MSc Biomedical Engineering Module Dashboard – 2023/2024

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**		
Select modules amounting to 25 ECTS from the following 5/10 ECTS modules:			
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
Form and Function of Nervous System*** & ****	5	PG7901	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**		
Select modules amounting to 10 ECTS from the following 5/10 ECTS modules:			
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
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 Mandatory	**85**		
Select 1 of the following 5 credit modules:			
Data science in Neuroimaging	5	PR7917	2
Introduction to Autonomous Mobile Robotics	5	MEP55B12	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**		
Select 2 of the following 5 ECTS modules:			
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences*	5	ME7B04	1
Biomechanics	5	ME5M19	1
Finite Element Analysis**	5	MEP55B10	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)
***General Stream – must choose between MEP56BM9 & PG7901 – cannot be taken together due to timetable clashes
****Subject to meeting pre-requisite criteria as set out in the module descriptor & recommended to take together (MEP55BM8 & PG7901)