

Title (Wstęp do inżynierii chemicznej i procesowej)	Code 1010701111010720063
Field Chemical and Process Engineering	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: - Projects / seminars: -	Number of credits 2
	Language polish

Lecturer:

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Status of the course in the study program:

-Core course of the study programs for the branch "Chemical and process engineering"

Assumptions and objectives of the course:

The student should to get a knowledge of the genesis and history of chemical and process engineering, scope, basic concepts, education standards and graduate profile of the field of study on chemical and process engineering

Contents of the course (course description):

Genesis and history of chemical and process engineering in the world and in Poland. Chemical and process engineering the technological science using the fundamentals of physics, chemistry, mathematics, mechanics and process control as well as economics. This one deals with the systems and processes in which the matter transforms relatively to its state, content and real properties. Significance of chemical and process engineering in chemical, pharmaceutical, food and other processing industries as well as in thermal and nuclear power engineering, medicine, biotechnology and environment protection, taking into account the perspectives of graduate employment in a future. The knowledge and experiences acquired during study should permitted the graduates to take the base of an appreciation as well as description and interpretation of the transport phenomena and process engineering processes, the appreciation of the fundamentals of mass, content, energy and momentum balances, processes static (chemical and phase equilibrium), kinetics and dynamics of processes, processes proceedings in stationary and unstationary conditions, as well as process control and secure carry out, planning of experimental studies and interpretation and elaboration of their results, the appreciation of the fundamentals of product engineering and balanced technologies, expertise of the use the basic commercial programs and preparation of the own computer programs, the appreciation of the process and equipment design, process optimization as well as the use of literature and data bases.

Introductory courses and the required pre-knowledge:

Knowledge of mathematics, physics, chemistry and informatics of high-school level.

Courses form and teaching methods:

Multimedial lectures illustrated with examples.

Form and terms of complete the course - requirements and assessment methods:

The evaluation of the general knowledge related to study program and basic concepts (education subjects, unit processes and operations).

Basic Bibliography:

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Additional Bibliography:

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