



Subject card

Subject name and code	Profesional practice, PG_00049178						
Field of study	Mathematics						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Optional subject group		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Differential Equations and Mathematical Applications -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. Urszula Goławska					
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	0.0	0
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	0		5.0		115.0	120
Subject objectives	The aim of professional practice is first of all acquiring practical and complementary skills expanding knowledge gained by the student at the university. Internships enable the development of competences a professional student who is compatible with the chosen field of study and his specialty. The student meets practical issues related to work as well as general and domain knowledge. The student has the opportunity to establish professional contacts to help you navigate the modern market employments						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_U13] Understands the mathematical foundations of the analysis of algorithms and computational processes, can construct algorithms with good numerical properties, used to solve typical and unusual mathematical problems.	The student applies knowledge and skills acquired during studies to fulfill tasks commissioned at the place of holding practice. In a practical way combines knowledge from various fields	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task
	[K7_U11] Can construct mathematical models used in specific advanced applications of mathematics, can use stochastic processes as a tool for modeling phenomena and analyzing their evolution.	The student applies knowledge and skills acquired during studies to fulfill tasks commissioned at the place of holding practice. In a practical way combines knowledge from various fields	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task
	[K7_W13] Knows the health and safety rules sufficiently to work independently in the profession of a mathematician.	The student applies knowledge and skills acquired during studies to fulfill tasks commissioned at the place of holding practice. In a practical way combines knowledge from various fields	[SW1] Assessment of factual knowledge
	[K7_K03] Can work as a team; understands the necessity of systematic work on all projects that are long-term in nature, understands and appreciates the importance of intellectual honesty in one's own activities and the activities of other people; behaves ethically.	The student respects the principles of work in group	[SK3] Assessment of ability to organize work [SK4] Assessment of communication skills, including language correctness [SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills [SK2] Assessment of progress of work
	[K7_K02] Can precisely formulate questions to deepen own understanding of a given topic or find missing elements of reasoning, understands the need to clearly present selected achievements of higher mathematics to laymen.	Student is able to independently search and study literature available on the topic. IN in a comprehensible way problems for non-mathematicians.	[SK3] Assessment of ability to organize work [SK4] Assessment of communication skills, including language correctness [SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills [SK2] Assessment of progress of work

Subject contents	<p>Depending on the internship program in a given workplace. Getting to know the organizational structure of the institution where the professional practice takes place. Training BHP. Participation in the tasks of employees of the institution in at least three areas of activity from the following list:</p> <p>For specialty students: Geometria i grafika komputerowa</p> <ol style="list-style-type: none"> <li>1. Mathematical modeling.</li> <li>2. Mathematical prediction.</li> <li>3. Optimization methods - modeling - tool selection - solutions.</li> <li>4. Elements of financial consulting, trading in financial documents.</li> <li>5. Analysis and processing of statistical data, statistical analysis of measurements.</li> <li>6. Creating and maintaining databases.</li> <li>7. Participation in research and development in various fields using mathematics.</li> <li>8. Modeling of physical phenomena, industrial and technological processes.</li> <li>9. Participation in the processes of designing, manufacturing, testing and documenting computer systems.</li> <li>10. Works related to the development, creation, documentation and testing of software modules, applications, numerical algorithms.</li> <li>11. Conducting work related to archiving and updating data.</li> <li>12. Forecasting and mathematical modeling in biology and medicine, statistics, finances, on the currency market,</li> <li>13. Educational activity and popularizing mathematics.</li> </ol> <p>For Students of the Data Analyst specialty:</p> <ol style="list-style-type: none"> <li>1. Mathematical modeling.</li> <li>2. Mathematical prediction.</li> <li>3. Data processing.</li> <li>4. Mathematical analysis of data.</li> <li>5. Conducting work related to data archiving.</li> <li>6. Works related to the presentation of applications and reports flowing out from data analysis.</li> <li>7. Participation in designing, manufacturing, testing and documenting processes computer systems for the purposes of data analysis.</li> <li>8. Participation in designing, manufacturing, testing and documenting processes numeric algorithms that solve problems Math.</li> <li>9. Participation in planning and risk management processes.</li> <li>10. Participation in research and development works in various fields using mathematics.</li> <li>11. Educational activities and popularizing mathematics.</li> </ol> <p>Regardless of the above skills and activities, during the internship the student must acquire the ability to work in a team, plan and implement individual and team tasks, effective communication and adherence to the values and principles of cooperation in the team, as well as acquire specific social competences</p> <p>Readiness to cultivate and disseminate models of proper behavior in the work environment and beyond, independent decision-making, critical evaluation of own activities, the teams he directs and organizations in which he participates, accepting responsibility for the effects of these activities, responsible performance of professional roles, including : - abiding by the rules of professional ethics and requiring it from others, - caring for the heritage and traditions of the profession.</p> <p>Readiness to critically evaluate your knowledge and recognize the importance of knowledge in solving cognitive and practical problems.</p> <p>Readiness to fulfill social obligations, co-organize activities for the social environment, initiate activities for the public interest, thinking and acting in an entrepreneurial way.</p>		
Prerequisites and co-requisites	Knowledge and skills acquired during the studies		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Practice Card	100.0%	100.0%
Recommended reading	Basic literature	<p>Depending on the needs.</p> <ol style="list-style-type: none"> <li>1. Regulations of student internista.</li> <li>2. Framework program of professional practice for students of Mathematics</li> </ol>	
	Supplementary literature	Depending on the needs. Company documentation: company regulations, procedures proceedings, documents, security rules, etc.	
	eResources addresses	Adresy na platformie eNauczanie:	

Example issues/ example questions/ tasks being completed	lack
Work placement	Not applicable