

### MSc Biomedical Engineering Module Dashboard – 2024/2025

General Stream Modules			
	ECTS	Code	Semester
Biomaterials	5	ME5M20	1
Biomechanics	5	ME5M19	1
Case Study/Design/Innovation	10	ME7B18	2
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Research Project	40	ME7B08	1 & 2
Total Mandatory	65		
<i>Select modules amounting to 25 ECTS from the following 5/10 ECTS modules:</i>			
Active Implanted Devices and Systems***	10	MEP55BM8	2
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences*	5	ME7B04	1
Finite Element Analysis**	5	MEP55B10	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Medical Device Design Innovation Project****	10	MEP56BM1	1 & 2
Tissue Engineering	5	ME5BIO3	2
Total ECTS	90		
Medical Device Stream Modules			
	ECTS	Code	Semester
Biomaterials	5	ME5M20	1
Biomechanics	5	ME5M19	1
Case Study/Design/Innovation	10	ME7B18	2
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Medical Device Design Innovation Project	10	MEP56BM1	1 & 2
Research Project	40	ME7B08	1 & 2
Total Mandatory	80		
<i>Select modules amounting to 10 ECTS from the following 5/10 ECTS modules:</i>			
Active Implanted Devices and Systems***	10	MEP55BM8	2
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences*	5	ME7B04	1
Finite Element Analysis**	5	MEP55B10	1
Tissue Engineering	5	ME5BIO3	2
Total ECTS	90		
Neural Engineering Stream Modules			
	ECTS	Code	Semester
Active Implanted Devices and Systems	10	MEP55BM8	2
Case Study/Design/Innovation	10	ME7B18	2
Data science in Neuroimaging	5	PR7917	2
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Form and Function of Nervous System (FNF)	5	PG7901	1
Neural Engineering	5	PG7914	1
Neural Signal Analysis	10	MEP55B21	1
Research Project	40	ME7B08	1 & 2
Total ECTS	90		
Tissue Engineering Stream Modules			
	ECTS	Code	Semester
Biomaterials	5	ME5M20	1
Case Study/Design/Innovation	10	ME7B18	2
Current Topics in Cell and Tissue Engineering	10	ME7B09	1 & 2
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Laboratory Techniques in Cell & Tissue Engineering	5	ME7B16	1
Research Project	40	ME7B08	1 & 2
Tissue Engineering	5	ME5BIO3	2
Total Mandatory	80		
<i>Select 2 of the following 5 ECTS modules:</i>			
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences*	5	ME7B04	1
Biomechanics	5	ME5M19	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Total ECTS	90		

\*Mandatory for students with no prior Biology/Biomedical Background

\*\*Must have approval from module co-ordinator to take module (can be discussed week one of term)

\*\*\* Module pre-requisites: ME7B04 Basic Medical Sciences, PG7901 Form and Function of Nervous System or equivalent knowledge plus supplementary reading as advised by module coordinator

\*\*\*\* This module must be taken with MEP56BM9 in the General Stream