

EDUCATION PROGRAMME AT THE DOCTORAL SCHOOL OF THE KOSZALIN UNIVERSITY OF TECHNOLOGY

The education programme at the Doctoral School is compatible with the mission of the Koszalin University of Technology and has been developed on the basis of its most important ideas: educating the society, conducting scientific research, implementing research results into the economy and participation in social life. These ideas ensure that the university contributes to the development of the region, country and the world and graduates of the Doctoral School possess the abilities to fulfill professional and social functions throughout their active lives.

I. Specificity of the education programme - the main assumptions

1. The Doctoral School of the Koszalin University of Technology prepares doctoral students for obtaining a doctoral degree in three disciplines:
 - 1) Automation, electronic and electrical engineering;
 - 2) Mechanical engineering;
 - 3) Civil engineering and transport.
2. Doctoral education in the Doctoral School:
 - 1) prepares doctoral students to obtain a doctoral degree;
 - 2) lasts 8 semesters and is completed upon the submission of a doctoral dissertation;
 - 3) is conducted on the basis of the education programme and individual research plan (IRP);
 - 4) leads to obtaining learning outcomes for the qualifications at level 8 of the Polish Qualifications Framework, specified on the basis of the Act of 22 December 2015 on the Integrated Qualifications System (Journal of Laws of 2018, item 2153) and the regulations issued on the basis of art. 7 section 3 of this Act.
3. Learning outcomes are achieved as a result of:
 - 1) implementing the education programme;
 - 2) implementing the individual research plan;
 - 3) being a part of the School's academic environment and participating in various forms of activities organized by the Doctoral School;
 - 4) participating in the life of the academic community - both at national and international level.
4. Didactic practice in the amount of 15 teaching hours during the 6th and 7th semester has the form of co-teaching or participation in the teaching of classes in the subject indicated by the supervisor. Didactic practice ends with a credit without a grade.

5. The Doctoral School supports the mobility of doctoral students and establishment of international contacts by enabling them to participate in international exchange programmes as well as international internships and conferences.
6. An important element of the education programme are scientific seminars during which doctoral students present and critically discuss the progress of their own research work.
7. Doctoral students can take part in seminars, quest lectures and training courses organized by the University. Training courses concern for example obtaining funds for research projects and activities related to commercialization and dissemination of research results.

II. The main goals of doctoral education

The main goal of education at the Doctoral School is the preparation and submission of a doctoral dissertation by a doctoral student and, on this basis, preparation of a doctoral student to obtain a doctoral degree. The aim of education is also the development of a doctoral student and the result of education is a PhD holder - a person with a unique set of a high level competences, including primarily but not exclusively, the skills necessary to conduct research. These competences can be used in professional activities of various types and also in various areas of personal and social activity.

The main goals of education at the Doctoral School also include:

- preparing doctoral students for independent conducting scientific work and didactic activities at the university level;
- gaining by doctoral students the ability to use the world's scientific achievements, identify and solve research problems, plan and implement scientific research, develop research results in the form of patents, publications or presentations during scientific conferences;
- obtaining by doctoral students high research competences and scientific independence;
- preparing doctoral students to independently plan their own research development and take up challenges in the professional and public sphere, taking into account their ethical dimension and responsibility;
- preparing doctoral students to participate in the exchange of scientific experiences and ideas, also in the international environment.

III. Ways of verifying the learning outcomes

After the end of the semester, the learning outcomes achieved by doctoral students for each subject included in the programme of study are verified with exams, grades or credits without grades. The form of completing the course is specified in the course description card. Before a course begins, an academic teacher informs doctoral students about the method of conducting the examination and passing the course. Exams and credits may have the form of written or oral tests which check knowledge and skills. Passing the course may also take place on the basis of written assignments, multimedia projects, presentations, etc. In order to pass a semester, a doctoral student must obtain the sum of ECTS points specified for a given semester.

The learning outcomes achieved by a doctoral student are also verified by the assessment of:

- 1) a doctoral student's presentations during seminars;

- 2) implementing of an individual research plan, including a schedule of preparation of a doctoral dissertation, conducted by an evaluation commission in the form of mid-term evaluation in the middle of the period of education; mid-term evaluation ends with a positive or negative result and the result of evaluation together with the justification is public.

Description of the learning outcomes - the characteristic of the first and second stage for the qualifications at Level 8 of the Polish Qualifications Framework for the Doctoral School of the Koszalin University of Technology

Reference to learning outcomes	A graduate of the Doctoral School who has been awarded a doctoral degree:
KNOWLEDGE: knows and understands	
P8U_W1	the world's scientific and creative achievements and their implications for the practice
P8S_WG	the world's achievements (to the extent allowing for the revision of existing paradigms) covering theoretical foundations as well as general and selected specific issues - specific for the scientific disciplines represented in the Doctoral School
P8S_WG	key development trends of scientific disciplines in which education takes place
P8S_WG	methodology of scientific research in the disciplines represented in the Doctoral School
P8S_WG	rules of promoting scientific activity results, also in an open access mode
P8S_WK	fundamental dilemmas of the contemporary civilization
P8S_WK	economic, legal, ethical and other essential conditions of conducting scientific research
P8S_WK	basic conditions of the knowledge transfer to the economic and social sphere and commercialization of the results of scientific activities and know-how related to these results
SKILLS: can	
P8U_U1	analyze and creatively synthesize scientific and creative achievements to identify and solve research problems as well as those related to innovative and creative activities; contribute new elements to these achievements
P8U_U2	independently plan one's own development as well as inspire the development of others
P8U_U3	participate in the exchange of experiences and ideas, also in the international community

P8S_UW	use the knowledge from various branches of science to creatively identify, formulate and innovatively solve complex problems or perform research activities, especially: to define the aim and subject of the research, formulate a research hypothesis, develop research methods, techniques and tools and use them creatively, draw conclusions on the basis of research results, carry out a critical analysis and assessment of research results, work of experts and other creative activities together with their contribution to the knowledge development
P8S_UW	transfer scientific activity results to the economic and social sphere
P8S_UK	communicate one's expertise well enough to actively participate in the international scientific community
P8S_UK	disseminate scientific activity, also in a popular form
P8S_UK	initiate debates and participate in the scientific discourse
P8S_UK	use a foreign language at the B2 level according to the Common European Framework of Reference for Languages, well enough to actively participate in the international scientific and professional community
P8S_UO	plan and conduct individual and team research or creative projects, also in the international community
P8S_UU	plan and act for self-development on their own as well as inspire and organize other people's development
P8S_UU	plan classes or groups of classes and conduct them using modern methods and tools
SOCIAL COMPETENCE: is ready for	
P8U_K1	independent research work increasing the existing scientific and creative achievements
P8U_K2	undertaking challenges in the professional and public sphere taking into account their ethical aspect and taking responsibility for their results and forming good practice patterns in such situations;
P8S_KK	critical assessment of the achievements within a given scientific discipline, critical assessment of his/her own contribution to the development of a given scientific discipline, acknowledgement of the importance of knowledge in solving cognitive and practical problems
P8S_KO	fulfilling social obligations of researchers, initiating actions in the public interest, business-like thinking and acting
P8S_KR	maintaining and developing the ethos of research and creative communities, including conducting research in an independent manner, respecting the principle of public ownership of the results of scientific activities, taking into account intellectual property rights