Imperial College London

DEPARTMENT OF BIOENGINEERING Regulations for the award of Honours **MEng Molecular Bioengineering 2024-25**

Modules
A. Compulsory Modules
You must take the individual project

Code	Title	ECTS	Pass- mark	Assessments				
BIOE70057	MEng Molecular Bioengineering Individual Project	35	50%	Written report	10%	Planning report		
				Presentation	20%	Oral presentation		
				Written report	70%	Final report		

B. <u>Technical elective modules</u>
You must take four electives from this table.

Code	Title	ECTS	Pass- mark	Assessments				
BIOE60015	Advanced Imaging Technologies for Systems Biology	5	40%	Written exam	100%	Main exam		
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		
BIOE70020	Neuroscience	5	50%	Written exam	100%	Main exam		
BIOE70056	Biomaterials for Biomedicine and Sustainability	5	50%	Written exam	60%	Main exam		
				Presentation	40%	Presentation		
BIOE70149	Nanotechnologies for cancer diagnosis and cancer therapy	5	50%	Written exam	60%	Main exam		
				Written report	40%	Research project		
BIOE70012	Biomimetics	5	50%	Presentation	20%	Journal club		
	Biominetics	5	30%	Poster	80%	Group poster & proposal		
BIOE70005	Cellular and Molecular Mechanotransduction	5	50%	Written exam	80%	Main exam		
				Written report	20%	Assessing cytoskeleton		
BIOE70035	Non-Ionising Functional and Tissue Imaging	5	50%	Written exam	100%	Main exam		
BIOE70049	Bioengineering Approaches to Cancer	5	50%	Written exam	70%	Main exam		
				Presentation	30%	Cancer research & oncology seminars		
BIOE70077	Reinforcement Learning for Bioengineers	5	50%	Written report	50%	Coursework 1		
				Written report	50%	Coursework 2		
BIOE70150	Artificial Intelligence for Drug	5	50%	Written exam	75%	Main exam		
	Discovery			Progress test	25%	Progress test		
ELEC70024	Optimisation	5	50%	Assessments set by the home department				

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MEng Molecular Bioengineering 2024-25

C. Non-technical elective modules

You must take one elective from this table

Code	Title	ECTS	Pass- mark	Assessments		
BIOE70014	Medical Device Entrepreneurship L7	5	50%	Written report	100%	Module report
				Written report	10%	Risk Management section
BIOE70028	Medical Device Certification PG	5	50%	Written report	10%	System Specification
				Written report	80%	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		

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 58.33%. 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

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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 five taught modules. If a BPES module has been taken in year 3, these may all be technical options otherwise they will be four 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 four technical modules marks and the best non-technical module mark will be used in the year mark calculation if a non-technical module is required, or the best five 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.
 - o 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.
 - o 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.