sign languages.
- 3) Postponing or accommodating deadlines, in particular those referred to in § 3(1), § 10(1, 3), § 12(7–9), § 13(2)(1, 4), § 13(3), § 15(6, 9), § 16(3, 4), § 18(3, 9–11, 14, 15), § 20(5), as far as possible.
- 4) Eliminating or reducing harmful, inconvenient and hazardous factors that may occur during education, including:
 - a) the possibility of requesting the referral for medical examinations mentioned in § 24 at an earlier date; this right is automatic and shall not require justification,
 - b) the possibility of requesting the reduction or elimination of harmful, inconvenient and hazardous factors; this right is automatic and shall not require justification.
- 3. The director of the doctoral school shall ensure or support the implementation of the granted rights and services.
- 4. Requests submitted to the director of the doctoral school by a doctoral student with special needs, including a doctoral student with a disability, which concern the doctoral student's health condition, shall be considered in cooperation with the Centre and on the basis of the Centre's position, including on the basis of a statement of the granted services and rights listed in the Regulations of Support. Documentation concerning the student's state of health (medical certificates, etc.) shall be included in the Centre's documentation and not in the doctoral student's personal file, while the above-mentioned opinion of the Centre may be included in the doctoral student's personal file.

§ 24

- 1. A list of harmful, inconvenient and hazardous factors (hereinafter: harmful factors) that may occur during education in individual disciplines is presented to the doctoral student during the occupational health and safety training in the relevant organisational units.
- 2. In order for the doctoral student to participate in classes taught in a discipline in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to undergo education in this discipline – subject to point 4.
- 3. Candidates to study at the doctoral school in a discipline referred to in point 2, including persons transferring from another doctoral school, and doctoral students

before the date of the next medical examination indicated on the medical certificate, shall receive a referral for medical examinations.

4. The university shall strive to enable the widest possible group of people to undertake and continue education at the doctoral school, in particular by eliminating or limiting harmful factors in individual cases.
5. The persons referred to in point 3 have the right to apply to the Centre or the Occupational Health and Safety and Fire Protection Department for the right to receive a referral for a medical examination at an earlier date.
6. A person who has presented a medical certificate demonstrating the existence of health contraindications for education in a given discipline may exercise the right to request the elimination or reduction of harmful factors. In the event of limiting the harmful factors, this person shall be referred for a medical examination concerning exclusively these limited harmful factors.
7. In order for the doctoral student to participate in teaching practice in a discipline in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to participate in teaching practice in this discipline – subject to points 4, 5, 6, respectively.
8. Detailed rules for the administration of medical examinations are set out in the ordinance on medical examinations of candidates and students.

VIII. COMPLETION OF EDUCATION AT THE DOCTORAL SCHOOL AND OBTAINING THE DOCTORAL DEGREE

§ 25

1. The doctoral student's education shall end with:
 - 1) having publication achievements in accordance with article 186(1)(3) of the act (list of journals of the Ministry of Science and Higher Education);
 - 2) completing the curriculum;
 - 3) submitting the doctoral dissertation with a positive opinion of the supervisor or supervisors.
2. The doctoral student shall submit the dissertation to the supervisor within the time limit specified in the individual research plan.

3. The individual research plan specifies the deadline for submitting the doctoral dissertation. This deadline may be extended in accordance with the terms set out in these regulations.
4. At the request of the doctoral student, the director of the doctoral school may extend the deadline for submitting the doctoral dissertation, by no more than 1 year in total, in the event of:
 - 1) special needs resulting from the state of health, including disability;
 - 2) the necessity to provide personal care for a sick family member;
 - 3) the need to provide personal care for a child under four years of age or a child with a disability certificate.
5. At the request of the doctoral student, the director of the doctoral school may extend the deadline for submitting the doctoral dissertation in cases justified by the necessity to conduct long-term research required to prepare the doctoral dissertation. The extension is possible provided that the doctoral student is the main author (with a contribution of at least 50%, confirmed by the co-authors' statements) of at least one original peer-reviewed article from the Journal Citation Reports list.
6. The extension referred to in points 4 and 5 may not be longer than 2 years in total.
7. The application for the extension of the deadline for submitting the doctoral dissertation shall include:
 - 1) the doctoral student's personal details: name, surname, PESEL number, and in the absence of this number – the number of a document confirming the identity, and information about the year of education;
 - 2) justification;
 - 3) the supervisor's opinion;
 - 4) updated individual research plan.
8. The doctoral student shall enclose a document confirming the existence of the circumstances described in points 4 and 5 to the application. The provisions of § 23(4) shall apply.
9. Immediately prior to the submission of an application for initiating the proceedings for the conferment of the doctoral degree, the doctoral student shall present the research results at a seminar organised by the chairman of the relevant scientific discipline board.

1. The doctoral degree is awarded as a result of the proceedings for the conferment of the doctoral degree.
2. The activities in the proceedings for the conferment of the doctoral degree shall be performed by the appropriate scientific discipline board.
3. A doctoral student who has met the requirements specified in § 25 and the requirements specified in the resolutions of the Senate of the University of Environmental and Life Sciences in Wrocław on the proceedings for the conferment of the doctoral degree, and has obtained positive reviews of the doctoral dissertation from at least two reviewers, may be admitted to defend his or her doctoral dissertation.
4. The conferment of the doctoral degree is confirmed by a diploma.
5. A person who has been awarded the doctoral degree receives a doctoral diploma and a copy of this diploma. At the request of this person, a copy of the diploma in a foreign language shall be issued.

§ 27

1. If the doctoral student has obtained the doctoral degree as a result of graduation from the doctoral school, the period of education at the doctoral school, not exceeding four years, shall be included in the period of work on which employee entitlements depend.
2. If the doctoral student has not completed education at the doctoral school due to:
 - 1) taking up employment as an academic teacher or researcher,
 - 2) discontinuation of education for doctoral students in a given discipline– the period of education at the doctoral school, not exceeding four years, shall be included in the period of work on which employee entitlements depend, provided that they have obtained a doctoral degree.
3. A person who has not completed education at the doctoral school may, upon a written request, receive a certificate on the course of education.

IX. FINAL PROVISIONS

§ 28

1. The doctoral students shall establish the doctoral students' self-government in accordance with the terms set out in the regulations of the doctoral students' self-government.

2. In matters concerning the terms and conditions of participating in the doctoral school that are not regulated by these regulations or other legal provisions, the director of the doctoral school shall be authorised to make decisions ex officio or at the request of the interested party.
3. The decisions of the director of the doctoral school regarding the doctoral students' individual cases are subject to a motion for reconsideration submitted to the rector through the director of the doctoral school.
4. Supervision over the doctoral school is exercised by the vice-rector responsible for science.

§ 29

These regulations shall enter into force on 1 October 2023.

Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences

§ 1

The terms used in these regulations shall mean respectively:

- 1) doctoral student – a person studying at the doctoral school;
- 2) doctoral school – an organised form of education for doctoral students, operated by Wrocław University of Environmental and Life Sciences, ending with the submission of a doctoral dissertation;
- 3) director of the doctoral school – a person who manages the functioning of the doctoral school;
- 4) doctoral school board – an advisory and consultative body at the doctoral school;
- 5) doctoral school office – an organisational unit in charge of the current affairs of the doctoral school;
- 6) act – the act of 20 July 2018 – Law on Higher Education and Science;
- 7) statute – the Statute of Wrocław University of Environmental and Life Sciences;
- 8) curriculum – a description of the expected learning outcomes, consistent with the eighth level of the Polish Qualifications Framework and the study programme, which is a description of the educational process leading to the achievement of these effects;
- 9) learning outcomes – knowledge, skills and social competences acquired by the doctoral student in the process of education;
- 10) ECTS credits – credits defined in the European Credit Transfer and Accumulation System as a standard means of comparing the average workload of a learner, necessary to achieve the expected learning outcomes;
- 11) teaching practice – participation in practical teaching activities or, in the case of foreigners, in supporting an organisational unit in the didactic process.

I. ORGANISATION OF THE DOCTORAL SCHOOL

§ 2

1. The doctoral school at Wrocław University of Environmental and Life Sciences is established in the disciplines in which the University is allowed to grant the doctoral degree.
2. Substantive supervision over the activity of the doctoral school is exercised by the doctoral school board.
3. The composition of the doctoral school board is specified by the statute.
4. The tasks of the doctoral school board are specified in the statute.

§ 3

1. The director of the doctoral school is authorised by the rector in particular to:
 - 1) head the doctoral school;
 - 2) dispose of the budget of the doctoral school;
 - 3) coordinate the ongoing functioning of the doctoral school;
 - 4) prepare the draft curriculum of the doctoral school;
 - 5) organise mid-term evaluation of doctoral students pursuant to § 11 herein;
 - 6) is responsible for the implementation of the curriculum and conducting the mid-term evaluation;
 - 7) prepare draft rules for admission to the doctoral school and appoint an admissions committee;
 - 8) set the templates of the individual research plan, the individual doctoral student card, the report on the implementation of the individual research plan;
 - 9) forward documents submitted by the doctoral students regarding the appointment of the supervisor, supervisors, assistant supervisor to the relevant scientific discipline board;
 - 10) issue administrative decisions in individual doctoral students' cases, including the decision to refuse admission to the doctoral school;
 - 11) take responsibility for the doctoral students' scholarships;
 - 12) confirm the completion of subsequent years of education by the doctoral students;
 - 13) in justified individual cases, extend the deadline for submitting the doctoral dissertation for a total of no more than two years, taking into account the doctoral student's periodic reports and the supervisor's assessment;
 - 14) organise the implementation of the framework curriculum;

- 15) ensure compliance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences;
 - 16) perform an annual evaluation of the implementation of the curriculum, monitors the advancement of scientific research and the progress of work on doctoral dissertations by checking reports submitted by doctoral students and the evaluation of doctoral students' progress submitted by their supervisors before the end of each academic year;
 - 17) inform doctoral students about the results of the annual evaluation of their work progress, completion or failure to complete of an academic year;
2. The director of the doctoral school shall submit an annual report on the activities of the doctoral school to the rector.

§ 4

1. The director of the doctoral school is the direct superior of the doctoral students.
2. Supervision over the work of the director of the doctoral school and education at the doctoral school is exercised by the vice-rector for science on behalf of the rector.

§ 5

1. Admission to the doctoral school is based on a competition whose rules are set out in the resolution of the Senate of Wrocław University of Environmental and Life Sciences on the requirements and admissions procedure for the doctoral school. The results of the competition are public.
2. Admission to the doctoral school takes effect by entering the student on the list of doctoral students.

§ 6

Foreigners may undertake education at the doctoral school under the conditions specified in Article 323 of the act.

II. EDUCATION AT THE DOCTORAL SCHOOL

§ 7

1. Education at the doctoral school lasts from 6 to 8 semesters and is conducted on the basis of the curriculum and an individual research plan.
2. The academic year begins on 1 October and lasts until 30 September of the following year.
3. The education of doctoral students, including foreigners, is free of charge.
4. A doctoral student may be enrolled only at one doctoral school at the same time.
5. Education of the doctoral students may be conducted in cooperation with another entity, in particular an enterprise or scientific institution.
6. The course of education at the doctoral school is managed by means of the “USOS” University Study Service System and the software “Sylabus – Szkoła Doktorska.”
7. The doctoral school office maintains the Register of Doctoral Students in an electronic form and the documentation of the course of education in paper form.
8. The documentation of the course of education is stored in the doctoral student’s personal file.
9. The documentation of the course of education includes in particular:
 - 1) the card of the candidate for the doctoral school,
 - 2) the individual research plan,
 - 3) the doctoral student’s card for each semester,
 - 4) reports and documentation connected with mid-term evaluation,
 - 5) other documents specified by the doctoral school board.
10. After the completion of education, the doctoral student’s personal files are transferred to the university archive.
11. The university issues the doctoral students with an electronic identity card, which is a document confirming the doctoral student’s status acquired after taking the oath and signing the act of oath.
12. A doctoral student who has been removed from the list of doctoral students loses the right to have the student identity card and is obliged to return it.
13. The university provides all persons, including persons with special needs, with the right conditions to fully participate in the life of the university and the academic community, including during the admission process, education at the doctoral school and conducting research activities.

1. The curriculum shall specify:
 - 1) a description of the expected learning outcomes, consistent with the eighth level of the Polish Qualifications Framework;
 - 2) a description of the learning process leading to these effects, including:
 - a) a list of courses necessary to complete education at the doctoral school, with ECTS points assigned to them, the learning outcomes and contents of each course, and the method for verifying and assessing the learning outcomes,
 - b) the number of hours and form of teaching of the courses.The curriculum is created taking into account the principles of universal design, including § 23(2) of these regulations.
2. Education at the doctoral school is conducted in Polish and English.
3. The curriculum shall be reviewed by the doctoral students' self-government within 14 days from the date of receiving it.
4. In particularly justified cases, including for health reasons, at the request of a doctoral student, the director of the doctoral school may agree to an individual course of education. In this case, the director of the doctoral school in agreement with the supervisor and the doctoral student sets an individual curriculum and schedule of the tasks necessary to complete education at the doctoral school.
5. The learning outcomes are verified in the form of exams or credits; point 1 sentence 2 shall apply. The form of verification of the learning outcomes is specified in the framework curriculum, which leads to the achievement of the learning outcomes for PQF level 8; in particular, it leads to the achievement of learning outcomes in the areas of:
 - 1) knowledge at an advanced level – general knowledge, relevant to the discipline of research, including current scientific achievements, and specialist knowledge, corresponding to the subject of research, including the latest scientific achievements;
 - 2) skills related to research methods and methodology;
 - 3) teaching skills and professional qualifications in the area of modern methods and techniques of teaching;
 - 4) social competences connected with research and teaching activities, cooperation between the scientific and socio-economic environment, including entities functioning in this environment, and the social role of the scholar.

6. Exams and credits in courses covered by the curriculum shall finish with a grade awarded according to the following scale:
 - 1) very good – 5.0;
 - 2) good plus – 4.5;
 - 3) good – 4.0;
 - 4) satisfactory plus – 3.5;
 - 5) satisfactory – 3.0;
 - 6) unsatisfactory - 2.0.
7. Doctoral students are awarded points for the completion of courses and other tasks covered by the curriculum, in accordance with the European Credit Transfer and Accumulation System (ECTS).
8. In the event of failure to complete a course, the doctoral student is obliged to retake it on the conditions specified by the director of the doctoral school.
9. In the event of a doctoral student's justified absence (e.g. illness or other unforeseen absence, conference or scientific internship lasting more than four weeks), at the written request of the doctoral student addressed to the director of the doctoral school, the hours of compulsory teaching practice may be counted as completed in accordance with the individual curriculum in the given semester.

§ 9

1. Within three months of the commencement of education at the doctoral school, at the request of the doctoral student, the relevant scientific discipline board shall appoint a supervisor or supervisors, or a supervisor and assistant supervisor, who meet the conditions specified in the act. Another supervisor or assistant supervisor may be appointed at a later date in justified cases at the request of the doctoral student, but no later than the date of the mid-term evaluation.
2. Changing, appointing or resigning from a supervisor, new supervisor or assistant supervisor may be effected by a resolution of the relevant discipline board at the request of the doctoral student or the supervisor, motivated by special circumstances.
3. The requests mentioned in points 1-2 above shall be submitted by the doctoral student to the doctoral school office.

§ 10

1. Within twelve months of the commencement of education, the doctoral student shall submit to the doctoral school office an individual research plan approved by the supervisor or supervisors, or a supervisor and assistant supervisor.
2. The individual research plan shall be submitted for the approval of the relevant discipline board.
3. By the end of each semester, subject to point 4, the doctoral student shall submit:
 - 1) the doctoral student's individual card;
 - 2) the individual research plan, in the event of its modification, with the approval of the director of the doctoral school;
 - 3) other reports required by the doctoral school board.
4. The deadline for submitting the individual research plan and other documents listed in point 3 above may be set by the director of the doctoral school. In this case, the deadline is communicated by e-mail.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with article 202 of the act.
2. Mid-term evaluation at the doctoral school is conducted for each discipline by a three-person committee appointed by the vice-rector for science at the request of the director of the doctoral school. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The director of the doctoral school, a member of the doctoral school board in a given discipline and the supervisor of the evaluated doctoral student may act as observers.
3. The doctoral student shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-term reports submitted to the director of the doctoral school regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;

- 3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.
- 4) the doctoral student's conversation with the committee.
4. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
5. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

§ 12

1. To pass a year of education, the doctoral student shall obtain positive grades on the verification of learning outcomes from compulsory courses included in the curriculum for a given academic year, obtain a credit for the doctoral seminar and teaching practice, and obtain a positive assessment of the implementation of the individual research plan.
2. In the event of doing a scientific internship, the doctoral student is required to complete the year of education under the conditions specified in point 1 in an individual mode, having obtained the consent of the director of the doctoral school.
3. The supervisor's negative opinion on the progress made by the doctoral student, which threatens the possibility of obtaining the doctoral degree within the agreed period, shall result in the commencement of explanatory proceedings by the doctoral school board within 14 days of submitting the opinion.
4. At the request of the doctoral student, the director of the doctoral school may conditionally allow the doctoral student to continue education in the next academic year.
5. In the event of being conditionally allowed to continue education in a given academic year, the doctoral student is obliged to meet the condition that was not fulfilled in the previous academic year.
6. At the request of the doctoral student, education may be suspended for a period corresponding to the duration of:
 - 1) maternity leave,

- 2) leave on the conditions of maternity leave,
- 3) paternity leave and parental leave,
 - specified in the Act of 26 June 1974 – The Labour Code.
7. The doctoral student's written request to suspend education shall be submitted no later than within 21 days from the date of occurrence of the circumstances specified in point 6. The request shall be accompanied by documents justifying the suspension of education.
8. When approving the request to suspend education for a period other than an academic year, the director of the doctoral school shall determine the conditions applicable to the doctoral student after the suspension period has ended, in particular the deadlines for the fulfilment of individual obligations arising from the education process and these regulations.
9. Within seven days of the end of the suspension period, the doctoral student shall submit to the director of the doctoral school a written statement indicating their willingness to continue education. Failure to submit the statement constitutes the basis for initiating the procedure of removing the doctoral student from the list of doctoral students due to resignation from education.
10. The deadlines for the fulfilment of the doctoral student's duties resulting from the individual research plan shall be extended by a time period for which education at the doctoral school was suspended.
11. During the suspension period, the doctoral student does not implement the curriculum nor the individual research plan, but retains the doctoral student's rights (the right to the doctoral student's identity card, the right to a scholarship in the amount determined in accordance with article 209(6) of the act).

§ 13

1. The doctoral student shall be removed from the list of doctoral students in the event of:
 - 1) a negative result of mid-term evaluation;
 - 2) failure to obtain the extension of the deadline for submitting the doctoral dissertation;
 - 3) failure to submit the doctoral dissertation within the deadline specified in the individual research plan;

- 4) submitting a written declaration of resignation from education;
 - 5) simultaneously being a doctoral student at another doctoral school – in the event of failure to submit resignation from education at the other doctoral school;
 - 6) expulsion from the doctoral school as disciplinary punishment.
2. The doctoral student may be removed from the list of doctoral students in the event of:
- 1) failure to submit the request for the appointment of a supervisor or supervisors, or a supervisor and an assistant supervisor, in the manner and time specified by the director of the doctoral school;
 - 2) failure to submit the individual research plan in the manner specified in § 10;
 - 3) failure to comply with the obligation to implement the individual research plan and not receiving credit for the next semester;
 - 4) failure to submit reports in the manner and time specified by the director of the doctoral school;
 - 5) unsatisfactory progress in the preparation of the doctoral dissertation;
 - 6) failure to comply with the obligations arising from these regulations.
3. The removal from the list of doctoral students shall take place by way of an administrative decision of the director of the doctoral school. The doctoral student may submit a motion for reconsideration within 14 days of receiving the decision.

§ 14

1. The evaluation of the doctoral school shall be based on the provisions of the act and secondary legislation to the act.
2. The first evaluation of the quality of education at the doctoral school shall be carried out after a period of at least five years following the date of the commencement of education at the school, or at an earlier time at the minister's request.

III. RIGHTS AND OBLIGATIONS OF THE DOCTORAL STUDENT

§ 15

The doctoral student shall have the right to:

- 1) participate in the academic life at the university, including in the education process, and conduct research activities;

- 2) use the library and reading room;
- 3) use university equipment free of charge, for purposes related to the implementation of the individual research plan;
- 4) receive universal health insurance, unless s/he is subject to mandatory health insurance based on other grounds, in accordance with rules laid down by other legislation;
- 5) have the deadline for submitting the doctoral dissertation extended, in accordance with the principles set out in these regulations and the act;
- 6) use a rest break of maximum eight weeks per year, after prior arrangement with the supervisor;
- 7) do scientific internships and conduct research in other national and foreign scientific centres, having obtained the approval of the director of the doctoral school and a positive opinion from the supervisor; the internship period shall be included in the education period and ECTS points may be awarded for courses completed during the internship, taking into account their nature and duration;
- 8) use the supervisor's scientific expertise and support in independent research work throughout the entire period of education;
- 9) request a change of the supervisor, another supervisor or assistant supervisor, but no later than by the end of the second year of education, before mid-term evaluation;
- 10) apply for:
 - a) accommodation in the university's residence hall;
 - b) accommodation for a spouse, child or personal assistant (persons with disabilities) in the university's residence hall
 - pursuant to the rules and procedure specified in the regulations of granting benefits to students;
- 11) apply for a student loan. The provisions on student loans shall apply accordingly, except that:
 - a) the loan may be granted to a doctoral student under the age of 35;
 - b) the loan may be granted only once for the period of education at the doctoral school, for a period not longer than 4 years.

§ 16

The doctoral student is obliged to:

- 1) act in accordance with the content of the oath, the doctoral student's Code of Ethics, the Regulations of the Doctoral School, and other provisions in force at Wrocław University of Environmental and Life Sciences;
- 2) pursue independent study under the guidance and instruction of the supervisor and in accordance with the adopted education profile;
- 3) comply with the deadlines for the preparation of the doctoral dissertation included in the individual research plan and set out in these regulations and other provisions;
- 4) implement the current curriculum, conduct scientific research and submit the documents indicated in § 10 within the prescribed deadlines;
- 5) do the teaching practice:
 - a) in the 1st, 2nd and 3rd year of education, the doctoral students participate in teaching 15 didactic hours per year,
 - b) foreign doctoral students may do the teaching practice in the form of support in the didactic process of an organisational unit;
 - c) doctoral students in the "Implementation Doctorate" (*doktorat wdrożeniowy*) programme may, as part of their teaching practice, accept a student for a placement or internship in a cooperating entity. The doctoral student's supervision of the intern shall be confirmed by a document in the form of a programme approved by the supervisor and assistant supervisor, attached to the doctoral student's individual card;
- 6) implement the individual research plan and participate in the work of an organisational unit in which the doctoral student prepares the doctoral dissertation for at least 30 hours a week. The supervisor or the head of the organisational unit shall be responsible for assigning tasks. The obligation to participate in the work of an organisational unit does not apply to doctoral students pursuing education under the "Implementation Doctorate" programme;
- 7) receive the ORCID identifier and indicate affiliation to Wrocław University of Environmental and Life Sciences when publishing the results of research carried out as part of the doctoral dissertation;
- 8) immediately inform the director of the doctoral school and the supervisor of the change of name and other personal data required by the doctoral school;
- 9) comply with other legal provisions, including those regarding the protection of intellectual property and classified information.

§ 17

1. The doctoral student shall be liable to the disciplinary committee for violation of the provisions in force at the university and for acts unbecoming to the doctoral student.
2. The proceedings before the disciplinary committee are specified in the act and the university statute.

IV. TRANSFER AND RESUMPTION

§ 18

1. In justified cases, with the consent of the director of the doctoral school, the doctoral student may transfer to the doctoral school at Wrocław University of Environmental and Life Sciences from another doctoral school. Admission to the doctoral school is granted in accordance with the rules specified in the provisions concerning the admission to the doctoral school of Wrocław University of Environmental and Life Sciences.
2. With the consent of the director of the doctoral school, the doctoral student may remain under the tutorship of the supervisor(s) from the doctoral school from which the transfer was made.
3. At the request of the doctoral student, after consulting the supervisor(s), the director of the doctoral school shall decide on the recognition of courses completed at another doctoral school and set the deadline for fulfilling duties and obtaining credits in a given academic year.
4. Recognition of courses is only possible if at least one year of education has been completed.
5. When deciding on the recognition of courses completed at another doctoral school, the director of the doctoral school shall be guided by the congruence of learning outcomes, the syllabus of the course, the form and duration of the course, the form of obtaining course credit, and the requirements of the didactic process.
6. The transfer may result in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation established at the doctoral school from which the doctoral student is being transferred.

7. A person who has been removed from the list of doctoral students for reasons specified in § 13(1)(3, 4) and § 13(2)(5, 6) of these regulations may apply for resumption of education at the doctoral school, provided that the first year of education has been completed.
8. The decision to resume education is made at the request of the doctoral student by the director of the doctoral school after consulting the potential supervisor and the doctoral school board, and appointing the supervisor(s) by the relevant scientific discipline board. The director of the doctoral school decides in which year the doctoral student shall resume education, taking into account the need to obtain the missing credits. The decision may depend on a test of knowledge, skills and competences required at the doctoral school.
9. If the consent to resume education is granted, the director of the doctoral school shall specify the deadlines and procedure for compensating for any differences in the curriculum, and describe the completed period of education in the language of the learning outcomes according to the curriculum applicable at the doctoral school at the time when the decision is made.
10. It is possible to apply for resumption of education only once, within two calendar years from the moment when the decision to remove the doctoral student from the list of doctoral students became final.
11. Resumption of education results in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation that was set before being removed from the list of doctoral students.
12. If the doctoral student has obtained permission to resume education in the year of education in which s/he already received the scholarship, the payment of the doctoral scholarship after the resumption is continued from the month following the month in which the doctoral student finished receiving the doctoral scholarship before being removed.
13. Persons expelled from the doctoral school pursuant to § 13(1)(6) of these regulations and persons removed from the list of doctoral students for reasons described in § 13(1)(1) of these regulations shall not be entitled to apply for the resumption of education.
14. The application for the resumption of education shall be submitted to the director of the doctoral school by 31 August of the year in which resumption is to take place. The

decision on the resumption of education may be subject to reconsideration at the request of the person applying for the resumption of education. The motion for reconsideration shall be submitted to the director of the doctoral school within 14 days of receiving the decision. The decision of the director of the doctoral school is final.

15. Within one month of receiving the decision on the transfer or resumption, the doctoral student is obliged to present the supervisor's opinion on a new schedule for the preparation of the doctoral dissertation, resulting from the modified individual research plan.

V. DOCTORAL SCHOLARSHIP

§ 19

1. The doctoral student who does not hold a doctoral degree shall receive a doctoral scholarship.
2. The total period of receiving a doctoral scholarship at the doctoral school shall not exceed four years.
3. The period referred to in point 2 shall not include the period of suspension and the period of education at the doctoral school referred to in article 206(2) of the act.
4. The amount of the monthly doctoral scholarship shall be at least:
 - 1) 37% of professor's remuneration – until the month in which the mid-term evaluation is conducted;
 - 2) 57% of professor's remuneration – after the month in which the mid-term evaluation is carried out.
5. The amount of the doctoral scholarship referred to in point 4(1, 2) may depend on the doctoral student's achievements.
6. The doctoral scholarship shall not be awarded to a doctoral student whose education at a doctoral school involves compulsory employment with the entity operating the doctoral school:
 - 1) on the basis of an employment contract;
 - 2) with a remuneration that exceeds that of a professor.
7. If the doctoral school obtains additional funding, doctoral students may be awarded an additional pro-quality scholarship – subject to separate regulations.

8. A doctoral student with documented achievements in their field/discipline shall apply for a scholarship for outstanding young scientists, e.g. scholarship awarded under the programmes of the Polish Science Foundation or the Ministry of Education and Science, at the beginning of their scientific career.
9. The doctoral student shall actively try to obtain financial resources for the purposes related to the preparation of their doctoral dissertation by participating in calls for projects, programmes or competitions, in particular those financed from external sources, and in the case of obtaining the funds, the doctoral students shall seek to independently finance research and other activities leading to the submission of the doctoral dissertation.
10. During the period of suspension of education, the provisions concerning the determination of the amount of the maternity allowance shall apply accordingly to the determination of the amount of the doctoral scholarship, except that the basis for the amount of the allowance shall be the monthly doctoral scholarship referred to in point 4, applicable on the day of the application for suspension.
11. A doctoral student who has a disability certificate, a certificate on the degree of disability, or a certificate referred to in article 5 and article 62 of the Act of 27 August 1997 on Vocational and Social Rehabilitation and Employment of Disabled Persons shall receive a doctoral scholarship in the amount increased by 30% of the amount indicated in point 4(1).
12. A doctoral student who has submitted their doctoral dissertation before the date of completion of education specified in the curriculum shall receive the doctoral scholarship until the date of expiry of the deadline for the completion of education, but not longer than for six months. The provisions of point 2 shall apply.
13. The doctoral scholarship shall be paid by the entity operating the doctoral school, every month, not later than by the fourth day of each month, with the proviso that the doctoral students enrolled in the first year of education may receive the doctoral scholarship for the month of October by the end of October. The indicated deadline for payment of the doctoral scholarship does not apply to doctoral students studying under the “Implementation Doctorate” programme, in which case the deadline shall depend on the programme assumption.

14. In the case of an obligation to employ the doctoral student by the entity operating the doctoral school, the doctoral student is obliged to inform the doctoral school office of the employment within seven days of the conclusion of the agreement.
15. A scholarship may be granted to the doctoral student by a local government unit in accordance with the provisions set out in article 96(2, 3) of the act.
16. A scholarship for academic performance may be granted to the doctoral student by a natural person or a legal entity that is not a state or local government legal entity, pursuant to the provisions specified in article 97(2) of the act.

VI. SCIENTIFIC SUPERVISION

§ 20

1. The doctoral student shall receive education under the supervisor's scientific supervision:
 - 1) the supervisor of the doctoral student may be a person holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*), who in the previous three years has had scientific achievements in the discipline in which the doctoral dissertation will be prepared and in which the university is authorised to confer the doctoral degree,
 - 2) the supervisor may be a person without an academic title or degree of habilitated doctor (*doktor habilitowany*), who is an employee of a foreign university or scientific institution, if the scientific discipline board recognises that this person has significant achievements in the scientific area in which the doctoral dissertation is being prepared,
 - 3) the assistant supervisor may be a person with a doctoral degree in a given or related scientific discipline. This person performs an auxiliary function in the supervision of the doctoral student, in particular in the process of research planning, research implementation and analysis of results.
2. The supervisor shall be a person who has presented the academic information sheet in accordance with the rules specified in the admissions regulations for a given academic year.
3. The supervisor shall not be a person who in the previous five years:

- 1) has supervised two doctoral students who were removed from the list of doctoral students due to negative mid-term evaluation,
or
 - 2) has supervised the preparation of dissertations by at least two candidates for the doctoral degree who did not receive positive reviews of the dissertation from at least two reviewers.
4. In accordance with the framework curriculum, the supervisor shall:
- 1) agree with the doctoral student on an individual research plan for the first year of education and a schedule for each subsequent year of education;
 - 2) introduce the doctoral student to the subject of the dissertation and appropriate research methods and techniques, and ensure that proper occupational health and safety instruction is provided by the head of the unit in which the doctoral student will carry out the research work;
 - 3) set the course of the doctoral student's education and self-education and control its course;
 - 4) support the doctoral student in applying for research projects, e.g. financed by the National Science Centre and from other sources, in order to obtain the funds necessary to prepare the doctoral dissertation;
 - 5) constantly supervise the doctoral student's progress of work and presentation of results;
 - 6) issue opinion on the doctoral student's annual reports submitted to the director of the doctoral school;
 - 7) issue opinion on the doctoral student's application for the extension of the deadline for submitting the doctoral dissertation in the case specified in § 25;
 - 8) attend doctoral seminars at which her/his doctoral student delivers talks.
5. In justified cases, the doctoral student in consultation with the supervisor may apply to the director of the doctoral school for a change of the individual research plan. The application shall contain a justification.
6. The supervisor shall not simultaneously supervise more than five doctoral students, while an assistant supervisor – more than three doctoral students. These limits do not include doctoral students who have secured financing for the implementation of their doctorate that covers the cost of their doctoral scholarship and the cost of their research for a period of at least 36 months under research projects financed from

external sources, and beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.

§ 21

In the event of depriving the supervisor of the right to supervise the doctoral student, or in the event of the supervisor’s resignation, death or loss of health, the relevant scientific discipline board shall appoint a new supervisor in accordance with the regulations. At the request of the doctoral student, the director of the doctoral school may then decide to extend the deadline for submitting the doctoral dissertation.

§ 22

1. The supervisor and assistant supervisor in the proceedings for the conferment of the doctoral degree shall be entitled to a one-time remuneration.
2. The supervisor’s remuneration shall be 83% of professor’s salary, and the assistant supervisor’s remuneration shall be 50% of professor’s salary. The remuneration shall be paid after the completion of the proceedings for the conferment of the doctoral degree under which the degree was awarded.

VII. DOCTORAL STUDENTS WITH SPECIAL NEEDS, INCLUDING DOCTORAL STUDENTS WITH DISABILITIES, AND MEDICAL EXAMINATIONS

§ 23

1. The university shall provide doctoral students with special needs, including doctoral students with disabilities, with the right conditions to fully participate in the life of the university and the academic community, including in the process of education and in scientific research. The provision of these conditions shall consist, in particular, of the rights and forms of support specified in point 2. The unit responsible for the support and coordination of activities for people with disabilities is the Support and Accessibility Centre (hereinafter: the Centre).
2. If justified by their special needs, a doctoral student with special needs, including a doctoral student with a disability, shall be entitled to the rights and services specified

in the Regulations of Support for Persons with Special Needs (hereinafter: Regulations of Support), under the conditions specified in the Regulations of Support, including:

- 1) ensuring the accessibility of the teaching and research process through, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) ensuring the accessibility of teaching materials.
- 2) ensuring the accessibility of the process of learning outcomes verification, including in particular the equivalence of the form and objectivity of the assessment by, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) conducting learning outcomes verification within deadlines that take into account the special needs of the student,
 - c) enabling the student to obtain credits in an individual mode,
 - d) verification of learning outcomes in sign languages.
- 3) Postponing or accommodating deadlines, in particular those referred to in § 3(1), § 10(1, 3), § 12(7–9), § 13(2)(1, 4), § 15(6, 9), § 16(3, 4), § 18(3, 9–11, 14, 15), as far as possible.
- 4) Eliminating or reducing harmful, inconvenient and hazardous factors that may occur during education, including:
 - a) the possibility of requesting the referral for medical examinations mentioned in § 24 at an earlier date;
 - b) the possibility of requesting the reduction or elimination of harmful, inconvenient and hazardous factors.
3. The director of the doctoral school shall ensure or support the implementation of the granted rights and services.
4. Requests submitted to the director of the doctoral school by a doctoral student with special needs, including a doctoral student with a disability, which concern the doctoral student's health condition, shall be considered in cooperation with the Centre and on the basis of the Centre's position, including on the basis of a statement of the granted services and rights listed in the Regulations of Support. Documentation concerning the student's state of health (medical certificates, etc.) shall be included in

the Centre's documentation and not in the doctoral student's personal file, while the above-mentioned opinion of the Centre may be included in the doctoral student's personal file.

§ 24

1. A list of harmful, inconvenient and hazardous factors (hereinafter: harmful factors) that may occur during education in individual disciplines is presented to the doctoral student during the occupational health and safety training in the relevant organisational units.
2. In order for the doctoral student to participate in classes taught in a discipline in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to undergo education in this discipline – subject to point 4.
3. Candidates to study at the doctoral school in a discipline referred to in point 2, including persons transferring from another doctoral school, and doctoral students before the date of the next medical examination indicated on the medical certificate, shall receive a referral for medical examinations.
4. The university shall strive to enable the widest possible group of people to undertake and continue education at the doctoral school, in particular by eliminating or limiting harmful factors in individual cases.
5. The persons referred to in point 3 have the right to apply to the Centre or the Occupational Health and Safety and Fire Protection Department for the right to receive a referral for a medical examination at an earlier date.
6. A person who has presented a medical certificate demonstrating the existence of health contraindications for education in a given discipline may exercise the right to request the elimination or reduction of harmful factors. In the event of limiting the harmful factors, this person shall be referred for a medical examination concerning exclusively these limited harmful factors.
7. In order for the doctoral student to participate in teaching practice in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to participate in teaching practice in this discipline – subject to points 4, 5, 6, respectively.
8. Detailed rules for the administration of medical examinations are set out in the ordinance on medical examinations of candidates and students.

VIII. COMPLETION OF EDUCATION AT THE DOCTORAL SCHOOL AND OBTAINING THE DOCTORAL DEGREE

§ 25

1. The doctoral student's education shall end with:
 - 1) having publication achievements in accordance with article 186(1)(3) of the act (list of journals of the Ministry of Education and Science);
 - 2) completing the curriculum;
 - 3) submitting the doctoral dissertation with a positive opinion of the supervisor or supervisors.
2. The doctoral student shall submit the dissertation to the supervisor within the time limit specified in the individual research plan.
3. The individual research plan specifies the deadline for submitting the doctoral dissertation. This deadline may be extended in accordance with the terms set out in these regulations.
4. At the request of the doctoral student, the director of the doctoral school may extend the deadline for submitting the doctoral dissertation, by no more than 1 year in total, in the event of:
 - 1) special needs resulting from the state of health, including disability;
 - 2) the necessity to provide personal care for a sick family member;
 - 3) the need to provide personal care for a child under four years of age or a child with a disability certificate.
5. At the request of the doctoral student, the director of the doctoral school may extend the deadline for submitting the doctoral dissertation in cases justified by the necessity to conduct long-term research required to prepare the doctoral dissertation. The extension is possible provided that the doctoral student is the main author (with a contribution of at least 50%, confirmed by the co-authors' statements) of at least one original peer-reviewed article from the Journal Citation Reports list.
6. The extension referred to in points 4 and 5 may not be longer than 2 years in total.
7. The application for the extension of the deadline for submitting the doctoral dissertation shall include:

- 1) the doctoral student's personal details: name, surname, PESEL number, and in the absence of this number – the number of a document confirming the identity, and information about the year of education;
 - 2) justification;
 - 3) the supervisor's opinion;
 - 4) updated individual research plan.
8. The doctoral student shall enclose a document confirming the existence of the circumstances described in points 4 and 5 to the application. The provisions of § 23(4) shall apply.
9. Immediately prior to the submission of an application for initiating the proceedings for the conferment of the doctoral degree, the doctoral student shall present the research results at a seminar organised by the chairman of the relevant scientific discipline board.

§ 26

1. The doctoral degree is awarded as a result of the proceedings for the conferment of the doctoral degree.
2. The activities in the proceedings for the conferment of the doctoral degree shall be performed by the appropriate scientific discipline board.
3. A doctoral student who has met the requirements specified in § 25 and the requirements specified in the resolution of the Senate of Wrocław University of Environmental and Life Sciences on the proceedings for the conferment of the doctoral degree, and has obtained positive reviews of the doctoral dissertation from at least two reviewers, may be admitted to defend his or her doctoral dissertation.
4. The conferment of the doctoral degree is confirmed by a diploma.
5. A person who has been awarded the doctoral degree receives a doctor's diploma and a copy of this diploma. At the request of this person, a copy of the diploma in a foreign language shall be issued.

§ 27

1. If the doctoral student has obtained the doctoral degree as a result of graduation from the doctoral school, the period of education at the doctoral school, not exceeding four years, shall be included in the period of work on which employee entitlements depend.

2. If the doctoral student has not completed education at the doctoral school due to:
 - 1) taking up employment as an academic teacher or researcher,
 - 2) discontinuation of education for doctoral students in a given discipline– the period of education at the doctoral school, not exceeding four years, shall be included in the period of work on which employee entitlements depend, provided that they have obtained the doctoral degree.
3. A person who has not completed education at the doctoral school may, upon a written request, receive a certificate on the course of education.

IX. FINAL PROVISIONS

§ 28

1. The doctoral students shall establish the doctoral students' self-government in accordance with the terms set out in the regulations of the doctoral students' self-government.
2. In matters concerning the terms and conditions of participating in the doctoral school that are not regulated herein or in other legal provisions, the director of the doctoral school shall be authorised to make decisions *ex officio* or at the request of the interested party.
3. The decisions of the director of the doctoral school regarding the doctoral students' individual cases are subject to a motion for reconsideration submitted to the rector through the director of the doctoral school.
4. Supervision over the doctoral school is exercised by the relevant vice-rector for science.

§ 29

These regulations shall enter into force on 1 October 2024.

Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences

§ 1

The terms used in these regulations shall mean respectively:

- 1) doctoral student – a person studying at the doctoral school;
- 2) doctoral school – an organised form of education for doctoral students, operated by Wrocław University of Environmental and Life Sciences, ending with the submission of a doctoral dissertation;
- 3) director of the doctoral school – a person who manages the functioning of the doctoral school;
- 4) doctoral school board – an advisory and consultative body at the doctoral school;
- 5) doctoral school office – an organisational unit in charge of the current affairs of the doctoral school;
- 6) act – the act of 20 July 2018 – Law on Higher Education and Science;
- 7) statute – the Statute of Wrocław University of Environmental and Life Sciences;
- 8) curriculum – a description of the expected learning outcomes, consistent with the eighth level of the Polish Qualifications Framework and the study programme, which is a description of the educational process leading to the achievement of these effects;
- 9) learning outcomes – knowledge, skills and social competences acquired by the doctoral student in the process of education;
- 10) ECTS credits – credits defined in the European Credit Transfer and Accumulation System as a standard means of comparing the average workload of a learner, necessary to achieve the expected learning outcomes;
- 11) teaching practice – participation in practical teaching activities or, in the case of foreigners, in supporting an organisational unit in the didactic process.

I. ORGANISATION OF THE DOCTORAL SCHOOL

§ 2

1. The doctoral school at Wrocław University of Environmental and Life Sciences is established in the disciplines in which the University is allowed to grant the doctoral degree.
2. Substantive supervision over the activity of the doctoral school is exercised by the doctoral school board.
3. The composition of the doctoral school board is specified by the statute.
4. The tasks of the doctoral school board are specified in the statute.

§ 3

1. The director of the doctoral school is authorised by the rector in particular to:
 - 1) head the doctoral school;
 - 2) dispose of the budget of the doctoral school;
 - 3) coordinate the ongoing functioning of the doctoral school;
 - 4) prepare the draft curriculum of the doctoral school;
 - 5) organise mid-term evaluation of doctoral students pursuant to § 11 herein;
 - 6) is responsible for the implementation of the curriculum and conducting the mid-term evaluation;
 - 7) prepare draft rules for admission to the doctoral school and apply for the appointment of the admissions committee for the doctoral school;
 - 8) set the templates of the individual research plan, the individual doctoral student card, the report on the implementation of the individual research plan;
 - 9) forward documents submitted by the doctoral students regarding the appointment of the supervisor, supervisors, assistant supervisor to the relevant scientific discipline board;
 - 10) issue administrative decisions in individual doctoral students' cases, including the decision to refuse admission to the doctoral school;
 - 11) take responsibility for the doctoral students' scholarships;
 - 12) confirm the completion of subsequent years of education by the doctoral students;
 - 13) in justified individual cases, extend the deadline for submitting the doctoral dissertation for a total of no more than two years, taking into account the doctoral student's periodic reports and the supervisor's assessment;
 - 14) organise the implementation of the framework curriculum;

- 15) ensure compliance with the Regulations of the Doctoral School at Wrocław University of Environmental and Life Sciences;
 - 16) perform an annual evaluation of the implementation of the curriculum, monitors the advancement of scientific research and the progress of work on doctoral dissertations by checking reports submitted by doctoral students and the evaluation of doctoral students' progress submitted by their supervisors before the end of each academic year;
 - 17) inform doctoral students about the results of the annual evaluation of their work progress, completion or failure to complete of an academic year;
2. The director of the doctoral school shall submit an annual report on the activities of the doctoral school to the rector.

§ 4

1. The director of the doctoral school is the direct superior of the doctoral students.
2. Supervision over the work of the director of the doctoral school and education at the doctoral school is exercised by the vice-rector for science on behalf of the rector.

§ 5

1. Admission to the doctoral school is based on a competition whose rules are set out in the resolution of the Senate of Wrocław University of Environmental and Life Sciences on the requirements and admissions procedure for the doctoral school. The results of the competition are public.
2. Admission to the doctoral school takes effect by entering the student on the list of doctoral students.

§ 6

Foreigners may undertake education at the doctoral school under the conditions specified in Article 323 of the act.

II. EDUCATION AT THE DOCTORAL SCHOOL

§ 7

1. Education at the doctoral school lasts from 6 to 8 semesters and is conducted on the basis of the curriculum and an individual research plan.
Persons accepted to the doctoral school from the second semester on the basis of separate provisions are covered by the mandatory education programme under a given recruitment subject to the period of education provided for therein. These persons may be covered by an individual course of education.
2. The academic year begins on 1 October and lasts until 30 September of the following year.
3. The education of doctoral students, including foreigners, is free of charge.
4. A doctoral student may be enrolled only at one doctoral school at the same time.
5. Education of the doctoral students may be conducted in cooperation with another entity, in particular an enterprise or scientific institution.
6. The course of education at the doctoral school is managed by means of the “USOS” University Study Service System and the software “Sylabus – Szkoła Doktorska.”
7. The doctoral school office maintains the Register of Doctoral Students in an electronic form and the documentation of the course of education in paper form.
8. The documentation of the course of education is stored in the doctoral student’s personal file.
9. The documentation of the course of education includes in particular:
 - 1) the card of the candidate for the doctoral school,
 - 2) the individual research plan,
 - 3) the doctoral student’s card for each semester,
 - 4) reports and documentation connected with mid-term evaluation,
 - 5) other documents specified by the doctoral school board.
10. After the completion of education, the doctoral student’s personal files are transferred to the university archive.
11. The university issues the doctoral students with an electronic identity card, which is a document confirming the doctoral student’s status acquired after taking the oath and signing the act of oath.
12. A doctoral student who has been removed from the list of doctoral students loses the right to have the student identity card and is obliged to return it.
13. The university provides all persons, including persons with special needs, with the right conditions to fully participate in the life of the university and the academic

community, including during the admission process, education at the doctoral school and conducting research activities.

§ 8

1. The curriculum shall specify:
 - 1) a description of the expected learning outcomes, consistent with the eighth level of the Polish Qualifications Framework;
 - 2) a description of the learning process leading to these effects, including:
 - a) a list of courses necessary to complete education at the doctoral school, with ECTS points assigned to them, the learning outcomes and contents of each course, and the method for verifying and assessing the learning outcomes,
 - b) the number of hours and form of teaching of the courses.The curriculum is created taking into account the principles of universal design, including § 23(2) of these regulations.
2. Education at the doctoral school is conducted in Polish and English.
3. The curriculum shall be reviewed by the doctoral students' self-government within 14 days from the date of receiving it.
4. In particularly particularly justified cases, including on account of health state, upon the doctoral student's request, the director of the doctoral school may express consent for individual course of education realisation. In such a case, the director of the doctoral school, post consultation with the supervisor and the doctoral student, establishes an individual course of education and schedule of realisation of the tasks by the student that are obligatory in order to complete education at the doctoral school.
5. The learning outcomes are verified in the form of exams or credits. The form of verification of the learning outcomes is specified in the framework curriculum, which leads to the achievement of the learning outcomes for PQF level 8; in particular, it leads to the achievement of learning outcomes in the areas of:
 - 1) proper knowledge in the discipline of the conducted research, covering the current scientific achievements and specialist knowledge corresponding to the topic of conducted research, covering the latest achievements of science;
 - 2) skills related to research methods and methodology;
 - 3) teaching skills and professional qualifications in the area of modern methods and techniques of teaching;

- 4) social competences connected with research and teaching activities, cooperation between the scientific and socio-economic environment, including entities functioning in this environment, and the social role of the scholar.
6. Exams and credits in courses covered by the curriculum shall finish with a grade awarded according to the following scale:
 - 1) very good – 5.0;
 - 2) good plus – 4.5;
 - 3) good – 4.0;
 - 4) satisfactory plus – 3.5;
 - 5) satisfactory – 3.0;
 - 6) unsatisfactory - 2.0or credits (pass) – pass. Grades and passes ought to be entered in the USOS system within the deadlines binding as per the academic calendar for the full-time mode.
7. Doctoral students are awarded points for the completion of courses and other tasks covered by the curriculum, in accordance with the European Credit Transfer and Accumulation System (ECTS).
8. In the event of failure to complete a course, the doctoral student is obliged to retake it on the conditions specified by the director of the doctoral school.
9. In the event of a doctoral student's justified absence (e.g. illness or other unforeseen absence, conference or scientific internship lasting more than four weeks), at the written request of the doctoral student addressed to the director of the doctoral school, the hours of compulsory teaching practice may be counted as completed in accordance with the individual curriculum in the given semester.

§ 9

1. Within three months of the commencement of education at the doctoral school, at the request of the doctoral student, the relevant scientific discipline board shall appoint a supervisor or supervisors, or a supervisor and assistant supervisor, who meet the conditions specified in the act. Another supervisor or assistant supervisor may be appointed at a later date in justified cases at the request of the doctoral student, but no later than the date of the mid-term evaluation.
2. In particularly justified cases there is a possibility to change the supervisor, supervisors, assistant supervisor. The doctoral student submits an application to the

chairperson of the discipline board with an indication of the cause of the change and acceptance of the new supervisor, supervisors or the supervisor and the assistant supervisor. The application form may be accompanied by the opinion of the person who is the subject of the change.

3. In case of death of one of the supervisors or justified resigning from performing the function of the supervisor, the discipline board may designate a new supervisor in their place upon the candidate's request. In case of death of one supervisor, the discipline board in the given discipline designates a new supervisor in their place upon request of the candidate or cancels the initiated proceeding concerning granting the scientific degree of PhD if there is no possibility to designate a new supervisor.
4. Changing, adding or resigning from the supervisor, subsequent supervisor or assistant supervisor may occur no later than until the date of conduct of the mid-term evaluation. In particularly justified cases, changing, adding or resigning from the supervisor, subsequent supervisor or assistant supervisor may occur after conducting the mid-term evaluation.
5. The requests mentioned in points 1-2 above shall be submitted by the doctoral student to the doctoral school office

§ 10

1. Within twelve months of the commencement of education, the doctoral student shall submit to the doctoral school office an individual research plan approved by the supervisor or supervisors, or a supervisor and assistant supervisor.
2. The individual research plan shall be submitted for the approval of the relevant discipline board. The individual research plan shall be submitted for the approval of the relevant discipline board. The doctoral student is obliged to correct the individual research plan in line with the remarks of the relevant discipline board. The individual research plan should be ultimately positively opinionated until the end of the 2nd semester.
3. By the end of each semester, subject to point 4, the doctoral student shall submit:
 - 1) the doctoral student's individual card;
 - 2) the individual research plan, in the event of its modification, with the approval of the relevant discipline board;
 - 3) other reports required by the doctoral school board.

4. The deadline for submitting the individual research plan and other documents listed in point 3 above may be set by the director of the doctoral school. In this case, the deadline is communicated by e-mail.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with article 202 of the act.
2. Mid-term evaluation at the doctoral school is conducted for each discipline by a three-person committee appointed by the vice-rector for science at the request of the director of the doctoral school. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The director of the doctoral school, a member of the doctoral school board in a given discipline, the supervisor of the evaluated doctoral student and the representative of the doctoral students' self-government may act as observers.
3. The doctoral student shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-term reports submitted to the director of the doctoral school regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
 - 3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.
 - 4) the doctoral student's conversation with the committee.
4. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
5. In case of a negative result of the evaluation, within 14 days from the date of disclosure of the results, the doctoral student may appeal against the result of the

assessment to the vice-rector for science. The vice-rector for science may decide about the appointment of the board of appeal in the new composition specified in §11(2). The board of appeal grants a positive or a negative grade which is final.

6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

§ 12

1. To pass a year of education, the doctoral student shall obtain positive grades on the verification of learning outcomes from compulsory courses included in the curriculum for a given academic year, obtain a credit for the doctoral seminar and teaching practice, and obtain a positive assessment of the implementation of the individual research plan.
2. In the event of doing a scientific internship, the doctoral student is required to complete the year of education under the conditions specified in point 1 in an individual mode, having obtained the consent of the director of the doctoral school.
3. The supervisor's negative opinion on the progress made by the doctoral student, which threatens the possibility of obtaining the doctoral degree within the agreed period, shall result in the commencement of explanatory proceedings by the doctoral school board within 14 days of submitting the opinion.
4. At the request of the doctoral student, the director of the doctoral school may conditionally allow the doctoral student to continue education in the next academic year.
5. In the event of being conditionally allowed to continue education in a given academic year, the doctoral student is obliged to meet the condition that was not fulfilled in the previous academic year.
6. At the request of the doctoral student, education may be suspended for a period corresponding to the duration of:
 - 1) maternity leave,
 - 2) leave on the conditions of maternity leave,
 - 3) paternity leave and parental leave,– specified in the Act of 26 June 1974 – The Labour Code.

7. Leave of absence, specified in point 6, shall be granted according to the principles specified in the Labour Code. Documents justifying the suspension of the period of education must be enclosed with the application form.
8. When approving the request to suspend education for a period other than an academic year, the director of the doctoral school shall determine the conditions applicable to the doctoral student after the suspension period has ended, in particular the deadlines for the fulfilment of individual obligations arising from the education process and these regulations.
9. Within seven days of the end of the suspension period, the doctoral student shall submit to the director of the doctoral school a written statement indicating their willingness to continue education. Failure to submit the statement constitutes the basis for initiating the procedure of removing the doctoral student from the list of doctoral students due to resignation from education.
10. The deadlines for the fulfilment of the doctoral student's duties resulting from the individual research plan shall be extended by a time period for which education at the doctoral school was suspended.
11. During the suspension period, the doctoral student does not implement the curriculum nor the individual research plan, but retains the doctoral student's rights (the right to the doctoral student's identity card, the right to a scholarship in the amount determined in accordance with article 209(6) of the act).

§ 13

1. The doctoral student shall be removed from the list of doctoral students in the event of:
 - 1) a negative result of mid-term evaluation;
 - 2) failure to obtain the extension of the deadline for submitting the doctoral dissertation;
 - 3) failure to submit the doctoral dissertation within the deadline specified in the individual research plan;
 - 4) submitting a written declaration of resignation from education;
 - 5) simultaneously being a doctoral student at another doctoral school – in the event of failure to submit resignation from education at the other doctoral school;
 - 6) expulsion from the doctoral school as disciplinary punishment.

2. The doctoral student may be removed from the list of doctoral students in the event of:
 - 1) failure to submit the request for the appointment of a supervisor or supervisors, or a supervisor and an assistant supervisor, in the manner and time specified by the director of the doctoral school;
 - 2) failure to submit the individual research plan in the manner specified in § 10;
 - 3) failure to comply with the obligation to implement the individual research plan and not receiving credit for the next semester;
 - 4) failure to submit reports in the manner and time specified by the director of the doctoral school;
 - 5) unsatisfactory progress in the preparation of the doctoral dissertation;
 - 6) failure to comply with the obligations arising from these regulations.
3. The removal from the list of doctoral students shall take place by way of an administrative decision of the director of the doctoral school. The doctoral student may submit a motion for reconsideration within 14 days of receiving the decision.

§ 14

1. The evaluation of the doctoral school shall be based on the provisions of the act and secondary legislation to the act.
2. The first evaluation of the quality of education at the doctoral school shall be carried out after a period of at least five years following the date of the commencement of education at the school, or at an earlier time at the minister's request.

III. RIGHTS AND OBLIGATIONS OF THE DOCTORAL STUDENT

§ 15

The doctoral student shall have the right to:

- 1) participate in the academic life at the university, including in the education process, and conduct research activities;
- 2) use the library and reading room;
- 3) use university equipment free of charge, for purposes related to the implementation of the individual research plan;

- 4) receive universal health insurance, unless s/he is subject to mandatory health insurance based on other grounds, in accordance with rules laid down by other legislation;
- 5) have the deadline for submitting the doctoral dissertation extended, in accordance with the principles set out in these regulations and the act;
- 6) use a rest break of maximum eight weeks per year, after prior arrangement with the supervisor;
- 7) do scientific internships and conduct research in other national and foreign scientific centres, having obtained the approval of the director of the doctoral school and a positive opinion from the supervisor; the internship period shall be included in the education period and ECTS points may be awarded for courses completed during the internship, taking into account their nature and duration;
- 8) use the supervisor's scientific expertise and support in independent research work throughout the entire period of education;
- 9) request a change of the supervisor, another supervisor or assistant supervisor, but no later than by the end of the second year of education, before mid-term evaluation;
- 10) apply for:
 - a) accommodation in the university's residence hall;
 - b) accommodation for a spouse, child or personal assistant (persons with disabilities) in the university's residence hall
 - pursuant to the rules and procedure specified in the regulations of granting benefits to students;
- 11) apply for a student loan. The provisions on student loans shall apply accordingly, except that:
 - a) the loan may be granted to a doctoral student under the age of 35;
 - b) the loan may be granted only once for the period of education at the doctoral school, for a period not longer than 4 years.

§ 16

The doctoral student is obliged to:

- 1) act in accordance with the content of the oath, the doctoral student's Code of Ethics, the Regulations of the Doctoral School, and other provisions in force at Wrocław University of Environmental and Life Sciences;

- 2) pursue independent study under the guidance and instruction of the supervisor and in accordance with the adopted education profile;
- 3) comply with the deadlines for the preparation of the doctoral dissertation included in the individual research plan and set out in these regulations and other provisions;
- 4) implement the current curriculum, conduct scientific research and submit the documents indicated in § 10 within the prescribed deadlines;
- 5) do the teaching practice:
 - a) in the 1st, 2nd and 3rd year of education, the doctoral students participate in teaching 15 didactic hours per year,
 - b) foreign doctoral students may do the teaching practice in the form of support in the didactic process of an organisational unit;
 - c) doctoral students in the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme may, as part of their teaching practice, accept a student for a placement or internship in a cooperating entity. The doctoral student’s supervision of the intern shall be confirmed by a document in the form of a programme approved by the supervisor and assistant supervisor, attached to the doctoral student’s individual card;
- 6) implement the individual research plan and participate in the work of an organisational unit in which the doctoral student prepares the doctoral dissertation. The total dimension of the duration of realisation of tasks specified in the preceding sentence amounts to at least 30 hours a week, whilst the priority is to realise the individual research plan. The supervisor, in cooperation with the head of the organisation unit, is responsible for assigning the tasks as part of the participation in the works of the organisational unit in which the doctoral student prepares the doctoral dissertation. The obligation to participate in the work of an organisational unit does not apply to doctoral students pursuing education under the “Implementation Doctorate” programme;
- 7) receive the ORCID identifier and indicate affiliation to Wrocław University of Environmental and Life Sciences when publishing the results of research carried out as part of the doctoral dissertation;
- 8) immediately inform the director of the doctoral school and the supervisor of the change of name and other personal data required by the doctoral school;

- 9) comply with other legal provisions, including those regarding the protection of intellectual property and classified information.

§ 17

1. The doctoral student shall be liable to the disciplinary committee for violation of the provisions in force at the university and for acts unbecoming to the doctoral student.
2. The proceedings before the disciplinary committee are specified in the act and the university statute.

IV. TRANSFER AND RESUMPTION

§ 18

1. In justified cases, with the consent of the director of the doctoral school, the doctoral student may transfer to the doctoral school at Wrocław University of Environmental and Life Sciences from another doctoral school. Admission to the doctoral school is granted in accordance with the rules specified in the provisions concerning the admission to the doctoral school of Wrocław University of Environmental and Life Sciences.
2. With the consent of the director of the doctoral school, the doctoral student may remain under the tutorship of the supervisor(s) from the doctoral school from which the transfer was made.
3. At the request of the doctoral student, after consulting the supervisor(s), the director of the doctoral school shall decide on the recognition of courses completed at another doctoral school and set the deadline for fulfilling duties and obtaining credits in a given academic year.
4. Recognition of courses is only possible if at least one year of education has been completed.
5. When deciding on the recognition of courses completed at another doctoral school, the director of the doctoral school shall be guided by the congruence of learning outcomes, the syllabus of the course, the form and duration of the course, the form of obtaining course credit, and the requirements of the didactic process.

6. The transfer may result in the modification of the individual research plan and change of the deadline for submitting the doctoral dissertation established at the doctoral school from which the doctoral student is being transferred.
7. A person who has been removed from the list of doctoral students for reasons specified in § 13(1)(3, 4) and § 13(2)(5, 6) of these regulations may apply for resumption of education at the doctoral school, provided that the first year of education has been completed.
8. The decision to resume education is made at the request of the doctoral student by the director of the doctoral school after consulting the potential supervisor and the doctoral school board, and appointing the supervisor(s) by the relevant scientific discipline board. The director of the doctoral school decides in which year the doctoral student shall resume education, taking into account the need to obtain the missing credits. The decision may depend on a test of knowledge, skills and competences required at the doctoral school.
9. If the consent to resume education is granted, the director of the doctoral school shall specify the deadlines and procedure for compensating for any differences in the curriculum, and describe the completed period of education in the language of the learning outcomes according to the curriculum applicable at the doctoral school at the time when the decision is made.
10. It is possible to apply for resumption of education only once, within two calendar years from the moment when the decision to remove the doctoral student from the list of doctoral students became final.
11. Resumption results in the modification of the individual research plan and the term for submission of the doctoral dissertation established prior to removal from the list of doctoral students. The modified individual research plan is subject to assessment according to the principles specified in § 10(2).
12. If the doctoral student has obtained permission to resume education in the year of education in which s/he already received the scholarship, the payment of the doctoral scholarship after the resumption is continued from the month following the month in which the doctoral student finished receiving the doctoral scholarship before being removed.
13. Persons expelled from the doctoral school pursuant to § 13(1)(6) of these regulations and persons removed from the list of doctoral students for reasons described in §

13(1)(1) of these regulations shall not be entitled to apply for the resumption of education.

14. The application for the resumption of education shall be submitted to the director of the doctoral school by 31 August of the year in which resumption is to take place. The decision on the resumption of education may be subject to reconsideration at the request of the person applying for the resumption of education. The motion for reconsideration shall be submitted to the director of the doctoral school within 14 days of receiving the decision. The decision of the director of the doctoral school is final.
15. Within one month of receiving the decision on the transfer or resumption, the doctoral student is obliged to present the supervisor's opinion on a new schedule for the preparation of the doctoral dissertation, resulting from the modified individual research plan.

V. DOCTORAL SCHOLARSHIP

§ 19

1. The doctoral student who does not hold a doctoral degree shall receive a doctoral scholarship.
2. The total period of receiving a doctoral scholarship at the doctoral school shall not exceed four years.
3. The period referred to in point 2 shall not include the period of suspension and the period of education at the doctoral school referred to in article 206(2) of the act.
4. The amount of the monthly doctoral scholarship shall be at least:
 - 1) 37% of professor's remuneration – until the month in which the mid-term evaluation is conducted;
 - 2) 57% of professor's remuneration – after the month in which the mid-term evaluation is carried out.
5. The amount of the doctoral scholarship referred to in point 4(1, 2) may depend on the doctoral student's achievements.
6. The doctoral scholarship shall not be awarded to a doctoral student whose education at a doctoral school involves compulsory employment with the entity operating the doctoral school:
 - 1) on the basis of an employment contract;

- 2) with a remuneration that exceeds that of a professor.
7. If the doctoral school obtains additional funding, doctoral students may be awarded an additional pro-quality scholarship – subject to separate regulations.
8. A doctoral student with documented achievements in their field/discipline shall apply for a scholarship for outstanding young scientists, e.g. scholarship awarded under the programmes of the Polish Science Foundation or the Ministry of Education and Science, at the beginning of their scientific career.
9. The doctoral student shall actively try to obtain financial resources for the purposes related to the preparation of their doctoral dissertation by participating in calls for projects, programmes or competitions, in particular those financed from external sources, and in the case of obtaining the funds, the doctoral students shall seek to independently finance research and other activities leading to the submission of the doctoral dissertation.
10. During the period of suspension of education, the provisions concerning the determination of the amount of the maternity allowance shall apply accordingly to the determination of the amount of the doctoral scholarship, except that the basis for the amount of the allowance shall be the monthly doctoral scholarship referred to in point 4, applicable on the day of the application for suspension.
11. A doctoral student who has a disability certificate, a certificate on the degree of disability, or a certificate referred to in article 5 and article 62 of the Act of 27 August 1997 on Vocational and Social Rehabilitation and Employment of Disabled Persons shall receive a doctoral scholarship in the amount increased by 30% of the amount indicated in point 4(1).
12. A doctoral student who has submitted their doctoral dissertation before the date of completion of education specified in the curriculum shall receive the doctoral scholarship until the date of expiry of the deadline for the completion of education, but not longer than for six months. The provisions of point 2 shall apply.
13. The doctoral scholarship shall be paid by the entity operating the doctoral school, every month, not later than by the fourth day of each month, with the proviso that the doctoral students enrolled in the first year of education may receive the doctoral scholarship for the month of October by the end of October. The indicated deadline for payment of the doctoral scholarship does not apply to doctoral students studying under

the “Implementation Doctorate” programme, in which case the deadline shall depend on the programme assumption.

14. In the case of an obligation to employ the doctoral student by the entity operating the doctoral school, the doctoral student is obliged to inform the doctoral school office of the employment within seven days of the conclusion of the agreement.
15. A scholarship may be granted to the doctoral student by a local government unit in accordance with the provisions set out in article 96(2, 3) of the act.
16. A scholarship for academic performance may be granted to the doctoral student by a natural person or a legal entity that is not a state or local government legal entity, pursuant to the provisions specified in article 97(2) of the act.

VI. SCIENTIFIC SUPERVISION

§ 20

1. The doctoral student shall receive education under the supervisor’s scientific supervision:
 - 1) the supervisor of the doctoral student may be a person holding the academic title of professor or the degree of habilitated doctor (*doktor habilitowany*), who in the previous three years has had scientific achievements in the discipline in which the doctoral dissertation will be prepared and in which the university is authorised to confer the doctoral degree,
 - 2) the supervisor may be a person without an academic title or degree of habilitated doctor (*doktor habilitowany*), who is an employee of a foreign university or scientific institution, if the scientific discipline board recognises that this person has significant achievements in the scientific area in which the doctoral dissertation is being prepared,
 - 3) the assistant supervisor may be a person with a doctoral degree in a given or related scientific discipline. This person performs an auxiliary function in the supervision of the doctoral student, in particular in the process of research planning, research implementation and analysis of results;
 - 4) the relevant discipline board may establish additional criteria and requirements to be met by a person in order to perform the function of a supervisor or assistant supervisor.

2. The supervisor shall be a person who has presented the academic information sheet in accordance with the rules specified in the admissions regulations for a given academic year.
3. The supervisor shall not be a person who in the previous five years:
 - 1) has supervised four doctoral students who were removed from the list of doctoral students due to negative mid-term evaluation,
or
 - 2) has supervised the preparation of dissertations by at least two candidates for the doctoral degree who did not receive positive reviews of the dissertation from at least two reviewers.
4. In accordance with the framework curriculum, the supervisor shall:
 - 1) agree with the doctoral student on an individual research plan for the first year of education and a schedule for each subsequent year of education;
 - 2) introduce the doctoral student to the subject of the dissertation and appropriate research methods and techniques, and ensure that proper occupational health and safety instruction is provided by the head of the unit in which the doctoral student will carry out the research work;
 - 3) set the course of the doctoral student's education and self-education and control its course;
 - 4) support the doctoral student in applying for research projects, e.g. financed by the National Science Centre and from other sources, in order to obtain the funds necessary to prepare the doctoral dissertation;
 - 5) constantly supervise the doctoral student's progress of work and presentation of results;
 - 6) issue opinion on the doctoral student's annual reports submitted to the director of the doctoral school;
 - 7) issue opinion on the doctoral student's application for the extension of the deadline for submitting the doctoral dissertation in the case specified in § 25;
 - 8) attend doctoral seminars at which her/his doctoral student delivers talks.
5. In justified cases, the doctoral student in consultation with the supervisor may apply to the director of the doctoral school for a change of the individual research plan. The application shall contain a justification. Change of the individual research plan is subject to obtaining an opinion issued by the relevant discipline board.

6. The supervisor shall not simultaneously supervise more than four doctoral students, while an assistant supervisor – more than three doctoral students. These limits do not include doctoral students who have secured financing for the implementation of their doctorate that covers the cost of their doctoral scholarship and the cost of their research for a period of at least 36 months under research projects financed from external sources, and beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.
7. No conflict of interests may occur between the doctoral student and the supervisor. The doctoral student and the supervisor cannot:
 - 1) run a joint household;
 - 2) remain in the kinship relationship, direct or secondary kinship, custody or guardianship towards one another;

§ 21

In the event of depriving the supervisor of the right to supervise the doctoral student, or in the event of the supervisor’s resignation, death or loss of health, the relevant scientific discipline board shall appoint a new supervisor in accordance with the regulations. At the request of the doctoral student, the director of the doctoral school may then decide to extend the deadline for submitting the doctoral dissertation.

§ 22

1. The supervisor and assistant supervisor in the proceedings for the conferment of the doctoral degree shall be entitled to a one-time remuneration, according to the article 184 (1,2) of the act.
2. The supervisor’s remuneration shall be 83% of professor’s salary, and the assistant supervisor’s remuneration shall be 50% of professor’s salary. The remuneration shall be paid after the completion of the proceedings for the conferment of the doctoral degree under which the degree was awarded.

VII. DOCTORAL STUDENTS WITH SPECIAL NEEDS, INCLUDING DOCTORAL STUDENTS WITH DISABILITIES, AND MEDICAL EXAMINATIONS

§ 23

1. The university shall provide doctoral students with special needs, including doctoral students with disabilities, with the right conditions to fully participate in the life of the university and the academic community, including in the process of education and in scientific research. The provision of these conditions shall consist, in particular, of the rights and forms of support specified in point 2. The unit responsible for the support and coordination of activities for people with disabilities is the Support and Accessibility Centre (hereinafter: the Centre).
2. If justified by their special needs, a doctoral student with special needs, including a doctoral student with a disability, shall be entitled to the rights and services specified in the Regulations of Support for Persons with Special Needs (hereinafter: Regulations of Support), under the conditions specified in the Regulations of Support, including:
 - 1) ensuring the accessibility of the teaching and research process through, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) ensuring the accessibility of teaching materials.
 - 2) ensuring the accessibility of the process of learning outcomes verification, including in particular the equivalence of the form and objectivity of the assessment by, among others:
 - a) ensuring the accessibility of: forms, places, conditions and appropriate organisation,
 - b) conducting learning outcomes verification within deadlines that take into account the special needs of the student,
 - c) enabling the student to obtain credits in an individual mode,
 - d) verification of learning outcomes in sign languages.
 - 3) Postponing or accommodating deadlines, in particular those referred to in § 3(1), § 10(1, 3), § 12(7–9), § 13(2)(1, 4), § 15(6, 9), § 16(3, 4), § 18(3, 9–11, 14, 15), as far as possible.
 - 4) Eliminating or reducing harmful, inconvenient and hazardous factors that may occur during education, including:
 - a) the possibility of requesting the referral for medical examinations mentioned in § 24 at an earlier date;

- b) the possibility of requesting the reduction or elimination of harmful, inconvenient and hazardous factors.
- 3. The director of the doctoral school shall ensure or support the implementation of the granted rights and services.
- 4. Requests submitted to the director of the doctoral school by a doctoral student with special needs, including a doctoral student with a disability, which concern the doctoral student's health condition, shall be considered in cooperation with the Centre and on the basis of the Centre's position, including on the basis of a statement of the granted services and rights listed in the Regulations of Support. Documentation concerning the student's state of health (medical certificates, etc.) shall be included in the Centre's documentation and not in the doctoral student's personal file, while the above-mentioned opinion of the Centre may be included in the doctoral student's personal file.

§ 24

- 1. A list of harmful, inconvenient and hazardous factors (hereinafter: harmful factors) that may occur during education in individual disciplines is presented to the doctoral student during the occupational health and safety training in the relevant organisational units.
- 2. In order for the doctoral student to participate in classes taught in a discipline in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to undergo education in this discipline – subject to point 4.
- 3. Candidates to study at the doctoral school in a discipline referred to in point 2, including persons transferring from another doctoral school, and doctoral students before the date of the next medical examination indicated on the medical certificate, shall receive a referral for medical examinations.
- 4. The university shall strive to enable the widest possible group of people to undertake and continue education at the doctoral school, in particular by eliminating or limiting harmful factors in individual cases.
- 5. The persons referred to in point 3 have the right to apply to the Centre or the Occupational Health and Safety and Fire Protection Department for the right to receive a referral for a medical examination at an earlier date.
- 6. A person who has presented a medical certificate demonstrating the existence of health

contraindications for education in a given discipline may exercise the right to request the elimination or reduction of harmful factors. In the event of limiting the harmful factors, this person shall be referred for a medical examination concerning exclusively these limited harmful factors.

7. In order for the doctoral student to participate in teaching practice in which exposition to harmful factors may occur, the doctoral student shall submit a medical certificate stating that there are no health contraindications for them to participate in teaching practice in this discipline – subject to points 4, 5, 6, respectively.
8. Detailed rules for the administration of medical examinations are set out in the ordinance on medical examinations of candidates and students.

VIII. COMPLETION OF EDUCATION AT THE DOCTORAL SCHOOL AND OBTAINING THE DOCTORAL DEGREE

§ 25

1. The doctoral student's education shall end with:
 - 1) having publication achievements in accordance with article 186(1)(3) of the act (list of journals of the Ministry of Education and Science);
 - 2) completing the curriculum;
 - 3) submitting the doctoral dissertation with a positive opinion of the supervisor or supervisors.
2. The doctoral student shall submit the dissertation to the relevant discipline board within the time limit specified in the individual research plan.
3. The individual research plan specifies the deadline for submitting the doctoral dissertation. This deadline may be extended in accordance with the terms set out in these regulations.
4. At the request of the doctoral student, the director of the doctoral school may extend the deadline for submitting the doctoral dissertation, by no more than 1 year in total, in the event of:
 - 1) special needs resulting from the state of health, including disability;
 - 2) the necessity to provide personal care for a sick family member;

- 3) the need to provide personal care for a child under four years of age or a child with a disability certificate.
5. At the request of the doctoral student, the director of the doctoral school may extend the deadline for submitting the doctoral dissertation in cases justified by the necessity to conduct long-term research required to prepare the doctoral dissertation. The extension is possible provided that the doctoral student is the main author (with a contribution of at least 50%, confirmed by the co-authors' statements) of at least one original peer-reviewed article from the Journal Citation Reports list.
6. The extension referred to in points 4 and 5 may not be longer than 2 years in total.
7. The application for the extension of the deadline for submitting the doctoral dissertation shall include:
 - 1) the doctoral student's personal details: name, surname, PESEL number, and in the absence of this number – the number of a document confirming the identity, and information about the year of education;
 - 2) justification;
 - 3) the supervisor's opinion;
 - 4) updated individual research plan, positively assessed by the relevant discipline board.
8. The doctoral student shall enclose a document confirming the existence of the circumstances described in points 4 and 5 to the application. The provisions of § 23(4) shall apply.
9. Prior to the submission of an application for initiating the proceedings for the conferment of the doctoral degree, the doctoral student shall present the research results at a seminar organised by the chairman of the relevant scientific discipline board.

§ 26

1. The doctoral degree is awarded as a result of the proceedings for the conferment of the doctoral degree.
2. The activities in the proceedings for the conferment of the doctoral degree shall be performed by the appropriate scientific discipline board.
3. A doctoral student who has met the requirements specified in § 25 and the requirements specified in the resolution of the Senate of Wrocław University of

Environmental and Life Sciences on the proceedings for the conferment of the doctoral degree, and has obtained positive reviews of the doctoral dissertation from at least two reviewers, may be admitted to defend his or her doctoral dissertation.

4. The conferment of the doctoral degree is confirmed by a diploma.
5. A person who has been awarded the doctoral degree receives a doctor's diploma and a copy of this diploma. At the request of this person, a copy of the diploma in a foreign language shall be issued.

§ 27

1. If the doctoral student has obtained the doctoral degree as a result of graduation from the doctoral school, the period of education at the doctoral school, not exceeding four years, shall be included in the period of work on which employee entitlements depend.
2. If the doctoral student has not completed education at the doctoral school due to:
 - 1) taking up employment as an academic teacher or researcher,
 - 2) discontinuation of education for doctoral students in a given discipline– the period of education at the doctoral school, not exceeding four years, shall be included in the period of work on which employee entitlements depend, provided that they have obtained the doctoral degree.
3. A person who has not completed education at the doctoral school may, upon a written request, receive a certificate on the course of education.

IX. FINAL PROVISIONS

§ 28

1. The doctoral students shall establish the doctoral students' self-government in accordance with the terms set out in the regulations of the doctoral students' self-government.
2. In matters concerning the terms and conditions of participating in the doctoral school that are not regulated herein or in other legal provisions, the director of the doctoral school shall be authorised to make decisions *ex officio* or at the request of the interested party.

3. The decisions of the director of the doctoral school regarding the doctoral students' individual cases are subject to a motion for reconsideration submitted to the rector through the director of the doctoral school.
4. Supervision over the doctoral school is exercised by the relevant vice-rector for science.

§ 29

These regulations shall enter into force on 1 October 2024.

RESOLUTION NO. 35/2019 OF THE SENATE OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES ON TERMS OF CANDIDATE ADMISSION TO THE SCHOOL OF PHD EDUCATION IN THE ACADEMIC YEAR 2019/2020 OF 26 APRIL 2019

(BASED ON ARTICLE 291 OF THE PROVISIONS IMPLEMENTING THE HIGHER SCHOOLS AND EDUCATION ACT OF 3 JULY 2018 – JOURNAL OF LAWS, ITEM 1669 AS AMENDED)

NOW, THEREFORE, BY THESE PRESENTS, THE SENATE HAS DECREED AS FOLLOWS:

GENERAL PROVISIONS

§1

Recruitment to the School of PhD Education has the form of a competition and follows the terms specified in this resolution.

§2

1. The School of PhD Education at Wrocław University of Environmental and Life Sciences is established for the following fields and disciplines:

- 1) exact and natural sciences in the discipline of biological science;
- 2) technical engineering in the following disciplines:
 - a. civil engineering and transport,
 - b. environmental engineering, mining, energy engineering;
- 3) agricultural science in the following disciplines:
 - a. farming and horticulture,
 - b. food science and nutrition,
 - c. veterinary medicine,
 - d. zootechnology and fishery.

2. Wrocław University of Environmental and Life Sciences will accept up to 50 candidates for the first year of the School of PhD Education in the academic year 2019/2020

§3

1. Application for admission to the School of PhD Education is open to candidates having a Master of Arts degree, Master of Science degree or equivalent degree, or a person mentioned in Article 186 section 2 of the Higher Schools and Education Act of 20 July 2018 (Dz. U. [Journal of Laws], item 1668 as amended), including a beneficiary of the “Diamond Grant” programme.

2. The candidate applying for admission to the School of PhD Education must have full capacity for legal acts.

3. The candidate applying for admission to the School of PhD Education must be a Polish citizen or a foreigner.

4. Foreigners may enrol and study at Schools of PhD Education on terms specified in Article 323 of the Higher Schools and Education Act of 20 July 2018.

5. Polish citizens and foreigners are bound by the same terms of recruitment for the School of PhD Education. Foreigners must undergo the recruitment process pursuant to this Resolution.

RECRUITMENT

§4

1. The qualification procedure shall be the responsibility of the recruitment commission appointed by the School of PhD Education Board. A representative of the PhD student body shall take part in the work of the recruitment commission.

2. The chairperson of the recruitment commission shall be appointed by the Director of the School of PhD Education from among its members.

3. The members of the recruitment commission may be persons holding a professorial title or post-PhD degree, representing the scientific discipline in which the School of PhD Education will provide education.

4. If a circumstance should occur to prevent a member of the recruitment commission from participating directly in its work, the School of PhD Education Board shall recall them and appoint another member, subject to the principles set out in section 3.

5. The work of the recruitment commission shall be supervised by the Director of the School of PhD Education.

6. The recruitment commission shall serve a term of 4 years.

§5

The tasks of the recruitment commission are as follows:

- 1) announce the recruitment to the School;
- 2) receive candidate applications registered in the on-line candidate registration system;
- 3) notify the candidates of the time and place of the qualification procedure and conduct the qualification procedure and draw up a report on that procedure.

QUALIFICATION PROCEDURE

§6

1. The qualification procedure is open to persons who:

- 1) have registered in a personal registration account in the online candidate registration system;

- 2) hold a Master of Arts degree, a Master of Science degree or an equivalent degree confirmed by a diploma or a certificate issued by the relevant dean;
 - 3) have complied with the terms specified in Article 186 section 2 of the Act, including by being a beneficiary of the “Diamond Grant” programme;
 - 4) have filled out a School of PhD Education candidate card in the on-line candidate registration system and delivered the card, filled-out, printed and enclosed with the required appendixes, to the Department of Studies.
2. The qualification procedure has the form of a competition and consists of two stages.
3. For candidates (students) mentioned in Article 186 section 2 of the Higher Schools and Education Act, the recruitment commission makes an assessment of their academic achievements based on the following criteria:
- 1) authorship or co-authorship of scientific publications in peer-reviewed journals with a national dimension or book-form publications (in the case of publications, please indicate the list – A, B, C – and the score assigned to the journal in the current register of journals kept by the Ministry),
 - 2) participation in research projects conducted by the research entity in cooperation with other research entity or social/business partners,
 - 3) authorship or co-authorship of a patent or utility model
 - 4) papers delivered at scientific conferences,
 - 5) awards and distinctions in international competitions,
 - 6) active participation in the work of a science club,
 - 7) participation in international programmes forming part of international inter-university scientific or didactic cooperation,
 - 8) participation in foreign training.

Progress to the first stage recruitment is conditional upon a positive assessment of the candidate’s academic achievements.

4. 1st stage (maximum number of points – 50)
- 1) grade-point average for a 1st and 2nd tier programme or single-tier MA programme;
 - 2) for candidates (students) mentioned in Article 186 section 2 of the Higher Schools and Education Act and beneficiaries of the “Diamond Grant” programme – the grade-point average for the passed years of studies will be considered;
 - 3) the GPA mentioned in points 1) and 2) – no lower than 3.5 (no longer than 5 points)
- | | |
|-----------|----------|
| 4.8 – 5 | 5 points |
| 4.5 – 4.7 | 4 points |
| 4.2 – 4.4 | 3 points |
| 3.9 – 4.1 | 2 points |
| 3.5 | 1 point |

- 4) grade on the diploma of graduation from the 2nd-tier studies or single-tier MA studies, no lower than 3.5 (no more than 5 points)

very good	5 points
good plus	4 points
good	3 points
satisfactory plus	2 points

- 5) English skills (no more than 10 points)

B2	5 points
C1	8 points
C2	10 points

- 6) a second foreign language—extra points (no more than 5 points)

B2	1 point
C1	3 points
C2	5 points

- 7) foreign language skills should be documented by a certificate or a statement proving the ability in the language at the required level, issued by the organizational unit responsible for foreign language teaching at the relevant university

- 8) academic activity (no more than 15 points)
(articles, posters, papers and scientific reports)

- 9) completed scholarships and training (no more than 10 points)
(documented by relevant statements and certificates)

5. 2nd stage (maximum number of points – 25)

Interview—an oral presentation of the subject of the future PhD dissertation and academic interests

Interviews with candidates from abroad may have the form of a videoconference.

- 1) The recruitment commission should, in respect of a candidate with a disability confirmed by a disability certificate or a statement from a specialist medical consultancy centre, modify the qualification procedure as appropriate.
- 2) A disabled candidate should request the recruitment commission to modify the qualification procedure, at the latest seven working days before the date of the procedure. The request should be enclosed with a photocopy of a document confirming the disability.

ADMISSION TO THE SCHOOL OF PHD EDUCATION

§7

1. The results of the qualification procedure are open.
2. The results obtained by the candidates in the qualification procedure will be used to compile a ranking list to determine the order of candidate admission to the School of PhD Education within the admission limit.
3. Admission to the School is condition upon:
 - 1) obtaining a minimum of 51% of the total score available in the recruitment procedure:
 - at stage 1: 25.5 points
 - at stage 2: 12.75 points
 - 2) knowledge of English at B2 level as a minimum;
 - 3) obtaining the required GPA for 1st-tier and 2nd-tier study programme or a single-tier MA study programme and, for candidates mentioned in §6 section 3, a certificate of a GPA of 3.5 as a minimum for at least three years of an MA study programme
4. The ranking list mentioned in section 2 shall be compiled by the commission immediately in the online candidate registration system.
5. Where two or more candidates hold the last spot on the ranking list as a result of obtaining an equal number of points, the decisive criterion of admission is the number of points obtained for the interview and—subsequently—points obtained for academic activity, completed scholarships and training abroad.
6. If, upon closure of the qualification procedure, vacancies are found to be available, the recruitment commission may decide:
 - 1) to close the qualification procedure without filling the vacancies;
 - 2) open a second round of recruitment on the same terms.
7. Admission to the School of PhD Education takes effect when the candidate enters their name on the list of PhD students following the qualification procedure. The PhD students will, immediately after the closure of the recruitment procedure, receive notice on being qualified for the School of PhD Education, whereupon they have 14 days to enter their names on the list of PhD students. Failure to do so within the prescribed time-limit will result in no admission to the School of PhD Education.
8. Refusal to admit a candidate to the School of PhD Education is made by administrative decision of the Rector. The decision can be appealed for review.
9. It is possible to be a PhD student in only one School of PhD Education.
10. A PhD student admitted to the School of PhD Education is deemed to start education and acquire PhD student status on taking vows.

11. A PhD student receives a PhD student's card.

§8

This Resolution is deemed to have been made public on being posted on the WEULS website and in the University building.

§9

Any matters not covered under this Resolution shall be governed by the provisions of the Act and the University's internal regulations.

§10

The Regulation becomes effective on the day it is adopted.

Chairperson of the Senate
Prof. dr hab. inż. Tadeusz Trziszka

RESOLUTION NO. 50/2019 OF THE SENATE OF WROCLAW UNIVERSITY OF
ENVIRONMENTAL AND LIFE SCIENCES OF 24 MAY 2019
AMENDING RESOLUTION NO. 35/2019 OF THE SENATE OF WROCLAW
UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES OF 26 APRIL 2019
ON TERMS OF CANDIDATE ADMISSION TO THE SCHOOL OF PHD EDUCATION IN
THE ACADEMIC YEAR 2019/2020 OF 26 APRIL 2019

Pursuant to § 7(2)(16) of the Statute of Wrocław University of Environmental and Life Sciences and in connection with Article 291 of the Act of 3 July 2018 – Provisions Introducing the Act on Higher Education and Science (Journal of Laws, item 1669, as amended), the Senate hereby adopts the following:

§ 1

Section 2(2) shall read as follows:

“Wrocław University of Environmental and Life Sciences will accept up to 30 candidates to the first year of the School of PhD Education in the academic year 2019/2020.”

§ 2

The remaining provisions of Resolution No. 35/2019 of the Senate of Wrocław University of Environmental and Life Sciences of 26 April 2019 shall remain unchanged.

§ 3

This resolution becomes effective on the day it is adopted.

Chairperson of the Senate

Prof. dr hab. inż. Tadeusz Trziszka

Resolution No. 4/2020

of

the Senate of Wrocław University of Environment and Life Sciences of 31.01.2020 r.
on the terms of candidate admission to the Doctoral School in the academic year 2020/2021.
Pursuant to Article 200 (2) and (3) of the Act of 20 July 2018: Law on Higher Education and
Science (Dz. U. item 1668 as amended) the Senate decides as follows:

GENERAL PROVISIONS

§ 1

Recruitment to the Doctoral School has the form of a competition and follows the terms specified in this resolution.

§ 2

1. The Doctoral School at Wrocław University of Environmental and Life Sciences provides education in the following fields and disciplines:
 - 1) Natural Sciences in the discipline: Biological Sciences;
 - 2) Engineering and Technology in the disciplines:
 - a. Civil Engineering and Transport,
 - b. Environmental Engineering, Mining and Energy;
 - 3) Agricultural Sciences in the disciplines:
 - a. Agriculture and Horticulture,
 - b. Nutrition and Food Technology,
 - c. Veterinary Science,
 - d. Animal Science and Fisheries.
2. Wrocław University of Environmental and Life Sciences will accept not more than 30 candidates for the first year of studies in the Doctoral School subject to sections 3 and 4.
3. The admission limit specified in section 2 does not apply to:
 - 1) candidates who, on the day of submission of their application to the Doctoral School, have the funding of their PhD secured through research projects financed by external sources with the funding covering the costs of the PhD scholarship and PhD research for the period of at least 36 months;
 - 2) beneficiaries of the programme “Implementation Doctorate” (*Doktorat Wdrożeniowy*).
4. For the persons referred to in section 3, additional recruitment may be set up taking into account the requirements of a particular research or R&D project. Candidates referred to in section 3 (1) may be admitted to the Doctoral School during the course of the first semester provided they do the untaken subjects in the next academic year.

§ 3

1. Applications for admission to the Doctoral School may only be submitted by a candidate who holds a Master of Arts degree, a Master of Science degree or an equivalent degree, or

a person referred to in Article 186 (2) of the Act of 20 July 2018: Law on Higher Education and Science (Dz. U. item 1668 as amended), including a beneficiary of the “*Diamentowy Grant*” programme.

2. Has full capacity for legal acts.
3. Is a Polish citizen or a foreign national.
4. Foreign nationals may study at the Doctoral School as specified in Article 323-324 of the Act of 20 July 2018: Law on Higher Education and Science.
5. The same terms of recruitment to the Doctoral School apply to Polish citizens and foreign nationals. Foreign nationals are obliged to undergo the recruitment process as specified in this resolution subject to sections 6 and 7.
6. If English is the candidate’s first language, the requirements set out in § 7 (6) and in § 8 (5) shall refer to a different foreign modern language chosen by the candidate.
7. Foreign nationals wishing to study at the Doctoral School, where Polish is the language of instruction, are obliged to confirm their knowledge of Polish (an obligatory requirement) by submitting one of the following documents:
 - 1) a document certifying the completion of a Polish language course, carried out in one of the centres of instruction approved by the Ministry of Science and Higher Education, whose aim is to prepare foreign nationals for studies in Poland;
 - 2) a Polish language certificate issued by the State Examination Board (*Państwowa Komisji do spraw Poświadczenia Znajomości Języka Polskiego jako Obcego*);
 - 3) confirmation of the knowledge of Polish as a foreign language;
 - 4) certificates, diplomas or other documents certifying candidate’s graduation from a secondary school whose language of instruction was Polish.
8. There is a possibility of conducting classes in English if foreign students do not speak Polish on a sufficient level to be able to study in this language; in this case, candidates are obliged to prove their knowledge of English at B2 level of the Common European Framework of Reference for Languages. However, this solution may only be applied if at least 7 foreign nationals declare that they want to study at the Doctoral School with English as the language of instruction.

RECRUITMENT PROCEDURE

§ 4

1. The recruitment commission appointed by the Doctoral School Board is responsible for the recruitment to the Doctoral School. Two representatives of the PhD student council take part in the work of the recruitment commission.
2. The chairperson of the recruitment commission is appointed by the Director of the Doctoral School from among its members.
3. The members of the recruitment commission must hold a professorial title or a post-PhD degree and they must represent the scientific discipline in which the Doctoral School will provide education.

4. In the event that a member of the recruitment commission is unable to participate directly in the commission's work, the Doctoral School Board shall recall such a member and appoint a new one, subject to provisions set out in section 3.
5. The work of the recruitment commission is supervised by the Director of the Doctoral School.
6. The term of office of the recruitment commission is 1 year.
7. The recruitment of the candidates to the Doctoral School under the project "Implementation Doctorate" ("*Doktorat wdrożeniowy*") mentioned in § 2 section 3 item 2 is conducted by the Doctoral School Board. The Head of the Doctoral School Board acts then as the chairperson of the recruitment commission. If one of the members of the Doctoral School Board is not an unbiased person, being either a potential PhD dissertation supervisor or an auxiliary advisor, the School Director in conjunction with the Head of the Board of the Discipline appoints a substitute member from among the members of the discipline in accordance with § 4 section 3. An appropriate vice-rector under whom the project falls, shall be a member of the commission.
8. The Doctoral School Board is responsible for the recruitment to the Doctoral School as set out in § 2 section 3 point 1, as well as the recruitment during the first semester as set out in § 2 section 4, unless the project's competition rules state otherwise (e.g. *Preludium bis* competition). The Head of the Doctoral School Board acts then as the chairperson of the recruitment panel. If one of the members the Doctoral School Board is not an unbiased person being either a potential PhD dissertation supervisor or a second PhD dissertation supervisor, the School Director in conjunction with the Head of the Board of the Discipline appoints a substitute member from among the members of the discipline in accordance with § 4 section 3. An appropriate vice-rector under whom the project falls, shall be a member of the commission.

§ 5

The tasks of the recruitment commission are as follows:

- 1) announce the recruitment to the Doctoral School;
- 2) notify the candidates of the time and place of the recruitment process;
- 3) conduct the recruitment;
- 4) evaluate candidates' achievements mentioned in the recruitment documentation (candidate's card must be signed by the members of the recruitment commission who have assessed candidate's achievements);
- 5) draw up a joint report on the recruitment process.

§ 6

1. A potential PhD dissertation supervisor at the Doctoral School is obliged to send their card using the laid-out format by e-mail at the address szkola.doktorska@upwr.edu.pl by 28 February 2020.
2. The cards will be passed on to the relevant Board of the Discipline so that it can give their opinion within 30 days. The opinion of the Board of the Discipline is binding for the Doctoral School Board.

3. The PhD dissertation supervisor is allowed to propose one research or R&D topic for the recruitment process.
4. Potential PhD dissertation supervisors who have obtained a separate funding for the research or R&D project from external sources as set out in § 2 section 3 item 1 may present their card outside the time indicated in section 1.
5. The list of potential PhD dissertation supervisors in the form of a card will be made public on the website of the Doctoral School by 15 April 2020.
6. The requirement of presenting a card does not apply to the potential PhD dissertation supervisors working with the beneficiaries of the “Implementation Doctorate” (*“Doktorat Wdrożeniowy”*).

§ 7

1. The recruitment procedure is open only to a person who:
 - 1) holds a Master of Arts degree, a Master of Science degree or an equivalent degree confirmed by a diploma, or a person who has submitted a certificate issued by the relevant dean’s office confirming the study programme completion with the information about the date of the planned MA/MSc thesis defence – the graduation diploma must be delivered by 1 September (of the year when the recruitment process takes place); or a person who fulfils the requirements set out in Article 186 section 2 of the Act, including the beneficiaries of the *“Diamantowy Grant”* programme;
 - 2) has registered in a personal registration account in the online candidate registration system;
 - 3) has chosen a potential PhD dissertation supervisor from the list of supervisors made public on the website of the Doctoral School, has contacted the supervisor and has obtained the supervisor’s approval for the topic and scope of the doctoral dissertation (the potential PhD dissertation supervisor is required to confirm with their signature the aptitude of the candidate for scientific work: for any one topic only one candidate can compete.), this requirement does not apply to candidates seeking admission to the Doctoral School within the programme “Implementation Doctorate” (*“Doktorat Wdrożeniowy”*).
 - 4) has paid the recruitment fee in the amount of PLN 200 or, in the case of foreign nationals EUR 50 (payment transfer title: first name surname, Doctoral School recruitment);
 - 5) has submitted to the Department of Studies (*Działu Nauki*) the following documents:
 - a) application form generated through the on-line candidate registration system, enclosed with the required appendixes;
 - b) confirmation of paying the recruitment fee;
 - c) Candidate’s Card, which constitutes an appendix to this resolution, enclosed with documents confirming stated achievements.
2. The recruitment process consists of two stages. Progress to the second stage of the recruitment process is conditional upon the candidate fulfilling the requirements set out for the first stage.
3. The candidate is the only person responsible for the compilation of the necessary documentation. If the documentation is incomplete, the candidate will be asked to complete the documentation within 7 days, at the same time, they will be informed that if the lacking documents are not delivered, it will result in the admission application not being processed.

4. In the event that the candidate gives fraudulent information or provides falsified documentation for the purpose of the recruitment, they shall be disqualified from the recruitment process with immediate effect. If it is revealed that a person admitted to the Doctoral School has falsified the recruitment documentation, they will be stricken off the list of PhD students on disciplinary grounds.
5. In the case of candidates (students) who have not finished higher education studies mentioned in Article 186 (2) of the Act: Law on Higher Education and Science, including the beneficiaries of the “*Diamentowy Grant*” programme, the recruitment commission, before the start of the recruitment, makes an assessment of the candidates’ academic achievements using the following criteria:
 - 1) authorship or co-authorship of scientific publications in reviewed scientific journals of at least national dimension, or scientific publications in the form of a monograph or a chapter in a monograph (in the case of publications, the score assigned to the journal in the current register of journals kept by the Ministry is to be indicated);
 - 2) participation in research projects conducted by the research entity in cooperation with other research units or partners from the social/business environment;
 - 3) authorship/co-authorship of a patent or utility model;
 - 4) awards and distinctions in international competitions;
 - 5) active participation in the work of a scientific club;
 - 6) participation in international programmes as part of international scientific or didactic cooperation between universities;
 - 7) participation in foreign training programmes;
 - 8) others.

Passing to the first stage of the recruitment process depends on the positive assessment of the candidate’s academic achievements.

6. The first stage (total number of points possible to achieve – relevant information to be found on the Candidate’s Card).

The candidate’s assessment is based on the documented achievements stated in the Candidate’s Card which constitutes an appendix to this resolution subject to:

- 1) Appendix No. 1 – for candidates within the limit of places mentioned in § 2 section 2;
 - 2) Appendix No. 2 – for candidates referred to in § 2 section 3 point 1;
 - 3) Appendix No. 3 – for candidates referred to in § 2 section 3 point 2.
7. The second stage (total number of points possible to achieve – the relevant information to be found on the candidate’s card).

Interview – oral presentation on the subject of the future PhD dissertation and the applicant’s scientific interests. The interview may be conducted in English on condition that it will be in accordance with B2 level of the Common European Framework of Reference for Languages.
8. Foreign candidates may attend the interview in the form of a videoconference.
9. The recruitment commission is obliged to adapt the recruitment procedure to the needs of a candidate with a disability on the basis of a disabled person identification card or a document/opinion issued by a relevant specialist outpatient clinic.
10. A candidate with a disability should inform the recruitment commission of the necessity of adapting the recruitment process to their needs not later than seven working days before the

start of the recruitment. A document proving the disability should be submitted with the application.

ADMISSION TO THE DOCTORAL SCHOOL

§ 8

1. The results of the recruitment procedure are open and will be made public on the website of Wrocław University of Environmental and Life Sciences, as well as in a freely accessible, specially designated place in the University's building.
2. The number of points obtained by the candidates will be used to create a ranking list to determine the order of candidate admission to the Doctoral School within the admission limit.
3. The ranking list compilation comprises two stages:
 - 1) In the first stage a ranking list of candidates with the highest score for each discipline is prepared in the following way:
 - a) two candidates of Polish nationality,
 - b) one foreign national candidate.
 - 2) Once candidates for each discipline have been selected, a single ranking list is created for all disciplines, the so-called overall ranking which will be used to admit candidates with the highest score within the admission limit.
 - 3) If in a given discipline the quotas of candidates are not met, the free position in the discipline ranking is transferred to the overall ranking, thus, increasing the admission limit in the overall ranking.
4. If two or more candidates hold the last place on the ranking list as a result of obtaining an equal number of points, the decisive criterion of admission is the number of points obtained for the interview, and, subsequently, points obtained for academic activity, completed scholarships and participation in research projects.
5. Admission to the Doctoral School is based on the following:
 - 1) In the case of candidates within the admission limit mentioned in § 2 section 2:
 - a) obtaining more than 50% of the total score available in the recruitment procedure:
 - at stage 1: more than 36.5 points;
 - at stage 2: more than 25 points.
 - b) knowledge of English at B2 level (CEFR) as a minimum;
 - c) obtaining the required GPA for the first-cycle and second-cycle study programmes, or the long-cycle Master's degree study programme or an equivalent study programme, and in the case of candidates mentioned in § 7 section 5, a certificate of GPA for the first-cycle study programme or for at least 3 years of the long-term Master's degree study programme or an equivalent study programme – of 3.75 as a minimum.
 - 2) In the case of candidates mentioned in § 2 section 3 point 1:
 - a) knowledge of English at B2 level (CEFR) as a minimum;
 - b) obtaining the required GPA for the first-cycle and second-cycle study programmes or the long-cycle Master's degree study programme or an equivalent study programme, and in the case of candidates mentioned in § 7 section 5, a certificate of GPA for the first-cycle study programme or for at least 3 years of

- long-term Master's degree study programme or an equivalent study programme – of 3.75 as a minimum.
- c) obtaining more than 50% of the total score available in the recruitment procedure:
 - at stage 1: more than 33 points;
 - at stage 2: more than 25 points;
- 3) In the case of candidates mentioned in § 2 section 3 point 2:
- a) admission to the programme “Implementation Doctorate” (*“Doktorat Wdrożeniowy”*);
 - b) knowledge of English at B2 level (CEFR) as a minimum;
 - c) obtaining the required GPA for the first-cycle and second-cycle study programmes or the long-cycle Master's degree study programme or an equivalent study programme, and in the case of candidates mentioned in § 7 section 5, a certificate of GPA for the first-cycle study programme or for at least 3 years of long-term Master's degree study programme or an equivalent study programme – of 3.75 as a minimum.
 - d) obtaining more than 50% of the total score available in the recruitment procedure:
 - at stage 1: more than 16 points;
 - at stage 2: more than 25 points.
6. If vacancies are to be found after the closure of the recruitment procedure, the recruitment commission may decide to:
- 1) close the recruitment procedure without filling the vacancies;
 - 2) open a second round of recruitment (supplementary recruitment) on the same terms.
7. Once the recruitment procedure is finished, successful candidates will be notified of being accepted to the Doctoral School (through a ranking list made public on the University website within the given deadline). Whereupon they have to enter their name on the list of PhD students within 7 days. Failure to do so within the prescribed time-limit will result in no admission to the Doctoral School.
8. Admission to the Doctoral School takes effect when the candidate enters their name on the list of PhD students following the recruitment procedure in accordance with below presented rules:
- 1) for candidates within the admission limit mentioned in § 2 section 2 and 3 point 1 – after the closure of the recruitment procedure and making the results public,
 - 2) for candidates applying for admission within the programme “Implementation Doctorate” (*“Doktorat Wdrożeniowy”*) – after the closure of the recruitment procedure and making the results public, however, not sooner than after the announcement of the winners of the competition within the programme “Implementation Doctorate” (*“Doktorat Wdrożeniowy”*) financed by the Ministry of Science and Higher Education.
9. In the event that a candidate who has been admitted to the Doctoral School on the basis of the so-called discipline ranking decides not to pursue education at the Doctoral School, another candidate representing the same discipline will be entered onto the list of PhD students taking into account, however, the order resulting from the recruitment procedure. If there is no candidate representing the discipline in question, another person from the

overall ranking will be admitted. The entry will be made not later than by the 30th day of September of a given year.

10. Refusal to admit a candidate to the Doctoral School is made by the Rector's administrative decision. The decision can be appealed against for review.
11. It is permissible to be a PhD student only in one Doctoral School.
12. A person admitted to the Doctoral School is deemed to have begun education and acquired a PhD student status on taking vows.

§ 9

Any matters not covered by this Resolution shall be governed by the provisions of the Act 20 July 2018: Law on Higher Education and Science as well as by the University's internal regulations.

§ 10

The Resolution becomes effective on the day it is adopted.

**WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES
DOCTORAL SCHOOL**

CANDIDATE'S CARD

.....
(candidate's full name)

Scientific discipline:

Proposed PhD supervisor/discipline (share %)

.....
(academic title/degree, full name)

Proposed second PhD supervisor or auxiliary supervisor/ discipline (share %):

.....
(academic title/degree, full name)

Proposed PhD dissertation topic¹:.....

.....

I. List of candidate's achievements²

No.	Type of achievement	Allocated points
	1	2
Stage 1		
I.	Grade-point average (GPA) for the first and second-cycle programmes or long-cycle master's degree programme or equivalent³ – 5 points maximum Candidates (students) referred to in w Article 186 section 2 of the Act on Higher Education and Science submit GPA for the completed years of studies.	4.6–5.0 – 5 pts. 4.0–4.5 – 4 pts. 3.75–3.9 – 3 pts.
I.1.	Candidate's grade-point average:	

¹ Proposed PhD dissertation topic should be in accordance with the topic announced in the supervisor's card.

² Items I-VI are to be completed by the candidate (except column 2 – allocated points) – every achievement should be documented and submitted with the Candidate's Card in the form of appendices. All documents must be properly numbered where each number corresponds with the number of a given achievement from the Candidate's Card, e.g. in the case of an article listed in the Journal Citation Reports from – the first page of the article documenting an achievement should be marked in the upper right-hand corner in the following way: IV. 1, the next article in this category should be marked: IV.2, etc.

³ In the case of two-cycle study programmes, GPA should be calculated using the formula: $\frac{a+b}{2} = s$, where: a – GPA for the first-cycle programme GPA, b – GPA for the second-cycle programme; s – the required GPA for the two cycles.

II.	Knowledge of the English language⁴ – 10 pts. maximum	B2 – 6 pts. C1 – 8 pts. C2 – 10 pts.
II.1.	Documented level of English:	
III.	Knowledge of a second modern foreign language² – 8 pts. maximum	B2 – 4 pts. C1 – 6 pts. C2 – 8 pts.
III.1.	Documented level of a second modern foreign language:	
IV.	Scientific publications⁵ – 25 pts. maximum – authorship or co-authorship of a scientific paper published in a scientific journal or in peer-reviewed papers from an international conference listed in the current register of journals kept by the Ministry of Science and Higher Education (regardless of the year of the publication of the article). Only one (the best) publication should be presented.	The number of points depends on the score assigned to the journal in the current register of the Ministry of Science and Higher Education: ≥ 100 pts. – 25 pts. 70 – 20 pts. 40 – 15 pts. 20 – 10 pts.
IV.1.	.....	
V.	Patents and utility models – 5 pts. maximum. Points are assigned for one achievement of candidate's choice.	
1.	Patent/utility model (granted) (The following information should be provided: inventors' full names, title of the patented invention, date and place of grant of the patent, patent number, name of the entity granting the patent, country in which the patent protection was granted.)	5 pts. – regardless of the number of patents/utility models
V.1.1.	.....	
2.	Request for grant of a patent/utility model (The following information should be provided: inventors' full names, title of the invention, patent grant request number.)	5 pts. – regardless of the number of applications
V.2.1.	.....	
VI.	Participation in the activities of a science club – 5 pts. maximum (The candidate should provide a certificate from the science club's coordinator with a list of work and functions performed in connection with the club's scientific activities, following the template on the website.)	5 pts. – for active participation in the work of a science club (regardless of the number of science clubs)
VI.3.1.	.....	
VII.	Participation in research or R&D projects – 10 pts. maximum	

⁴ The knowledge should be documented with a certificate proving candidate's language skills at a required level, issued by the department of a given university responsible for teaching foreign languages. The Doctoral School will honour certificates which are on the LIST OF CERTIFICATES PROVING FOREIGN LANGUAGE SKILLS constituting appendix No. 1 to the Resolution of the Ministry of Science and Higher Education of 19 January 2018 on the rules of procedure for conferring the doctoral degree, postdoctoral degree and professorial title.

⁵ Papers in the process of being reviewed will not be evaluated. The candidate is obliged to provide the following: authors' full names, the title of the article, the title of the journal, bibliography (year, volume, pages and ISSN or DOI) as well as the number of points from the Ministry's register of publications; in the case of a chapter in a monograph or a monograph itself, the candidate should also provide: the name of the publishing house, ISBN or DOI. A photocopy of the first page of the publication containing the above-mentioned data should be enclosed with the Candidate's Card.

1.	Participation in a research or R&D project financed from external sources (e.g. NCN, NCBR, H2020) and the completion of the main assumptions of the PhD dissertation written as part of this project – points are given provided the candidate's participation in the project lasts for at least 12 months starting from 1 October of the year when the recruitment procedure takes place – 5 pts. maximum (The candidate is obliged to provide a statement from the coordinator of the project/research task approved by the relevant Vice-rector representing the unit responsible for the project (in accordance with the template on the website) or a certified photocopy of the contract entered into between the candidate and the coordinator of the project or research task.)		5 pts. – regardless of the number of projects and their duration
VII.1.1	.....		
2.	Active participation in a research or R&D project financed from external sources, e.g. NCN, NCBR, H2020 before the day of submission of the application to the Doctoral School – 5 pts. maximum (The candidate is obliged to provide a statement from the coordinator of the project/research task approved by the relevant Vice-rector representing the unit responsible for the project (in accordance with the template on the website) or a certified photocopy of the contract entered into between the candidate and the coordinator of the project or research task.)		5 pts. – regardless of the number of projects and their duration
VII.2.1	.....		
VIII.	Participation in a foreign academic training programme of at least 4 weeks – 5 pts. maximum (This should be documented through a statement from the internship's coordinator containing: intern's full name, research coordinator's full name, name of the university or scientific institution in which the internship or scientific visit took place, name of the country, type of internship, precise time of the internship, description of completed tasks and their results.)		5 pts. – regardless of the number of training programmes
VIII.1	.....		
Stage 1 – Total possible number of points – 73 pts. (items I-VIII)			
Stage 2			
Stage 2 – Interview – 50 pts. maximum			
1.	PhD dissertation concept	30	
2.	Career path	10	
3.	Self-presentation	10	
Number of points received by the candidate in stage 1 and stage 2			

I declare that the information provided by me for the recruitment purpose is accurate, complete and true.

.....
(date, candidate's signature)

Signed by the members of the recruitment commission:

.....
.....
.....

(academic title/degree, first name and last name, signature)

II. Additional information

1. I declare that:

a. I am/am not* employed under the employment contract at:

as

b. I am/am not* a PhD student in

.....
(university's name)

c. I did/ did not do* PhD studies in

.....
(university's name)

d. I am/am not a participant of a doctoral school:

.....
(name of the university offering the PhD programme)

e. this year I intend/do not intend to apply for a place in the following doctoral schools:

.....
(name of the university offering the PhD programme)

*delete as appropriate

2. Person to be informed in case of an emergency:

.....
(first name and last name)

.....
(address)

.....
(telephone)

I declare that the information provided by me for the recruitment purpose is accurate, complete and true.

.....
(date, candidate's signature)

**WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES
DOCTORAL SCHOOL**

CANDIDATE'S CARD

(for candidates referred to in § 2 section 3 item 1, **who have the funding of their PhD secured through research projects financed by external sources with the funding covering the costs of the PhD scholarship and PhD research for the period of at least 36 months**)

.....
(candidate's full name)

Scientific discipline:

Proposed PhD supervisor/ discipline (share %):

.....
(academic title/degree, full name)

Proposed second PhD supervisor or auxiliary supervisor/ discipline (share %):

.....
(academic title/degree, full name)

Project's coordinator:
(academic title/degree, full name)

Title of the project:

I. List of candidate's achievements¹

No.	Type of achievement	Allocated points
	1	2
I.	Grade-point average (GPA) for the first and second-cycle programmes or long-cycle master's degree programme or equivalent² – 5 points maximum	4.6–5.0 – 5 pts. 4.0–4.5 – 4 pts.

¹ Items I-VI are to be completed by the candidate (except column 2 – allocated points) – every achievement should be documented and submitted with the Candidate's Card in the form of appendices. All documents must be properly numbered where each number corresponds with the number of a given achievement from the Candidate's Card.

² In the case of two-cycle study programmes, GPA should be calculated using the formula: $\frac{a+b}{2} = s$, where: a – GPA for the first-cycle programme GPA, b – GPA for the second-cycle programme; s – the required GPA for the two cycles.

	Candidates (students) referred to in w Article 186 section 2 of the Act on Higher Education and Science submit GPA for the completed years of studies.	3.75–3.9 – 3 pts.
I.1.	Candidate's grade-point average:	
II.	Knowledge of the English language³ – 8 pts. maximum	B2 – 6 pts. C1 – 7 pts. C2 – 8 pts.
II.1.	Documented level of English:	
III.	Knowledge of a second modern foreign language – 8 pts. maximum	B2 – 6 pts. C1 – 7 pts. C2 – 8 pts.
III.1.	Documented level of a second modern foreign language:	
IV.	Scientific publications⁴– 25 pts. maximum – authorship or co-authorship of a scientific paper published in a scientific journal or in peer-reviewed papers from an international conference listed in the current register of journals kept by the Ministry of Science and Higher Education (regardless of the year of the publication of the article). Only one (the best) publication should be presented.	The number of points depends on the score assigned to the journal in the current register of the Ministry: ≥ 100 pts. – 25 pts. 70 – 20 pts. 40 – 15 pts. 20 – 10 pts.
IV.1.	.....	
V.	Active participation in a research or R&D project financed form external sources, e.g. NCN, NCBR, H2020 before the day of submission of the application to the Doctoral School – 5 pts. maximum (The candidate is obliged to provide a statement from the coordinator of the project/research task approved by the relevant Vice-rector representing the unit responsible for the project (in accordance with the template on the website) or a certified photocopy of the contract entered into between the candidate and the coordinator of the project or research task.)	5 pts. – regardless of the number of projects and their duration
V.1.1	.....	
VI.	Participation in a foreign academic training programme of at least 4 weeks – 5 pts. maximum (This should be documented through a statement from the internship's coordinator containing: intern's full name, research coordinator's full name, name of the university or scientific institution in which the internship or scientific visit took place, name of the country, type of internship, precise time of the internship, description of completed tasks and their results.)	5 pts. – regardless of the number of training programmes
VI.1	.....	

³ The knowledge should be documented with a certificate proving candidate's language skills at a required level, issued by the department of a given university responsible for teaching foreign languages. The Doctoral School will honour certificates which are on the LIST OF CERTIFICATES PROVING FOREIGN LANGUAGE SKILLS constituting appendix No. 1 to the Resolution of the Ministry of Science and Higher Education of 19 January 2018 on the rules of procedure for conferring the doctoral degree, postdoctoral degree and professorial title.

⁴ Papers in the process of being reviewed will not be evaluated. The candidate is obliged to provide the following: authors' full names, the title of the article, the title of the journal, bibliography (year, volume, pages and ISSN or DOI) as well the number of points from the Ministry's register of publications; in the case of a chapter in a monograph or a monograph itself, the candidate should also provide: the name of the publishing house, ISBN or DOI. A photocopy of the first page of the publication containing the above-mentioned data should be enclosed with the Candidate's Card.

VII.	Patents and utility models – 5 pts. maximum. Points are assigned for one achievement of candidate's choice.		
1.	Patent/utility model (granted) (Please provide the following information: inventors' full names, title of the patented invention, date and place of grant of the patent, patent number, name of the entity granting the patent, country in which the patent protection was granted.)	5 pts. – regardless of the number of patents/utility models	
VII.1.1.	.....		
2.	Request for grant of a patent/utility model (Please provide the following information: inventors' full names, title of the invention, patent grant request number.)	5 pts. – regardless of the number of applications	
VII.2.1.	.....		
VIII.	Participation in the activities of a science club – 5 pts. maximum (A certificate from the science club's coordinator with a list of work and functions performed in connection with the club's scientific activities, following the template on the website, should be provided.)	5 pts. – for active participation in the work of a science club (regardless of the number of science clubs)	
VIII.3.1.	.....		
Stage 1 Total possible number of points – 66 pts. maximum (items I–VIII)			
Stage 2			
Stage 2 – Interview – 50 pts. maximum			
1.	PhD dissertation concept	30 pts.	
2.	Career path	10 pts.	
3.	Self-presentation	10 pts.	
IX.	Number of points received by the candidate in stage 1 and stage 2		

I declare that the information provided by me for the recruitment purpose is accurate, complete and true.

.....

(date, candidate's signature)

Signed by the members of the recruitment commission:

.....

.....

.....

(academic title/degree, first name and last name, signature)

II. Additional information

1. I declare that:

a. I am/am not* employed under the employment contract at:

as

b. I am/am not* a PhD student in

.....
(university's name)

c. I did/ did not do* PhD studies in

.....
(university's name)

d. I am/am not a participant of a doctoral school:

.....
(name of the university offering the PhD programme)

e. this year I intend/do not intend to apply for a place in the following doctoral schools:

.....
(name of the university offering the PhD programme)

*delete as appropriate

2. Person to be informed in case of an emergency:

.....
(first name and last name)

.....
(address)

.....
(telephone)

I declare that the information provided by me for the recruitment purpose is accurate, complete and true.

.....
(date, candidate's signature)

**WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES
DOCTORAL SCHOOL**

CANDIDATE'S CARD

(for candidates referred to in § 2 section 3 point 2,
beneficiaries of the “**Implementation Doctorate**” programme)

.....
(candidate's full name)

Scientific discipline:

Proposed PhD dissertation supervisor/discipline (share %)......

.....
(academic title/degree, full name)

Proposed auxiliary supervisor¹:

.....
(academic title/degree, full name)

Auxiliary supervisor's achievement as in accordance with the requirement¹:

.....

I. List of candidate's achievements²

No.	Type of achievement	Allocated points
	1	2
I.	Grade-point average (GPA) for the first and second-cycle programmes or long-cycle master's degree programme or equivalent³ – 5 points maximum	4.0–5 – 5 pts. 3.76–3.9 – 3 pts.

¹ The auxiliary supervisor is required to have:

- (i) a PhD degree or
- (ii) experience in academic activity of at least 5 years
- (iii) significant achievements in elaborating and implementing a unique planning, structural, technological or artistic solution applicable in the business or social sphere, above the local level and of durable and universal character.

² Items I-VI are to be completed by the candidate (except column 2 – allocated points) – every achievement should be documented and submitted with the Candidate's Card in the form of appendices. All documents must be properly numbered where each number corresponds with the number of a given achievement from the Candidate's Card.

³ In the case of two-cycle study programmes, GPA should be calculated using the formula: $\frac{a+b}{2} = s$, where: a – GPA for the first-cycle programme GPA, b – GPA for the second-cycle programme; s – the required GPA for the two cycles.

	Candidates (students) referred to in w Article 186 section 2 of the Act on Higher Education and Science submit GPA for the completed years of studies.	3.75 – 2 pts.
I.1.	Candidate's grade-point average:	
II.	Knowledge of the English language⁴ – 7 pts. maximum	B2 – 3 pts. C1 – 5 pts. C2 – 7 pts.
II.1.	Documented level of English:	
III.	Documented research or R&D cooperation with Wrocław University of Environmental and Life Sciences – 5 pts. maximum	5 pts. – regardless of the number of documented projects and their duration
III.1.	.....	
IV.	Other achievements – 5 pts. maximum: Points will be allocated to only one achievement of the below list (the candidate should choose only one achievement of the below list – a patent or implementation or participation in a research project or a scientific publication): Patent/utility model (granted) (The candidate is obliged to provide the following information: title of the invention, date and place of granting the patent, patent number, name of the entity granting the patent, name of the country in which patent protection was granted, inventors' full names.) Implementation – practical application of the results of research or R&D, or implementation of the results of a scientific activity in another form (to be provided: name of the invention, information regarding the implementation of the results of a scientific activity in another form, including date and place of the implementation, photocopy of the contract). Participation in a research and development project (to be provided: a statement from the project's/task's coordinator confirming active participation as well as specification of responsibilities and their duration). Scientific publications⁵ – authorship or co-authorship of a scientific paper published in a scientific journal or in peer-reviewed papers from an international conference listed in the current register of journals kept by the Ministry of Science and Higher Education (to be provided: authors' full names, title of the scientific article, title of the journal, bibliographical information (year, volume, pages and ISSN or DOI) as well as number of points from the register of the Ministry of Science and Higher Education; in the case of a chapter in a monograph or a monograph itself, the name of the publishing house, ISBN or DOI should also be provided).	5 pts. – for a chosen (only one) achievement
IV.1.	.....	

⁴ The knowledge should be documented with a certificate proving candidate's language skills at a required level, issued by the department of a given university responsible for teaching foreign languages. The Doctoral School will honour certificates which are on the LIST OF CERTIFICATES PROVING FOREIGN LANGUAGE SKILLS constituting appendix No. 1 to the Resolution of the Ministry of Science and Higher Education of 19 January 2018 on the rules of procedure for conferring the doctoral degree, postdoctoral degree and professorial title.

⁵ Papers in the process of being reviewed will not be evaluated. The candidate is obliged to provide the following: authors' full names, the title of the article, the title of the journal, bibliography (year, volume, pages and ISSN or DOI) as well as the number of points from the Ministry's register of publications; in the case of a chapter in a monograph or a monograph itself, the candidate should also provide: the name of the publishing house, ISBN or DOI. A photocopy of the first page of the publication containing the above-mentioned data should be enclosed with the Candidate's Card.

V.	Beneficiaries of the “Implementation Doctorate” programme – 10 pts. maximum Points will be assigned after the project gains approval from the Ministry of Science and Higher Education.	10 pts. – for the approved by the Ministry of Science and Higher Education participation in the “Implementation Doctorate” programme
1.	Points for participation in the “Implementation doctorate” programme	
Stage 1 – Total possible number of points – max. 32 pts. (items I–V)		
Stage 2		
Stage 2 – Interview – 50 pts. maximum		
1.	PhD dissertation concept	30 pts.
2.	Career path	10 pts.
3.	Self-presentation	10 pts.
IX.	Number of points received by the candidate in stage 1 and stage 2	

I declare that the information provided by me for the recruitment purpose is accurate, complete and true.

.....

(date, candidate’s signature)

Signed by the members of the recruitment commission:

.....
.....
.....

(academic title/degree, first name and last name, signature)

II. Additional information

1. I declare that:

a. I am/am not* employed under the employment contract at:

as

b. I am/am not * a PhD student in

.....
(university's name)

c. I did/ did not do * PhD studies in

.....
(university's name)

d. I am/am not a participant of a doctoral school:

.....
(name of the university offering the PhD programme)

e. this year I intend/do not intend to apply for a place in the following doctoral schools:

.....
(name of the university offering the PhD programme)

*delete as appropriate

2. Person to be informed in case of an emergency:

.....
(first name and last name)

.....
(address)

.....
(telephone)

I declare that the information provided by me for the recruitment purpose is accurate, complete and true.

.....
(date, candidate's signature)

Resolution no. 97/2020 of the Senate of Wrocław University of Environmental and Life Sciences of 18 December 2020

on the requirements and recruitment procedure for admitting candidates to the Doctoral School in the academic year 2021/2022

Pursuant to Article 200(2) and (3) of the Act of 20 July 2018 – Law on Higher Education and Science (consolidated text, Journal of Laws of 2020, item 85, as amended), it is resolved as follows:

GENERAL PROVISIONS

§ 1

Recruitment to the Doctoral School is based on a competition whose rules are set out in this resolution.

§ 2

1. The Doctoral School at Wrocław University of Environmental and Life Sciences is established in the following fields and disciplines:

1) Exact and Natural Sciences, in the discipline of Biological Sciences;

2) Engineering and Technology, in the following disciplines:

a) Civil Engineering and Transport;

b) Environmental Engineering, Mining and Energy;

3) Agricultural Sciences, in the following disciplines:

a) Agriculture and Horticulture;

b) Nutrition and Food Technology;

c) Veterinary Science;

d) Animal Science and Fisheries.

4) in Social Sciences, in the discipline of Socio-Economic Geography and Land Management.

2. The University of Environmental and Life Sciences in Wrocław accepts no more than 30 candidates for the first year of studies at the Doctoral School, subject to sections 3, 4 and 5.

3. The admissions limit referred to in section 2 shall not include:

1) candidates who, as of the date of submitting their applications to the Doctoral School, have secured financing to cover the cost of their doctoral scholarship and doctoral research as part of externally funded research projects for a period of at least 36 months;

2) beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.

4. For the persons referred to in section 3, an additional recruitment procedure may be announced, taking into account the requirements connected with the implementation of a research or research and development project. In the case of the candidates referred to in Article 3(1), admission to the Doctoral School from the beginning of the second semester is possible, provided that the compulsory coursework specified in the Doctoral School curriculum for the first semester will be completed in the following academic year.

5. In the event of obtaining the right to confer a doctoral degree in the disciplines of Socio-Economic Geography and Land Management by Wrocław University of Environmental and Life Sciences, the limit of people admitted to the first year of studies at the Doctoral School shall not exceed 33.

§ 3

1. Candidates applying for admission to the Doctoral School shall hold the professional title of *magister*, *magister inżynier* or equivalent, or they shall meet the requirements set out in Article 186(2) of the Act of 20 July 2018 – Law on Higher Education and Science, or they shall be beneficiaries of the “Diamond Grant” programme.

2. The candidates shall have full legal capacity.

3. The candidates may be Polish citizens or foreigners.

4. Foreigners may undertake and pursue education at the Doctoral School on the terms specified in Articles 323-324 of the Act of 20 July 2018 – Law on Higher Education and Science.

5. The same recruitment procedure shall apply to Polish and foreign candidates to the Doctoral School. Foreigners must undergo the recruitment process pursuant to this resolution, subject to section 6.

6. A foreigner may be admitted to the Doctoral School conducted in the Polish language provided his or her knowledge of the Polish language is documented on the basis of one of the following documents:

1) a document confirming completion of a preparatory course to study in Polish conducted in units designated by the Minister of Science and Higher Education;

2) a certificate of knowledge of the Polish language issued by the State Commission;

3) confirmation of knowledge of Polish as a foreign language;

4) other documents confirming the knowledge of a foreign language include certificates, diplomas or other documents confirming the completion of a secondary school abroad, in which the classes were conducted in Polish.

7. In the case of foreigners who do not know the Polish language at a level enabling them to undertake education in this language, it is possible to conduct classes in English; in this case, the candidate must demonstrate knowledge of English at the B2 level according to the Common European Framework of Reference for Languages.

RECRUITMENT PROCEDURE

1. The recruitment procedure is conducted by the Recruitment Committee appointed by the Doctoral School Board. Two representatives of the Doctoral Students' Self-government participate in the work of the Recruitment Committee.
2. The Chairperson of the Recruitment Committee shall be appointed by the Director of the Doctoral School from among the Committee members.
3. Members of the Recruitment Committee shall be persons with the title of professor or the academic degree of *doktor habilitowany*, representing the academic discipline in which education at the Doctoral School is conducted.
4. In the event of circumstances preventing a member of the Recruitment Committee from directly participating in its work, the Doctoral School Board shall dismiss this person and appoint a new member, in accordance with the rules specified in section 3.
5. The work of the Recruitment Committee is supervised by the Director of the Doctoral School.
6. The term of office of the Recruitment Committee is 1 year.
7. Recruitment of candidates to the Doctoral School under the project "Implementation Doctorate," referred to in § 2(3)(2), is conducted by the Doctoral School Board. In this case, the Chairperson of the Doctoral School Board shall perform the role of the Chairperson of the Recruitment Committee. In the event that a member of the Doctoral School Board is directly involved as a potential supervisor or assistant supervisor, the Director of the Doctoral School, having consulted with the chairperson of the relevant discipline board, shall appoint a replacement from among the members of the discipline in accordance with § 4(3). In this case, the Recruitment Committee may be joined by the relevant vice-rector who supervises the project.
8. Recruitment of candidates to the Doctoral School referred to in § 2(3)(1) and recruitment during the first semester as specified in § 2(4) shall be conducted by the Doctoral School Board. In such a case, the Chairperson of the Doctoral School Board shall perform the role of the Chairperson of the Recruitment Committee.

In the event that a member of the Doctoral School Board is directly involved as a potential supervisor or second supervisor, the Director of the Doctoral School, having consulted with the chairperson of the relevant discipline board, shall appoint a replacement from among the members of the discipline in accordance with § 4(3). In this case, the Recruitment Committee may be joined by the relevant vice-rector who supervises the project.

§ 5

The tasks of the Recruitment Committee shall include:

- 1) announcing the recruitment to the Doctoral School;
- 2) notifying the candidates about the date and place of the recruitment procedure;
- 3) conducting the recruitment procedure;
- 4) assessing the achievements presented by the candidates in the recruitment documentation (the candidate card is signed by the members of the Recruitment Committee who assessed the given candidate's achievements);
- 5) preparing a summary report on the recruitment procedure.

§ 6

1. A potential supervisor interested in supervising a doctoral student of the Doctoral School is obliged to submit the academic information sheet according to the provided template by sending it in electronic form to the following address: szkola.doktorska@upwr.edu.pl.
2. The academic information sheets will be forwarded to the relevant discipline boards that will pass their opinions at their next meeting. The opinions expressed by the discipline boards are binding on the Doctoral School Board.

3. In the recruitment process, the supervisor may propose two research or research and development topics, except for supervisors supervising projects with a different number of designated doctoral students.
4. The list of potential supervisors with their academic information sheets will be announced on the Doctoral School website on 31 March 2021.
5. After the announcement date on the Doctoral School website, academic information sheets may be submitted by potential supervisors who have obtained external funding for the implementation of a research or research and development project, provided they have been approved by the Doctoral School Board.
6. The requirement to submit the academic information sheet does not apply to potential supervisors of the beneficiaries of the “Implementation Doctorate” programme.

§ 7

1. The eligible candidates shall:

- 1) hold the professional title of *magister*, *magister inżynier* or an equivalent degree confirmed by a diploma, or submit a certificate from the relevant dean’s office confirming the completion of the study programme along with information about the planned date of defence – it is required to submit the graduation diploma by 1 September (of the year of recruitment) or to meet the conditions specified in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Diamond Grant” programme;
- 2) register in the on-line system of candidate registration;
- 3) select a potential supervisor from the list published on the Doctoral School website, contact the supervisor and determine the subject and scope of the doctoral dissertation (it is required that the potential supervisor sign the opinion on the suitability of the scientific work; only one candidate may apply for a given topic); this requirement does not apply to candidates applying to the Doctoral School under the “Implementation Doctorate” programme;

4) pay a recruitment fee of PLN 200 (transfer title: name and surname, recruitment to the Doctoral School);

5) provide the Department of Science with the following documents:

a) an application form generated by the online recruitment system with the required attachments;

b) confirmation of payment of the recruitment fee;

c) “Candidate Card for the Doctoral School of Wrocław University of Environmental and Life Sciences ,” which constitutes an appendix to this resolution, together with documents confirming the listed achievements.

2. The recruitment procedure consists of two stages. In order to qualify for the second stage it is necessary to meet the requirements for the first stage.

3. The candidate shall be responsible for providing the proper documents. In case some of the required documents are missing, the candidate shall be requested to provide them within 7 days, with the information that failure to do so will result in the application not being considered.

4. Providing false data or forged documents in the recruitment process shall disqualify the candidate from the recruitment procedure with immediate effect. In the event of disclosure of forged documentation presented in the recruitment process by a person who has already been admitted to the Doctoral School, that person shall be removed from the list of doctoral students of the Doctoral School on disciplinary grounds.

5. In the case of candidates (students) who have not completed higher education, as described in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Diamond Grant” programme, the Recruitment Committee shall assess the scientific achievements of the candidate prior to admission to recruitment, according to the following criteria:

- 1) authorship or co-authorship of scientific publications in peer-reviewed scientific journals of at least national scope, or scientific publications in the form of a monograph or monograph chapter (in the case of publications, the journal ranking according to the current list of the Ministry should be indicated);
- 2) participation in research projects conducted by a research unit or in cooperation with other research units or partners from the social and economic environment;
- 3) authorship or co-authorship of a patent or utility model;
- 4) awards and distinctions in international competitions;
- 5) active participation in the work of a science club;
- 6) participation in international programs conducted as part of international scientific or didactic cooperation between universities;
- 7) participation in foreign internships;

Positive evaluation of the scientific achievements is a prerequisite for admitting the candidate to the first stage of recruitment.

6. Stage I (the maximum number of points to be obtained is specified in the candidate card). The candidate is assessed on the basis of the documented achievements presented in the “Candidate Card for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which is attached to this resolution, subject to the following:

- 1) Appendix 1 applies to candidates within the limit of places referred to in § 2(2);
- 2) Appendix 2 applies to candidates referred to in § 2(3)(1);
- 3) Appendix 3 applies to candidates referred to in § 2(3)(2);

7. Stage II (the maximum number of points to be obtained is specified in the candidate card). Interview – oral presentation on the future doctoral dissertation and the candidate’s scientific interests. The interview may be conducted in English, provided that its content and form will

be adapted to the B2 level of the Common European Framework of Reference for Languages. In the event of a sanitary threat, it is possible to conduct the interview with the use of IT tools for videoconferencing.

8. In the case of a foreign candidate, it is possible to conduct the recruitment interview with the use of IT tools for videoconferencing.

9. If the candidate who is a person with disabilities, the Recruitment Committee shall modify the recruitment procedure in accordance with a valid certificate of disability or an opinion of the relevant specialist clinic.

10. A candidate who is a person with disabilities shall provide the Recruitment Committee with an application to modify the recruitment procedure no later than seven working days before the date of the procedure. The candidate shall attach a photocopy of the document confirming the disability.

ADMISSION TO THE DOCTORAL SCHOOL

§ 8

1. The results of the recruitment procedure are public and shall be announced on the website of Wrocław University of Environmental and Life Sciences and in a designated place on the university campus.

2. A ranking list is prepared on the basis of the number of points obtained by the candidates in the recruitment procedure, which determines the order in which the candidates are admitted to the Doctoral School within the limit of places.

3. The ranking list is created in two stages, according to the following procedure:

1) First, the so-called ranking is compiled, where candidates with the highest number of points from each discipline taught at the Doctoral School are accepted as follows:

a) two candidates who are Polish citizens;

b) one candidate who is a foreigner.

2) After selecting candidates representing scientific disciplines, one ranking list is created for all disciplines, the so-called general ranking, which constitutes the basis for admitting candidates with the highest number of points obtained in the recruitment, within the remaining limit of places.

3) If the parities cannot be met by candidates in a given scientific discipline, the place from the ranking in a given place is transferred to the so-called general ranking, thus increasing the limit of places in this ranking.

4. If two or more candidates who obtained the same number of points in the recruitment procedure are in the last place in the above-mentioned ranking list, the admission criterion shall be the number of points obtained during the interview, followed by points for scientific articles, research internships and participation in research projects.

5. Conditions of admission to the Doctoral School:

1) For candidates within the limit of places referred to in § 2(2):

a) 50 candidates with the highest number of points according to the ranking list referred to in § 8(3)(1) shall be admitted to stage II;

b) obtaining in the recruitment procedure at least 50% of the maximum number of points to be obtained in the recruitment procedure (65 points in stages I + II);

c) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;

d) grade average for first- and second-cycle studies, uniform master's studies or equivalent, and in the case of candidates referred to in § 7(5) – a certificate confirming the grade average for first-cycle studies or for at least three years of uniform master's studies or equivalent – at the minimum level of 3.75.

2) For candidates referred to in § 2(3)(1):

a) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;

b) grade average for first- and second-cycle studies, uniform master's studies or equivalent, and in the case of candidates referred to in § 7(5) – a certificate confirming the grade average for first-cycle studies or for at least three years of uniform master's studies or equivalent – at the minimum level of 3.75.

c) obtaining in the recruitment procedure at least 50% of the maximum number of points to be obtained in the recruitment procedure:

- in stage I – at least 69 points;

- in stage II – at least 25 points

3) For the candidates referred to in § 2(3)(2):

a) qualifying to the “Implementation Doctorate” programme;

b) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;

c) obtaining in the recruitment procedure at least 50% of the maximum number of points to be obtained in the recruitment procedure:

- in stage I – at least 15 points;

- in stage II – at least 25 points

6. If there are free places left after the recruitment procedure, the Recruitment Committee may decide to:

1) finish the recruitment procedure without admitting candidates for the free places;

2) conduct the second (supplementary) recruitment in the same manner.

7. After the end of the recruitment procedure, the candidates will receive information about admission to the Doctoral School (via the ranking list published on the University's website, at a specific time provided on the website) and the obligation to register on the list of doctoral students within 7 days. Failure to register on the list within this period will result in not being admitted to the Doctoral School.

8. Admission to the Doctoral School takes place by being registered on the list of doctoral students on the basis of the recruitment procedure, subject to the following rules:

1) for candidates within the limit of places referred to in § 2(2)(1) and 2(3)(1) – after the completion of the recruitment procedure and announcement of the recruitment results;

2) for candidates applying under the “Implementation Doctorate” programme – after the completion of the recruitment procedure and announcement of the recruitment results, but not before the announcement of the results of the competition under the “Implementation Doctorate” programme financed by the Ministry of Science and Higher Education.

9. In the event where a candidate admitted on the basis of a list from the so-called ranking of disciplines resigns from education at the Doctoral School, a candidate from the ranking of disciplines who represents a given discipline shall be registered on the list of doctoral students, taking into account the order resulting from the recruitment procedure; however, if there are no candidates from a given discipline, then another person from the so-called general ranking shall be admitted. The registration shall be made no later than 30 September of a given year.

10. The refusal of admission to the Doctoral School takes place by way of an administrative decision of the Rector. The decision is subject to a motion for reconsideration.

11. It is possible to be a doctoral student in one Doctoral School at a time.

12. A person admitted to the Doctoral School commences education and acquires the rights of a doctoral student upon taking the oath.

In matters not covered by this resolution, the provisions of the Act of 20 July 2018 – Law on Higher Education and Science, as well as internal regulations of the University, shall apply. Decisions shall be made by the Director of the Doctoral School in consultation with the Vice-Rector for Research and International Cooperation.

§ 10

This resolution comes into force on the day of its adoption, with the exception of § 2(1)(4), which shall enter into force on the date of obtaining the right to confer a doctoral degree in the discipline of Socio-economic Geography and Land Management by Wrocław University of Environmental and Life Sciences.

Chairman of the Senate

prof. dr hab. inż. Jarosław Bosy

CANDIDATE CARD FOR THE DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES

.....
(candidate's name and surname)

Scientific discipline:

Prospective thesis supervisor:

.....
(title/degree, name and surname)

Prospective second supervisor or assistant supervisor:

.....
(title/degree, name and surname)

Proposed topic of the doctoral dissertation¹:

.....

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points awarded for the achievement
	1	2
Stage I		
I.	Grade average for first- and second-cycle studies or uniform Master's degree studies or equivalent³ – max. 5 pts in the case of candidates (students) referred to in Article 186(2) of the Act – Law on Higher Education and Science – please use grade average for the completed years of study.	4.6–5.0 – 5 pts 4.0–4.5 – 4 pts 3.75–3.9 – 3 pts
I.1.	The obtained grade average is:	

¹ The proposed topic of the doctoral dissertation should be consistent with the topic provided by the supervisor on the academic information sheet.

² Items I-VII to be filled in by the candidate (except for column 2 – points awarded). All the listed achievements should be documented and attached to the candidate card. Each document confirming an achievement must be marked with the appropriate number corresponding to the number of a given section of the candidate card, e.g. in the case of a published article – the first page of the publication documenting the achievement should bear the number of the appropriate section (III.1) in the upper right corner.

³ In the case of two-cycle studies, the average should be calculated according to the formula $\frac{a+b}{2} = \bar{x}$, where: a – grade average from the first-cycle studies; b – grade average from the second-cycle studies; $\bar{x}$ – grade average for the entire studies.

II.	Level of English ⁴ – max. 10 pts	B2 – 6 pts C1 – 8 pts C2 – 10 pts								
II.1.	Documented level of English:									
III.	Scientific achievements – max. 25 pts	Points are awarded for one achievement, selected by the candidate								
1.	Scientific articles⁵ – authorship* or co-authorship* of a scientific article published in a scientific journal or in reviewed materials from an international conference, included in the current list of journals announced by the Ministry of Science and Higher Education – regardless of the year of publication of the article** or Monographs or chapters in monographs – published by publishers included in the current list of publishers announced by the Ministry of Science and Higher Education (please provide: name of the publisher, ISBN or DOI). * +50% points awarded in the recruitment procedure if the candidate is the first author or corresponding author of the article ** Scientific articles in journals not included in the list of the Ministry of Science and Higher Education with Impact Factor	The awarded number of points depends on the number of points assigned to the journal in the Ministry list: <table><tr><td>≥ 100 pts</td><td>– 25 pts</td></tr><tr><td>70</td><td>– 20 pts</td></tr><tr><td>40</td><td>– 15 pts</td></tr><tr><td>20</td><td>– 10 pts</td></tr></table> Level II Monograph – 25 pts Level I Monograph – 20 pts Chapter in Level II monograph – 15 pts Chapter in Level I monograph – 10 pts 10 pts	≥ 100 pts	– 25 pts	70	– 20 pts	40	– 15 pts	20	– 10 pts
≥ 100 pts	– 25 pts									
70	– 20 pts									
40	– 15 pts									
20	– 10 pts									
III.1.										
2.	Patent / utility model (secured) (for the purpose of documentation, please provide: names and surnames of the inventors, name of the invention, date and place of granting the patent, patent number, name of the entity granting the patent, name of the country for which patent protection was granted)	20 pts – irrespective of the number of patents / utility models								
III.2.										
3.	Authorship/co-authorship of a sequence entry in the genetic sequence database	10 pts – irrespective of the number of entries								

⁴ Knowledge of a modern foreign language should be documented with a certificate confirming the required proficiency level, issued by the organisational unit responsible for teaching foreign languages at a given university. Alternatively, it can be documented with a certificate included in the LIST OF CERTIFICATES CONFIRMING THE KNOWLEDGE OF A MODERN FOREIGN LANGUAGE, which constitutes Appendix 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for conducting activities in the doctoral and habilitation proceedings and in proceedings for the conferral of the title of professor.

⁵ Articles submitted for review are not subject to evaluation. Please provide: names and surnames of the authors, the title of the scientific article/monograph, the title of the journal, bibliographic data (year, volume, page number, ISSN or DOI) and the number of points according to the list of the Ministry of Science and Higher Education. In order to document it, a photocopy of the first page of the publication containing the abovementioned data should be attached to the candidate card.

III.3.	.....	
IV.	Scientific activity – max. 15 pts (points are awarded for active participation in a science club or other scientific activity)	
1.	Active participation in a science club (confirmed by a certificate signed by the science club supervisor, complete with a list of activities and functions connected only with the scientific activity of the club – in accordance with the template available on the website)	5 pts: participation 10 pts: presentation of the results at a conference (speech/poster) 15 pts: 1st, 2nd or 3rd Prize for the presentation (only for the presenting author)
IV.1.	.....	
2.	Other scientific activity (confirmed by a certificate signed by the scientific supervisor, complete with a list of activities and functions performed as well as references)	5 pts
IV.2.1	.....	
V.	Participation in research and research and development projects – max. 10 pts	
1.	Participation in the implementation of the main assumptions of the doctoral dissertation as part of a research or research and development project financed from external sources, e.g. National Science Centre, National Centre for Research and Development, H2020 – points are awarded for the candidate's participation in the project after October 1 of the year in which recruitment is carried out (in order to document participation in the project, the following should be submitted: a declaration of the project/research task manager, signed by the relevant vice-rector representing the unit which acts as the project leader (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project/task manager in the research project)	5 pts – up to 12 months 10 pts – over 12 months
V.1.	.....	
2.	Active participation in a research or research and development project financed from external sources, e.g. National Science Centre, National Centre for Research and Development, H2020 before the day of submitting the application to the Doctoral School, or securing a project in the Young Minds competition (in order to document participation in the project, the following should be submitted: a declaration of the project/research task manager, signed by the supervising vice-rector (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project/task manager in the research project, and in the case of the Young Minds competition – a photocopy of the decision)	5 pts – participation in a project for up to 12 months or securing a project in the Young Minds competition 10 pts – participation in a project over 12 months (participation periods can be summed up)
V.2.	.....	
VI.	Science and research internships – 10 pts - only one selected internship can be submitted (the internship must be documented with the relevant declaration of the internship supervisor, which should include: name and surname of the trainee; name and surname of the supervisor, name of the university or research institution where the internship or research visit took place, name of the country, type of visit, exact period of duration, description of completed tasks and their tangible effects)	
1.	Domestic or foreign research internship up to 4 weeks	5 pts

VI.1.	.....	
2.	Foreign research internship over 4 weeks	10 pts
VI. 2.		
VII.	Other – max. 5 pts (regardless of the number of activities in a given category)	
1.	Second modern foreign language	1 pt
VII.1.	.....	
2.	Work experience (e.g. courses, summer school, etc.)	1 pt
VII.2.	.....	
3.	Awards, distinctions	1 pt
VII.3.	.....	
4.	Popular science publications	1 pt
VII.4.	.....	
5.	Other activities not included in any category	1 pt
VII.5.	.....	
Stage I – possible number of points – 80 pts (sum of items I-VII)		
Stage II		
Stage II – interview – max. 50 pts		
1.	Doctoral dissertation concept	30
2.	Career path	10
3.	Self-presentation	10
Total (number of points received in Stage I and Stage II)		

I hereby declare that the information provided by me in the recruitment process is true and correct.

.....
(date, candidate's signature)

Signatures of the members of the Recruitment Committee evaluating the achievements

.....
.....
.....

(title/degree, name and surname, signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in

as

b. I am / I am not* a doctoral student at.....

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

*delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone number)

I hereby declare that the information provided by me in the recruitment process is true and correct.

.....
(date, candidate's signature)

**CANDIDATE CARD FOR THE DOCTORAL SCHOOL
OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES**
(to be used by candidates specified in § 2(3)(1) – **candidates whose doctoral scholarship and doctoral research will be financed for a period of at least 36 months as part of research projects with external funding**)

.....
(candidate's name and surname)

Scientific discipline:

Prospective thesis supervisor:

.....
(title/degree, name and surname)

Prospective second supervisor or assistant supervisor:

.....
(title/degree, name and surname)

Project leader:
(title/degree, name and surname)

Project title:

.....

I. List of achievements of the candidate for the Doctoral School¹

No.	Type of achievement	Points awarded for the achievement
	1	2
I.	Grade average for first- and second-cycle studies or uniform Master's degree studies or equivalent² – max. 5 pts in the case of candidates (students) referred to in Article 186(2) of the Act – Law on Higher Education and Science – please use grade average for the completed years of study.	4.6–5.0 – 5 pts 4.0–4.5 – 4 pts 3.75–3.9 – 3 pts

¹ Items I-VII to be filled in by the candidate (except for column 2 – points awarded). All the listed achievements should be documented and attached to the candidate card. Each document confirming an achievement must be marked with an appropriate number corresponding to the number of a given section of the candidate card, e.g. in the case of a published article – the first page of the publication documenting the achievement should bear the number of the appropriate section (III.1) in the upper right corner.

² In the case of two-cycle studies, the average should be calculated according to the formula $\frac{a+b}{2} = \acute{s}$, where: a – grade average from the first-cycle studies; b – grade average from the second-cycle studies; $\acute{s}$ – grade average for the entire studies.

I.1.	The obtained grade average is:	
II.	Level of English³ – max. 8 pts	B2 – 6 pts C1 – 7 pts C2 – 8 pts
II.1.	Documented level of English:	
III.	Scientific achievements – max. 25 pts	Points are awarded for one achievement, selected by the candidate
1.	Scientific articles⁴ – authorship* or co-authorship* of a scientific article published in a scientific journal or in reviewed materials from an international conference, included in the current list of journals announced by the Ministry of Science and Higher Education – regardless of the year of publication of the article** or Monographs or chapters in monographs – published by publishers included in the current list of publishers announced by the Ministry of Science and Higher Education (please provide: name of the publisher, ISBN or DOI). * +50% points awarded in the recruitment procedure if the candidate is the first author or corresponding author of the article ** Scientific articles in journals not included in the list of the Ministry of Science and Higher Education with Impact Factor	The awarded number of points depends on the number of points assigned to the journal in the Ministry list: ≥ 100 pts – 25 pts 70 – 20 pts 40 – 15 pts 20 – 10 pts Level II Monograph – 25 pts Level I Monograph – 20 pts Chapter in Level II monograph – 15 pts Chapter in Level I monograph – 10 pts 10 pts
III.1.	.....	
2.	Patent / utility model (secured) (for the purpose of documentation, please provide: names and surnames of the inventors, name of the invention, date and place of granting the patent, patent number, name of the entity granting the patent, name of the country for which patent protection was granted)	5 pts – irrespective of the number of patents / utility models
III.2	.....	

³ Knowledge of a modern foreign language should be documented with a certificate confirming the required proficiency level, issued by the organisational unit responsible for teaching foreign languages at a given university. Alternatively, it can be documented with a certificate included in the LIST OF CERTIFICATES CONFIRMING THE KNOWLEDGE OF A MODERN FOREIGN LANGUAGE, which constitutes Appendix no. 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for conducting activities in the doctoral and habilitation proceedings and in proceedings for the conferral of the title of professor.

⁴ Articles submitted for review are not subject to evaluation. Please provide: names and surnames of the authors, the title of the scientific article/monograph, the title of the journal, bibliographic data (year, volume, page number, ISSN or DOI) and the number of points according to the list of the Ministry of Science and Higher Education. In order to document it, a photocopy of the first page of the publication containing the abovementioned data should be attached to the candidate card.

3.	Authorship/co-authorship of a sequence entry in the genetic sequence database	5 pts – irrespective of the number of entries
III.3	.....	
IV.	Scientific activity – max. 15 pts (points are awarded for active participation in a science club or other scientific activity)	
1.	Active participation in a science club (confirmed by a certificate signed by the science club supervisor, complete with a list of activities and functions connected only with the scientific activity of the club – in accordance with the template available on the website)	5 pts: participation 10 pts: presentation of the results at a conference (speech/ poster) 15 pts: 1st, 2nd or 3rd Prize for the presentation (only for the presenting author)
IV.1.	.....	
2.	Other scientific activity (confirmed by a certificate signed by the scientific supervisor, complete with a list of activities and functions performed as well as references)	5 pts
IV.2.	.....	
V.	Active participation in a research or research and development project financed from external sources, e.g. National Science Centre, National Centre for Research and Development, H2020 before the day of submitting the application to the Doctoral School, or securing a project in the Young Minds competition – max. 10 pts (in order to document participation in the project, the following should be submitted: a declaration of the project/research task manager, signed by the supervising vice-rector (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project/task manager in the research project, and in the case of the Young Minds competition – a photocopy of the decision)	5 pts – participation in a project for up to 12 months or securing a project in the Young Minds competition 10 pts – participation in a project over 12 months (periods can be summed up)
V.1.1	.....	
VI.	Science and research internships – max. 10 pts - only one selected internship can be submitted (the internship must be documented with the relevant declaration of the internship supervisor, which should include: name and surname of the trainee; name and surname of the supervisor, name of the university or research institution where the internship or research visit took place, name of the country, type of visit, exact period of duration, description of completed tasks and their tangible effects)	
1.	Domestic or foreign research internship up to 4 weeks	5 pts
VI.1	.....	
2.	Foreign research internship over 4 weeks	10 pts

VI.2	.....	
VII.	Other – max. 5 pts	
1.	Second modern foreign language	1 pt
		
2.	Work experience (e.g. courses, summer school, etc.)	1 pt
		
3.	Awards, distinctions	1 pt
		
4.	Publications in journals outside the list of the Ministry of Science and Higher Education, popular science publications	1 pt
		
5.	Other activities not included in any category	1 pt
		
VIII.	The candidate's scientific potential, confirmed by the report of the Competition Committee on the selection for the position of a doctoral student-scholarship holder for min. 36 months as part of a project with external funding that covers the scholarship – e.g. National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, Foundation for Polish Science, European Research Council, H2020 – 60 pts	60 pts for the position of doctoral student-scholarship holder
VIII.1.	.....	
Stage I – possible number of points – 138 pts (sum of items I-VIII)		
Stage II		
Stage II – interview – max. 50 pts		
1.	Presentation of planned research	30 pts
2.	Career path	10 pts
3.	Self-presentation	10 pts
IX.	Total (number of points received in Stage I and Stage II)	

I hereby declare that the information provided by me in the recruitment process is true and correct.

.....

(date, candidate's signature)

Signatures of the members of the Recruitment Committee evaluating the achievements

.....

.....
.....
(title/degree, name and surname, signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
as

b. I am / I am not* a doctoral student at.....

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

*delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone number)

I hereby declare that the information provided by me in the recruitment process is true and correct.

.....
(date, candidate's signature)

**CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL
OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES**

(for candidates referred to in § 2(3)(2), i.e. those applying for admission to the Doctoral School under the
"Implementation Doctorate" programme)

.....
(candidate's name and surname)

Scientific discipline:

Selected supervisor:.....
.....

(title/degree, name and surname)

Selected assistant supervisor¹ :
.....
(title/professional title/degree, name and surname)

Indication of achievement to act as an assistant supervisor, as required¹:
.....

¹ An assistant supervisor can be a person with:

- (i) a doctoral degree or
- (ii) at least 5 years' experience in carrying out scientific activities or
- (iii) with significant achievements in the development and implementation of an original design, construction, technological or artistic solution in the economic or social sphere, of more than local scope and of a lasting and universal nature.

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points for the achievement
	1	2
I.	Command of English³ - 5 points (minimum B2)	5 pts
I.1.	The documented level of English is:	
II.	Documented research or R&D cooperation with Wrocław University of Environmental and Life Sciences - max. 5 pts	5 pts - irrespective of indicated projects and their duration
II.1.	.....	
III.	Other achievements - max. 5 pts: Points are awarded for only one achievement from the following list (the candidate should present one achievement of their choice from the following list - patent or implementation or participation in a project or scientific article): 1. Patent/utility model (secured) (for documentation purposes, provide the following: name of invention, date and place of granting patent, patent number, name of patent grantor, name of country in which protection was obtained, names of co-inventors). 2. Implementation – practical application of the results of research or development work, or implementation of the results of scientific activity in another form (please provide: the name of the invention, information on the implementation of the results of scientific activity in another form, including the date and place of implementation, contract photocopy). 3. Participation in an R&D project (in order to document participation in the project, please provide: a statement from the project/task manager on active participation with specific responsibilities and duration) 4. Scientific articles⁴ – authorship or co-authorship of a scientific article published in a scientific journal or in peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Science and Higher Education (please provide: authors' names, article title, journal title, bibliographical data (year, vol., pages and ISSN or DOI) and the number of points from the MNiSW list;	5 points for one selected achievement

² Points I to III are to be filled in by the candidate (except for column 2 - points awarded) – all demonstrated achievements must be documented and attached to the candidate's card as attachments. Each document confirming the demonstrated achievement must be marked with an appropriate number corresponding to the number of the given achievement on the candidate's card.

³ Proficiency in a modern foreign language should be documented by a certificate confirming its command at the required level, issued by the organisational unit responsible for foreign language teaching at the given university. Certificates included in the LIST OF CERTIFICATES CONFIRMING KNOWLEDGE OF A MODERN FOREIGN LANGUAGE constituting Annex No. 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for the conferment of the degree of doctor, habilitated doctor and the title of professor are honoured.

⁴ Papers submitted for peer review are not eligible for evaluation. The following should be provided: first and last names of authors, title of scientific article, journal title, bibliographic data (year, vol., pages and ISSN or DOI) and number of points from the list of the Ministry of Science and Higher Education; in the case of a monograph or monograph chapter, provide also the name of the publisher, ISBN or DOI. For documentation purposes, a photocopy of one page of the publication containing the abovementioned data should be attached to the candidate card.

	additionally, the name of the publisher, ISBN or DOI should be provided). 5. Monograph or monograph chapters - published by publishers included in the current list issued by the MNiSW (please indicate: name of publisher, ISBN or DOI). 6. Professional experience in line with the subject of the proposed dissertation	
III.1.	.....	
IV.	Beneficiaries of the "Implementation Doctorate" programme - 15 points Points awarded following approval of the submitted project by the MNiSW	For participation in the "Implementation Doctorate" programme confirmed by the MNiSW
1.	Points for participation in the "Implementation Doctorate" programme	
Stage I - maximum number of points - 30 points (sum of items I-IV)		
Stage II		
Stage II - interview - max. - 50 points		
1.	Presentation of planned research	30 pts
2.	Career path	10 pts
3.	Self-presentation	10 pts
V.	Total (sum of points received in stage I and stage II)	

I declare that the information I have provided in the admission process for the Doctoral School is factually correct.

.....

(date, candidate's signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
on the position

b. I am / I am not* a doctoral student at
.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at
.....
(name of the unit)

d. I am / I am not* a doctoral school student at:
.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:
.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Resolution no. 54/2021 of the Senate of Wrocław University of Environmental and Life Sciences of 26 November 2021

on the requirements and recruitment procedure for admitting candidates to the Doctoral School of Wrocław University of Environmental and Life Sciences in the academic year 2022/2023

Pursuant to Article 200(2), (3) of the Act of 20 July 2018 – Law on Higher Education and Science (Journal of Laws of 2021, item 478, as amended), it is resolved as follows:

GENERAL PROVISIONS

§ 1

Recruitment to the Doctoral School is based on a competition whose rules are set out in this resolution.

§ 2

1. The Doctoral School at Wrocław University of Environmental and Life Sciences is established in the following fields and disciplines:

1) Exact and Natural Sciences, in the discipline of Biological Sciences;

2) Engineering and Technology, in the following disciplines:

a) Civil Engineering and Transport;

b) Environmental Engineering, Mining and Energy;

3) Agricultural Sciences, in the following disciplines:

a) Agriculture and Horticulture;

b) Nutrition and Food Technology;

c) Veterinary Science;

d) Animal Science and Fisheries.

2. The University of Environmental and Life Sciences in Wrocław shall accept no more than 30 candidates for the first year of studies at the Doctoral School, subject to points 3 and 4.

3. The admissions limit referred to in point 2 shall not include:

1) candidates who, as of the date of submitting their applications to the Doctoral School, have secured financing to cover the cost of their doctoral scholarship and doctoral research as part of externally funded research projects for a period of at least 36 months;

2) beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.

4. For the persons referred to in point 3, an additional recruitment procedure may be announced, taking into account the requirements connected with the implementation of a research or research and development project. In the case of candidates referred to in point 3(1), admission to the Doctoral School from the beginning of the second semester is possible, provided that the compulsory coursework specified in the Doctoral School curriculum for the first semester will be completed in the following academic year.

§ 3

1. Candidates applying for admission to the Doctoral School shall hold the professional title of *magister*, *magister inżynier* or equivalent, or they shall meet the requirements set out in Article 186(2) of the Act of 20 July 2018 – Law on Higher Education and Science, including beneficiaries of the “Diamond Grant” programme.

2. The candidates shall have full legal capacity.

3. The candidates may be Polish citizens or foreigners.

4. Foreigners may undertake and pursue education at the Doctoral School in accordance with the terms specified in Articles 323-324 of the Act of 20 July 2018 – Law on Higher Education and Science.

5. The same recruitment procedure shall apply to Polish and foreign candidates. Foreigners must undergo the recruitment process pursuant to this resolution, subject to point 6.

6. A foreigner may be admitted to a Doctoral School in which education is conducted in the Polish language provided his or her knowledge of the Polish language is documented on the basis of one of the following documents:

1) a document confirming the completion of a preparatory course to study in Polish, conducted in units designated by the Minister of Science and Higher Education;

2) a certificate of knowledge of the Polish language issued by the State Commission;

3) confirmation of knowledge of Polish as a foreign language;

4) documents that confirm the knowledge of a foreign language include certificates, diplomas or other documents confirming the completion of a secondary school abroad, in which the classes were conducted in Polish.

7. In the case of foreigners who do not know the Polish language at a level enabling them to undertake education in this language, it is possible to conduct classes in English; in this case, the candidate must demonstrate knowledge of English at the B2 level according to the Common European Framework of Reference for Languages.

RECRUITMENT PROCEDURE

§ 4

1. The recruitment procedure is conducted by the Recruitment Committee appointed by the relevant vice-rector for science at the request of the Director of the Doctoral School. A representative of the Doctoral Students' Self-government shall participate in the work of the Recruitment Committee.

2. The Chairperson of the Recruitment Committee shall be appointed by the Director of the Doctoral School from among the Committee members.

3. Members of the Recruitment Committee shall be persons with the title of professor or the academic degree of *doktor habilitowany*, representing the academic discipline in which education at the Doctoral School is conducted.

4. In the event of circumstances preventing a member of the Recruitment Committee from directly participating in its work, the relevant vice-rector for science shall dismiss this person and appoint a new member, in accordance with the rules specified in point 3.

5. Supervision over the work of the Recruitment Committee shall be exercised by the Director of the Doctoral School.

6. The term of office of the Recruitment Committee is 1 year.

7. Recruitment of candidates for the Doctoral School under the "Implementation Doctorate" (*doktorat wdrożeniowy*) programme, referred to in § 2(3)(2), shall be conducted by the Doctoral School Board. In this case, the Chairperson of the Doctoral School Board shall perform the role of the Chairperson of the Recruitment Committee. In the event that a member of the Doctoral School Board is directly involved as a potential supervisor or assistant supervisor, the Chairperson of the Doctoral School Board shall appoint a replacement from among the members of the discipline in accordance with § 4(3). In this case, the Recruitment Committee may be joined by the relevant vice-rector who supervises the project.

8. In the case of candidates referred to in § 2(3)(1), a competition procedure shall be carried out in accordance with the project requirements. The competition jury shall consist of: the project manager and two people with at least a doctoral degree in the discipline in which the project is to be implemented. The candidate who wins the competition shall be admitted to the

Doctoral School with the consent of the Director of the Doctoral School on the basis of the competition jury's protocol and the candidate's application for admission to the Doctoral School.

Recruitment of candidates during the 1st semester, as referred to in § 2(4), shall be carried out according to the rules set out in point 8.

§ 5

The tasks of the Recruitment Committee shall include:

- 1) announcing the recruitment to the Doctoral School;
- 2) notifying the candidates about the date and place of the recruitment procedure;
- 3) conducting the recruitment procedure;
- 4) assessing the candidates' achievements presented in the recruitment documentation (the candidate card is signed by the members of the Recruitment Committee who assessed a given candidate's achievements);
- 5) preparing a summary report on the recruitment procedure.

§ 6

1. A potential supervisor interested in supervising a doctoral student of the Doctoral School is obliged to submit the academic information sheet according to the provided template by sending it in electronic form to the following address: szkola.doktorska@upwr.edu.pl. Video material may be attached.
2. The academic information sheets shall be forwarded to the relevant discipline board that will pass its opinion at the next meeting. The opinion expressed by the discipline board is binding on the Doctoral School Board.
3. In the recruitment procedure, the supervisor may propose two research or research and development topics, except for supervisors supervising projects with a different number of designated doctoral students.
4. The list of potential supervisors with their academic information sheets shall be announced on the Doctoral School website on 31 March 2022.
5. After the deadline for their publication on the Doctoral School website, an academic information sheet may be submitted by a potential supervisor who has received external

funding for the implementation of a research or research and development project, provided it has been approved by the Doctoral School Board.

6. The requirement to submit the academic information sheet shall not apply to potential supervisors of beneficiaries of the “Implementation Doctorate” programme.

§ 7

1. The recruitment procedure shall be open to a person who:

1) holds the professional title of *magister*, *magister inżynier* or equivalent, as confirmed by a diploma, or has submitted a certificate from the relevant dean’s office confirming the completion of the study programme – it is required to submit the graduation diploma by 15 September (of the year of recruitment), or who meets the conditions specified in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Diamond Grant” programme;

2) has registered in the on-line candidate registration system;

3) has selected a potential supervisor from the list published on the Doctoral School website, contacted the supervisor and agreed on the subject and scope of the doctoral dissertation (a signed opinion of the potential supervisor on the suitability of the scientific work is required; only one candidate may apply for a given topic); this requirement shall not apply to candidates applying to the Doctoral School under the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme;

4) has paid a recruitment fee of PLN 200 or EUR 50 (transfer title: name and surname, recruitment to the Doctoral School, project number). For candidates from developing countries according to the OECD list, the recruitment fee is EUR 20;

has submitted the following documents to the Doctoral School Office:

a) an application form generated via the online recruitment system with the required attachments;

b) confirmation of the knowledge of the English language at the B2 level of the Common European Framework of Reference for Languages;

c) confirmation of payment of the recruitment fee;

d) “Card of the Candidate for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which constitutes an appendix to this resolution, together with documents confirming the listed achievements.

2. The recruitment procedure consists of two stages. In order to qualify for the second stage, it is necessary to meet the requirements for the first stage.

3. The candidate is responsible for providing the proper documents. In the event of failure to provide some of the required documents, the candidate will be requested to provide them within 7 days, with the information that failure to do so will result in the application not being considered.

4. Providing false data or forged documents in the recruitment process shall disqualify the candidate from the recruitment process with immediate effect. In the event of disclosure of forged documentation presented in the recruitment process by a person who has already been admitted to the Doctoral School, that person shall be removed from the list of doctoral students of the Doctoral School on disciplinary grounds.

5. In the case of candidates (students) who have not completed higher education, as described in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Diamond Grant” programme, the Recruitment Committee shall assess the scientific achievements of the candidate prior to their admission to recruitment, according to the following criteria:

1) authorship or co-authorship of scientific publications in peer-reviewed scientific journals of at least national scope, or scientific publications in the form of a monograph or monograph chapter (in the case of a publication, the journal ranking according to the current list of the Ministry should be indicated);

2) participation in research projects conducted by a research unit or in cooperation with other research units or partners from the social and economic environment;

3) authorship or co-authorship of a patent or utility model;

4) awards and distinctions in international competitions;

5) active participation in the work of a science club;

6) participation in international programmes conducted as part of international scientific or didactic cooperation between universities;

7) participation in foreign internships;

Positive evaluation of the scientific achievements is a prerequisite for admitting the candidate to the first stage of recruitment.

Stage I (the maximum number of points to be obtained is specified on the Candidate Card).

6. The candidate shall be assessed on the basis of the documented achievements presented on the “Card of the Candidate for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which is attached to this resolution, subject to the following:

- 1) Appendix 1 applies to candidates within the limit of places referred to in § 2(2);
- 2) Appendix 2 applies to candidates referred to in § 2(3)(2);
7. Stage II (the maximum number of points to be obtained is specified on the Candidate Card).

Interview – oral presentation of the future doctoral dissertation and the candidate’s scientific interests. The interview may be conducted in English, provided that its content and form will be adapted to the B2 level of the Common European Framework of Reference for Languages. In the event of a sanitary threat, it is possible to conduct the interview with the use of IT tools for videoconferencing.

8. In the case of a foreign candidate, it is possible to conduct the recruitment interview with the use of IT tools for videoconferencing.
9. If the candidate is a person with a disability, the Recruitment Committee shall modify the recruitment procedure in accordance with a valid certificate of disability or an opinion of the relevant specialist clinic.
10. A candidate who is a person with a disability shall provide the Recruitment Committee with an application to modify the recruitment procedure no later than seven working days before the date of the procedure. The candidate shall attach a photocopy of a document confirming the disability.

ADMISSION TO THE DOCTORAL SCHOOL

§ 8

1. The results of the recruitment procedure are public and shall be announced on the website of Wrocław University of Environmental and Life Sciences and in a designated place on the university campus.
2. A ranking list is prepared on the basis of the number of points obtained by the candidates in the recruitment procedure, which determines the order in which the candidates are admitted to the Doctoral School within the limit of places.
3. The ranking list is created in two stages, according to the following procedure:
 - 1) First, the so-called ranking is compiled, where candidates with the highest number of points from each discipline taught at the Doctoral School are accepted according to the following formula:
 - a) two candidates who are Polish citizens;

b) one candidate who is a foreigner.

2) After selecting candidates representing scientific disciplines, one ranking list is created for all disciplines, the so-called general ranking, which constitutes the basis for admitting candidates with the highest number of points obtained in the recruitment procedure, within the remaining limit of places.

3) If the parities cannot be met by candidates in a given scientific discipline, the place from the ranking in a given discipline is transferred to the so-called general ranking, thus increasing the limit of places in this ranking.

4. If two or more candidates who obtained the same number of points in the recruitment procedure are in the last place on the above-mentioned ranking list, the admission criterion shall be the number of points obtained during the interview, followed by points for scientific articles, research internships and participation in research projects.

5. Conditions of admission to the Doctoral School:

1) For candidates within the limit of places referred to in § 2(2):

a) 50 candidates with the highest number of points according to the ranking list referred to in § 8(3)(1) shall be admitted to Stage II;

b) obtaining at least 50% of the maximum number of points in the recruitment procedure (62 points in Stages I + II);

c) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;

2) For candidates referred to in § 2(3)(2):

a) having been qualified for the “Implementation Doctorate” programme;

b) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;

c) obtaining at least 50% of the maximum number of points in the recruitment procedure:

- in Stage I – at least 15 points;

- in Stage II – at least 25 points

6. If there are free places left after the recruitment procedure, the Recruitment Committee may decide to:

1) finish the recruitment procedure without admitting candidates for the free places;

2) conduct a second (supplementary) recruitment procedure in the same manner.

7. After the end of the recruitment process, the candidates will receive information about admission to the Doctoral School (via the ranking list published on the University's website, at a specific time provided on the website) and the obligation to register on the list of doctoral students within 7 days. Failure to register on the list within this period will result in not being admitted to the Doctoral School.

8. Admission to the Doctoral School shall take place by being entered on the list of doctoral students on the basis of the recruitment procedure, subject to the following rules:

1) for candidates within the limit of places referred to in § 2(2)(1) and § 2(3)(1) – after the completion of the recruitment procedure and announcement of the recruitment results;

2) for candidates applying under the “Implementation Doctorate” programme – after the completion of the recruitment procedure and announcement of the recruitment results, but not before the announcement of the results of the competition under the “Implementation Doctorate” programme financed by the Ministry of Science and Higher Education.

9. In the event where a candidate admitted on the basis of a list from the so-called ranking of disciplines resigns from education at the Doctoral School, the next candidate from the ranking of disciplines who represents a given discipline shall be entered on the list of doctoral students, taking into account the order resulting from the recruitment procedure; however, if there are no candidates from a given discipline, then another person from the so-called general ranking shall be admitted. The entry on the list of doctoral students shall be made no later than 30 September of a given year.

10. Refusal of admission to the Doctoral School takes place by way of an administrative decision of the Rector of Wrocław University of Environmental and Life Sciences. The decision is subject to a motion for reconsideration.

11. It is possible to be a doctoral student in one Doctoral School at a time.

12. A person admitted to the Doctoral School commences education and acquires the rights of a doctoral student upon taking the oath.

§ 9

In matters not covered by this resolution, the provisions of the Act of 20 July 2018 – Law on Higher Education and Science, as well as internal regulations of the University, shall apply. Decisions shall be made by the Director of the Doctoral School in consultation with the relevant vice-rector for science.

§ 10

This resolution shall come into force on the day of its adoption.

Chairman of the Senate

prof. dr hab. inż. Jarosław Bosy

CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES

Candidate's name and surname:, year of birth

Scientific discipline:

Selected supervisor¹:

Selected second supervisor/assistant supervisor¹:

Suggested topic of doctoral dissertation:

.....

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points
Stage I		
I.	Scientific achievements³ – max. 35 points (points are awarded for <u>one</u> achievement indicated by the candidate)	
I.1.	Scientific articles – authorship or co-authorship of a scientific article published in a scientific journal or in reviewed materials from an international conference, included in the current list of journals announced by the Ministry of Science and Higher Education (MNiSW) – regardless of the year of publication of the article Additionally, if the candidate is the first or corresponding author of the article	depending on the number of points of the journal from the MNiSW list: ≥ 100 pts – 25 pts 70 pts – 20 pts 40 pts – 15 pts 20 pts – 10 pts ≥ 100 pts – 10 pts 20 - 70 pts – 5 pts
I.2.	Monographs or chapters in monographs – authorship or co-authorship of a scientific monograph or chapter, published by publishers included in the current list of publishers announced by the MNiSW	monograph: level II – 25 pts level I – 20 pts chapter in monograph: level II – 15 pts level I – 10 pts
I.3.	Scientific articles in scientific journals from outside the MNiSW list IF>0	10 pts
I.4.	Secured patent / utility model	irrespective of number 20 pts
I.5.	Authorship or co-authorship of a sequence entry in the genetic sequence database	irrespective of number 10 pts
I	Selected achievement ⁴ : ☐ I.1 ☐ I.2 ☐ I.3 ☐ I.4 ☐ I.5 Description ⁵ :	
II.	Scientific activity – max. 15 points (points are awarded for <u>one</u> selected activity, i.e. II.1 or II.2)	
II.1.	Active participation in a science club, i.e. a) participation, or b) presentation of results at a conference (oral or poster), or c) award for presentation (only for presenting author).	5 pts 10 pts 15 pts
II.2.	Other scientific activity (not connected with the activity in a science club)	5 pts
II	Selected scientific activity ⁶ : ☐ II.1a ☐ II.1b ☐ II.1c ☐ II.2 Description ⁷ :	

III.	Participation in research or research and development projects – max. 10 points (points can be awarded in all categories and add up, except the limit of points for category III)		
III.1.	Participation and implementation of the main assumptions of the future doctoral dissertation as part of a research or research and development project financed from external source (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) –after 1 October of the year in which recruitment is carried out ⁸	< 6 months – 3 pts 6 to 12 months – 6 pts > 12 months – 10 pts	
III.1.	Project title, source of financing, period of implementation by the Candidate:		
III.2.	Active participation in a research or research and development project financed from external sources (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) before the day of submitting the application to the Doctoral School (participation in different projects adds up) or securing a project in the Young Minds competition ⁹	za każdy pełen miesiąc udziału – 1 pts (max. 10 pts) 5 pts	
III.2.	Project title, source of financing, period of implementation by the Candidate:		
IV.	Research internships¹⁰ – max. 10 points (points are awarded for <u>one</u> internship indicated by the Candidate)		
IV.1.	Research internship in home country (minimum 4 weeks)	5 pts	
IV.2.	Research internship abroad up to 4 weeks	5 pts	
IV.3.	Research internship abroad over 4 weeks	10 pts	
IV.	Type of selected internship ¹¹ : ☐ home country ☐ abroad ≤ 4 weeks ☐ abroad > 4 weeks Name of the university / research institution, exact period of implementation:		
V.	Other – max. 4 points (irrespective of the number of activities in a given category)		
V.1.	A second modern foreign language (other than English), minimum level B1 ¹²	1 pt	
V.2.	Work experience (e.g. courses, summer schools, etc.) ¹³	1 pt	
V.3.	Awards, distinctions ¹⁴	1 pt	
V.4.	Popular science publications ¹⁵	1 pt	
V.1-4			
Stage I – the maximum number of points to obtain – 74 (sum of items I-V)			
Stage II			
Stage II – interview – max 50 points			
1.	Knowledge of concepts and subjects connected with the topic of the doctoral dissertation	max. 30 pts	
2.	Career path	max. 10 pts	
3.	Self-presentation	max. 10 pts	
Total (sum of points received in Stage I and Stage II)			

I hereby declare that the information provided by me in the recruitment process for the Doctoral School is true and correct.

.....
(date, candidate's signature)

Signatures of the members of the Recruitment Committee assessing the achievements

.....
.....

.....
(title/degree, name and surname, signature)

|

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
on the position

b. I am / I am not* a doctoral student at

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the recruitment process is true and correct.

.....
(date, candidate's signature)

Instructions on how to fill in the Candidate Card

¹ The title/degree, name and surname should be provided

² The candidate fills in the white spaces on the card in column 1 – Type of achievement. All indicated achievements should be documented and attached to the Candidate Card (as separate files, in pdf format). Each document confirming a demonstrated achievement must be marked with an appropriate number corresponding to the number of a given achievement from the candidate's card, e.g. in the case of an article – the first page of the publication documenting the achievement should be marked in the upper right corner of the page in the following way: I.1.

³ Achievements which are being assessed, verified or reviewed are not subject to evaluation.

⁴ Put an X in one selected field to indicate the category of the scientific achievement.

⁵ Please provide:

- for a scientific article (categories I.1, I.3): names and surnames of authors, title of the article, bibliographic data (journal name, year, volume/number, pages, DOI number) and the number of points from the list of the Ministry of Science and Higher Education (if any); for documentation purposes, please attach to the candidate card a photocopy of the 1st page of the publication containing the above-mentioned information;
- for a monograph or monograph chapter (category I.2): names and surnames of authors, monograph title, chapter title (if applicable), bibliographic data (year, pages, ISSN number) and the level of the monograph according to list of the Ministry of Science and Higher Education; for documentation purposes, please attach to the candidate card a photocopy of one page of the monograph or chapter containing the above-mentioned information
- for a patent or utility model (category I.4): names and surnames of the inventors, name of the invention, date and place of granting the patent or utility model, number, name of the granting entity, name of the country in which protection was obtained; for documentation purposes, please attach a confirmation document to the candidate card
- for a sequence entry in the genetic database (category I.5): authors' names and surnames, entry name, GenBank number, publication journal, DOI or PUBMED (if available), link to the entry in the database.

⁶ Put an X in one selected field, specifying the category of scientific activity.

⁷ Please provide the name of the activity/achievement, e.g. 1st place for the presentation entitled ".." at the Science Clubs Meeting in Wrocław, 2020. Documentation method:

- "Active participation in a science club" – a statement from the supervisor of the science club with a list of activities and functions connected exclusively with the scientific activity of the science club – in accordance with the template available on the website; in the case of receiving an award, please attach a scan of the diploma or certificate from the event organiser, provide the name of the event;
- "Other scientific activity" – a certificate from the research supervisor with a list of activities and functions as well as references.

⁸ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector representing the unit acting as the project leader (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project.

⁹ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector who exercised supervision (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project, in the case of the Young Minds project – a photocopy of the decision.

¹⁰ A research internship does not include work practice, professional internships, internships under the Erasmus/Erasmus + programme, or professional work of a non-scientific nature. In case of doubts as to the nature of the internship – the decision is made by the Committee on the basis of the provided documentation. In order to document the internship, a relevant statement of the internship supervisor should be presented, which should contain: the name and surname of the intern; name and surname of the supervisor, name of the university or research institution where the internship or study visit took place, name of the country, type of stay, exact period of stay, description of completed tasks and their measurable effects.

¹¹ Put an X in in one selected field, indicating the type of internship.

¹² For documentation purposes, please submit a certificate from a foreign language school / UPWr Centre for Foreign Language.

¹³ For documentation purposes, please submit an appropriate diploma or certificate. Professional work may be considered professional experience only if it is related to the subject of the proposed doctoral dissertation, or if the experience gained in it may be used in the course of the doctoral dissertation. In order to document professional work, a certificate from the employer should be presented, including information about the scope of duties.

¹⁴ For documentation purposes, please present a diploma or certificate. The award or distinction must be of a different nature than the award for the presentation as part of the activity in the student science club (category II.1).

¹⁵ For documentation purposes, please attach to the candidate card a photocopy of the 1st page of the publication containing the following information: authors' names, title of the article, name of the journal.

**CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL
OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES**

(for candidates referred to in § 2(3)(2), i.e. those applying for admission to the Doctoral School under the
"Implementation Doctorate" programme)

.....
(candidate's name and surname)

Scientific discipline:

Selected supervisor:.....
.....

(title/degree, name and surname)

Selected assistant supervisor¹ :
.....
(title/professional title/degree, name and surname)

Indication of achievement to act as an assistant supervisor, as required¹:
.....

¹ An assistant supervisor can be a person with:

- (i) a doctoral degree or
- (ii) at least 5 years' experience in carrying out scientific activities or
- (iii) with significant achievements in the development and implementation of an original design, construction, technological or artistic solution in the economic or social sphere, of more than local scope and of a lasting and universal nature.

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points for the achievement
	1	2
I.	Command of English³ - 5 points (minimum B2)	5 pts
I.1.	The documented level of English is:	
II.	Documented research or R&D cooperation with Wrocław University of Environmental and Life Sciences - max. 5 pts	5 pts - irrespective of indicated projects and their duration
II.1.	.....	
III.	Other achievements - max. 5 pts: Points are awarded for only one achievement from the following list (the candidate should present one achievement of their choice from the following list - patent or implementation or participation in a project or scientific article): 1. Patent/utility model (secured) (for documentation purposes, provide the following: name of invention, date and place of granting patent, patent number, name of patent grantor, name of country in which protection was obtained, names of co-inventors). 2. Implementation – practical application of the results of research or development work, or implementation of the results of scientific activity in another form (please provide: the name of the invention, information on the implementation of the results of scientific activity in another form, including the date and place of implementation, contract photocopy). 3. Participation in an R&D project (in order to document participation in the project, please provide: a statement from the project/task manager on active participation with specific responsibilities and duration) 4. Scientific articles⁴ – authorship or co-authorship of a scientific article published in a scientific journal or in peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Education and Science (please provide: authors' names, article title, journal title, bibliographical data (year, vol., pages and ISSN or DOI) and the number of points from the MEiN list;	5 points for one selected achievement

² Points I to III are to be filled in by the candidate (except for column 2 - points awarded) – all demonstrated achievements must be documented and attached to the candidate's card as attachments. Each document confirming the demonstrated achievement must be marked with an appropriate number corresponding to the number of the given achievement on the candidate's card.

³ Proficiency in a modern foreign language should be documented by a certificate confirming its command at the required level, issued by the organisational unit responsible for foreign language teaching at the given university. Certificates included in the LIST OF CERTIFICATES CONFIRMING KNOWLEDGE OF A MODERN FOREIGN LANGUAGE constituting Annex No. 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for the conferment of the degree of doctor, habilitated doctor and the title of professor are honoured.

⁴ Papers submitted for peer review are not eligible for evaluation. The following should be provided: first and last names of authors, title of scientific article, journal title, bibliographic data (year, vol., pages and ISSN or DOI) and number of points from the list of the Ministry of Science and Higher Education; in the case of a monograph or monograph chapter, provide also the name of the publisher, ISBN or DOI. For documentation purposes, a photocopy of one page of the publication containing the abovementioned data should be attached to the candidate card.

	additionally, the name of the publisher, ISBN or DOI should be provided). 5. Monograph or monograph chapters - published by publishers included in the current list issued by the MEiN (please indicate: name of publisher, ISBN or DOI). 6. Professional experience in line with the subject of the proposed dissertation		
III.1.	.....		
IV.	Beneficiaries of the "Implementation Doctorate" programme - 15 points Points awarded following approval of the submitted project by the MEiN	For participation in the "Implementation Doctorate" programme confirmed by the MEiN	
1.	Points for participation in the "Implementation Doctorate" programme		
Stage I - maximum number of points - 30 points (sum of items I-IV)			
Stage II			
Stage II - interview - max. - 50 points			
1.	Presentation of planned research	30 pts	
2.	Career path	10 pts	
3.	Self-presentation	10 pts	
V.	Total (sum of points received in stage I and stage II)		

I declare that the information I have provided in the admission process for the Doctoral School is factually correct.

.....

(date, candidate's signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in

on the position

b. I am / I am not* a doctoral student at

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Resolution No. 38/2022 of the Senate of the Wrocław University of Environmental and Life Sciences of November 25, 2022

on the procedure and rules for admitting candidates to the Doctoral School of the Wrocław University of Environmental and Life Sciences in the academic year 2023/2024

Pursuant to Article. 200 sec. 2 and 3 of the Act of 20 July 2018 - Law on Higher Education and Science (Journal of Laws of 2022, item 574, as amended), § 12 sec. 1 point 23 of the Statute of the Wrocław University of Environmental and Life Sciences adopted on June 28, 2019 by resolution of the Senate of the Wrocław University of Environmental and Life Sciences No. 56/2019, as amended, it is resolved as follows:

GENERAL PROVISIONS

§ 1

Recruitment to the Doctoral School takes place through a competition on the terms set out in this resolution.

§ 2

1. The Doctoral School at the Wrocław University of Environmental and Life Sciences is established in the following fields and disciplines:

- 1) exact and natural sciences in the discipline: biological sciences;
- 2) engineering and technical sciences in the following disciplines:
 - a) civil engineering, geodesy and transport,
 - b) environmental engineering, mining and energy;
- 3) agricultural sciences in the following disciplines:
 - a) agriculture and horticulture,
 - b) food and nutrition technology,
 - c) animal science and fisheries;
- 4) veterinary sciences in the discipline: veterinary medicine;

5) social sciences in the discipline: social and economic geography and spatial management.

2. The Wrocław University of Environmental and Life Sciences accepts candidates for the first year of studies at the Doctoral School in the number of no more than 30 people, subject to sections 3 and 4.

3. Up to the limit of admissions referred to in sec. 2, does not include:

1) candidates who, as at the date of submitting the application to the Doctoral School, are provided with financing for the implementation of the doctorate covering the costs of the doctoral scholarship and financing for doctoral research for a period of min. 36 months from research projects financed from external sources;

2) beneficiaries of the "Implementation Doctorate" programme (pl. *doktorat wdrożeniowy*).

4. For persons referred to in par. 3, additional recruitment may be announced, taking into account the requirements related to the implementation of a research or research and development project. In the case of candidates referred to in para. 3 item 1, admission to the Doctoral School from the beginning of the second semester is allowed, provided that the uncompleted subjects specified in the compulsory curriculum of the Doctoral School will be completed in the next academic year.

§ 3

1. A candidate to the Doctoral School shall be a holder of the professional title of *magister*, *magister inżynier* or an equivalent degree, or a person referred to in Art. 186 sec. 2 of the Act of July 20, 2018 - Law on Higher Education and Science, including the beneficiary of the "Pearls of Science" program.

2. Has full legal capacity.

3. Is a Polish citizen or a foreigner.

4. Foreigners may undertake and pursue education at the Doctoral School on the terms set out in Art. 323-324 of the Act of July 20, 2018 - Law on Higher Education and Science.

5. The same recruitment conditions apply to Polish citizens and foreigners at the Doctoral School. Foreigners must go through the recruitment process based on this resolution, subject to sec. 6.

6. The condition for admitting a foreigner to the Doctoral School conducted in Polish is the knowledge of the Polish language, documented on the basis of one of the following documents:

1) a document confirming the completion of a preparatory course for studying in Polish, conducted in units designated by the Minister of Education and Science;

2) a certificate of knowledge of the Polish language issued by the State Commission for the Certification of Proficiency in Polish as a Foreign Language;

3) certificate of knowledge of Polish as a foreign language;

4) documents confirming the knowledge of a foreign language are also certificates, diplomas or other documents confirming the completion of a secondary school abroad, in which classes were conducted in Polish.

7. In the case of foreigners who do not know the Polish language at a level enabling them to undertake education in this language, it is allowed to conduct classes in English, in this case, the candidate must demonstrate knowledge of English at the B2 level of the Common European Framework of Reference for Languages.

RECRUITMENT PROCEDURE

§ 4

1. The recruitment procedure is carried out by the recruitment committee appointed by the Vice-Rector for science at the request of the Director of the Doctoral School. A representative of the doctoral students' council participates in the work of the Recruitment Committee.

2. The chairman of the Recruitment Committee is appointed by the director of the Doctoral School from among the members of this committee.

3. Members of the Recruitment Committee may be persons with the title of professor or the academic degree of *doktor habilitowany*, representing at least 50% of the leading scientific discipline within which education at the Doctoral School is conducted.

4. In the event of circumstances preventing a member of the Recruitment Committee from directly participating in its work, the relevant vice-rector for science shall dismiss this person and appoint a new member, in accordance with the rules specified in point 3.

5. A member of the committee may not be a supervisor or assistant supervisor of the doctoral student he or she participated in the recruitment of. However, if he wants to retain the possibility of performing the function of a promoter or an assistant promoter, he should exclude himself from participation in the work of the committee. Then, the vice-rector for science, at the request of the chairman of the admission committee, appoints another member of the committee from among the members of the relevant discipline, subject to the principle expressed in § 4 section 3.

6. The Director of the Doctoral School supervises the work of the Recruitment Committee.

7. The term of office of the recruitment committee is one year.

8. Recruitment of candidates to the Doctoral School under the "Implementation Doctorate" (pl. *doktorat wdrożeniowy*) project referred to in § 2 sec. 3 point 2 shall be conducted by the Doctoral School Council. In such a case, the Chairman of the Doctoral School Council acts as the chairman of the recruitment committee. If a member of the Doctoral School Council is directly involved as a potential promoter, the Chairman of the Council appoints a replacement from among members of the discipline in accordance with § 4 sec. 3. The relevant Vice-Rector to whom the project is subordinate may be included in the Committee.

9. In the case of candidates referred to in § 2 sec. 3 point 1, a competition procedure is conducted in accordance with the requirements of the project. The competition committee consists of: the project manager and two persons with at least the degree of *dr hab.* from the discipline in which the project is implemented. The candidate who wins the competition procedure is admitted to the Doctoral School with the consent of the director of the Doctoral School on the basis of the protocol of the competition committee and the candidate's application for admission to the Doctoral School.

Recruitment of candidates to the Doctoral School during the first semester referred to in § 2 sec. 4, shall be carried out on the terms set out in par. 8.

§ 5

The tasks of the Recruitment Committee include:

- 1) announcement of recruitment to the Doctoral School;
- 2) notification of candidates about the date and place of the recruitment procedure;
- 3) carrying out the recruitment procedure;
- 4) evaluation of the achievements of the candidates presented in the recruitment documentation (the candidate's card is signed by the members of the Recruitment Committee who assessed the achievements of the given candidate);
- 5) preparing a summary protocol of the proceedings.

§ 6

1. A potential supervisor interested in supervising a doctoral student at the Doctoral School is obliged to submit an academic information sheet in electronic form according to the template provided to the following address: szkola.doktorska@upwr.edu.pl. It is possible to attach video material.

2. Academic information sheets will be forwarded to the appropriate discipline board for an opinion at its next meeting. The opinion expressed by the discipline board is binding for the Doctoral School Council.

3. The supervisor in recruitment may propose up to two research or research and development topics, except for supervisors who lead a project with a different number of doctoral places specified in the project. The supervisor may present only one candidate for a given research topic for recruitment.
4. The list of potential supervisors in the form of an academic information sheet will be made available on the website of the Doctoral School on March 31, 2023.
5. After the date of their announcement on the Doctoral School website, the academic information sheet may be submitted by potential supervisors who have obtained separate funding for the implementation of a research or research and development topic from external sources, after approval by the Doctoral School Council.
6. The requirement to submit a business card does not apply to potential supervisors of beneficiaries of the "Implementation Doctorate" program (pl. *doktorat wdrożeniowy*).

§ 7

1. A person may be permitted to take part in the recruitment procedure if:
 - 1) holds the professional title of *magister*, *magister inżynier* or equivalent, confirmed by a diploma or has presented a certificate from the relevant dean's office confirming the completion of the study program - it is required to provide a diploma of graduation by September 15 (in the year of recruitment) or meets the conditions set out in Art. 186 sec. 2 of the Act - Law on Higher Education and Science, including beneficiaries of the "Pearls of Science" programme;
 - 2) has registered in the online candidate registration system;
 - 3) selected a potential supervisor from the list published on the Doctoral School website, contacted him and agreed on the topic and scope of the doctoral thesis (the potential supervisor's signature is required on the opinion on suitability for scientific work, only one candidate can apply for a given topic), this requirement does not apply to candidates applying for participation in the Doctoral School under the "Implementation Doctorate" program;
 - 4) paid the recruitment fee in the amount of PLN 200 or EUR 50 (transfer title: name, surname, recruitment to the Doctoral School, project number). For candidates from OECD-listed developing countries, the application fee is EUR 20;
 - 5) provided the following documents to the Office of the Doctoral School of UPWr:
 - a) an application generated from the online recruitment system with the attachments,
 - b) confirmation of knowledge of the English language at B2 level of the Common European Framework of Reference for Languages;
 - c) confirmation of payment of the recruitment fee;

d) "Candidate card for the Doctoral School of the Wrocław University of Environmental and Life Sciences", which is attached to this resolution, together with documents confirming the demonstrated achievements.

2. The recruitment procedure consists of two stages. The condition for qualifying for the second stage is meeting the requirements set out for the first stage.

3. The candidate is responsible for the proper completion of the documents. If the required documentation is found to be missing, the candidate is requested to provide missing documents within 7 days, with the information that failure to do so will result in leaving the application without consideration.

4. Providing false data or falsified documents in the recruitment process disqualifies the candidate from the recruitment procedure with immediate effect. In the event of disclosure of falsified documentation presented in the recruitment process by a person who has already been admitted to the Doctoral School, that person may be subject to disciplinary liability.

5. In the case of candidates (students) who have not completed higher education studies referred to in Art. 186 sec. 2 of the Act - Law on Higher Education and Science, including the beneficiaries of the "Pearls of Science" program, the Recruitment Committee shall assess the scientific achievements of the candidate prior to their admission to recruitment, according to the following criteria:

1) authorship or co-authorship of scientific publications in peer-reviewed scientific journals with at least national coverage, or scientific publications in the form of a monograph or a chapter in a monograph (in the case of a publication, the journal ranking according to the current list of the Ministry should be indicated);

2) participation in research projects conducted by a research unit or in cooperation with other research units or partners from the socio-economic environment;

3) authorship or co-authorship of a patent or utility model;

4) awards and distinctions in international competitions;

5) active participation in the work of the scientific circle;

6) participation in international programs implemented as part of international scientific or didactic cooperation between universities;

7) participation in internships abroad.

Positive evaluation of the scientific achievements is a prerequisite for admitting the candidate to the first stage of recruitment.

Stage I (max. number of points to be obtained - specified in the Candidate's Card).

6. The candidate is assessed on the basis of documented achievements presented in the "Candidate's Card for the Doctoral School of the Wrocław University of Environmental and Life Sciences", which is attached to this resolution, subject to the following:

1) Appendix No. 1 – applies to candidates within the limit of places referred to in § 2 sec. 2;

2) Appendix No. 2 – applies to the candidates referred to in § 2 sec. 3 point 2.

7. Stage II (max. number of points to be obtained - specified in the Candidate's Card).

Interview - oral presentation on the subject of the future doctoral thesis and scientific interests. The interview may be held in English, provided that its content and form are adapted to level B2 of the Common European Framework of Reference for Languages. In the event of a sanitary threat, it is possible to conduct a recruitment interview using IT tools for videoconferencing.

8. In the case of a foreign candidate, it is possible to conduct a recruitment interview using IT tools for videoconferencing.

9. In relation to a candidate who is a person with disabilities, the Recruitment Committee modifies the recruitment procedure on the basis of a valid disability certificate or a certificate or opinion of a competent specialist clinic.

10. A candidate who is a person with disabilities should submit an application to the Recruitment Committee about the need to adapt the recruitment procedure, no later than seven working days before the date of this procedure. The candidate should attach a photocopy of the document confirming the disability to the application.

ADMISSION TO DOCTORAL SCHOOL

§ 8

1. The results of the recruitment procedure are public and are made public through an announcement on the website of the Wrocław University of Environmental and Life Sciences and in a place generally available for this purpose at the university.

2. On the basis of the points obtained by the candidates in the qualification procedure, a ranking list is created, which determines the order in which candidates are admitted to the Doctoral School within the limit of places.

3. The ranking list is created in two stages - as follows:

1) First, the so-called ranking of disciplines, where for each scientific discipline authorized to be educated at the Doctoral School, three candidates with the highest number of points in each discipline (parities) are admitted, with at least one of them being a Polish citizen and at least one of them being a foreigner.

2) After selecting candidates representing scientific disciplines, one ranking list is created again, common for all disciplines, the so-called ranking list. general ranking, on the basis of which candidates with the highest number of points obtained in the recruitment procedure are admitted, within the remaining limit of places.

3) If the quotas are not met by candidates in a given scientific discipline, the position in the ranking of the discipline goes to the so-called general ranking, thus increasing the limit of places in this ranking.

4. If in the last place of the above If there are two or more candidates on the ranking list who obtained the same number of points in the recruitment procedure, the decisive criterion for admission will be the number of points obtained at the interview, and then for scientific articles, completed scientific internships and participation in research projects.

5. Conditions of admission to the Doctoral School:

1) For candidates falling within the limit of places referred to in § 2 sec. 2:

a) 50 persons with the highest number of points are admitted to stage II, taking into account the ranking list referred to in § 8 point 3 sec. 1, who scored at least 12 points in stage I;

b) obtaining, as a result of the recruitment procedure, at least 50% of the points possible to be obtained in the recruitment procedure (62 points in stage I+II);

c) knowledge of the English language, at least B2 level of the Common European Framework of Reference for Languages.

2) For candidates referred to in § 2 sec. 3 point 2:

a) qualifying for the "Implementation Doctorate" (pl. *doktorat wdrożeniowy*) program;

b) knowledge of the English language, at least B2 level of the Common European Framework of Reference for Languages;

c) obtaining at least 50% of the points available in the recruitment procedure as a result of the recruitment procedure:

- in stage I: at least 15 points,

- in stage II: at least 25 points

6. If there are unused places after the recruitment procedure, the Recruitment Committee may decide to:

1) completion of the recruitment procedure and resignation from admission to the remaining places;

2) carrying out the second (supplementary) recruitment in the same mode.

7. After the recruitment procedure is completed, candidates will receive information about their acceptance to the Doctoral School (via the ranking list published on the university's website, within the time limit set and specified on the website) and about the obligation to enter them on the list of doctoral students within 7 days. Failure to make an entry on the list within this period will result in a decision not to be admitted to the Doctoral School.

8. Admission to the Doctoral School takes place by entering on the list of doctoral students on the basis of the recruitment procedure conducted, subject to the following rules:

1) for candidates falling within the limit of places referred to in § 2 sec. 2 and 3 point 1 - after the recruitment procedure is completed and the recruitment results are announced;

2) for candidates applying under the "Implementation Doctorate" program (pl. *doktorat wdrożeniowy*) - after the recruitment procedure is completed and the recruitment results are announced, but not earlier than after the results of the competition under the "Implementation Doctorate" program financed by the Ministry of Education and Science (MEiN) are announced.

9. In a situation where a candidate accepted on the basis of a list from the so-called ranking of disciplines, resigns from education at the Doctoral School, a candidate from the ranking of disciplines representing a given discipline is entered on the list of doctoral students, taking into account the order resulting from the recruitment procedure, but if there are no candidates from a given discipline, then another person from the so-called overall ranking. The entry on the list of doctoral students shall be made no later than by 30 September of a given year.

10. Refusal of admission to the Doctoral School takes place by way of an administrative decision of the Rector of the Wrocław University of Environmental and Life Sciences. The decision may be subject to an application for reconsideration of the case.

11. At the same time, one can be a doctoral student only in one Doctoral School.

12. A person admitted to the Doctoral School begins education and acquires the rights of a doctoral student upon taking the oath.

§ 9

In matters not covered by this resolution, the provisions of the Act of 20 July 2018 - Law on Higher Education and Science and internal regulations at the university shall apply. Decisions are made by the director of the Doctoral School in consultation with the Vice-Rector for Science.

§ 10

The resolution comes into force on the day of its adoption.

Chairman of the Senate

prof. dr hab. inż. Jarosław Bosy

CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES

Candidate's name and surname: year of birth:
 Scientific discipline:
 Selected supervisor¹:
 Selected second supervisor/assistant supervisor¹:
 Suggested topic of doctoral dissertation:

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points
Stage I		
I.	Scientific achievements³ – max. 35 points (points are awarded for <u>one</u> achievement indicated by the candidate)	
I.1.	Scientific articles – authorship or co-authorship of a scientific article published in a scientific journal or in reviewed materials from an international conference, included in the current list of journals announced by the Ministry of National Education (MEiN) – regardless of the year of publication of the article Additionally, if the candidate is the first author of the article Additionally, if the candidate is the corresponding author of the article	depending on the number of points of the journal from the MEiN list: ≥ 100 pts – 15 pts 70 pts – 11 pts 40 pts – 6 pts 20 pts – 3 pts + 10 pts + 10 pts
I.2.	Monographs or chapters in monographs – authorship or co-authorship of a scientific monograph or chapter, published by publishers included in the current list of publishers announced by the MEiN	monograph: level II – 25 pts level I – 20 pts chapter in monograph: level II – 15 pts level I – 10 pts
I.3.	Scientific articles in scientific journals from outside the MEiN list IF>0	10 pts
I.4.	Secured patent / utility model	irrespective of number 20 pts
I.5.	Authorship or co-authorship of a sequence entry in the genetic sequence database	irrespective of number 10 pts
I	Selected achievement ⁴ : ☐ I.1 ☐ I.2 ☐ I.3 ☐ I.4 ☐ I.5 Description ⁵ :	
II.	Scientific activity – max. 15 points (points are awarded for <u>one</u> selected activity, i.e. II.1 or II.2)	
II.1.	Active participation in a science club, i.e. a) participation, or b) presentation of results at a conference (oral or poster), or c) award for presentation (only for presenting author).	5 pts 10 pts 15 pts
II.2.	Other scientific activity (not connected with the activity in a science club)	5 pts
II	Selected scientific activity ⁶ : ☐ II.1a ☐ II.1b ☐ II.1c ☐ II.2 Description ⁷ :	

III.	Participation in research or research and development projects – max. 10 points (points can be awarded in all categories and add up, except the limit of points for category III)		
III.1.	Participation and implementation of the main assumptions of the future doctoral dissertation as part of a research or research and development project financed from external source (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) – after 1 October of the year in which recruitment is carried out ⁸	< 6 months – 3 pts 6 to 12 months – 6 pts > 12 months – 10 pts	
III.1.	Project title, source of financing, period of implementation by the Candidate:		
III.2.	Active participation in a research or research and development project financed from external sources (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) before the day of submitting the application to the Doctoral School (participation in different projects adds up) or securing a project in the Young Minds competition ⁹	za każdy pełen miesiąc udziału – 1 pts (max. 10 pts) 5 pts	
III.2.	Project title, source of financing, period of implementation by the Candidate:		
IV.	Research internships¹⁰ – max. 10 points (points are awarded for <u>one</u> internship indicated by the Candidate)		
IV.1.	Research internship in home country (minimum 4 weeks)	5 pts	
IV.2.	Research internship abroad up to 4 weeks	5 pts	
IV.3.	Research internship abroad over 4 weeks	10 pts	
IV.	Type of selected internship ¹¹ : ☐ home country ☐ abroad ≤ 4 weeks ☐ abroad > 4 weeks		
V.	Other – max. 4 points (irrespective of the number of activities in a given category)		
V.1.	A second modern foreign language (other than English), minimum level B1 ¹²	1 pt	
V.2.	Work experience (e.g. courses, summer schools, etc.) ¹³	1 pt	
V.3.	Awards, distinctions ¹⁴	1 pt	
V.4.	Popular science publications ¹⁵	1 pt	
V.1-2			
Stage I – the maximum number of points to obtain – 74 (sum of items I-V)			
Stage II			
Stage II – interview – max 50 points			
1.	Knowledge of concepts and subjects connected with the topic of the doctoral dissertation	max. 30 pts	
2.	Career path	max. 10 pts	
3.	Self-presentation	max. 10 pts	
Total (sum of points received in Stage I and Stage II)			

I hereby declare that the information provided by me in the recruitment process for the Doctoral School is true and correct.

.....
(date, candidate's signature)

Signatures of the members of the Recruitment Committee assessing the achievements

.....

 (title/degree, name and surname, signature)

II. Additional information

1. I hereby declare that:

- a. I am / I am not* employed under an employment contract in.....
on the position.....
- b. I am / I am not* a doctoral student at.....
.....
(name of the unit)
- c. I have / I have not* studied as a doctoral student at.....
.....
(name of the unit)
- d. I am / I am not* a doctoral school student at:
.....
(name of the unit managing the doctoral school)
- e. In the current year I am / I am not applying* to the following doctoral schools:
.....
(name of the unit managing the doctoral school)

* delete where not applicable

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(contact number)

I hereby declare that the information provided by me in the recruitment process is true and correct.

.....
(date, candidate's signature)

Instructions on how to fill in the Candidate Card

¹ The title/degree, name and surname should be provided

² The candidate fills in the white spaces on the card in column 1 – Type of achievement. All indicated achievements should be documented and attached to the Candidate Card (as separate files, in pdf format). Each document confirming a demonstrated achievement must be marked with an appropriate number corresponding to the number of a given achievement from the candidate's card, e.g. in the case of an article – the first page of the publication documenting the achievement should be marked in the upper right corner of the page in the following way: I.1.

³ Achievements which are being assessed, verified or reviewed are not subject to evaluation.

⁴ Put an X in one selected field to indicate the category of the scientific achievement.

⁵ Please provide:

- for a scientific article (categories I.1, I.3): names and surnames of authors, title of the article, bibliographic data (journal name, year, volume/number, pages, DOI number) and the number of points from the list of the Ministry of Science and Higher Education (if any); for documentation purposes, please attach to the candidate card a photocopy of the 1st page of the publication containing the above-mentioned information;
- for a monograph or monograph chapter (category I.2): names and surnames of authors, monograph title, chapter title (if applicable), bibliographic data (year, pages, ISSN number) and the level of the monograph according to list of the Ministry of Science and Higher Education; for documentation purposes, please attach to the candidate card a photocopy of one page of the monograph or chapter containing the above-mentioned information
- for a patent or utility model (category I.4): names and surnames of the inventors, name of the invention, date and place of granting the patent or utility model, number, name of the granting entity, name of the country in which protection was obtained; for documentation purposes, please attach a confirmation document to the candidate card
- for a sequence entry in the genetic database (category I.5): authors' names and surnames, entry name, GenBank number, publication journal, DOI or PUBMED (if available), link to the entry in the database.

⁶ Put an X in one selected field, specifying the category of scientific activity.

⁷ Please provide the name of the activity/achievement, e.g. 1st place for the presentation entitled ".." at the Science Clubs Meeting in Wrocław, 2020. Documentation method:

- "Active participation in a science club" – a statement from the supervisor of the science club with a list of activities and functions connected exclusively with the scientific activity of the science club – in accordance with the template available on the website; in the case of receiving an award, please attach a scan of the diploma or certificate from the event organiser, provide the name of the event;
- "Other scientific activity" – a certificate from the research supervisor with a list of activities and functions as well as references.

⁸ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector representing the unit acting as the project leader (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project.

⁹ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector who exercised supervision (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project, in the case of the Young Minds project – a photocopy of the decision.

¹⁰ A research internship does not include work practice, professional internships, internships under the Erasmus/Erasmus + programme, or professional work of a non-scientific nature. In case of doubts as to the nature of the internship – the decision is made by the Committee on the basis of the provided documentation. In order to document the internship, a relevant statement of the internship supervisor should be presented, which should contain: the name and surname of the intern; name and surname of the supervisor, name of the university or research institution where the internship or study visit took place, name of the country, type of stay, exact period of stay, description of completed tasks and their measurable effects.

¹¹ Put an X in in one selected field, indicating the type of internship.

¹² For documentation purposes, please submit a certificate from a foreign language school / UPWr Centre for Foreign Language.

¹³ For documentation purposes, please submit an appropriate diploma or certificate. Professional work may be considered professional experience only if it is related to the subject of the proposed doctoral dissertation, or if the experience gained in it may be used in the course of the doctoral dissertation. In order to document professional work, a certificate from the employer should be presented, including information about the scope of duties.

¹⁴ For documentation purposes, please present a diploma or certificate. The award or distinction must be of a different nature than the award for the presentation as part of the activity in the student science club (category II.1).

¹⁵ For documentation purposes, please attach to the candidate card a photocopy of the 1st page of the publication containing the following information: authors' names, title of the article, name of the journal.

**CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL
OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES**

(for candidates referred to in § 2(3)(2), i.e. those applying for admission to the Doctoral School under the
"Implementation Doctorate" programme)

.....
(candidate's name and surname)

Scientific discipline:

Selected supervisor:.....
.....

(title/degree, name and surname)

Selected assistant supervisor¹ :
.....
(title/professional title/degree, name and surname)

Indication of achievement to act as an assistant supervisor, as required¹:
.....

¹ An assistant supervisor can be a person with:

- (i) a doctoral degree or
- (ii) at least 5 years' experience in carrying out scientific activities or
- (iii) with significant achievements in the development and implementation of an original design, construction, technological or artistic solution in the economic or social sphere, of more than local scope and of a lasting and universal nature.

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points for the achievement
	1	2
I.	Command of English³ - 5 points (minimum B2)	5 pts
I.1.	The documented level of English is:	
II.	Documented research or R&D cooperation with Wrocław University of Environmental and Life Sciences - max. 5 pts	5 pts - irrespective of indicated projects and their duration
II.1.	.....	
III.	Other achievements - max. 5 pts: Points are awarded for only one achievement from the following list (the candidate should present one achievement of their choice from the following list - patent or implementation or participation in a project or scientific article): 1. Patent/utility model (secured) (for documentation purposes, provide the following: name of invention, date and place of granting patent, patent number, name of patent grantor, name of country in which protection was obtained, names of co-inventors). 2. Implementation – practical application of the results of research or development work, or implementation of the results of scientific activity in another form (please provide: the name of the invention, information on the implementation of the results of scientific activity in another form, including the date and place of implementation, contract photocopy). 3. Participation in an R&D project (in order to document participation in the project, please provide: a statement from the project/task manager on active participation with specific responsibilities and duration) 4. Scientific articles⁴ – authorship or co-authorship of a scientific article published in a scientific journal or in peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Education and Science (please provide: authors' names, article title, journal title, bibliographical data (year, vol., pages and ISSN or DOI) and the number of points from the MEiN list;	5 points for one selected achievement

² Points I to III are to be filled in by the candidate (except for column 2 - points awarded) – all demonstrated achievements must be documented and attached to the candidate's card as attachments. Each document confirming the demonstrated achievement must be marked with an appropriate number corresponding to the number of the given achievement on the candidate's card.

³ Proficiency in a modern foreign language should be documented by a certificate confirming its command at the required level, issued by the organisational unit responsible for foreign language teaching at the given university. Certificates included in the LIST OF CERTIFICATES CONFIRMING KNOWLEDGE OF A MODERN FOREIGN LANGUAGE constituting Annex No. 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for the conferment of the degree of doctor, habilitated doctor and the title of professor are honoured.

⁴ Papers submitted for peer review are not eligible for evaluation. The following should be provided: first and last names of authors, title of scientific article, journal title, bibliographic data (year, vol., pages and ISSN or DOI) and number of points from the list of the MEiN; in the case of a monograph or monograph chapter, provide also the name of the publisher, ISBN or DOI. For documentation purposes, a photocopy of one page of the publication containing the abovementioned data should be attached to the candidate card.

	additionally, the name of the publisher, ISBN or DOI should be provided). 5. Monograph or monograph chapters - published by publishers included in the current list issued by the MEiN (please indicate: name of publisher, ISBN or DOI). 6. Professional experience in line with the subject of the proposed dissertation		
III.1.	.....		
IV.	Beneficiaries of the "Implementation Doctorate" programme - 15 points Points awarded following approval of the submitted project by the MEiN	For participation in the "Implementation Doctorate" programme confirmed by the MEiN	
1.	Points for participation in the "Implementation Doctorate" programme		
Stage I - maximum number of points - 30 points (sum of items I-IV)			
Stage II			
Stage II - interview - max. - 50 points			
1.	Presentation of planned research	30 pts	
2.	Career path	10 pts	
3.	Self-presentation	10 pts	
V.	Total (sum of points received in stage I and stage II)		

I declare that the information I have provided in the admission process for the Doctoral School is factually correct.

.....

(date, candidate's signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in

on the position

b. I am / I am not* a doctoral student at

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Resolution No. 67/2023
of the Senate of Wrocław University of Environmental and Life Sciences
of 15 December 2023

on the requirements and admissions procedure for admitting candidates to the Doctoral
School of Wrocław University of Environmental and Life Sciences
in the academic year 2024/2025

Pursuant to Article 200(2) and (3) of the Act of 20 July 2018 – Law on Higher Education and Science (Journal of Laws of 2023, item 742, as amended), § 9(15) of the Statute of Wrocław University of Environmental and Life Sciences, which constitutes an appendix to Resolution No. 42/2023 of the Senate of Wrocław University of Environmental and Life Sciences of 29 September 2023 on the adoption of the Statute of Wrocław University of Environmental and Life Sciences, it is resolved as follows

GENERAL PROVISIONS

§ 1

Admission to the Doctoral School is based on a competition whose rules are set out in this resolution.

§ 2

1. The doctoral school at Wrocław University of Environmental and Life Sciences is established in the disciplines in which the University is allowed to grant the doctoral degree.
2. Wrocław University of Environmental and Life Sciences admits no more than 30 candidates for the first year of studies at the doctoral school, subject to sections 3 and 4 below.
3. The admissions limit referred to in section 2 shall not include:
 - 1) candidates who, as of the date of submitting their applications to the doctoral school, have secured financing to cover the cost of their doctoral scholarship and doctoral research as part of externally funded research projects for a period of at

- least 36 months, with candidates who have secured funding for 36 months being subject to a three-year training programme;
- 2) beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.
4. For the persons referred to in section 3, an additional admission procedure may be announced, taking into account the requirements connected with the implementation of their research or research and development project. In the case of the candidates referred to in section 3(1), admission to the doctoral school from the beginning of the second semester is possible, provided that the compulsory coursework specified in the doctoral school curriculum for the first semester will be completed in the following academic year.

§ 3

1. Candidates applying for admission to the doctoral school shall hold the professional title of *magister*, *magister inżynier* or equivalent, or they shall meet the requirements set out in Article 186(2) of the Act of 20 July 2018 – Law on Higher Education and Science, or they shall be beneficiaries of the “Perły Nauki” programme.
2. The candidates shall have full legal capacity.
3. The candidates may be Polish citizens or foreigners.
4. Foreigners may undertake and pursue education at the doctoral school on the terms specified in Articles 323-324 of the Act of 20 July 2018 – Law on Higher Education and Science.
5. The same admission procedure shall apply to Polish and foreign candidates to the doctoral school. Foreigners must undergo the admission process pursuant to this resolution, subject to point 6.
6. A foreigner may be admitted to the doctoral school with courses conducted in the Polish language provided his or her knowledge of the Polish language is documented on the basis of one of the following documents:
 - 1) a document confirming completion of a preparatory course to study in Polish conducted in units designated by the Minister of Education and Science;
 - 2) a certificate of knowledge of the Polish language issued by the State Commission for the Certification of Proficiency in Polish as a Foreign Language;
 - 3) confirmation of knowledge of Polish as a foreign language;

- 4) certificates, diplomas or other documents attesting the completion of a secondary school abroad, in which classes were conducted in Polish, shall also constitute evidence of knowledge of a foreign language.
7. In the case of foreigners who do not know the Polish language at a level enabling them to undertake education in this language, it is possible to conduct classes in English; in this case, the candidate must demonstrate knowledge of English at the B2 level according to the Common European Framework of Reference for Languages.

ADMISSION PROCEDURE

§ 4

1. The admission procedure shall be conducted by an admissions committee appointed by the relevant vice-rector for science at the request of the director of the doctoral school, except for the procedure referred to in points 8 and 9. A representative of the doctoral students' self-government shall participate in the work of the admissions committee.
2. The chairperson of the admissions committee is appointed by the director of the doctoral school from among the committee members.
3. Members of the admissions committee shall be persons with the title of professor or the academic degree of *doktor habilitowany*, at least 50% of whom represent an evaluated academic discipline in which education at the doctoral school is conducted.
4. In the event of circumstances preventing a member of the admissions committee from directly participating in its work, the Vice-Rector for Science shall dismiss this person and appoint a new member, in accordance with the rules set out in section 3.
5. A member of the admissions committee may not subsequently be the supervisor or assistant supervisor of a doctoral student in whose admission process he or she participated. However, if he or she wishes to retain the possibility of acting as a supervisor or assistant supervisor, he or she should exclude himself or herself from participation in the work of the committee. In such a case, the relevant vice-rector for science, at the request of the director of the doctoral school, shall appoint another member of the committee from among the members of the relevant discipline, subject to the principle expressed in § 4(3).
6. The work of the admissions committee is supervised by the director of the doctoral school.

7. The admissions committee shall be appointed for a period until a new admissions committee is appointed for the following academic year.
8. Admission of candidates under the “Implementation Doctorate” project, referred to in § 2(3)(2), is conducted by the doctoral school board. In this case, the chairperson of the doctoral school board shall perform the role of the chairperson of the admissions committee. In the event that a member of the doctoral school board is directly involved as a potential supervisor or assistant supervisor, the chairperson of the relevant scientific discipline board shall appoint a replacement from among the members of the discipline in accordance with § 4(3). In this case, the admissions committee may be joined by the relevant vice-rector who supervises the project.
9. In the case of the candidates referred to in § 2(3)(1), a competition procedure is conducted in accordance with the project requirements. The competition committee shall be composed of: the project leaders and two persons with at least a doctoral degree in the discipline in which the project is carried out. The successful candidate is admitted to the doctoral school with the approval of the director of the doctoral school on the basis of the competition committee protocol and the candidate's application for admission to the doctoral school.

§ 5

The tasks of the admissions committee shall include:

- 1) announcing the admission to the doctoral school;
- 2) notifying the candidates about the date and place of the admission procedure;
- 3) conducting the admission procedure;
- 4) assessing the candidates' achievements presented in the admission documentation;
- 5) preparing a summary report on the admission procedure.

§ 6

1. A potential supervisor interested in supervising a doctoral school student is obliged to submit the academic information sheet in electronic form in English according to the

provided template by sending it to: szkola.doktorska@upwr.edu.pl. Video material may be attached.

2. The academic information sheets will be forwarded to the relevant discipline boards that will pass their opinions at their next meeting. The opinions expressed by the discipline boards are binding on the doctoral school board.
3. In the admission process, a supervisor may suggest up to two research or research and development topics, with the exception of supervisors supervising a project with additional places for doctoral students in projects referred to in § 2(3)(1). A supervisor may recommend only one candidate for a given research topic in the admission process.
4. The list of potential supervisors with their academic information sheets will be announced on the doctoral school website on 31 March 2024.
5. After the date of their announcement on the doctoral school website, additional academic information sheets may be presented by potential supervisors who have obtained external funding for the implementation of a research or research and development project, provided they have been approved by the doctoral school board.
6. The requirement to submit the academic information sheet does not apply to potential supervisors of the beneficiaries of the “Implementation Doctorate” programme.

§ 7

1. The eligible candidates shall:
 - 1) hold the professional title of *magister*, *magister inżynier* or an equivalent degree confirmed by a diploma, or submit a certificate from the relevant dean’s office confirming the completion of the study programme along with information about the planned date of defence – it is required to submit the graduation diploma by 15 September (of the year of admission) or to meet the conditions set out in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Perła Nauki” programme;
 - 2) register in the on-line system of candidate registration;
 - 3) select a potential supervisor from the list published on the doctoral school website, contact the supervisor and determine the subject and scope of the doctoral dissertation (it is required that the potential supervisor sign the opinion on the suitability of the scientific work; only one candidate may apply for a given

topic); this requirement does not apply to candidates applying to the doctoral school under the “Implementation Doctorate” programme;

- 4) pay a recruitment fee of PLN 200 or EUR 50 (transfer title: name and surname, recruitment to the doctoral school, project number). For candidates from developing countries on the OECD list, the recruitment fee is EUR 20;
- 5) submit the following documents to the doctoral school office:
 - a) an application form generated by the online recruitment system with the required attachments;
 - b) confirmation of English language proficiency at level B2 of the Common European Framework of Reference for Languages;
 - c) confirmation of payment of the recruitment fee;
 - d) “Candidate Card for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which constitutes an appendix to this resolution, together with documents confirming the listed achievements.
2. The admission procedure consists of two stages. In order to qualify for the second stage it is necessary to meet the requirements for the first stage.
3. The candidate shall be responsible for providing the proper documents. In case some of the required documents are missing, the candidate shall be requested to provide them within seven days, with the information that failure to do so will result in the application not being considered.
4. Providing false data or forged documents in the admission process shall disqualify the candidate from the admission procedure with immediate effect. In the event of disclosure of forged documentation presented in the admission process by a person who has already been admitted to the doctoral school, that person may be subject to disciplinary responsibility.
5. In the case of candidates (students) who have not completed higher education, as described in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Perła Nauki” programme, the admissions committee shall assesses the scientific achievements of the candidate prior to the commencement of the admission procedure, according to the following criteria:
 - 1) authorship or co-authorship of scientific publications in peer-reviewed scientific journals of at least national scope, or scientific publications in the form of a monograph or monograph chapter (in the case of publications, the journal ranking according to the current list of the Ministry should be indicated);

- 2) participation in research projects conducted by a research unit or in cooperation with other research units or partners from the social and economic environment;
- 3) authorship or co-authorship of a patent or utility model;
- 4) awards and distinctions in international competitions;
- 5) active participation in the work of a science club;
- 6) participation in international programmes conducted as part of international scientific or didactic cooperation between universities;
- 7) participation in foreign internships;

Positive evaluation of the scientific achievements is a prerequisite for admitting the candidate to the first stage of the admission procedure.

6. Stage I (the maximum number of points to be obtained is specified in the candidate card).

The candidate is assessed on the basis of the documented achievements presented in the “Candidate Card for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which is attached to this resolution, subject to the following:

- 1) Appendix 1 applies to candidates within the limit of places referred to in § 2(2);
- 2) Appendix 2 applies to candidates referred to in § 2(3)(2);

7. Stage II (the maximum number of points to be obtained is specified in the candidate card).

Interview – oral presentation on the future doctoral dissertation and the candidate’s scientific interests. The interview may be conducted in English, provided that its content and form will be adapted to the B2 level of the Common European Framework of Reference for Languages. In the event of a sanitary threat, it is possible to conduct the interview with the use of IT tools for videoconferencing.

8. In the case of a foreign candidate, it is possible to conduct the interview with the use of IT tools for videoconferencing.
9. In the case of a candidate who is a person with a disability, the admissions committee shall modify the admission procedure on the basis of a legally valid certificate on the degree of disability or a certificate referred to in Article 5 and Article 62 of the Act of 27 August 1997 on the Vocational and Social Rehabilitation and Employment of Persons with Disabilities.
10. A candidate who is a person with a disability shall provide the admissions committee with a request to adapt the admission procedure no later than seven working days

before the date of the procedure. The candidate shall attach a photocopy of the certificate referred to in point 9.

ADMISSION TO THE DOCTORAL SCHOOL

§ 8

1. The results of the admission procedure are public and shall be announced on the website of Wrocław University of Environmental and Life Sciences and in a designated place on the university campus.
2. A ranking list is prepared on the basis of the number of points obtained by the candidates in the admission procedure, which determines the order in which the candidates are admitted to the doctoral school within the limit of places.
3. The ranking list is created in two stages, according to the following procedure:
 - 1) First, the so-called ranking of disciplines is created, where, for each scientific discipline taught at the doctoral school, three candidates with the highest number of points from each discipline are admitted (parity), with a minimum of one being a Polish citizen and a minimum of one being a foreigner:
 - 2) After selecting candidates representing scientific disciplines, one ranking list is created for all disciplines, the so-called general ranking, which constitutes the basis for admitting candidates with the highest number of points obtained in the recruitment, within the remaining limit of places.
 - 3) If the parities cannot be met by candidates in a given scientific discipline, the place from the ranking in a given place is transferred to the so-called general ranking, thus increasing the limit of places in this ranking.
4. If two or more candidates who obtained the same number of points in the admission procedure are in the last place in the above-mentioned ranking list, the admission criterion shall be the number of points obtained during the interview, followed by points for scientific articles, research internships and participation in research projects.
5. Conditions of admission to the doctoral school:
 - 1) For candidates within the limit of places referred to in § 2(2):
 - a) 50 candidates with the highest number of points according to the ranking list referred to in § 8(3)(1), who obtained at least 12 points in stage I, shall be admitted to stage II;

- b) obtaining in the admission procedure at least 50% of the maximum number of points to be obtained in the admission procedure (62 points in stages I + II);
 - c) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;
- 2) For candidates referred to in § 2(3)(2):
 - a) qualifying for the "Implementation Doctorate" programme;
 - b) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;
 - c) obtaining at least 50% of the maximum number of points to be obtained in the admission procedure:
 - in stage I – at least 15 points;
 - in stage II – at least 25 points
- 6. If there are free places left after the admission procedure, the admissions committee may decide to:
 - 1) finish the admission procedure without admitting candidates for the free places;
 - 2) conduct the second (supplementary) admission procedure in the same manner.
- 7. After the end of the admission procedure, the candidates will receive information about admission to the doctoral school (via the ranking list published on the doctoral school's website, at a specific time provided on the website) and the obligation to register on the list of doctoral students within seven days. Failure to register on the list within this period will result in not being admitted to the doctoral school.
- 8. Admission to the doctoral school takes place by being registered on the list of doctoral students on the basis of the admission procedure, subject to the following rules:
 - 1) for candidates within the limit of places referred to in § 2(2)(1) and 2(3)(1) – after the completion of the admission procedure and announcement of the admission results;
 - 2) for candidates applying under the “Implementation Doctorate” programme – after the completion of the admission procedure and announcement of the admission results, but not before the announcement of the results of the competition under the “Implementation Doctorate” programme financed by the Ministry of Education and Science. A doctoral student in the "Implementation Doctorate" programme is obliged to conclude a tripartite agreement with WUELS and the cooperating entity. Failure to conclude the agreement within the period indicated by the University by

either of the contracting parties is tantamount to termination of participation in the programme.

9. In the event where a candidate admitted on the basis of a list from the so-called ranking of disciplines resigns from education at the doctoral school, a candidate from the ranking of disciplines who represents a given discipline shall be registered on the list of doctoral students, taking into account the order resulting from the admission procedure; however, if there are no candidates from a given discipline, then another person from the so-called general ranking shall be admitted. The registration shall be made no later than 30 September of a given year.
10. The refusal of admission to the doctoral school takes place by way of an administrative decision issued by the director of the doctoral school under the authority of the rector.
11. It is possible to be a doctoral student in one doctoral school at a time.
12. A person admitted to the doctoral school commences education and acquires the rights of a doctoral student upon taking the oath.

§ 9

In matters not covered herein, the provisions of the Act of 20 July 2018 – Law on Higher Education and Science, as well as internal regulations of the University, shall apply. Decisions shall be made by the director of the doctoral school in consultation with the vice-rector for science.

§ 10

This resolution comes into force on the day of its adoption.

Chairman of the Senate

prof. dr hab. inż. Jarosław Bosy

CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES

Candidate's name and surname: **year of birth**

Scientific discipline:

Selected supervisor¹:

Selected second supervisor/assistant supervisor¹:

Proposed topic of doctoral dissertation:

.....

List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Pts
Stage I		
I.	Scientific achievements³ - max. 35 pts (pts are awarded <u>for one</u> achievement indicated by the candidate)	
I.1.	Scientific article – authorship or co-authorship of a scientific article published in a scientific journal or in the peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Education and Science (MEiN) – regardless of the year of publication of the article. In addition, if the candidate is the first author of an article In addition, if the candidate is the correspondent author of an article	depending on the number of points in the MEiN journals list: ≥ 100 pts - 15 pts 70 pts - 11 pts 40 pts - 6 pts 20 pts - 3 pts + 10 pts + 10 pts
I.2.	Monographs or chapters in monographs – authorship or co-authorship of a scientific monograph or chapter published by publishers included in the current list of the Ministry of Education and Science	monograph: level II - 25 pts level I - 20 pts chapter in monograph: level II - 15 pts level I - 10 pts
I.3.	Scientific articles in scientific journals from outside the MEiN list with IF	10 pts
I.4.	Secured patent / utility model	irrespective of number 20 pts

I.5.	Authorship or co-authorship of a sequence entry in the genetic sequence database	irrespective of number 10 pts
I	Selected achievement (<u>one only</u>) ⁴ : ☐ I.1 ☐ I.2 ☐ I.3 ☐ I.4 ☐ I.5 Description ⁵ :	
II.	Scientific activity - max. 15 pts (pts are awarded <u>for one</u> selected activity)	
II	Presentation of results at a conference (oral or poster, first author only) Additionally, if the presentation is given as part of participation in a student research club ⁶ Additionally, if a prize is awarded for the presentation (oral or poster) ⁷	5 pts +5 pts +5 pts
II	Authors: Title: Conference (name, venue, date): Was the presentation prepared as part of a student research club? ☐ YES ☐ NO Did the presentation receive a prize? ☐ YES ☐ NO	
III.	Participation in research or R&D projects - max. 10 points (points may be awarded in all categories and shall be totalled, subject to a limit of points under category III)	
III.1.	Participation and implementation of the main ideas of the future doctoral thesis within the framework of the research or R&D project <u>funded from external sources</u> (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) after 1 October of the year in which recruitment is carried out ⁸	< 6 months - 3 points 6 to 12 months - 6 points > 12 months - 10 points
III.1.	Project title, source of funding, period of implementation:	
III.2.	Active participation in a research or R&D project <u>financed from external sources</u> (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) before the day of submitting the application to the Doctoral School (participation in different projects adds up) or securing a project in the Young Minds competition ⁹	for each full month participation - 1 point (max. 10 points) 5 pts
III.2.	Project title, source of funding, period of implementation:	
IV.	Research internships¹⁰ - max. 10 points (points are awarded <u>for one</u> internship indicated by the candidate)	
IV.1.	Research internship in home country (minimum 4 weeks)	5 pts
IV.2.	Research internship abroad up to 4 weeks	5 pts
IV.3.	Research internship abroad over 4 weeks	10 pts
IV.	Type of internship (one only) ¹¹ : ☐ home country ☐ abroad ≤ 4 weeks ☐ abroad > 4 weeks Name of university/academic institution, exact period of implementation:	
V.	Other - max. 4 points (irrespective of the number of activities in a given category)	
V.1.	Second foreign language (other than English), minimum level B1 ¹²	1 point
V.2.	Work experience (e.g.: courses, summer schools, etc.) ¹³	1 point
V.3.	Awards, distinctions ¹⁴	1 point
V.4.	Popular science publications ¹⁵	1 point
V.1-4	Description:	

Stage I - maximum number of points possible - 74 (sum of items I-V)			
Stage II			
Stage II - Interview - max 50 points			
1.	Knowledge of concepts and subjects connected with the topic of the doctoral dissertation	max. 30 pts	
2.	Career path	max. 5 pts	
3.	Self-presentation	max. 15 pts	
Total (sum of points scored in stage I and stage II)			

I hereby declare that the information provided by me in the admission process for the Doctoral School is true and correct.

.....
(date, candidate's signature)

I. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
on the position

b. I am / I am not* a doctoral student at

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Instructions on how to fill in the Candidate Card

¹ The title/degree, name and surname should be provided,

² The candidate fills in the white spaces on the card in column 1 – Type of achievement. All indicated achievements should be documented and attached to the Candidate Card (as separate files, in pdf format). Each document confirming a demonstrated achievement must be marked with an appropriate number corresponding to the number of a given achievement from the candidate's card, e.g. in the case of an article – the first page of the publication documenting the achievement should be marked in the upper right corner of the page in the following way: I.1.

³ Achievements which are being assessed, verified or reviewed are not subject to evaluation.

⁴ Put an X in one selected field to indicate the category of the scientific achievement.

⁵ Please provide:

- for a scientific article (categories I.1, I.3): names and surnames of authors, title of the article, bibliographic data (journal name, year, volume/number, pages, DOI number) and the number of points from the MEiN list (if any); for documentation purposes, please attach a photocopy of the 1st page of the publication containing the above-mentioned information;
- for a monograph or monograph chapter (category I.2): names and surnames of authors, monograph title, chapter title (if applicable), bibliographic data (year, pages, ISSN number) and the level of the monograph according to MEiN list; for documentation purposes, please attach a photocopy of one page of the monograph or chapter containing the above-mentioned information
- for a patent or utility model (category I.4): names and surnames of the inventors, name of the invention, date and place of granting the patent or utility model, number, name of the granting entity, name of the country in which protection was obtained; for documentation purposes, please attach a confirmation document
- for a sequence entry in the genetic database (category I.5): authors' names and surnames, entry name, GenBank number, publication journal, DOI or PUBMED (if available), link to the entry in the database.

⁶ Put an X in one selected field, specifying the category of scientific activity.

⁷ Submit a scan of the diploma or a certificate from the event organiser.

⁸ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector representing the unit acting as the project leader (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project.

⁹ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector who exercised supervision (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project, in the case of the Young Minds project – a photocopy of the decision.

¹⁰ A research internship does not include work practice, professional internships, internships under the Erasmus/Erasmus + programme, or professional work of a non-scientific nature. In case of doubts as to the nature of the internship – the decision is made by the Committee on the basis of the provided documentation. In order to document the internship, a relevant statement of the internship supervisor should be presented, which should contain: the name and surname of the intern; name and surname of the supervisor, name of the university or research institution where the internship or study visit took place, name of the country, type of stay, exact period of stay, description of completed tasks and their measurable effects.

¹¹ Put an X in one selected field, indicating the type of internship.

¹² For documentation purposes, please submit a certificate from a foreign language school / UPWr Centre for Foreign Language.

¹³ For documentation purposes, please submit an appropriate diploma or certificate. Professional work may be considered professional experience only if it is related to the subject of the proposed doctoral dissertation, or if the experience gained in it may be used in the course of the doctoral dissertation. In order to document professional work, a certificate from the employer should be presented, including information about the scope of duties.

¹⁴ For documentation purposes, please present a diploma or certificate. The award or distinction must be of a different nature than the award for the presentation as part of the activity in the student science club (category II.1).

¹⁵ For documentation purposes, please attach to the candidate card a photocopy of the 1st page of the publication containing the following information: authors' names, title of the article, name of the journal.

**CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL
OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES**

(for candidates referred to in § 2(3)(2), i.e. those applying for admission to the Doctoral School under the
"Implementation Doctorate" programme)

.....
(candidate's name and surname)

Scientific discipline:

Selected supervisor:.....

.....

(title/degree, name and surname)

Selected assistant supervisor¹ :

.....

(title/professional title/degree, name and surname)

Indication of achievement to act as an assistant supervisor, as required¹:

.....

¹ An assistant supervisor can be a person with:

- (i) a doctoral degree or
- (ii) at least 5 years' experience in carrying out scientific activities or
- (iii) with significant achievements in the development and implementation of an original design, construction, technological or artistic solution in the economic or social sphere, of more than local scope and of a lasting and universal nature.

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points for the achievement
	1	2
I.	command of English³ - 5 points (minimum B2)	5 pts
I.1.	The documented level of English is:	
II.	Documented research or R&D cooperation with Wrocław University of Environmental and Life Sciences - max. 5 pts	5 pts - irrespective of indicated projects and their duration
II.1.	.....	
III.	Other achievements - max. 5 pts: Points are awarded for only one achievement from the following list (the candidate should present one achievement of their choice from the following list - patent or implementation or participation in a project or scientific article): 1. Patent/utility model (secured) (for documentation purposes, provide the following: name of invention, date and place of granting patent, patent number, name of patent grantor, name of country in which protection was obtained, names of co-inventors). 2. Implementation – practical application of the results of research or development work, or implementation of the results of scientific activity in another form (please provide: the name of the invention, information on the implementation of the results of scientific activity in another form, including the date and place of implementation, contract photocopy). 3. Participation in an R&D project (in order to document participation in the project, please provide: a statement from the project/task manager on active participation with specific responsibilities and duration) 4. Scientific articles⁴ – authorship or co-authorship of a scientific article published in a scientific journal or in peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Education and Science (please provide: authors' names, article title, journal title, bibliographical data (year, vol., pages and ISSN or DOI) and the number of points from the MEiN list; also, the name of the publisher, ISBN or DOI should be provided).	5 points for one selected achievement

² Points I to III are to be filled in by the candidate (except for column 2 - points awarded) – all demonstrated achievements must be documented and attached to the candidate's card as attachments. Each document confirming the demonstrated achievement must be marked with an appropriate number corresponding to the number of the given achievement on the candidate's card.

³ Proficiency in a modern foreign language should be documented by a certificate confirming its command at the required level, issued by the organisational unit responsible for foreign language teaching at the given university. Certificates included in the LIST OF CERTIFICATES CONFIRMING KNOWLEDGE OF A MODERN FOREIGN LANGUAGE constituting Annex No. 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for the conferment of the degree of doctor, habilitated doctor and the title of professor are honoured.

⁴ Papers submitted for peer review are not eligible for evaluation. The following should be provided: first and last names of authors, title of scientific article, journal title, bibliographic data (year, vol., pages and ISSN or DOI) and number of points from the list of the Ministry of Science and Higher Education; in the case of a monograph or monograph chapter, provide also the name of the publisher, ISBN or DOI. For documentation purposes, a photocopy of one page of the publication containing the abovementioned data should be attached to the candidate card.

	ISSN or DOI) and the number of points from the MEiN list; additionally, the name of the publisher, ISBN or DOI should be provided). 5. Monograph or monograph chapters - published by publishers included in the current list issued by the Ministry of Education and Science (please indicate: name of publisher, ISBN or DOI). 6. Professional experience in line with the subject of the proposed dissertation		
III.1.	.....		
IV.	Beneficiaries of the "Implementation Doctorate" programme - 15 points Points awarded following approval of the submitted project by the Ministry of Education and Science	For participation in the "Implementation Doctorate" programme confirmed by the MEiN	
1.	Points for participation in the "Implementation Doctorate" programme		
Stage I - maximum number of points - 30 points (sum of items I-IV)			
Stage II			
Stage II - interview - max. - 50 points			
1.	Presentation of planned research	30 pts	
2.	Career path	5 pts	
3.	Self-presentation	15 pts	
V.	Total (sum of points received in stage I and stage II)		

I declare that the information I have provided in the admission process for the Doctoral School is factually correct.

.....

(date, candidate's signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
on the position

b. I am / I am not* a doctoral student at
.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at
.....
(name of the unit)

d. I am / I am not* a doctoral school student at:
.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:
.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Resolution No. 84/2024
of the Senate of Wrocław University of Environmental and Life Sciences
of 20 December 2024

on the requirements and admissions procedure for admitting candidates to the Doctoral
School of Wrocław University of Environmental and Life Sciences
in the academic year 2025/2026

Pursuant to Article 200(2) and (3) of the Act of 20 July 2018 – Law on Higher Education and Science (Journal of Laws of 2024, item 1571, as amended), § 9(15) of the Statute of Wrocław University of Environmental and Life Sciences, which constitutes an appendix to Resolution No. 42/2023 of the Senate of Wrocław University of Environmental and Life Sciences of 29 September 2023 on the adoption of the Statute of Wrocław University of Environmental and Life Sciences, as amended, it is resolved as follows

GENERAL PROVISIONS

§ 1

Admission to the Doctoral School is based on a competition whose rules are set out in this resolution.

§ 2

1. The doctoral school at Wrocław University of Environmental and Life Sciences is established in the disciplines in which the University is allowed to grant the doctoral degree.
2. Wrocław University of Environmental and Life Sciences admits no more than 30 candidates for the first year of studies at the doctoral school, subject to sections 3 and 4 below.
3. The admissions limit referred to in section 2 shall not include:
 - 1) candidates who, as of the date of submitting their applications to the doctoral school, have secured financing to cover the cost of their doctoral scholarship and doctoral research as part of externally funded research projects for a period of at

- least 36 months, with candidates who have secured funding for 36 months being subject to a three-year training programme;
- 2) beneficiaries of the “Implementation Doctorate” (*doktorat wdrożeniowy*) programme.
4. For the persons referred to in section 3, an additional admission procedure may be announced, taking into account the requirements connected with the implementation of their research or research and development project. In the case of the candidates referred to in section 3(1), admission to the doctoral school from the beginning of the second semester is possible, provided that the compulsory coursework specified in the doctoral school curriculum for the first semester will be completed in the following term of subsequent academic year.

§ 3

1. Candidates applying for admission to the doctoral school shall hold the professional title of *magister*, *magister inżynier* or equivalent, or they shall meet the requirements set out in Article 186(2) of the Act of 20 July 2018 – Law on Higher Education and Science, or they shall be beneficiaries of the “Perły Nauki” programme.
2. The candidates shall have full legal capacity.
3. The candidates may be Polish citizens or foreigners.
4. Foreigners may undertake and pursue education at the doctoral school on the terms specified in Articles 323-324 of the Act of 20 July 2018 – Law on Higher Education and Science.
5. The same admission procedure shall apply to Polish and foreign candidates to the doctoral school. Foreigners must undergo the admission process pursuant to this resolution, subject to point 6.
6. A foreigner may be admitted to the doctoral school with courses conducted in the Polish language provided his or her knowledge of the Polish language is documented on the basis of one of the following documents:
 - 1) a document confirming completion of a preparatory course to study in Polish conducted in units designated by the Minister of Education and Science;
 - 2) a certificate of knowledge of the Polish language issued by the State Commission for the Certification of Proficiency in Polish as a Foreign Language;
 - 3) confirmation of knowledge of Polish as a foreign language;

- 4) certificates, diplomas or other documents attesting the completion of a secondary school abroad, in which classes were conducted in Polish, shall also constitute evidence of knowledge of a foreign language.
7. In the case of foreigners who do not know the Polish language at a level enabling them to undertake education in this language, it is possible to conduct classes in English; in this case, the candidate must demonstrate knowledge of English at the B2 level according to the Common European Framework of Reference for Languages.

ADMISSION PROCEDURE

§ 4

1. The admission procedure shall be conducted by an admissions committee appointed by the relevant vice-rector for science at the request of the director of the doctoral school, except for the procedure referred to in points 8 and 9. A representative of the doctoral students' self-government shall participate in the work of the admissions committee.
2. The chairperson of the admissions committee is appointed by the director of the doctoral school from among the committee members.
3. Members of the admissions committee shall be persons with the title of professor or the academic degree of *doktor habilitowany*, at least 50% of whom represent an evaluated academic discipline in which education at the doctoral school is conducted.
4. In the event of circumstances preventing a member of the admissions committee from directly participating in its work, the Vice-Rector for Science shall dismiss this person and appoint a new member, in accordance with the rules set out in section 3.
5. A member of the admissions committee may not subsequently be the supervisor or assistant supervisor of a doctoral student in whose admission process he or she participated. However, if he or she wishes to retain the possibility of acting as a supervisor or assistant supervisor, he or she should exclude himself or herself from participation in the work of the committee. In such a case, the relevant vice-rector for science, at the request of the director of the doctoral school, shall appoint another member of the committee from among the members of the relevant discipline, subject to the principle expressed in § 4(3).
6. The work of the admissions committee is supervised by the director of the doctoral school.

7. The admissions committee shall be appointed for a period until a new admissions committee is appointed for the following academic year.
8. Admission of candidates under the “Implementation Doctorate” project, referred to in § 2(3)(2), is conducted by the doctoral school board. In this case, the chairperson of the doctoral school board shall perform the role of the chairperson of the admissions committee. In the event that a member of the doctoral school board is directly involved as a potential supervisor or assistant supervisor, the chairperson of the relevant scientific discipline board shall appoint a replacement from among the members of the discipline in accordance with § 4(3). In this case, the admissions committee may be joined by the relevant vice-rector who supervises the project.
9. In the case of the candidates referred to in § 2(3)(1), a competition procedure is conducted in accordance with the project requirements. The competition committee shall be composed of: the project leaders and two persons with at least a doctoral degree in the discipline in which the project is carried out. The successful candidate is admitted to the doctoral school with the approval of the director of the doctoral school on the basis of the competition committee protocol and the candidate's application for admission to the doctoral school.

§ 5

The tasks of the admissions committee shall include:

- 1) announcing the admission to the doctoral school;
- 2) notifying the candidates about the date and place of the admission procedure;
- 3) conducting the admission procedure;
- 4) assessing the candidates' achievements presented in the admission documentation;
- 5) preparing a summary report on the admission procedure.

§ 6

1. A potential supervisor interested in supervising a doctoral school student is obliged to submit the academic information sheet in electronic form in English according to the

provided template by sending it to: szkola.doktorska@upwr.edu.pl by 31 January 2025. Video material may be attached.

2. The academic information sheets will be forwarded to the relevant discipline boards that will pass their opinions at their next meeting. The opinions expressed by the discipline boards are binding on the doctoral school board.
3. In the admission process, a supervisor may suggest up to two research or research and development topics, with the exception of supervisors supervising a project with additional places for doctoral students in projects referred to in § 2(3)(1). A supervisor may recommend only one candidate for a given research topic in the admission process.
4. The list of potential supervisors with their academic information sheets will be announced on the doctoral school website on 31 March 2025.
5. After the date of their announcement on the doctoral school website, additional academic information sheets may be presented by potential supervisors who have obtained external funding for the implementation of a research or research and development project, provided they have been approved by the doctoral school board.
6. The requirement to submit the academic information sheet does not apply to potential supervisors of the beneficiaries of the “Implementation Doctorate” programme.

§ 7

1. The eligible candidates shall:
 - 1) hold the professional title of *magister*, *magister inżynier* or an equivalent degree confirmed by a diploma, or submit a certificate from the relevant dean’s office confirming the completion of the study programme along with information about the planned date of defence – in the case of being admitted to the Doctoral School it is required to submit the graduation diploma by 15 September (of the year of admission) or to meet the conditions set out in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Perła Nauki” programme; in justified cases, the deadline for submitting the diploma mentioned above may be extended upon the request of the admitted candidate, submitted to the director of the doctoral school. The diploma must be submitted before taking the oath
 - 2) register in the on-line system of candidate registration;

- 3) select a potential supervisor from the list published on the doctoral school website, contact the supervisor and determine the subject and scope of the doctoral dissertation (it is required that the potential supervisor sign the opinion on the suitability of the scientific work; only one candidate may apply for a given topic); this requirement does not apply to candidates applying to the doctoral school under the “Implementation Doctorate” programme;
 - 4) pay a recruitment fee of PLN 200 or EUR 50 (transfer title: name and surname, recruitment to the doctoral school, project number). For candidates from developing countries on the OECD list, the recruitment fee is EUR 20;
 - 5) submit the following documents to the doctoral school office:
 - a) an application form generated by the online recruitment system with the required attachments;
 - b) confirmation of English language proficiency at level B2 of the Common European Framework of Reference for Languages;
 - c) confirmation of payment of the recruitment fee;
 - d) “Candidate Card for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which constitutes an appendix to this resolution, together with documents confirming the listed achievements.
2. The admission procedure consists of two stages. In order to qualify for the second stage it is necessary to meet the requirements for the first stage.
 3. The candidate shall be responsible for providing the proper documents. In case some of the required documents are missing, the candidate shall be requested to provide them within seven days, with the information that failure to do so will result in the application not being considered.
 4. Providing false data or forged documents in the admission process shall disqualify the candidate from the admission procedure with immediate effect. In the event of disclosure of forged documentation presented in the admission process by a person who has already been admitted to the doctoral school, that person may be subject to disciplinary responsibility.
 5. In the case of candidates (students) who have not completed higher education, as described in Article 186(2) of the Law on Higher Education and Science, including beneficiaries of the “Perła Nauki” programme, the admissions committee shall assesses the scientific achievements of the candidate prior to the commencement of the admission procedure, according to the following criteria:

- 1) authorship or co-authorship of scientific publications in peer-reviewed scientific journals of at least national scope, or scientific publications in the form of a monograph or monograph chapter (in the case of publications, the journal ranking according to the current list of the Ministry should be indicated);
- 2) participation in research projects conducted by a research unit or in cooperation with other research units or partners from the social and economic environment;
- 3) authorship or co-authorship of a patent or utility model;
- 4) awards and distinctions in international competitions;
- 5) active participation in the work of a science club;
- 6) participation in international programmes conducted as part of international scientific or didactic cooperation between universities;
- 7) participation in foreign internships;

Positive evaluation of the scientific achievements is a prerequisite for admitting the candidate to the first stage of the admission procedure.

6. Stage I (the maximum number of points to be obtained is specified in the candidate card).

The candidate is assessed on the basis of the documented achievements presented in the “Candidate Card for the Doctoral School of Wrocław University of Environmental and Life Sciences,” which is attached to this resolution, subject to the following:

- 1) Appendix 1 applies to candidates within the limit of places referred to in § 2(2);
- 2) Appendix 2 applies to candidates referred to in § 2(3)(2);

7. Stage II (the maximum number of points to be obtained is specified in the candidate card).

Interview – oral presentation on the future doctoral dissertation and the candidate’s scientific interests. The interview may be conducted in English, provided that its content and form will be adapted to the B2 level of the Common European Framework of Reference for Languages. In the event of a sanitary threat, it is possible to conduct the interview with the use of IT tools for videoconferencing.

8. In the case of a foreign candidate, it is possible to conduct the interview with the use of IT tools for videoconferencing.
9. In the case of a candidate who is a person with a disability, the admissions committee shall modify the admission procedure on the basis of a legally valid certificate on the degree of disability or a certificate referred to in Article 5 and Article 62 of the Act of

27 August 1997 on the Vocational and Social Rehabilitation and Employment of Persons with Disabilities.

10. A candidate who is a person with a disability shall provide the admissions committee with a request to adapt the admission procedure no later than seven working days before the date of the procedure. The candidate shall attach a photocopy of the certificate referred to in point 9.

ADMISSION TO THE DOCTORAL SCHOOL

§ 8

1. The results of the admission procedure are public and shall be announced on the website of Wrocław University of Environmental and Life Sciences and in a designated place on the university campus.
2. A ranking list is prepared on the basis of the number of points obtained by the candidates in the admission procedure, which determines the order in which the candidates are admitted to the doctoral school within the limit of places.
3. The ranking list is created in two stages, according to the following procedure:
 - 1) First, the so-called ranking of disciplines is created, where, for each scientific discipline taught at the doctoral school, three candidates with the highest number of points from each discipline are admitted (parity), with a minimum of one being a Polish citizen and a minimum of one being a foreigner:
 - 2) After selecting candidates representing scientific disciplines, one ranking list is created for all disciplines, the so-called general ranking, which constitutes the basis for admitting candidates with the highest number of points obtained in the recruitment, within the remaining limit of places.
 - 3) If the parities cannot be met by candidates in a given scientific discipline, the place from the ranking in a given place is transferred to the so-called general ranking, thus increasing the limit of places in this ranking.
4. If two or more candidates who obtained the same number of points in the admission procedure are in the last place in the above-mentioned ranking list, the admission criterion shall be the number of points obtained during the interview, followed by points for scientific articles, research internships and participation in research projects.
5. Conditions of admission to the doctoral school:
 - 1) For candidates within the limit of places referred to in § 2(2):

- a) 50 candidates with the highest number of points according to the ranking list referred to in § 8(3)(1), who obtained at least 20 points in stage I, shall be admitted to stage II;
 - b) obtaining in the admission procedure at least 50% of the maximum number of points to be obtained in the admission procedure (62 points in stages I + II) and obtaining at least 20 points in Stage II;
 - c) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;
- 2) For candidates referred to in § 2(3)(2):
 - a) qualifying for the "Implementation Doctorate" programme;
 - b) knowledge of the English language at least at the B2 level according to the Common European Framework of Reference for Languages;
 - c) obtaining at least 50% of the maximum number of points to be obtained in the admission procedure:
 - in stage I – at least 20 points;
 - in stage II – at least 25 points
6. If there are free places left after the admission procedure, the admissions committee may decide to:
 - 1) finish the admission procedure without admitting candidates for the free places;
 - 2) conduct the second (supplementary) admission procedure in the same manner.
7. After the end of the admission procedure, the candidates will receive information about admission to the doctoral school (via the ranking list published on the doctoral school's website, at a specific time provided on the website) and the obligation to register on the list of doctoral students within seven days. Failure to register on the list within this period will result in not being admitted to the doctoral school.
8. Admission to the doctoral school takes place by being registered on the list of doctoral students on the basis of the admission procedure, subject to the following rules:
 - 1) for candidates within the limit of places referred to in § 2(2)(1) and 2(3)(1) – after the completion of the admission procedure and announcement of the admission results;
 - 2) for candidates applying under the “Implementation Doctorate” programme – after the completion of the admission procedure and announcement of the admission results, but not before the announcement of the results of the competition under the “Implementation Doctorate” programme financed by the Ministry of Science and

Higher Education. A doctoral student in the "Implementation Doctorate" programme is obliged to conclude a tripartite agreement with WUELS and the cooperating entity. Failure to conclude the agreement within the period indicated by the University by either of the contracting parties is tantamount to termination of participation in the programme.

9. In the event where a candidate admitted on the basis of a list from the so-called ranking of disciplines resigns from education at the doctoral school, a candidate from the ranking of disciplines who represents a given discipline shall be registered on the list of doctoral students, taking into account the order resulting from the admission procedure; however, if there are no candidates from a given discipline, then another person from the so-called general ranking shall be admitted. The registration shall be made no later than 30 September of a given year.
10. The refusal of admission to the doctoral school takes place by way of an administrative decision issued by the director of the doctoral school under the authority of the rector.
11. It is possible to be a doctoral student in one doctoral school at a time.
12. A person admitted to the doctoral school commences education and acquires the rights of a doctoral student upon taking the oath.

§ 9

In matters not covered herein, the provisions of the Act of 20 July 2018 – Law on Higher Education and Science, as well as internal regulations of the University, shall apply. Decisions shall be made by the director of the doctoral school in consultation with the vice-rector for science.

§ 10

This resolution comes into force on the day of its adoption.

Chairman of the Senate
prof. dr hab. dr h.c. Krzysztof Kubiak

CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES

Candidate's name and surname:, **year of birth**

Scientific discipline:

Selected supervisor¹:

Selected second supervisor/assistant supervisor Błąd! Nie zdefiniowano zakładki.:
.....

Proposed topic of doctoral dissertation:
.....

List of achievements of the candidate for the Doctoral School²

No.	Type of achievement					Pts		
Stage I								
I.	Scientific achievements ³ - max. 35 pts (pts are awarded <u>for one</u> achievement indicated by the candidate)							
I.1.	Scientific article – authorship or co-authorship of a scientific article published in a scientific journal or in the peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Education and Science (MEiN) – regardless of the year of publication of the article.					2–35 pts, in accordance with the table below		
	Number of points of the journal from the current list of the Ministry of Science and Higher Education:			≥ 100	70	40	20	≥ 100
	First author?	Corresponding author?	Candidate's points:					
	yes	yes	35	25	14	7	35	
	yes	no	25	18	10	5	25	
	no	yes	20	14	8	4	20	
	no	no	10	7	4	2	10	

I.2.	Monographs or chapters in monographs – authorship or co-authorship of a scientific monograph or chapter published by publishers included in the current list of the Ministry of Education and Science	monograph: level II - 25 pts level I - 20 pts chapter in monograph: level II - 10 pts level I - 5 pts
I.3.	Scientific articles in scientific journals from outside the MEiN list with IF	7 pkt
I.4.	Secured patent / utility model	irrespective of number 15 pkt
I.5.	Authorship or co-authorship of a sequence entry in the genetic sequence database	irrespective of number 10 pkt
I	Selected achievement (<u>one only</u>) ⁴ : ☐ I.1 ☐ I.2 ☐ I.3 ☐ I.4 ☐ I.5 Description ⁵ :	
II.	Scientific activity - max. 15 pts (pts are awarded <u>for one</u> selected activity)	
II.1	Presentation of results at a conference (oral or poster, first author only) Additionally, if the presentation is given as part of participation in a student research club ⁶ Additionally, if a prize is awarded for the presentation (oral or poster) ⁷	5 pkt +5 pkt +5 pkt
II.1	Authors: Title: Conference (name, venue, date): Was the presentation prepared as part of a student research club? ☐ YES ☐ NO Did the presentation receive a prize? ☐ YES ☐ NO	
III.	Participation in research or R&D projects - max. 10 points (points may be awarded in all categories and shall be totalled, subject to a limit of points under category III)	
III.1.	Participation and implementation of the main ideas of the future doctoral thesis within the framework of a research or R&D project <u>funded from external sources</u> (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) after 1 October of the year in which recruitment is carried out ⁸	< 6 months - 3 points 6 to 12 months - 6 points > 12 months - 10 points
III.1.	Project title, source of funding, period of implementation:	
III.2.	Active participation in a research or R&D project <u>financed from external sources</u> (e.g. National Science Centre, National Centre for Research and Development, H2020, Horizon Europe) before the day of submitting the application to the Doctoral School (participation in different projects adds up) or securing a project in the Young Minds competition ⁹	for each full month participation - 1 point (max. 10 points) 5 pts
III.2.	Project title, source of funding, period of implementation:	
IV.	Research internships¹⁰ – max. 10 points (points are awarded <u>for one</u> internship indicated by the candidate)	
IV.1.	Research internship in home country (minimum 4 weeks)	5 pkt
IV.2.	Research internship abroad up to 4 weeks	5 pkt
IV.3.	Research internship abroad over 4 weeks	10 pkt
IV.	Type of internship (one only) ¹¹ : ☐ home country ☐ abroad ≤ 4 weeks ☐ abroad > 4 weeks Name of university/academic institution, exact period of implementation:	
V.	Other - max. 4 points (max. 1 point per category, regardless of the number of activities in the category)	
V.1.	Second foreign language (other than English), minimum level B1 ¹²	1 pkt

V.2.	Work experience (e.g.: courses, summer schools, etc.) ¹³	1 pkt
V.3.	Awards, distinctions ¹⁴	1 pkt
V.4.	Popular science publications ¹⁵	1 pkt
V.1-4	Description:	
Stage I - maximum number of points possible - 74 (sum of items I-V)		
Minimum number of points required in Stage I: 20 pts		
Stage II		
Stage II - Interview - max 50 points		
1.	Knowledge of concepts and subjects connected with the topic of the doctoral dissertation	max. 30 pts
2.	Career path	max. 5 pts
3.	Self-presentation	max. 15 pts
Stage II - possible maximum number of points - 50 (sum of items 1-3).		
Minimum required number of points in Stage II: 20 points.		
Total (sum of points scored in Stage I and Stage II)		

I hereby declare that the information provided by me in the admission process for the Doctoral School is true and correct

.....
(date, candidate's signature)

I. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
on the position

b. I am / I am not* a doctoral student at

.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at

.....
(name of the unit)

d. I am / I am not* a doctoral school student at:

.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:

.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Instructions on how to fill in the Candidate Card

¹ The title/degree, name and surname should be provided.

² The candidate fills in the white spaces on the card in column 1 – Type of achievement. All indicated achievements should be documented and attached to the Candidate Card (as separate files, in pdf format). Each document confirming a demonstrated achievement must be marked with an appropriate number corresponding to the number of a given achievement from the candidate's card, e.g. in the case of an article – the first page of the publication documenting the achievement should be marked in the upper right corner of the page in the following way: I.1.

³ Achievements which are being assessed, verified or reviewed are not subject to evaluation. The Commission evaluates the achievements as of the last day on which the documents in Stage I can be submitted.

⁴ Put an X in one selected field to indicate the category of the scientific achievement. If more than one achievement is provided, the Commission will only evaluate the first achievement listed.

⁵ Please provide:

- for a scientific article (categories I.1, I.3): names and surnames of authors, title of the article, bibliographic data (journal name, year, volume/number, pages, DOI number) and the number of points from the MNiSW list (if any); for documentation purposes, please attach a photocopy of the 1st page of the publication containing the above-mentioned information;
- for a monograph or monograph chapter (category I.2): names and surnames of authors, monograph title, chapter title (if applicable), bibliographic data (year, pages, ISSN number) and the level of the monograph according to MNiSW list; for documentation purposes, please attach a photocopy of one page of the monograph or chapter containing the above-mentioned information;
- for a patent or utility model (category I.4): names and surnames of the inventors, name of the invention, date and place of granting the patent or utility model, number, name of the granting entity, name of the country in which protection was obtained; for documentation purposes, please attach a confirmation document
- for a sequence entry in the genetic database (category I.5): authors' names and surnames, entry name, GenBank number, publication journal, DOI or PUBMED (if available), link to the entry in the database.

⁶ A certificate from the supervisor of the student scientific club must be submitted, including a list of activities and roles exclusively related to the scientific activities of the club, in accordance with the template available on the website.

⁷ Submit a scan of the diploma or a certificate from the event organiser.

⁸ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector representing the unit acting as the project leader (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project.

⁹ In order to document participation in the project, the following should be submitted: a declaration of the project / research task manager confirmed by the appropriate vice-rector who exercised supervision (in accordance with the template provided on the website) or a photocopy (scan) of the agreement concluded with the project manager or task manager in the research project, in the case of the Young Minds project – a photocopy of the decision. Research projects do not include projects carried out by Student Scientific Clubs (e.g., internal projects, FAST).

¹⁰ A research internship does not include work practice, professional internships, internships under the Erasmus/Erasmus + programme, summer schools, or professional work of a non-scientific nature. In case of doubts as to the nature of the internship – the decision is made by the Committee on the basis of the provided documentation. In order to document the internship, a relevant statement of the internship supervisor should be presented, which should contain: the name and surname of the intern; name and surname of the supervisor, name of the university or research institution where the internship or study visit took place, name of the country, type of stay, exact period of stay, description of completed tasks and their measurable effects. An internship may be conducted at Wrocław University of Environmental and Life Sciences, provided it is confirmed by the head of the unit (and if the head is also the proposed supervisor – by the Dean). Volunteer work may be recognized by the Commission as an internship, provided it is properly documented and meets the above requirements

¹¹ Put an X in one selected field, indicating the type of internship.

¹² For documentation purposes, please submit a certificate from a foreign language school / UPWr Centre for Foreign Language.

¹³ For documentation purposes, please submit an appropriate diploma or certificate. Professional work may be considered professional experience only if it is related to the subject of the proposed doctoral dissertation, or if the experience gained in it may be used in the course of the doctoral dissertation. In order to document professional work, a certificate from the employer should be presented, including information about the scope of duties.

¹⁴ For documentation purposes, please present a diploma or certificate. The award or distinction must be of a different nature than the Rector's Award and different from those presented in category II.1.

¹⁵ For documentation purposes, please attach to the candidate card a photocopy of the 1st page of the publication containing the following information: authors' names, title of the article, name of the journal. A post-conference publication may be recognized as a popular science publication, provided it does not have MNiSW points and is not just an abstract.

**CARD OF THE CANDIDATE FOR THE DOCTORAL SCHOOL
OF WROCLAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES**

(for candidates referred to in § 2(3)(2), i.e. those applying for admission to the Doctoral School under the
"Implementation Doctorate" programme)

.....
(candidate's name and surname)

Scientific discipline:

Selected supervisor:.....

.....

(title/degree, name and surname)

Selected assistant supervisor¹ :

.....

(title/professional title/degree, name and surname)

Indication of achievement to act as an assistant supervisor, as required¹:

.....

¹ An assistant supervisor can be a person with:

- (i) a doctoral degree or
- (ii) at least 5 years' experience in carrying out scientific activities or
- (iii) with significant achievements in the development and implementation of an original design, construction, technological or artistic solution in the economic or social sphere, of more than local scope and of a lasting and universal nature.

I. List of achievements of the candidate for the Doctoral School²

No.	Type of achievement	Points for the achievement
	1	2
I.	Command of English³ - 5 points (minimum B2)	5 pts
I.1.	The documented level of English is:	
II.	Documented research or R&D cooperation with Wrocław University of Environmental and Life Sciences - max. 5 pts	5 pts - irrespective of indicated projects and their duration
II.1.	.....	
III.	Other achievements - max. 5 pts: Points are awarded for only one achievement from the following list (the candidate should present one achievement of their choice from the following list - patent or implementation or participation in a project or scientific article): 1. Patent/utility model (secured) (for documentation purposes, provide the following: name of invention, date and place of granting patent, patent number, name of patent grantor, name of country in which protection was obtained, names of co-inventors). 2. Implementation – practical application of the results of research or development work, or implementation of the results of scientific activity in another form (please provide: the name of the invention, information on the implementation of the results of scientific activity in another form, including the date and place of implementation, contract photocopy). 3. Participation in an R&D project (in order to document participation in the project, please provide: a statement from the project/task manager on active participation with specific responsibilities and duration) 4. Scientific articles⁴ – authorship or co-authorship of a scientific article published in a scientific journal or in peer-reviewed proceedings of an international conference, included in the current list of journals published by the Ministry of Education and Science (please provide: authors' names, article title, journal title, bibliographical data (year, vol., pages and ISSN or DOI) and the number of points from the MNiSW list;	5 points for one selected achievement

² Points I to III are to be filled in by the candidate (except for column 2 - points awarded) – all demonstrated achievements must be documented and attached to the candidate's card as attachments. Each document confirming the demonstrated achievement must be marked with an appropriate number corresponding to the number of the given achievement on the candidate's card.

³ Proficiency in a modern foreign language should be documented by a certificate confirming its command at the required level, issued by the organisational unit responsible for foreign language teaching at the given university. Certificates included in the LIST OF CERTIFICATES CONFIRMING KNOWLEDGE OF A MODERN FOREIGN LANGUAGE constituting Annex No. 1 to the Regulation of the Minister of Science and Higher Education of 19 January 2018 on the detailed procedure and conditions for the conferment of the degree of doctor, habilitated doctor and the title of professor are honoured.

⁴ Papers submitted for peer review are not eligible for evaluation. The following should be provided: first and last names of authors, title of scientific article, journal title, bibliographic data (year, vol., pages and ISSN or DOI) and number of points from the list of the MNiSW; in the case of a monograph or monograph chapter, provide also the name of the publisher, ISBN or DOI. For documentation purposes, a photocopy of one page of the publication containing the abovementioned data should be attached to the candidate card.

	additionally, the name of the publisher, ISBN or DOI should be provided). 5. Monograph or monograph chapters - published by publishers included in the current list issued by the MNiSW (please indicate: name of publisher, ISBN or DOI). 6. Professional experience in line with the subject of the proposed dissertation	
III.1.	.....	
IV.	Beneficiaries of the "Implementation Doctorate" programme - 15 points Points awarded following approval of the submitted project by the MNiSW	For participation in the "Implementation Doctorate" programme confirmed by the MNiSW
1.	Points for participation in the "Implementation Doctorate" programme	
Stage I - maximum number of points - 30 points (sum of items I-IV)		
Stage II		
Stage II - interview - max. - 50 points		
1.	Presentation of planned research	30 pts
2.	Career path	5 pts
3.	Self-presentation	15 pts
V.	Total (sum of points received in stage I and stage II)	

I declare that the information I have provided in the admission process for the Doctoral School is factually correct.

.....

(date, candidate's signature)

II. Additional information

1. I hereby declare that:

a. I am / I am not* employed under an employment contract in
on the position

b. I am / I am not* a doctoral student at
.....
(name of the unit)

c. I have / I have not* studied as a doctoral student at
.....
(name of the unit)

d. I am / I am not* a doctoral school student at:
.....
(name of the unit managing the doctoral school)

e. in the current year I am / I am not applying* to the following doctoral schools:
.....
(name of the unit managing the doctoral school)

* delete as appropriate

2. Person to be notified in case of emergency:

.....
(name and surname)

.....
(address)

.....
(telephone)

I hereby declare that the information provided by me in the admission process is true and correct.

.....
(date, candidate's signature)

Composition of Recruitment Committees during the evaluation period

Recruitment within the enrollment limit by academic year

2019/2020:

Chair: prof. dr hab. inż. Agnieszka Kita

Members:

prof. dr hab. inż. Adam Figiel

dr hab. inż. inż. Grzegorz Józków

prof. dr hab. inż. Jan Kapłon

prof. dr hab. inż. Robert Kupczyński

dr hab. Krzysztof Lejcuś, prof. nadzw.

prof. dr hab. inż. Ewa Łukaszewicz

dr hab. inż. Anna Michalska

dr hab. Małgorzata Ochota

dr hab. inż. Katarzyna Pawęska, prof. nadzw.

dr hab. Błażej Poźniak, prof. nadzw.

dr hab. Jarosław Proćków, prof. nadzw.

dr hab. inż. Krzysztof Sośnica, prof. nadzw.

dr hab. inż. Katarzyna Wińska, prof. nadzw.

prof. dr hab. inż. Karol Wolski

A representative of the Doctoral Students' Self-Government, mgr inż. Jacek Łyczko, participated in the work of the Recruitment Committee.

2020/2021:

Chair: prof. dr hab. inż. Agnieszka Kita (nutrition and food technology)

Members:

dr hab. inż. Grzegorz Józków (civil engineering and transport)

prof. dr hab. inż. Andrzej Borkowski (civil engineering and transport)

dr hab. inż. Katarzyna Pawęska (environmental engineering, mining and energy)

dr hab. Joanna Kamińska, prof. uczelni (environmental engineering, mining and energy)

dr hab. Grzegorz Zaleśny (biological sciences)

dr hab. Magdalena Wołoszyńska (biological sciences)

prof. dr hab. inż. Adam Figiel (agriculture and horticulture)

dr hab. inż. Sylwia Lewandowska (agriculture and horticulture)

dr hab. inż. Anna Michalska-Ciechanowska (nutrition and food technology)

dr hab. Błażej Poźniak, prof. uczelni (veterinary science)

dr hab. Małgorzata Ochota (veterinary science)

dr hab. inż. Maria Soroko (animal science and fisheries)

prof. dr hab. inż. Ewa Łukaszewicz (animal science and fisheries)

The representatives of the Doctoral Students' Self-Government, lek. wet. Marta Miszczak and mgr inż. Monika Słupska, participated in the work of the Recruitment Committee.

2021/2022:

Chair: dr hab. inż. Tomasz Hadaś, prof. uczelni (civil engineering and transport)

Members:

dr hab. inż. Przemysław Cwynar (animal science and fisheries)

dr hab. inż. Sylwia Lewandowska, prof. uczelni (agriculture and horticulture)

dr hab. inż. Anna Michalska-Ciechanowska, prof. uczelni (nutrition and food technology)

dr hab. inż. Katarzyna Pawęska, prof. uczelni (environmental engineering, mining and energy)

dr hab. Błażej Poźniak, prof. uczelni (veterinary science)

dr hab. Jarosław Proćków, prof. uczelni (biological sciences)

The representatives of the Doctoral Students' Self-Government, mgr Natalia Pachura, lek. wet. Michał Płóciennik and lek. wet. Marta Miszczak, participated in the work of the Recruitment Committee.

2022/2023:

Chair: dr hab. inż. Tomasz Hadaś, prof. uczelni (civil engineering and transport)

Members:

dr hab. inż. Joanna Kolniak-Ostek, prof. uczelni (nutrition and food technology)

dr hab. inż. Wojciech Kruszyński, prof. uczelni (animal science and fisheries)

dr hab. Zbigniew Lazar, prof. uczelni (biological sciences)

dr hab. inż. Sylwia Lewandowska, prof. uczelni (agriculture and horticulture)

dr hab. Małgorzata Ochota, prof. uczelni (veterinary science)

dr hab. inż. Katarzyna Pawęska, prof. uczelni (environmental engineering, mining and energy)

dr hab. inż. Jolanta Dąbrowska, prof. uczelni (environmental engineering, mining and energy)
– replacement

dr hab. Paulina Jawor, prof. uczelni (veterinary science) – replacement

dr hab. inż. Jan Kapłon, prof. uczelni (civil engineering and transport) – replacement

dr hab. Hanna Pruchnik, prof. uczelni (biological sciences) – replacement

dr hab. Maria Soroko, prof. uczelni (animal science and fisheries) – replacement

dr hab. inż. Aleksandra Zambrowicz, prof. uczelni (nutrition and food technology) –
replacement

A representative of the Doctoral Students' Self-Government, mgr inż. Tomasz Półbrat,
participated in the work of the Recruitment Committee.

2023/2024:

Chair: dr hab. inż. Tomasz Hadaś, prof. uczelni (civil engineering, geodesy and transport)

Members:

dr hab. inż. Katarzyna Czyż (animal science and fisheries)

dr hab. Marek Furmankiewicz, prof. uczelni (social and economic geography and spatial management)

dr hab. inż. Sylwia Lewandowska, prof. uczelni (agriculture and horticulture)

dr hab. Małgorzata Ochota, prof. uczelni (veterinary science)

dr hab. inż. Katarzyna Pawęska, prof. uczelni (environmental engineering, mining and energy)

dr hab. Jarosław Proćków, prof. uczelni (biological sciences)

dr hab. inż. Anna Zimoch-Korzycka, prof. uczelni (nutrition and food technology)

dr hab. inż. Katarzyna Pentoś, prof. uczelni (agriculture and horticulture) – replacement

dr hab. inż. Jan Kapłon, prof. uczelni (civil engineering, geodesy and transport) – replacement

dr hab. inż. Monika Kowalska-Górska (animal science and fisheries) – replacement

dr hab. Krzysztof Lejcuś, prof. uczelni (environmental engineering, mining and energy) – replacement

prof. dr. hab. Dariusz Nowakowski (biological sciences) – replacement

dr hab. inż. Aleksandra Zambrowicz, prof. uczelni (nutrition and food technology) – replacement

A representative of the Doctoral Students' Self-Government, mgr Ewa Carolak (replacement – mgr inż. Grzegorz Marut), participated in the work of the Recruitment Committee.

2024/2025:

Chair: dr hab. inż. Tomasz Hadaś, prof. uczelni (civil engineering, geodesy and transport)

Members:

dr hab. inż. Katarzyna Czyż (animal science and fisheries)

dr hab. Marek Furmankiewicz, prof. uczelni (social and economic geography and spatial management)

dr hab. inż. Sylwia Lewandowska, prof. uczelni (agriculture and horticulture)

dr hab. Małgorzata Ochota, prof. uczelni (veterinary science)

dr hab. inż. Katarzyna Pawęska, prof. uczelni (environmental engineering, mining and energy)

dr hab. Jarosław Proćków, prof. uczelni (biological sciences)

dr hab. Hanna Pruchnik, prof. uczelni (biotechnology)

dr hab. inż. Anna Zimoch-Korzycka, prof. uczelni (nutrition and food technology)

dr hab. inż. Jan Kapłon, prof. uczelni (civil engineering, geodesy and transport) – replacement

dr hab. inż. Monika Kowalska-Górska (animal science and fisheries) – replacement

dr hab. inż. Joanna Kamińska, prof. uczelni (social and economic geography and spatial management) – replacement

dr hab. inż. Małgorzata Biniak-Pieróg, prof. uczelni (environmental engineering, mining and energy) – replacement

dr hab. Barbara Kwiatkowska, prof. uczelni (biological sciences) – replacement

dr hab. inż. Filip Boratyński, prof. uczelni (biotechnology) – replacement

dr hab. inż. Maciej Oziębłowski, prof. uczelni (nutrition and food technology) – replacement

A representative of the Doctoral Students' Self-Government, mgr inż. Adam Cegła (replacement – mgr inż. Justyna Załuska), participated in the work of the Recruitment Committee.

Recruitment within the “Implementation Doctorate” programme by academic year

2019/2020:

Chair: prof. dr hab. inż. Agnieszka Kita

Members:

prof. dr hab. inż. Adam Figiel

dr hab. inż. Grzegorz Józków

prof. dr hab. inż. Jan Kapłon

prof. dr hab. inż. Robert Kupczyński

dr hab. Krzysztof Lejcuś, prof. nadzw.

prof. dr hab. inż. Ewa Łukaszewicz

dr hab. inż. Anna Michalska

dr hab. Małgorzata Ochota

dr hab. inż. Katarzyna Pawęska, prof. nadzw.

dr hab. Błażej Poźniak, prof. nadzw.

dr hab. Jarosław Proćków, prof. nadzw.

dr hab. inż. Krzysztof Sośnica, prof. nadzw.

dr hab. inż. Katarzyna Wińska, prof. nadzw.

prof. dr hab. inż. Karol Wolski

2020/2021:

Since the academic year 2020/2021, recruitment has been conducted by the Doctoral School Board. In such cases, the Chair of the Doctoral School Board serves as Chair of the Recruitment Committee.

Chair: dr hab. inż. Witold Rohm, prof. uczelni

Members:

dr hab. inż. Andrzej Białowiec, prof. uczelni

dr hab. inż. Małgorzata Korzeniowska

prof. dr hab. Krzysztof Marycz

prof. dr hab. Agnieszka Noszczyk-Nowak

dr hab. inż. Sebastian Opaliński, prof. uczelni

dr hab. Magdalena Szymura, prof. uczelni

2021/2022:

Chair: dr hab. inż. Małgorzata Korzeniowska, prof. uczelni (nutrition and food technology)

Members:

prof. dr hab. inż. Andrzej Białowiec (environmental engineering, mining and energy)

dr hab. Tomasz Hadaś, prof. uczelni (civil engineering and transport)

dr hab. inż. Sebastian Opaliński, prof. uczelni (animal science and fisheries)

dr hab. Aleksandra Pawlak, prof. uczelni (veterinary science)

dr hab. Magdalena Szymura, prof. uczelni (agriculture and horticulture)

dr hab. Grzegorz Zaleśny, prof. uczelni (biological sciences) – zastępstwo

dr hab. inż. Anna Michalska-Ciechanowska, prof. uczelni (nutrition and food technology) – replacement

dr hab. inż. Małgorzata Biniak-Pieróg, prof. uczelni (environmental engineering, mining and energy) – replacement

2022/2023:

Chair: dr hab. inż. Małgorzata Korzeniowska, prof. uczelni (nutrition and food technology)

Members:

prof. dr hab. inż. Andrzej Białowiec (environmental engineering, mining and energy)

dr hab. Tomasz Hadaś, prof. uczelni (civil engineering and transport)

dr hab. inż. Sebastian Opaliński, prof. uczelni (animal science and fisheries)

dr hab. Aleksandra Pawlak, prof. uczelni (veterinary science)

dr hab. Magdalena Szymura, prof. uczelni (agriculture and horticulture)

dr hab. Agnieszka Śmieszek (biological sciences)

dr hab. inż. Arkadiusz Dyjakon, prof. uczelni (environmental engineering, mining and energy)

– zastępstwo

prof. dr hab. Bożena Obmińska-Mrukowicz (veterinary science) – replacement

2023/2024:

Chair: dr hab. inż. Małgorzata Korzeniowska, prof. uczelni (nutrition and food technology)

Members:

prof. dr hab. inż. Andrzej Białowiec (environmental engineering, mining and energy)

dr hab. Tomasz Hadaś, prof. uczelni (civil engineering, geodesy and transport)

dr hab. inż. Sebastian Opaliński, prof. uczelni (animal science and fisheries)

dr hab. Aleksandra Pawlak, prof. uczelni (veterinary science)

dr hab. Magdalena Szymura, prof. uczelni (agriculture and horticulture)

prof. dr hab. Krzysztof Marycz (biological sciences)

dr hab. inż. Justyna Hachoł, prof. uczelni (environmental engineering, mining and energy) –
replacement

dr hab. Iwona Gruss (agriculture and horticulture) – replacement

2024/2025:

Chair: dr hab. inż. Małgorzata Korzeniowska, prof. uczelni (nutrition and food technology)

Members:

prof. dr hab. inż. Andrzej Białowiec (environmental engineering, mining and energy)

dr hab. Tomasz Hadaś, prof. uczelni (civil engineering, geodesy and transport)

dr hab. Jan Kazak, prof. uczelni (social and economic geography and spatial management)

dr hab. inż. Sebastian Opaliński, prof. uczelni (animal science and fisheries)

dr hab. Aleksandra Pawlak, prof. uczelni (veterinary science)

dr hab. Magdalena Szymura, prof. uczelni (agriculture and horticulture)

dr hab. inż. Sylwia Lewandowska, prof. uczelni (zastępstwo)

dr hab. inż. Tomasz Tronina, prof. uczelni (biotechnology)

dr hab. Magdalena Wołoszyńska, prof. uczelni (biological sciences)

dr hab. inż. Joanna Kamińska, prof. uczelni (social and economic geography and spatial management) – replacement

prof. dr hab. inż. Artur Kowalczyk (animal science and fisheries) – replacement

Recruitment within projects (conducted since the academic year 2020/2021). This applies to candidates who, at the time of applying to the Doctoral School, have secured funding for the implementation of their doctorate, covering both the doctoral scholarship and research costs for a minimum period of 36 months, from research projects financed from external sources.

Below, excerpts from the recruitment resolutions in effect in individual academic years are provided in *italics*.

2020/2021:

Recruitment of candidates to the Doctoral School referred to in § 2 sec. 3 point 1, and recruitment during the first semester, referred to in § 2 sec. 4, is conducted by the School Board, unless the project competition regulations specify a different mode for selecting project implementers (e.g. the Preludium Bis competition). In such cases, the Chair of the Doctoral School Board serves as Chair of the Recruitment Committee. If any member of the School Board is directly involved as a potential supervisor or second supervisor, the Director of the School, in consultation with the Chair of the Discipline Council, appoints a replacement from among the members of the discipline in accordance with § 4 sec. 3. The committee also includes the relevant Vice-Rector to whom the project is subordinated.

Chair: dr hab. inż. Witold Rohm, prof. uczelni

Members:

dr hab. inż. Andrzej Białowiec, prof. uczelni

dr hab. inż. Małgorzata Korzeniowska, prof. uczelni

prof. dr hab. Krzysztof Marycz

dr hab. Aleksandra Pawlak, prof. uczelni

dr hab. Magdalena Szymura, prof. uczelni

dr hab. inż. Sebastian Opaliński, prof. uczelni

lek. wet. Michał Płóciennik, Doctoral Students' Self-Government representative

prof. dr hab. inż. Aneta Wojdyło, Vice-Rector for Research and International Cooperation

prof. dr hab. Anna Chelmońska-Soyta, Vice-Rector for Innovation and Business Cooperation

2021/2022:

The recruitment of candidates to the Doctoral School referred to in § 2 sec. 3 point 1, as well as recruitment during the first semester referred to in § 2 sec. 4, is conducted by the School Board. In such cases, the Chair of the Doctoral School Board serves as Chair of the Recruitment Committee.

Chair: dr hab. inż. Małgorzata Korzeniowska, prof. uczelni (nutrition and food technology)

Members:

prof. dr hab. inż. Andrzej Białowiec (environmental engineering, mining and energy)

dr hab. Tomasz Hadaś, prof. uczelni (civil engineering and transport)

dr hab. inż. Sebastian Opaliński, prof. uczelni (animal science and fisheries)

dr hab. Aleksandra Pawlak, prof. uczelni (veterinary science)

dr hab. Magdalena Szymura, prof. uczelni (agriculture and horticulture)

dr hab. Agnieszka Śmieszek (biological sciences)

2022/2023:

In the case of candidates referred to in § 2 sec. 3 point 1, a competitive selection procedure is conducted in accordance with the project requirements. The selection committee includes: the project leader and at least two persons holding a dr hab. degree in the discipline in which the project is carried out. A candidate who wins the selection procedure is admitted to the Doctoral School with the consent of the Director of the Doctoral School, based on the committee's report and the candidate's application for admission to the Doctoral School.

2023/2024:

Same rules as above.

2024/2025:

No project-based doctoral students.

The mid-term evaluation process at the Doctoral School of Wrocław University of Environmental and Life Sciences (UPWr) is regulated by provisions set out in the Doctoral School's regulations.

Below are excerpts from all the regulations that were in force at the Doctoral School during the evaluation period.

Resolution No. 34/2019 of the Senate of Wrocław University of Environmental and Life Sciences of 26 April 2019 (<https://bip.upwr.edu.pl/akty-prawne/uchwaly/uchwaly-senatu/2019-rok/uchwala-nr-342019-senatu-universytetu-przyrodniczego-we-wroclawiu-z-dnia-26-kwietnia-2019-roku-34.html>). Regulations were in force in the period: 26.04.2019-30.09.2020.

§ 8

1. In the middle of the education period, doctoral students shall be subject to mid-term evaluation in accordance with Article 202 of the Act.
2. The evaluation is carried out by a three-member committee composed of:
 - 1) member of the Doctoral School Board;
 - 2) one person holding a postdoctoral degree (*doktor habilitowany*) or the title of professor in the discipline in which the doctoral dissertation is being prepared, employed by an entity other than the one operating the Doctoral School;
 - 3) Director of the Doctoral School as chairman of the committee.
3. Doctoral students shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-year reports submitted to the Director of the Doctoral School regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
 - 3) presentation at an open scientific seminar.
4. A conversation between the committee, the doctoral student and the supervisor may constitute an additional element of the mid-term evaluation.
5. The mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

Resolution No. 26/2020 of the Senate of Wrocław University of Environmental and Life Sciences of 24 April 2020 (<https://bip.upwr.edu.pl/akty-prawne/uchwaly/uchwaly-senatu/2020-rok/uchwala-nr-262020-senatu-universytetu-przyrodniczego-we-wroclawiu-z-dnia-24-kwietnia-2020-roku-26.html>). Regulations were in force in the period: 1.10.2020-30.09.2022.

§ 11

1. In the middle of the education period, doctoral students shall be subject to mid-term evaluation in accordance with Article 202 of the Act.
2. The mid-term evaluation at the Doctoral School is made by a three-person committee consisting of:
 - 1) member of the Doctoral School Board;
 - 2) one person holding a postdoctoral degree (*doktor habilitowany*) or the title of professor in the discipline in which the doctoral dissertation is being prepared, employed by an entity other than the one operating the Doctoral School;
 - 3) Director of the Doctoral School as chairman of the committee.
3. Doctoral students shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-semester reports submitted to the Director of the Doctoral School regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
 - 3) presentation at an open scientific seminar, where the doctoral student presents the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.
4. A conversation between the committee, the doctoral student and the supervisor may constitute an additional element of the mid-term evaluation.
5. The mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

Resolution No. 57/2021 of the Senate of Wrocław University of Environmental and Life Sciences of 17 December 2021 (<https://bip.upwr.edu.pl/akty-prawne/uchwaly/uchwaly-senatu/2021-rok/uchwala-nr-572021-senatu-universytetu-przyrodniczego-we-wroclawiu-z-dnia-17-grudnia-2021-roku-59.html>). Regulations were in force in the period: 1.10.2022-30.09.2023.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with Article 202 of the Act.
2. Mid-term evaluation at the Doctoral School is conducted for each discipline by a three-person committee appointed by the vice-rector for science at the request of the Director of the Doctoral School. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The Director of the Doctoral School and a member of the Doctoral School Council in a given discipline shall act as observers.
3. The doctoral student shall be subject to mid-term evaluation on the basis of:
 - 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
 - 2) end-of-semester reports submitted to the Director of the Doctoral School regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
 - 3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.
4. A conversation between the committee, the doctoral student and the supervisor may constitute an additional element of the mid-term evaluation.
5. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.
6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

Resolution No. 2/2023 of the Senate of Wrocław University of Environmental and Life Sciences of 27 January 2023 (<https://bip.upwr.edu.pl/akty-prawne/uchwaly/uchwaly-senatu/2023-rok/uchwala-nr-22023-senatu-universytetu-przyrodniczego-we-wroclawiu-z-dnia-27-stycznia-2023-roku-2.html>). Regulations were in force in the period: 1.10.2023-30.09.2024.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with article 202 of the act.

2. Mid-term evaluation at the doctoral school is conducted for each discipline by a three person committee appointed by the vice-rector for science at the request of the director of the doctoral school. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The director of the doctoral school, a member of the doctoral school board and the supervisor of the evaluated doctoral student may act as observers.

3. The doctoral student shall be subject to mid-term evaluation on the basis of:

1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;

2) end-of-semester reports submitted to the director of the doctoral school regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;

3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.

4) the doctoral student's conversation with the committee.

4. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.

5. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

Resolution No. 65/2023 of the Senate of Wrocław University of Environmental and Life Sciences of 15 December 2023 (<https://bip.upwr.edu.pl/akty-prawne/uchwaly/uchwaly-senatu/2023-rok/uchwala-nr-652023-senatu-universytetu-przyrodniczego-we-wroclawiu-z-dnia-15-grudnia-2023-roku-66.html>). Regulations are in force in the period: 1.10.2024-30.09.2025.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with article 202 of the act.

2. Mid-term evaluation at the doctoral school is conducted for each discipline by a three person committee appointed by the vice-rector for science at the request of the director of the doctoral school. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The director of the doctoral school, a member of the doctoral school board in a given discipline and the supervisor of the evaluated doctoral student may act as observers.

3. The doctoral student shall be subject to mid-term evaluation on the basis of:

- 1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;
- 2) end-of-term reports submitted to the director of the doctoral school regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;
- 3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation;
- 4) the doctoral student's conversation with the committee.

4. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.

5. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

Resolution No. 14/2025 of the Senate of Wrocław University of Environmental and Life Sciences of 28 March 2025 (<https://bip.upwr.edu.pl/akty-prawne/uchwaly/uchwaly-senatu/2025-rok/uchwala-nr-142025-senatu-universytetu-przyrodniczego-we-wroclawiu-z-dnia-28-marca-2025-roku-14.html>). Regulations will in force from 1.10.2025.

§ 11

1. In the middle of the education period, the doctoral student shall be subject to mid-term evaluation in accordance with article 202 of the act.

2. Mid-term evaluation at the doctoral school is conducted for each discipline by a three-person committee appointed by the vice-rector for science at the request of the director of the doctoral school. The committee shall be composed of persons employed outside Wrocław University of Environmental and Life Sciences, who have the degree of habilitated doctor (*doktor habilitowany*) or the title of professor, including at least one in the discipline in which the doctoral dissertation is being prepared. The director of the doctoral school, a member of the doctoral school board in a given discipline, the supervisor of the evaluated doctoral student and the representative of the doctoral students' self-government may act as observers.

3. The doctoral student shall be subject to mid-term evaluation on the basis of:

1) a written report on the progress in implementing the individual research plan, including the supervisor's opinion;

2) end-of-term reports submitted to the director of the doctoral school regarding the assessment of the implementation of the curriculum, the advancement of scientific research and progress in the preparation of the doctoral dissertation, including the supervisor's assessment;

3) a presentation at an open scientific seminar, where the doctoral student shall present the main assumptions and the obtained results of the doctoral dissertation before the relevant scientific discipline board, or before an entity appointed by the board that issues a written assessment indicating the strengths and weaknesses of the dissertation.

4) the doctoral student's conversation with the committee.

4. Mid-term evaluation shall end with a positive or negative result. The result of the evaluation and its justification is public.

5. In case of a negative result of the evaluation, within 14 days from the date of disclosure of the results, the doctoral student may appeal against the result of the assessment to the vice-rector for science. The vice-rector for science may decide about the appointment of the board of appeal in the new composition specified in §11(2). The board of appeal grants a positive or a negative grade which is final.

6. In the case of a negative evaluation, the doctoral student shall be removed from the list of doctoral students.

Subject: Data discrepancy between system POL-on and platform SEDok regarding the number of doctoral students by education programmes.

Below, using a table, we present the data concerning the number of doctoral students in individual programmes as currently shown by platform SEDok and the correct figures.

Education programmes	Number of doctoral students – currently shown	Number of doctoral students – correct
ProHum	0	6
Engineering and Technology Sciences	0	6
Biological Sciences	0	10
Agricultural Sciences	0	23
Social Sciences	6	6
Agricultural Sciences	67	66
Engineering and Technology Sciences	39	39
Natural Sciences	36	35
Veterinary Sciences	39	39
Suma	187	230

The number of doctoral students enrolled in POL-on is 230, according to the actual number of doctoral students and the number included in the SEDok report.

ProHum:

[< Ukryj filtry](#)

Sortuj: Nazwisko A > Z

Wszystkich: 6 Na stronie: 10 1 z 1

Lp.	Stan	Nazwisko	Imię	PESEL / dokument tożsamości	Tryb przygotowania rozprawy
1	☒	Bubak	Joanna Maria	90070106803	Kształcenie doktorantów
2	☒	Miszcza	Marta	91053008206	Kształcenie doktorantów
3	☒	Niewiadomska	Joanna Zofia	93031207241	Kształcenie doktorantów
4	☒	Nowak	Kacper Czesław	93042809290	Kształcenie doktorantów
5	☒	Owsińska-Schmidt	Karolina Barbara	93122303948	Kształcenie doktorantów
6	☒	Płociennik	Michał Rafał	91041115198	Kształcenie doktorantów

Filtry zestawienia
[Wyczyść](#)

Nazwisko
Imię
PESEL lub nr dokumentu tożsamości
Tryb przygotowania rozprawy doktorskiej
Wybierz
Stan dokumentu
Wybierz
Status
Wszystkie
Data rozpoczęcia kształcenia
od do
Nazwa szkoły doktorskiej
Program kształcenia
ProHum (01.10.2019)
Dyscyplina
☐ Karta Polaka ☐ Cudzoziemiec

Natural Sciences:

PESEL lub nr dokumentu tożsamości

Imię

Tryb przygotowania rozprawy doktorskiej

Wybierz

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

nauki ścisłe i przyrodnicze (02.10.2023)

Dyscyplina

☐ Karta Polaka

☐ Obywatel Polski

☐ Doktoranci, którym kończy się okres pobierania stypendium

Szukaj

Wyczyść

Nazwisko

Imię

PESEL lub nr dokumentu tożsamości

Tryb przygotowania rozprawy doktorskiej

Wybierz

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

null (03.10.2019)

Dyscyplina

☐ Karta Polaka

☐ Obywatel Polski

☐ Doktoranci, którym kończy się okres pobierania stypendium

Szukaj

26	☒	Przygoda-Kuś	Paula Agnieszka	98040305526	Kształcenie doktorantów
27	☒	Saragih	Mutiara	C9576293	Kształcenie doktorantów
28	☒	Skaradziński	Grzegorz Jan	83050605975	Kształcenie doktorantów
29	☒	Szczepańczyk	Mateusz Marek	95072401475	Kształcenie doktorantów
30	☒	Szwedtłowicz	Maciej Karol	97011404835	Kształcenie doktorantów
31	☒	Szymański	Kacper Patryk	98033102976	Kształcenie doktorantów
32	☒	Vaikunthavasan	Thiruchenthooran	92110616512 / N8782830	Kształcenie doktorantów
33	☒	Wąsik	Bartosz	00310805216	Kształcenie doktorantów
34	☒	Wszelaki	Sebastian Dominik	96120404499 / AZL564474	Kształcenie doktorantów
35	☒	WYSOCKI	ADRIAN	96042105373	Kształcenie doktorantów

Lp.	Stan	Nazwisko	Imię	PESEL / dokument tożsamości	Tryb przygotowania rozprawy
1	☒	Bisiecka	Agata	95070305467	Kształcenie doktorantów
2	☒	Czech	Bartosz Wojciech	95042002055	Kształcenie doktorantów
3	☒	Gach	Joanna Beata	94052403881	Kształcenie doktorantów
4	☒	Hemik	Dawid Karol	94061502650	Kształcenie doktorantów
5	☒	Mularczyk	Malwina Katarzyna	93010514760	Kształcenie doktorantów
6	☒	Pawelec	Lukasz Piotr	95013112952	Kształcenie doktorantów
7	☒	Pielok	Ariadna	94042307269	Kształcenie doktorantów
8	☒	Sikora	Mateusz	95070205897	Kształcenie doktorantów
9	☒	Thu Ha	Ngo	C3502670	Kształcenie doktorantów
10	☒	Witek	Agnieszka Julia	95101810502	Kształcenie doktorantów

Biological Sciences:

Filtry zestawienia

Nazwisko

Imię

PESEL lub nr dokumentu tożsamości

Tryb przygotowania rozprawy doktorskiej

Kształcenie doktorantów

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

null (03.10.2019)

Dyscyplina

☐ Karta Polaka

☐ Cudzoziemiec

☐ Obywatel Polski

☐ Doktoranci, którym kończy się okres pobierania stypendium

Wyczyść

Lp.	Stan	Nazwisko	Imię	PESEL / dokument tożsamości	Tryb przygotowania rozprawy
1	☒	Bednik	Magdalena Maria	95080411006	Kształcenie doktorantów
2	☒	Brzezowska	Jessica	95090108741	Kształcenie doktorantów
3	☒	Duda	Paweł Jakub	95062113256 / AWT511376	Kształcenie doktorantów
4	☒	Gabryelska	Klaudia Teresa	96102407689	Kształcenie doktorantów
5	☒	Góralczyk	Natasza	92090609845	Kształcenie doktorantów
6	☒	Gumowski	Marcin Janusz	82042910639	Kształcenie doktorantów
7	☒	Klarzyńska	Anna	93050704949	Kształcenie doktorantów
8	☒	Kolasa	Kornelia Anna	91092313842	Kształcenie doktorantów
9	☒	Korus	Maciej	94111307697	Kształcenie doktorantów
10	☒	Kuklińska	Agata Emilia	97090108769	Kształcenie doktorantów

Agricultural Sciences:

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

nauki rolnicze (02.10.2023)

Dyscyplina

☐ Karta Polaka

☐ Cudzoziemiec

☐ Obywatel Polski

☐ Doktoranci, którym kończy się okres pobierania stypendium

Szukaj

55	☒	Szelepa	Tomasz Rafał	88112314138	Kształcenie doktorantów
56	☒	Szydlowska	Martyna Michalina	96052009104	Kształcenie doktorantów
57	☒	Śniegucka	Karolina Aleksandra	94110104981	Kształcenie doktorantów
58	☒	Tkaczyńska	Agnieszka	91042612021	Kształcenie doktorantów
59	☒	Tobolska	Izabella Joanna	97052203024	Kształcenie doktorantów
60	☒	Uzair	Muhammad	AG2894591	Kształcenie doktorantów
61	☒	Vahedi	Shima	L53371752	Kształcenie doktorantów
62	☒	Wolański	Błażej	98020309559	Kształcenie doktorantów
63	☒	Załużka	Justyna Maria	97032510665	Kształcenie doktorantów
64	☒	Zarębski	Karol	99033005955	Kształcenie doktorantów
65	☒	Zimmer	Aleksandra	96120704940	Kształcenie doktorantów
66	☒	Zubaidi	Muhamad Alfıyan	C0431804	Kształcenie doktorantów

Poprzednia

2 z 2

Filtry zestawienia

Wyczyść

Nazwisko

Imię

PESEL lub nr dokumentu tożsamości

Tryb przygotowania rozprawy doktorskiej

Wybierz

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

null (03.10.2019)

Dyscyplina

☐ Karta Polaka

☐ Obywatel Polski

☐ Doktoranci, którym kończy się okres pobierania stypendium

☐ Oudzoziemiec

Lp.	Stan	Nazwisko	Imię	PESEL / dokument tożsamości	Tryb przygotowania rozprawy
21	☒	Szeligowska	Natalia Wanda	97111803286	Kształcenie doktorantów
22	☒	Wujcikowska	Katarzyna Krystyna	94122607988 / CED989560	Kształcenie doktorantów
23	☒	Yusuf	Emel Hasan	87012415600 / 385372292	Kształcenie doktorantów

Social Sciences:

Filtry zestawienia

Wyczyść

Nazwisko

Imię

PESEL lub nr dokumentu tożsamości

Tryb przygotowania rozprawy doktorskiej

Kształcenie doktorantów

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

nauki społeczne (02.10.2023)

Dyscyplina

☐ Karta Polaka

☐ Oudzoziemiec

Lp.	Stan	Nazwisko	Imię	PESEL / dokument tożsamości	Tryb przygotowania rozprawy
1	☒	Choudhury	Taniya	U9989690	Kształcenie doktorantów
2	☒	Khan	Muhammad Imran	XB4105363	Kształcenie doktorantów
3	☒	Khan	Muhammad Kamran	RA4130482	Kształcenie doktorantów
4	☒	Lebiedzińska	Monika Agnieszka	98073100503	Kształcenie doktorantów
5	☒	Lubańska	Aleksandra Wiktoria	98122203281	Kształcenie doktorantów
6	☒	Wyrwa	Joanna Patrycja	87091400625 / CEV796519	Kształcenie doktorantów

Veterinary Sciences:

Imię

PESEL lub nr dokumentu tożsamości

Tryb przygotowania rozprawy doktorskiej

Kształcenie doktorantów

Stan dokumentu

Wybierz

Status

Wszystkie

Data rozpoczęcia kształcenia

od

do

Nazwa szkoły doktorskiej

Program kształcenia

nauki weterynaryjne (02.10.2023)

Dyscyplina

☐ Karta Polaka
☐ Cudzoziemiec
☐ Obywatel Polski
☐ Doktoranci, którym kończy się okres pobierania stypendium

Szukaj

26	☒	Nowotnik	Piotr Robert	94083010939	Kształcenie doktorantów
27	☒	Pasaol	Jayson Cagadas	P256650B	Kształcenie doktorantów
28	☒	Pieczka	Marek	97050402913 / CAH329306	Kształcenie doktorantów
29	☒	Pistor	Patrycja Anna	96091809846	Kształcenie doktorantów
30	☒	Prorok	Paulina Sylwia	92042406629	Kształcenie doktorantów
31	☒	Reza	Safoura	17CE41939	Kształcenie doktorantów
32	☒	Salata	Patrycja	97072209008	Kształcenie doktorantów
33	☒	Stypulkowska	Adrianna	96112305063	Kształcenie doktorantów
34	☒	Teegne	Desiye Tesfaye	EP6647972	Kształcenie doktorantów
35	☒	Tomariska	Anna Justyna Barbara	93032806548	Kształcenie doktorantów
36	☒	Uchańska	Oliwia Kinga	97071407124	Kształcenie doktorantów
37	☒	Vieira Meco	Michele	CD694168	Kształcenie doktorantów
38	☒	Waszczuk	Wiktoria Katarzyna	99020201124 / CAE209755	Kształcenie doktorantów
39	☒	Ziuzia	Patrycja	98021602064	Kształcenie doktorantów

Poprzednia

2 z 2

Description of the inquiry:

On 22 July 2025, we contacted the team responsible for the SEDok platform requesting clarification regarding discrepancies between the data presented in the POL-on system and the data visible on the SEDok platform.

The inquiry was supported with attached screenshots documenting the mentioned discrepancies (files: POLON ProHum.jpg and SEDok - ProHum.jpg). Due to the need to prepare a self-evaluation report, which is due on 4 August 2025, these irregularities may affect the quality and reliability of the evaluation report and consequently, the course of the unit's assessment.

Correspondence timeline:

22 July 2025, 10:59 – Problem report sent to the SEDok support team. The issue was described, documentation in the form of screenshots was attached and assistance in identifying the source of the data discrepancy was requested.

22 July 2025, 11:53 – Response from Ms. Ewelina Nikiel with information that there was currently a temporary issue with access to test databases. Upon restoration of access, an investigation of the matter and a reply were promised.

24 July 2025, 15:51 – Ms. Ewelina Nikiel informed that the matter had been forwarded for further analysis, with particular attention to the consistency of data between the POL-on system and the SEDok platform, as well as the principles for generating evaluation reports. It was assured that a response would be provided once feedback was received.

29 July 2025, 09:47 – Due to the lack of a response and the approaching deadline for submitting the self-evaluation report (04.08.2025), I contacted the support team again, emphasising the urgency of the matter and the impact of the inconsistency on the completeness of the report.

29 July 2025, 09:47 – Ms. Ewelina Nikiel responded, informing that an enquiry had been sent to the Ministry regarding the correctness of the assumptions adopted for generating the SEDok report,

particularly in the context of the scope of data taken into account. According to the current interpretation, the data refer only to those education programmes that were active on the last day of the evaluation period. As such, the “ProHum” programme, which ended before the end of this period, was not included in the report. The team is currently awaiting confirmation of this interpretation from the Ministry. It was also reported that the enquiry had been repeated in order to expedite a response.

As of 31 July 2025, the situation remains unresolved. We are awaiting the Ministry’s official position regarding the rules for processing and presenting data in the SEDok report, in particular concerning programmes that ended before the conclusion of the evaluation period. The absence of these data in the report may result in an underestimation of the number of doctoral students reported as part of the unit’s activities, which may negatively affect the quality assessment results.



Wrocław, 22 lipca 2025 r.

PEŁNOMOCNICTWO nr R0BOP0000.0130.310.2025

Na podstawie art. 23 ust. 1 i ust. 2 pkt 1 i pkt 2 ustawy z dnia 20 lipca 2018 r. – Prawo o szkolnictwie wyższym i nauce (Dz. U. z 2024 r., poz. 1571 z późn. zm.), § 5 ust. 2 i ust. 3 pkt 1 i pkt 2 oraz ust. 4 Statutu Uniwersytetu Przyrodniczego we Wrocławiu stanowiącego załącznik do uchwały nr 42/2023 Senatu Uniwersytetu Przyrodniczego we Wrocławiu z dnia 29 września 2023 roku w sprawie uchwalenia Statutu Uniwersytetu Przyrodniczego we Wrocławiu z późn. zm. udzielam pełnomocnictwa

Pani prof. dr hab. Magdalenie Szymurze

Dyrektorowi Szkoły Doktorskiej

do podpisywania dokumentów i składania oświadczeń woli i wiedzy za pośrednictwem Systemu Ewaluacji Szkół Doktorskich SEDok prowadzonego przez Ośrodek Przetwarzania Informacji – Państwowy Instytut Badawczy, a w szczególności do :

- 1) składania raportu samooceny szkoły doktorskiej;
- 2) uzupełnień do raportu samooceny;
- 3) uwag do raportu;
- 4) zastrzeżeń do oceny.

Pełnomocnictwo obowiązuje od dnia udzielenia do odwołania.

Niniejsze pełnomocnictwo nie upoważnia do udzielania dalszych pełnomocnictw w imieniu Uniwersytetu Przyrodniczego we Wrocławiu.

Po upływie okresu, na który pełnomocnictwo zostało udzielone, lub w przypadku odwołania pełnomocnictwa, należy zwrócić niniejsze pełnomocnictwo do Działu Kadr i Płac. W przypadku pełnomocnictwa udzielonego w formie elektronicznej pełnomocnik zobowiązany jest, z chwilą jego



odwołania lub wygaśnięcia, zaprzestać jego wykorzystywania, a pliki pełnomocnictwa powinny być przechowywane w Biurze Organizacyjno-Prawnym oraz w Dziale Kadr i Płac.

Z upoważnienia Rektora



Signed by /
Podpisano przez:

Andrzej Jan
Zachwieja

Date / Data: 2025-
07-22 10:00

prof. dr hab. inż. Andrzej Zachwieja



Signed by /
Podpisano przez:

Magdalena Szymura

Date / Data: 2025-
07-24 13:34

Otrzymują:

- 1) adresat,
- 2) Biuro Organizacyjno-Prawne,
- 3) Dział Kadr i Płac.

KEN

2023-2027



**NATIONAL
INFORMATION
PROCESSING**
INSTITUTE



Minister of Science and Higher Education
Republic of Poland

Assessment of the quality of education in doctoral schools
is made by the Science Evaluation Committee

The Evaluation System of Doctoral Schools
is financed by the Minister of Science and Higher Education
