

Title Chemical engineering and separation operations	Code 1010704261010720471
Field Chemical Technology	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 0 Classes: - Laboratory: 4 Projects / seminars: 20	Number of credits 8
	Language polish

Lecturer:

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Status of the course in the study program:

fundamental

Assumptions and objectives of the course:

The student should to get a knowledge concerned with the theory and the praxis in the both, one- and multiphase flow design as well as with analysis of the heat and mass transfer in industrial operations.

Contents of the course (course description):

Shearing characteristics of a fluid. Flow of one-phase rheostable fluids. Non-Newtonian technology. Multiphase systems flows and processing operations. Separation operations (particle settling, sedimentation, filtration, flotation, distillation, rectification, crystallization). Heat exchange processes. Humidification and water cooling. Mass exchange processes: classification, mechanisms. Diffusion, mass transfer and absorbers. Heat-mass transfer processes. Optimization and enhancement of transfer processes.

Introductory courses and the required pre-knowledge:

Theoretical principles for currently analyzed questions in design and laboratory praxis.

Courses form and teaching methods:

laboratory + projects

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

Permanent control during the courses and laboratory training, preparation of the 2 individual projects and their defense, final examination after semester 6 (written-oral).

Basic Bibliography:

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Additional Bibliography:

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