

MSc Biomedical Engineering Module Dashboard – 2025/2026 - Total ECTS 90

General Stream Modules	ECTS	Code	Semester
Semester 1 Mandatory			
Biomaterials	5	ME5M20	1
Biomechanics	5	ME5M19	1
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Semester 2 Mandatory			
Active Implanted Devices and Systems	10	MEP55BM8	2
Semester 1 & 2 Mandatory			
Research Project	40	ME7B08	1 & 2
Total Mandatory	70		
<i>Select modules amounting to 10 ECTS from <u>each</u> semester:</i>			
Semester 1 options			
Finite Element Analysis**	5	MEP55B10	1
Multibody Dynamics	5	MEP55B18	1
Neural Signal Analysis	10	MEP55B21	1
Semester 2 options			
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences / Applied Health Sciences*	5	ME7B04	2
Tissue Engineering	5	ME5BIO3	2
Total ECTS	90		
Medical Device Stream Modules	ECTS	Code	Semester
Semester 1 Mandatory			
Biomaterials	5	ME5M20	1
Biomechanics	5	ME5M19	1
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Semester 2 Mandatory			
Active Implanted Devices and Systems	10	MEP55BM8	2
Semester 1 & 2 Mandatory			
Medical Device Design Innovation Project	10	MEP56BM1	1 & 2
Research Project	40	ME7B08	1 & 2
Total Mandatory	80		
<i>Select 10 ECTS Module from <u>each</u> Semester</i>			
Semester 1 options			
Finite Element Analysis**	5	MEP55B10	1
Multibody Dynamics	5	MEP55B18	1
Semester 2 options			
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences / Applied Health Sciences*	5	ME7B04	2
Total ECTS	90		
Neural Engineering Stream Modules (all compulsory)	ECTS	Code	Semester
Semester 1 Mandatory			
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Form and Function of Nervous System (FNF)	5	PG7901	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Neural Engineering	5	PG7914	1

Neural Signal Analysis	10	MEP55B21	1
Semester 2 Mandatory			
Active Implanted Devices and Systems	10	MEP55BM8	2
Data science in Neuroimaging	5	PR7917	2
Introduction to Machine Learning	5	CSP7001	2
Semester 1 & 2 Mandatory			
Research Project	40	ME7B08	1 & 2
Total ECTS	90		
Tissue Engineering Stream Modules (all compulsory)	ECTS	Code	Semester
Semester 1 Mandatory			
Biomaterials	5	ME5M20	1
Biomechanics	5	ME5M19	1
Experimental & Research Methods in Biomedical Engineering	5	ME7B24	1
Laboratory Techniques in Cell & Tissue Engineering	5	ME7B16	1
Medical Device Design Fundamentals	5	MEP56BM9	1
Semester 2 Mandatory			
Advanced Medical Imaging	5	ME5BIO7	2
Basic Medical Sciences / Applied Health Sciences*	5	ME7B04	2
Tissue Engineering	5	ME5BIO3	2
Semester 1 & 2 Mandatory			
Current Topics in Cell and Tissue Engineering	10	ME7B09	1 & 2
Research Project	40	ME7B08	1 & 2
Total ECTS	90		
*Mandatory for students with no prior Biology/Biomedical Background - PGU11007 / PGU11006 / PGU22001 - Alternate codes for Allied Health Sciences			
**Must have approval from module co-ordinator to take module (can be discussed week one of term)			