

## **Master's Degree Program "Biotechnology" (MBT)**

### **Objective**

- (1) The Master's degree program Biotechnology (MBT) enables students with an appropriate Bachelor's degree or equivalent qualification to consolidate and expand their knowledge in biotechnology, with a focus on bioeconomy.

### **Structure**

- (2) MBT is organized jointly by Uniwersytet Warmińsko-Mazurski (UWM) in Olsztyn, Poland, and Hochschule Offenburg (University of Applied Sciences, HSO) in Offenburg, Germany. The program normally takes three semesters to complete. Semesters MBT1 at HSO and MBT2 at UWM are modularly structured, theoretical semesters. During semester MBT3, the Master's thesis is produced, either at one of the participating universities or externally at a suitable company or research institution.  
For students applying with a 180-credit Bachelor's degree, see (9).
- (3) For successful completion of the program, a minimum of 90 C (credit points according to ECTS) is required.
- (4) Individual regulations apply at HSO and UWM with respect to their contributions. These regulations govern, for example, admission to the program; type, execution and grading of examinations including repeat examinations; thesis proceedings; absence from courses and examinations; and exclusion from the program.
- (5) The teaching and learning language is usually English.
- (6) The program is more research-oriented, leading to a M.Sc. (Master of Science).

### **Admission**

- (7) As a rule, admission takes place consecutively for graduates of the seven-semester, 210 C Bachelor's degree programs in the field of Biotechnology at UWM for the summer semester, as well as Biotechnology at HSO for the winter semester. Graduates of comparable programs at other universities can be enrolled at HSO for the winter semester if qualified by outstanding academic or professional performance. A list of suitable first-degree subjects is included in the admission regulations.
- (8) Students applying for MBT who have a first degree comprising less than 210 C (or equivalent), and who cannot prove other recognizable academic or professional achievements, are required to enroll for an additional scientific project or to pass courses from a given course catalogue with a workload of up to 30 C, before the Master's degree can be awarded.

### **Curriculum**

- (9) The first semester, MBT1, takes place at HSO (Department of Mechanical and Process Engineering). Courses start around October 1. The second semester, MBT 2, takes place at UWM. Courses start on the first Monday in March.
- (10) Table 1 shows a list of all modules. More information about the individual courses can be found in the MBT Module Handbook. A list of available electives is published before the beginning of the semester. It is valid for the current semester.

Table 1: Modules and Courses  
(Courses, workloads, examinations, weightings)

Semester	Module No.	Module Title	C	Course No.	Course Title	Course Type	SWS	C	Exam	Weight
MBT1	MBT-11	Biotechnological Processes from Lab to Market	10		Biotechnological Processes from Lab to Market	V	4	4	K90	2/5
					Biotechnical Processes from Lab to Market – Lab	L	4	6	LA	3/5
	MBT-12	Safety and Control in Biotechnology	4		Regulatory affairs and Safety in Biotechnology	V	2	2	OE	1/2
					Process Control Engineering	V	2	2	K60	1/2
	MBT-13	Bioeconomy	10		Bioenergy	V	2	2	K60	1/5
					Bioenergy – Lab	L	2	2	LA	1/5
					Biobased Industry	V+S	4	6	RE	3/5
	MBT-14	Non-Technical Competences	6		Bioperspectives and Bioethics	S	2	2	RE	1/3
				<sup>1)</sup>	Electives	<sup>1)</sup>	<sup>1)</sup>	4	<sup>1)</sup>	2/3

Semester	Host Institution	30	No.	Subject			Weight
MBT2	UWM, Dept. of Environmental Sciences / Dept. of Food Sciences			MBT-21 Food and Environmental Biotechnology	30	<sup>2)</sup>	1

Semester	Module No.	Module Title	C	Course No.	Course Title	Course Type	SWS	C	Exam	Weight
MBT3	MBT-31	Master's Thesis <sup>3)</sup>	30	M+V936	Master's Thesis	WA	-	28	AA	1
				M+V937	Presentation and Defense	S	-	2	RE	
<b>Total</b>			<b>90</b>					<b>90</b>		

<sup>1)</sup> Depending on choice of electives

<sup>2)</sup> According to regulations at host institution

<sup>3)</sup> Weight of AA 9/10 and of RE 1/10, module grade to be determined by thesis adviser; different module structure at host institution

Abbreviations:

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

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

Examination type: AA = Master's thesis, HA = scientific homework, K60/K90/K120 = written exam of 60/90/120 minutes duration, LA = laboratory report, RE = oral presentation. OE = oral exam

- (11) Work for the Master's thesis normally commences after semesters MBT1 and MBT2 have been successfully completed. The duration of the Master's thesis is six months from the project starting date, as stated on the registration form to be submitted to the examination office. The oral presentation of the thesis and the defense generally take place at the university and are open to the public.

## Grading

- (12) If a module is composed of several, individually graded courses, the module grade is calculated by the individual grades, weighted by the respective number of credit points. All module grades are in turn weighted by their respective credits to calculate the final grade. A module is considered completed successfully when all of its individual examinations have been passed successfully. A semester is considered completed successfully when all modules of the semester have been completed successfully.
- (13) A correlation between the Polish and German grading scales is given in Table 2. When ‘translating’ Polish into German grades, the better of the two options is usually chosen, except for 2,0 (fail), which is always translated as 5,0.

Table 2: Correlation of Polish and German Scales of Grades

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