


KAPITAŁ LUDZKI
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez
 Unię Europejską w ramach
 Europejskiego Funduszu
 Społecznego

UNIA EUROPEJSKA
 EUROPEJSKI
 FUNDUSZ SPOŁECZNY


Course title		ECTS code	
Manufacturing – process, quality control and assurance		13.3.0744	
Name of unit administrating study			
null			
Studies			
faculty	field of study	type	all
Faculty of Chemistry	Chemical Business	form	all
		specjalty	all
		specialization	all
Teaching staff			
prof. dr hab. inż. Marek Kwiatkowski			
Forms of classes, the realization and number of hours		ECTS credits	
Forms of classes		1	
Lecture		classes - 15 h	
The realization of activities		tutorial classes – 3 h	
classroom instruction		student's own work – 7 h	
Number of hours		Total: 25 h - 1 ECTS	
Lecture: 15 hours			
The academic cycle			
2024/2025 summer semester			
Type of course		Language of instruction	
obligatory		polish	
Teaching methods		Form and method of assessment and basic criteria for evaluation or examination requirements	
multimedia-based lecture		Final evaluation	
		Graded credit	
		Assessment methods	
		Final multiple choice test.	
		The basic criteria for evaluation	
		The basic criteria for evaluation or exam requirements	
		More than 50% correct answers in the test. Scoring scale in accordance with the Rules of Study, University of Gdańsk	
Method of verifying required learning outcomes			
Required courses and introductory requirements			
A. Formal requirements			
B. Prerequisites			
Basic knowledge of chemical technology and microeconomics			
Aims of education			
Aims of education			
Getting the students familiar with the most important issues specific for manufacturing in chemical industry.			
Course contents			
Course contents			
Manufacturing of chemicals economics. Main sectors of chemical industry. Continuous vs. batch processes. Energy management. Handling of mass streams. Organization of production process. In-process monitoring and quality control of the products. Importance of R&D, implementing new products. Environmental issues and risks related to chemical manufacturing. Concepts of sustainable development, green chemistry and lean production. Industrial quality assurance systems.			
Bibliography of literature			

Bibliography of literature

Literature required to pass the course

Lichniak I. (red.), Nauka o przedsiębiorstwie, Oficyna Wydawnicza SGH, Warszawa 2009.

Schmidt-Szałowski K., Sentek J. "Podstawy technologii chemicznej. Organizacja procesów produkcyjnych", Oficyna Wydawnicza PW, Warszawa 2001.

Synoradzki L., Wisiański J. "Projektowanie procesów technologicznych. Od laboratorium do instalacji przemysłowej", Oficyna Wydawnicza PW, Warszawa 2006.

Extracurricular readings

Gornowicz M., Romaniuk K., Szczubełek G., "Ekonomia produkcji", EXPOL, Olsztyn 2014, <http://www.uwm.edu.pl/pro-edu/upload/file/podreczniki/Zad.2/Ekonomia%20produkcji.pdf>

J. Szarawara, J. Piotrowski, Podstawy teoretyczne technologii chemicznej, WNT, Warszawa 2010

The learning outcomes (for the field of study and specialization)

Knowledge

Knowledge

Student comprehensively describes technical and organizational aspects of chemical manufacturing process, quality control and quality assurance; reflects on the environmental impact of chemical industry; discusses the issues related to implementing innovations in chemical production.

Skills

Skills

Student solves specific problems concerning organization of the chemical manufacturing, uses professional terminology.

Social competence

Social competence

Student prepares herself for final test based on the course content and literature available.

Contact

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