

Modules

A. Compulsory Modules

You must take the individual project

Code	Title	ECTS	Pass-mark	Assessments		
BIOE70004	MEng Biomedical Engineering Individual Project	30	50%	Written report	10%	Planning report
				Presentation	20%	Oral presentation
				Written report	70%	Final report

B. Technical elective modules

You must take five electives from this table. At least three must be modules in Dept of Bioengineering.

Code	Title	ECTS	Pass mark	Assessments		
BIOE70030	Physiological Fluid Mechanics	5	50%	Written exam	50%	Main exam
				Problem sheet	15%	Coursework 1
				Written report	15%	Essay
				Quiz	20%	Quiz
BIOE60013	Tissue Engineering and Regenerative Medicine	5	40%	Written exam	60%	Main exam
				Poster	40%	Group poster
BIOE60014	Biomechanics	5	40%	Written exam	70%	Main exam
				Problem sheet	15%	Coursework 1
				Problem sheet	15%	Coursework 2
BIOE60015	Advanced Imaging Technologies for Systems Biology	5	40%	Written exam	100%	Main exam
BIOE70001	Application Specific Integrated Circuits for Bioengineers	5	50%	Progress test	15%	Progress test
				Written report	35%	Block Simulation Coursework
				Written report	50%	IC Block Layout Coursework
BIOE70003	Animal Locomotion and Bioinspired Robots	5	50%	Written report	10%	PDW simulation problem set
				Presentation	10%	PDW Journal club
				Written report	10%	Motor tuning report
				Written report	10%	Visual guidance report
				Written report	10%	Target tracking group report
				Written report	10%	PDW group report + PDW tuning map & performance
				Presentation	10%	Obstacle avoidance
				Presentation	30%	RoboRace
BIOE70007	Advanced Synthetic Biology	5	50%	Presentation	20%	Mini-IGEM presentation
				Poster	50%	Mini-iGEM Project - Poster and parts list
				Written report	15%	Computer modelling
				Written report	15%	Post note exercise
BIOE70008	Advanced Physiological Monitoring and Data Analysis	5	50%	Written exam	100%	Main exam
BIOE70010	Principles of Biomedical Imaging	5	50%	Written exam	100%	Main exam
BIOE70011	Brain Machine Interfaces	5	50%	Written exam	50%	Main exam
				Written report	50%	BMI competition.

BIOE70012	Biomimetics	5	50%	Presentation	20%	Journal club
				Poster	80%	Poster & proposal
BIOE70013	Computational Neuroscience	5	50%	Written exam	100%	Main exam
BIOE70016	Human Neuromechanical Control and Learning	5	50%	Written exam	80%	Main exam
				Written report	4%	Tutorial 1
				Written report	4%	Tutorial 2
				Written report	4%	Tutorial 3
				Written report	4%	Tutorial 4
				Written report	4%	Tutorial 5
BIOE70017	Molecular, Cellular and Tissue Biomechanics	5	50%	Written exam	80%	Main exam
				Written report	10%	Article analysis
				Problem sheet	10%	MCTBM CW
BIOE70019	Orthopaedic Biomechanics	5	50%	Written exam	76%	Final exam
				Problem sheet	8%	Problem sheet 1
				Problem sheet	8%	Problem sheet 2
				Problem sheet	8%	Problem sheet 3
BIOE70005	Cellular and Molecular Mechanotransduction	5	50%	Written exam	80%	Main exam
				Written report	20%	Assessing cytoskeleton
BIOE70020	Neuroscience	5	50%	Written exam	100%	Main exam
BIOE70033	Biomaterials for Bioengineers	5	50%	Written exam	75%	Main exam
				Quiz	25%	Multiple choice quiz
BIOE70035	Non-Ionising Functional and Tissue Imaging	5	50%	Written exam	100%	Main exam
BIOE70056	Biomaterials for Biomedicine and Sustainability	5	50%	Written exam	60%	Main exam
				Presentation	40%	Presentation
BIOE70076	Communicating Biomedical Science and Engineering	5	50%	Written report	30%	Teaching activity report
				Other	20%	Teacher
				Presentation	20%	Summary presentation
				Written report	30%	Reflective e-journal
BIOE70149	Nanotechnologies for cancer diagnosis and cancer therapy	5	50%	Written exam	60%	Main exam
				Written report	40%	Research project
BIOE70077	Reinforcement Learning for Bioengineers	5	50%	Written report	50%	Coursework 1
				Written report	50%	Coursework 2
BIOE70150	Artificial Intelligence for Drug Discovery	5	50%	Written exam	75%	Main exam
				Progress test	25%	Progress test
COMP70090	Graphics	5	50%	Assessments set by the home department		
DESE71020	Design for Additive Manufacturing	5	50%	Assessments set by the home department		
ELEC70001	Adaptive Signal Processing and Machine Intelligence	5	50%	Assessments set by the home department		
ELEC70003	Advanced Electronic Devices	5	50%	Assessments set by the home department		
ELEC70004	Analogue Signal Processing	5	50%	Assessments set by the home department		
ELEC70013	High Performance Analogue Electronics	5	50%	Assessments set by the home department		
ELEC70022	Modelling and Control of Multi-body Mechanical Systems	5	50%	Assessments set by the home department		
ELEC70024	Optimisation	5	50%	Assessments set by the home department		
ELEC70031	Radio Frequency Electronics	5	50%	Assessments set by the home department		
ELEC70070	Information Theory	5	50%	Assessments set by the home department		
MECH70012	Finite Element Analysis and Applications	7	50%	Assessments set by the home department		
MECH70015	Computational Fluid Dynamics	5	50%	Assessments set by the home department		
MECH70024	Computational Continuum Mechanics	5	50%	Assessments set by the home department		
MECH70044	Tribology	5	50%	Assessments set by the home department		
MECH70050	Machine Dynamics and Vibrations	5	50%	Assessments set by the home department		

C. Non-technical elective modules

You must take one elective from this table

Code	Title	ECTS	Pass-mark	Assessments		
BIOE70014	Medical Device Entrepreneurship	5	50%	Written report	100%	Module report
BIOE70028	Medical Device Certification	5	50%	Written report	10%	Risk Analysis
				Written report	10%	Specification
				Written report	80%	Group technical file
BUSI60022	Leading Teams & Organisations	5	40%	Set by BPES		
BUSI60041	Entrepreneurship	5	40%	Set by BPES		
BUSI60043	Finance and Financial Management	5	40%	Set by BPES		
BUSI60038	Business Economics	5	40%	Set by BPES		
BUSI60045	Managing Innovation	5	40%	Set by BPES		
BUSI60046	Project Management	5	40%	Set by BPES		
BUSI60039	Business Strategy	5	40%	Set by BPES		
BUSI60037	Accounting Online	5	40%	Set by BPES		

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Explanation of table

For each module:-

- 'ECTS' is an indication of how much time should be spent on the module in total, where 1 ECTS credit is 25-30 hours. This includes all teaching, private study, revision and assessment. There are 60 ECTS in the year. Each taught module contributes 8.33% to the year mark, and the project contributes 50%. To graduate, at the end of year 3 and year 4, MEng students must have passed 60 ECTS at level 7, another 60 ECTS at level 6 or level 7, as well as passing year 1 (ie 60 ECTS at level 4) and year 2 (ie 60 ECTS at level 5).
- Module 'pass-mark' indicates what mark must be achieved in the module to pass it, taking all assessments in that module into account. This is normally 50% for level 7 modules and 40% for level 6 modules.
- 'Assessments' indicate the type of each assessment within the module, the weighting of each assessment within the module, and the name of the assessment

GUIDANCE NOTES

Contribution to final degree marks

- MEng year weightings
- The weightings for the MEng degree mark are 7.5%, 20%, 36.25%, 36.25% for years 1, 2, 3, 4 respectively.

Rules for Year 4

- In year 4 students must take the compulsory project module and six taught modules. If a BPES module has been taken in year 3, these may all be technical options otherwise they will be five technical modules and one non-technical module.
- In order to pass year 4, a student must:
 - Achieve a mark of at least 50% for the project.
 - Achieve a pass-mark in each taught module (50% for level 7 modules, 40% for level 6 modules).
- If a student takes more than the minimum number of modules, the best five technical modules marks and the best non-technical module mark will be used in the year mark calculation if the student is required to take a non-technical module, or the best six modules otherwise.
- Students need to have taken at least 60 ECTS of level 7 modules across years 3 and 4.

What if I fail modules?

Compensation

A module is failed if its overall mark is below the pass-mark. However, under the following circumstances the module may be 'compensated' – ie considered a pass:-

- The module mark can be no further than 10% below the pass-mark.
- Compensation is at Exam Board discretion.
- A student can have no more than 15 ECTS of compensated modules in year 4.

Resits

Students are permitted resits in accordance with the Departmental resit policy:-

- In the absence of approved mitigating circumstances, and following any application of any compensation as described above, Year 4 students who have failed modules at first attempt will normally be:
 - offered a capped in-year re-assessment opportunity of failed modules (normally if they have passed at least 45 ECTS in that year of programme.)
 - required by the Exam Board to retake the year in attendance, retake the failed modules, or resit the failed modules' assessments in the following year, (normally if they have passed at least 30 ECTS but fewer than 45) in that year of programme.
 - required to withdraw from the programme if they have demonstrated significant failure (as determined by the Exam Board – but normally defined as less than 30 ECTS passed at the first assessment opportunity).
- For non-completing students after in-year re-assessments have taken place, the Board of Examiners' decisions will normally be determined by clauses 163 and 166 of the Regulations of Taught Programmes of Study.
- For students with accepted mitigating circumstances affecting assessments:-
 - It is ultimately the Exam Board that decides on any action to be taken in response to accepted mitigation.
 - If the module is passed, there is normally no further action, but the mitigation can be taken into account at the final degree exam board (clause 158 of the Regulations of Taught Programmes of Study).
 - If the module is not passed, a deferred attempt at the affected assessment will normally be offered in the summer resit period as an opportunity to complete. If the student has multiple affected assessments, the student can choose to take all or some of these during the summer re-assessment period or return to take them at the next available opportunity. However, advice will be offered to the student by Board of Examiners, the Director of Teaching, the Academic Tutor and the Student Well-being Adviser.