

# **UNIVERSITY OF PANNONIA**

## **COURSE DATASHEET**

Semester:	2016/17/1
Course:	Individual design project
Code:	VEMKVVM236T
Responsible department:	Institute of Chemical and Process Engineering
Department code:	MKVV2
Responsible instructor:	dr. Sándor Németh

### Course objectives:

The Individual Design Project has an important role in the chemical engineering master program. The objectives of this form of instruction are that the students:

a) get experience in the process of chemical engineering design ranging from the concepts to the elaboration of the detailed design,

b) practise the application of chemical engineering knowledge learnt in different subjects at a level close to industrial practice as much as possible,

- c) approach the design problem in a sraight forward and creative way,
- d) be able to write comprehensive, detailed technical reports,
- e) meet the accreditation requirements of IChemE.

### Course content:

1/ Formulation of the design problem (product, unit, or control system or safety system)

- 2/ Literature
- 3/ Thermodynamic, physical and chemical properties
- 4/ Detailed design of product or unit or control system or safety system.
- 5/ Insert the new system into the technology.
- 6/ Starting and stopping. (optional)

7./ HAZOP study.

- 7/ Lifecycle analysis, study of environmental problems (in case of unit design)
- 8 Energetics analysis (in case of unit design)
- 9/ Costing and project evaluation

10/ Discussion

### Requirements, evaluation and grading:

The interim requirements are decided first of all by the supervisor and the consultants. The marks are determined, based on the instructors' assessment, in a grading conference.

### Required and recommended readings:



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#### Required and recommended readings:

References can be found on the Moodle learning system.