University of Gdańsk

Subject card

Subject name and code	Engineering workshop II, PG_00080694		
Field of study	Chemical Business		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2027/2028
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	4	Language of instruction	Polish
Semester of study	7	ECTS credits	8.0
Learning profile	academic	Assessment form	credit
Conducting unit	Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Joanna Makowska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	120.0	0.0	0.0	120

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	120	5.0	15.0	140

Subject objectives

Acquisition of the ability to properly perform research in the selected specialty and/or the subject of the diploma project.

Familiarization with the basic aspects of the construction and operation of the research equipment used.

Familiarizing students with the basic calculation methods in the field of the selected specialty and/or the subject of the diploma project.

Acquisition of the ability to critically interpret the results obtained.

Developing the ability to properly prepare and execute a diploma project.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BCHINŻ_K05] Is convinced of the importance of behaving in a professional manner in every situation, taking full responsibility in the field of engineering activities and their impact on the natural environment and compliance with the principles of professional ethics.	identifies the level of his knowledge and skills and understands the need for further education correctly identifies and resolves dilemmas related to the profession shows creativity in independent action, is able to work in a team performing various roles in it takes actions taking into account the priorities to achieve the intended goals, demonstrates responsibility for the safety of own and other people's work and the workplace, applies the rules of conduct in emergencies	[SK2] presentation/project/paper/ report
	[BCHINŻ_K01] Identifies the level of her/his own knowledge and skills as well as the need to update engineering knowledge, continuous professional training and personal development.	Student understands the need independent information search in scientific literature; can formulate appropriate questions	[SK2] presentation/project/paper/ report
	[BCHINŻ_W11] Enumerates legal and ethical aspects related to scientific, research and didactic work.	Knows, lists and describes the basic legal, economic and ethical aspects related to the implementation of engineering work. Knows and explains the basic concepts and principles in the field of intellectual and industrial property protection, copyright and patent law required to carry out an engineering thesis	[SW2] presentation/project/paper/ report
	[BCHINŻ_U04] In the course of carrying out engineering tasks, s/ he uses basic statistical methods, IT techniques and uses application software packages to describe chemical processes and experimental data.	Student is able to: • correctly perform research in the selected subject of the engineering thesis. • operate the research equipment used for the project. • use the basic computational methods in the selected subject of engineering thesis. • has the ability to critically interpret the results obtained. • correctly prepare and execute an engineering project.	[SU2] presentation/project/paper/ report
	[BCHINŻ_U06] Proposes and makes simple devices, operations or unit processes related to the implementation of the technological process used in the chemical industry, taking into account material and energy balances.	1. Student uses his knowledge in practice. He works on projects, experiments and is creative. Understands exactly how the technological process works. Identifies the stages, operations and equipment involved in production. 2. Student is able to determine what raw materials and products are involved in the process.	[SU2] presentation/project/paper/ report
	[BCHINŻ_W04] Describes the role of experiment and computer simulation in the design process of engineering issues.	Knows and presents issues related to the selected subject of the engineering thesis. Knows and understands the basic aspects of the construction and operation of the research equipment used.	[SW3] text preparation/written work

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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[BCHINŻ_U07] Performs a preliminary economic analysis of designed and implemented engineering tasks.</td><td>Student identifies potential risks related to the project and estimates their impact on financial results.
Student takes into account the duration of the project and the time value of money. Is able to determine whether the investment in the project is profitable in the long run.</td><td>[SU2] presentation/project/paper/ report</td></tr>
<tr><td>[BCHINŻ_K03] Independently sets or implements a set action plan specifying priorities for its implementation; critically assesses its progress.</td><td>Student is able to define a clear goal or task that you want to achieve. Identifies the stages, operations and equipment involved in production. The student uses his knowledge in practice.</td><td>[SK3] text preparation/written work</td></tr>
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<tr><td>Subject contents</td><td>The content of the program is varied and adapted to the scope of the selected subject of the diploma (engineering) project.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Knowledge of basic issues in the field of chemistry and/or related scientific fields</td></tr>
<tr><td>Assessment methods and criteria</td><td>
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<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Planning and implementation of chemical experiments</td><td>100.0%</td><td>50.0%</td></tr>
<tr><td>Presentation of the results of your research - report/speech</td><td>100.0%</td><td>50.0%</td></tr>
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<tr><td>Recommended reading</td><td>
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<tr><td>Basic literature</td><td>A. Literature required for the final completion of the course (passing the exam):

A.1. used during classes
Books and scientific articles related to the selected specialty and/or the subject of the diploma project

A.2. studied by the student alone
Books and scientific articles related to the selected specialty and/or the subject of the diploma project</td></tr>
<tr><td>Supplementary literature</td><td>B. Supplementary Literature
Books and scientific articles related to the selected specialty and/or the subject of the diploma project</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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