

§ 35 Studiengang Process Engineering

Objective

- (1) The master's degree programme Process Engineering (MPE) enables graduates of appropriate bachelor's degree programmes to consolidate and expand their knowledge in selected areas of process engineering, environmental protection, biotechnology, and food engineering.

Structure

- (2) MPE is organized jointly by Uniwersytet Warmińsko-Mazurski (UWM) in Olsztyn, Poland, and Hochschule Offenburg (University of Applied Sciences, HSO), Germany. As a rule it comprises three terms. Terms MPE1 at HSO and MPE2 at UWM are modularly structured theoretical terms, and can be taken in reversed order. During term MPE3 the master's thesis is produced, either at one of the participating universities or externally in a suitable company or research institution.
- (3) For successful completion of the programme a minimum of 90 C (credit points according to ECTS) is required.
- (4) Individual university regulations apply at HSO and UWM with respect to their contributions. These regulations govern for example: admission to the programme, type, execution and marking of examinations including repeat examinations, thesis proceedings, absence from courses and examinations, or exclusion from the programme.
- (5) Tuition and learning language usually is English.
- (6) The programme is more research orientated, leading to an M.Sc. (Master of Science).

Admission

- (7) The programme has a nominal capacity of 20 students per academic year. In average half the places are allocated to each of the two participating universities.
- (8) As a rule, admission takes place consecutively for graduates of the seven term, 210 C bachelor's degree programmes Inżynieria Ekologiczna (environmental protection), Inżynieria Chemiczna (chemical engineering), and Technologia Żywności (food technology) at UWM for the summer term, as well as Verfahrenstechnik (process engineering) at HSO for the winter term. Graduates of comparable programmes at other universities can be enrolled at HSO for the winter term if qualified by outstanding academic or professional performance. A list of suitable first degree subjects is included in the admission regulations.
- (9) Students applying for MPE who have a first degree comprising less than 210 C (or equivalent) and who cannot prove other creditable academic or professional achievements are required to enrol for an additional internship with a workload of up to 30 C. During the internship a scientific project is to be performed inside or outside the university. A written report (BE) is to be submitted, to be assessed by the supervisor as either pass or fail.

Curriculum

- (10) Semester MPE 1 takes place at HSO, Department of Mechanical and Process Engineering. There is a choice between two elective modules, Biotechnical Process (module MPE-12) and Renewable Energy Conversion (module MPE-13). Courses start around October 1. For the second semester at UWM two options are currently offered, Environmental Protection and Biotechnology at the Department of Environmental Biotechnology, and Food Technology at the Department of Food Engineering. Courses start on the first Monday in March.

- (11) Table 1 comprises a list of all Modules. For administrative reasons, the complete semester at the host institution is represented as one module. More information about the individual modules and subjects can be found in the MPE module handbook.

Table 1: Modules and Courses:
 courses, workloads, examinations, weights of marks

term	module no.	module name	C	no.	subject	type	SWS	C	exam	wt.
MPE1	MPE-12 (elective)	Biotechnical Processes	8	M+V933	Dimensioning Biotechnical Processes	V	4	4	K90	1/2
				M+V934	Laboratory Biotechnical Processes	L	4	4	LA	1/2
	MPE-13 (elective)	Renewable Energy Conversion	8	M+V926	Thermochemical Conversion Processes 1	V	2	2	K90	1/2
				M+V927	Thermochemical Conversion Processes 2	V	2	2		
				M+V929	Technical School Renewable Energy Conversion 1	L	2	2	LA	1/2
				M+V930	Technical School Renewable Energy Conversion 2	L	2	2		
	MPE-14	Advanced Process Engineering	8	M+V928	Biotechnological Conversion Processes	V	2	2	K60	1/4
				M+V931	Chemical Engineering	V	2	2	K60	1/4
				M+V932	Technical School Process Engineering	L	2	2	LA	1/4
				M+V913	Water Processing	V	1	2	K60	1/4
	MPE-15	Plant Safety and Control	4	M+V912	Safety Engineering	V	2	2	K60	1/2
				M+V916	Process Control Engineering	V	2	2	K60	1/2
	MPE-16	Non-Technical Competences	10	M+V915	Public Relations	V+S	2	2	RE	1/5
				1)	electives	1)	1)	8	1)	4/5

term	host institution	C	no.	Elective module number and name	C	exam	wt.
MPE2	UWM, Faculty of Environmental Sciences	30	M+V940	MPE-21 Environmental Protection and Biotechnology	30	2)	1
	UWM, Faculty of Food Sciences	30	M+V941	MPE-22 Food Engineering	30	2)	1

term	module no.	module name	C	no.	subject	type	SWS	C	exam	wt.
MPE3	MPE-31	Master's Thesis ³⁾	30	M+V936	Master's Thesis	WA	-	24	AA	1
				M+V937	Presentation and Defence	S	-	6	RE	
<i>total</i>			90					90	³	

1) depending on choice of electives

2) according to regulations at host institution

3) weight of AA 4/5 and of RE 1/5, module grade to be fixed by thesis supervisor; different module structure at host institution

Abbreviations:

workload: C = credit points (ECTS), SWS = class hours per week (at 45 minutes each),
 wt = weight of mark within module;

types of class: L = laboratory class, P = practical work, S = seminar, V = lecture,
 WA = scientific work;

types of examination: AA = master's thesis, HA = scientific homework, K60/K90/K120 = written test of
 60/90/120 minutes duration, LA = laboratory report, RE = oral presentation

- (12) Term MPE1 offers options according to personal interest. From the two elective modules MPE-12 (Biotechnical Processes) and MPE-13 (Renewable Energy Conversion), one is to be chosen. For module MPE-16 a list of elective courses is published at the beginning of the term. Due to capacity, elective courses must be attended by least eight students. Consequently not all offers will materialize. From the language courses a maximum of two can be acknowledged and only with a maximum of two credits per course. A language course cannot be chosen by students who are native speakers of that language or who were largely educated in it. Additional courses may be attended and will on request be listed in the table of marks, but without counting for the grade.
- (13) Individual exams may take place outside the regular examination periods. In this case the precise date will be officially announced at least four weeks before the exam.
- (14) Work for the master's thesis normally commences after terms MPE1 and MPE2 have been successfully concluded. The duration of the master's thesis is six months from the date of the start of the project as stated on the registration form to be submitted to the examination office. The oral presentation of the thesis and the defence generally take place at the university and are public.

Grading

- (15) If a module is composed of several individually market subjects, the individual marks are weighted within the module mark with the Respective number of credit points. All module marks are in turn weighted in the final grade with their respective C. A module is considered completed successfully, once all individual examinations have been passed successfully. A term is considered complete once all modules of the term have been completed successfully.
- (16) A correlation between the Polish and the German grading scales is given in table 2. When converting Polish into German grades, the better of the two options is usually chosen, except 2,0 (fail) which is always translated into 5,0. When converting Polish fractional average into German grades, the boundary between two adjacent fields corresponds to the mean value of the numbers shown in the two fields. Within a field, the better of the two German options is chosen when the fractional number is as least as high as, and the worse one when it is lower than the number shown in the respective field.

Table 2: Correlation of Polish and German Scales of Marks

UWM, Olsztyn		HS Offenburg	
5,0	excellent (bardzo dobry)	1,0 1,3	excellent (sehr gut)
4,5	very good (dobry plus)	1,7 2,0	good (gut)
4,0	good (dobry)	2,3	
		2,7	satisfactory (befriedigend)
3,5	satisfactory (dostateczny plus)	3,0 3,3	
3,0	sufficient (dostateczny)	3,7 4,0	pass (ausreichend)
2,0	fail (niedostateczny)	4,3 4,7 5,0	fail (ungenügend)