# Imperial College London

**DEPARTMENT OF BIOENGINEERING** Regulations for the award of Honours **MSc Biomedical Engineering 2023-24** 

### **Project Element**

You must take the individual project

Code	Title	Compulsory	ECTS	Weight %	Pass- mark	Assessments		
	MSc Human and					Written report	10%	Planning report
BIOE70025	Biological Robotics Individual Project	Compulsory	40	44.44	50%	Written report	80%	Final report
						Presentation	10%	Project presentation

Core Element You must take all six modules in the core element

Code	Title	Compulsory	ECTS	Weight %	Pass- mark	Assessments			
BIOE70014	Medical Device Entrepreneurship	Compulsory	5	5.56	50%	Written report	100%	Module report	
BIOE70027	Statistics and Data Analysis	Compulsory	5	5.56	50%	Written exam	100%	Main exam	
COMP70028	Reinforcement Learning	Compulsory	5	5.56	50%	Set by DoC			
	Systems Physiology	Compulsory	5	5.56	50%	Written exam	80%	Main exam	
BIOE70026						Problem sheet	6.67%	Open book quiz 1	
BIOE 70026						Problem sheet	6.67%	Open book quiz 2	
						Problem sheet	6.67%	Open book quiz 3	
	Human Neuromechanical Control and Learning	Compulsory	5	5.56	50%	Written exam	80%	Main exam	
						Written report	4%	Tutorial 1	
BIOE70016						Written report	4%	Tutorial 2	
BIOE/0016						Written report	4%	Tutorial 3	
						Written report	4%	Tutorial 4	
						Written report	4%	Tutorial 5	
DESE61006	Robotics	Compulsory	5	5.56	40%	Set by Design school			

You must take four modules from the specialist element, which must be 0 or 1 from table A and 3 or 4 from table B

**Specialist Element Table A** 

	Human Centred Design of Assistive and Rehabilitation Devices	Elective	5	5.56	40%	Oral exam	30%	Oral exam	
						Written report	10%	Individual report on design	
BIOE60007						Written report	10%	Individual report on lecture	
						Presentation	40%	Competition	
						Written report	10%	Group report	
	Animal Locomotion and Bioinspired Robots	Elective	5	5.56	50%	Written report	10%	PDW simulation problem set	
						Written report	10%	Tuning report	
BIOE70003						Written report	10%	Report 3	
						Written report	10%	Target tracking group report	
						Written report	10%	PDW group report + PDW tuning map & performance	
						Presentation	30%	Robo Race	
						Presentation	10%	Obstacle avoidance	
						Presentation	10%	PDW Journal club	
MECH70013	Embedded C for Microcontrollers	Elective	5	5.56	50%	Set by Mech Eng			

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You must take four modules from the specialist element, which must be 0 or 1 from table A and 3 or 4 from table B **Specialist Element Table B** 

Code	Title	Compulsory	ECTS	Weight %	Pass- mark	Assessments		
BIOE70013	Computational Neuroscience	Elective	5	5.56	50%	Written exam	100%	Main exam
BIOE70029	Biomechanics	Elective	5	5.56	50%	Written exam	70%	Main exam
						Problem sheet	15%	Coursework 1
						Problem sheet	15%	Coursework 2
BIOE70012	Biomimetics	Elective	5	5.56	50%	Presentation	20%	Journal club
						Poster	80%	Group poster & proposal
BIOE70011	Brain Machine Interfaces	Elective	5	5.56	50%	Written exam	50%	Main exam
						Written report	50%	BMI competition
BIOE70036	Image Processing	Elective	5	5.56	50%	Written exam	80%	Main exam
						Quiz	20%	Quiz
BIOE70001	Application Specific Integrated Circuits for Bioengineers	Elective	5	5.56	50%	Progress test	15%	Progress test
						Written report	35%	Block Simulation Coursework
						Written report	50%	IC Block Layout Coursework

#### **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. 90 ECTS are required to pass the year.
- 'Weight' A module's weighting ie the contribution to the overall year mark
- 'Compulsory' indicates if the module must be taken.
- 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%.
- '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**

#### Rules for passing

- MSc students on the Biomaterials stream must take the compulsory project, all modules in the core element, all compulsory
  modules in the specialist element, and one optional module from the specialist element.
- In order to pass the MSc, a student must:
  - o Achieve an aggregate mark of at least 50% overall
  - Achieve an aggregate mark of at least 50% in the project
  - Pass each taught module at 50%

#### What if I fail modules?

- A project mark below 50% means failing the degree
- At the discretion of the Exam Board, up to 10 ECTS worth of modules having marks below 50% but at least 40% may be compensated (considered a pass) as long as the aggregate degree mark is 50% or greater.

#### Award of Merit and Distinction

- Students who obtain an aggregate mark of at least 60% overall, and a project mark of at least 60% may be awarded the MSc degree with Merit, unless they are entitled to be awarded a Distinction.
- Students who obtain an aggregate mark of at least 70% overall, and a project mark of at least 70% may be awarded the MSc degree with Distinction.

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#### Failure of the degree

- If a student fails their first attempt at the year, the Exam Board will normally allow them to be re-assessed one more time in one or more items of assessment of any failed modules. At its discretion, the Exam Board may, however, decide that they should instead return to retake the entire module again in attendance, including learning, or to re-take the entire year again.
- Any module that has been passed at re-assessment will be capped at the pass-mark for that module.
- Students failing the year after any re-assessments are required to withdraw from the programme.
- If a student is judged by the Examiners not to be engaged with the course and/or not working hard enough, the Examiners
  have the option of requiring the student to withdraw from the programme
- Students failing at first or second attempt who have passed at least 60 ECTS may be offered a Diploma of Higher Education.
- Students failing at first or second attempt who have passed at least 30 ECTS may be offered a Certificate of Higher Education.

#### Passed modules with mitigating circumstances

If a student passes a module, but with mitigating circumstances acceptable to the Board of Examiners, then it is ultimately the decision of the Board of Examiners to consider the appropriate 'mitigation' to be offered. Normally, in accordance with 10.26 of the Regulations of Taught Programmes of Study, extended consideration will be given at grade boundaries.

#### Missed or failed exams due to mitigating circumstances

If a student misses or fails any exams through illness or other reason with mitigating circumstances acceptable to the Board of Examiners then it is ultimately the decision of the Board of Examiners to consider the appropriate 'mitigation' to be offered. The Board would make this decision providing the student has an accepted claim for mitigation, and the outcome would be subject to the regulations and any programmes specific requirements.

Possible mitigations could include, but are not limited to:-

- a further opportunity to attempt the assessment(s) at the next available assessment point. If relating to a first attempt at the assessment this will receive an uncapped mark.
- to be offered an opportunity to retake the year as a first attempt