

§ 35 Studiengang Process Engineering

Objective of the Programme

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

Structure of the Course

- (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. During term MPE3 the master's thesis is produced, either at one of the participating universities or externally in a suitable company or institute.
- (3) The programme is more research orientated.
- (4) Tuition and learning language usually is English.
- (5) For a successful completion of the programme a minimum of 90 C (credit points according to ECTS) is required.

Admission to the Course

- (6) The programme has a capacity of 20 students per academic year. Half of the places are allocated to each of the two universities listed in section (2). Admission is governed by the individual regulations for admission of the two universities.
- (7) For graduates of the seven-terms, 210 C bachelor's degree programmes Verfahrenstechnik (process engineering) at HSO, and Inżynieria Ekologiczna (environmental protection) at UWM, admission takes place consecutively at UWM for the summer term and at HSO for the winter term. Graduates of comparable programmes at other universities can be admitted at HSO for the winter term if qualified by outstanding academic or professional performance. MPE is also open to graduates of other branches of study. A list of suitable first degrees is included in the regulations for admission.
- (8) Students applying for MPE who have a first degree comprising less than 210 C (or equivalent) and who can not prove other recognizable academic or professional achievements are required to enrol for an additional internship, with a workload of up to 30 C, before the master's degree can be awarded. During the internship a scientific project is to be performed inside or outside the university. The grade for the internship is documented on a separate certificate, and is calculated from the grade for the written report (no. M+V938, BE, weighted 0.8), and that for the oral presentation of the project (no. M+V939, RE, weighted 0.2).

Study and Examination Schedule

- (9) Modules MPE-12 to 16 in term MPE1 take place at HSO, modules MPE-21 to MPE-25 in term MPE2 at UWM. The UWM courses usually start on the first Monday of March. This requires an obligatory international relocation at the end of February, immediately after the examination period at HSO.
- (10) The mandatory and elective modules including their individual subjects are listed in table 1.

Table 1: Modules and Subjects:
type and volume of classes, achievable credit points, type of examination, weight 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 ₁	Public Relations electives	V+S ₂	2 ₂	2 ₈	RE ₂	1/5 _{4/5}
MPE2	MPE-21	Analytical Training	7	M+V917	Analytical Training	L	3	7	LA K60	2/5 3/5
	MPE-22	Analytical Methods in Biological Systems	7	M+V918	Analytical Methods in Biological Systems	L	3	7	LA K60	2/5 3/5
	MPE-23	Writing Scientific Papers	4	M+V919	Writing Scientific Papers	S	2	4	HA	1
	MPE-24	Environmental Protection	6	M+V920	Biotechnology in Environmental Protection	V+L	2	3	K60	5/10
				M+V935	Biological Waste Water Treatment	V+L	2	3	TE K120	1/10 4/10
	MPE-25	Genetic Analysis	6	M+V922	Toxicology	V+L	2	3	LA K60	2/10 3/10
				M+V923	Techniques of Genetic Engineering	V+L	2	3	LA K60	2/10 3/10
MPE3	MPE-31	Master's Thesis	30	M+V936	Master's Thesis	WA	-	24	AA	4/5
				M+V937	Presentation and Defence	S	-	6	RE	1/5
total			90				43 ²	90 ³	³	

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 and K90 and K120 = written test of 60, 90 or 120 minutes duration, LA = laboratory report, RE = oral presentation, TE = entry test

- (11) Term MPE1 offers several 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 each winter term. Due to capacity an elective course must be attended by least eight students. Consequently not all offers will eventually automatically materialize. From the language courses a maximum of two can be acknowledged and with a maximum of two credits per course only. A language course can not 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.

Examinations, Marks

- (12) The general university regulations individually valid at HSO and UWM apply only for their own respective courses. These regulations govern for example scale and determination of marks, absence from courses and examinations, execution of repeat examinations, or exclusion from the programme.
- (13) A correlation between the Polish and the German scales of marks is given in table 2. When translating Polish into German marks, the better of the two options is normally to be chosen. Exception: the Polish mark 2,0 (fail) is to be principally translated into 5,0 in the German scale.

Table 2: Correlation of the Scales of Marks

UWM, Olsztyn		FHO, 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	
3,5	satisfactory (dostateczny plus)	3,0 3,3	satisfactory (befriedigend)
3,0	pass (dostateczny)	3,7 4,0	pass (ausreichend)
2,0	fail (niedostateczny)	4,3 4,7 5,0	fail (ungenügend)

- (14) If a module is composed of several individually marked subjects, all individual marks are incorporated into the module mark weighted with the number of credit points for the corresponding subjects. The module marks in turn are 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.

- (15) The work for the master's thesis can normally be started only after the terms MPE1 and MPE2 have been successfully concluded. The duration of the master's thesis is six months from the date for the start of the project 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.

¹ depending on choice

² SWS counted with subjects from module MPE-12

³ 9 K, 4 LA, 1 HA, 2 RE, 1 M and AA excluding seminars and electives in module MPE-16