

Programme Information		
Programme Title	Programme Code	HECoS Code
Molecular and Cellular Biosciences	C7Y9	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
MRes	1 Calendar Year (12 months)	Full-Time	Annually in October	90	180

Ownership			
Awarding Institution	Imperial College London	Faculty	Faculty of Natural Sciences
Teaching Institution	Imperial College London	Department	Life Sciences
Associateship	Diploma of Imperial College (DIC)	Main Location(s) of Study	South Kensington Campus

External Reference	
Relevant <a href="#">QAA Benchmark Statement(s)</a> and/or other external reference points	N/A
<a href="#">FHEQ Level</a>	7
<a href="#">EHEA Level</a>	2nd Cycle

External Accreditor(s) (if applicable)			
External Accreditor 1:	N/A		
Accreditation received:	N/A	Accreditation renewal:	N/A

Collaborative Provision			
Collaborative partner	Collaboration type	Agreement effective date	Agreement expiry date
N/A	N/A	N/A	N/A

Specification Details	
Programme Lead	Dr. Tony Southall
Student cohorts covered by specification	2024-25 entry
Date of introduction of programme	-
Date of programme specification/revision	August 23

## Programme Overview

Based at the South Kensington campus, this is an MRes programme that revolves around two substantial lab projects allowing you to develop lab skills and expertise in different areas of biosciences. This research-based course provides a highly specialised biosciences education and practical training. Your skills training will be embedded in the context of answering a broad set of molecular and cellular biological questions by performing laboratory-based experiments. For the areas or research undertaken, the training will increase your understanding to levels approaching that of active researchers in the field. You will be supported throughout the course by research-active academics, including postdoctoral researchers and PhD students.

Projects will be from labs across the Department and students will be embedded in a research group during their projects. The ~ 5 month projects provide students with the opportunity to fully involve themselves with the project and generate substantial data. There is a huge variety of topics (and supervisors) to choose from, and potential topics ranging from structural biology to the study of neurodegeneration. There is considerable flexibility and you will be able to focus on specialist subjects consistent with your interests and career intentions. It may be possible for projects to be carried out partly or wholly at an external organisation and requests will be considered on a case by case basis.

Many alumni use this course as a stepping stone to a PhD, as the longer length of the research project enables a greater exploration of analyses and results, which may result in a scientific publication. However, others have moved on to work as research assistants, patent lawyers, scientific writers, or work in the biotechnology industry.

## Learning Outcomes

### Upon successful completion of this programme, you will be able to:

1. Interpret, extrapolate, and explain essential facts, concepts, principles, and theories relevant to the student's chosen area(s).
2. Learn independently with open-mindedness and critical enquiry.
3. Formulate and test hypotheses using appropriate experimental design and statistical analysis of data.
4. Plan and execute safely a series of experiments.
5. Integrate and evaluate scientific results.
6. Apply statistical and modelling skills.
7. Provide critical assessment of results and conclusions.
8. Communicate effectively through oral presentations, computer processing and presentations, written reports and scientific publications.
9. Manage resources and time.
10. Transfer techniques and solutions from one discipline to another.
11. Write-up a programme of original research.

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial degree programme. The Graduate Attributes are available at: <https://www.imperial.ac.uk/about/education/our-graduates/>

## Entry Requirements

### Academic Requirement

Normally a 2.1 UK Bachelor's Degree with Honours in a Biosciences-based subject (or a comparable qualification recognised by the university).

For further information on entry requirements, please go to PG: [www.imperial.ac.uk/study/apply/postgraduate-taught/entry-](http://www.imperial.ac.uk/study/apply/postgraduate-taught/entry-)

	<a href="#">requirements/accepted-qualifications/</a>
Non-academic Requirements	None
English Language Requirement	<a href="#">Higher requirement (PG)</a> Please check for other <a href="#">Accepted English Qualifications</a>
Admissions Test/Interview	No interview, no Admissions test. Decisions based on CV, references and personal statement

The programme's competency standards documents can be found at: [www.imperial.ac.uk/media/imperial-college/faculty-of-natural-sciences/department-of-life-sciences/public/postgraduate/masters/Life-Sciences-Competence-standards-PG.pdf](http://www.imperial.ac.uk/media/imperial-college/faculty-of-natural-sciences/department-of-life-sciences/public/postgraduate/masters/Life-Sciences-Competence-standards-PG.pdf)

## Learning & Teaching Approach

### Learning and Teaching Delivery Methods

- Laboratory work (during research projects)
- Formal presentations (preparing for oral examination)
- Computer-based work, which can include programming (e.g. Python and R), DNA plasmid design and statistics.
- Individual lab research projects, including writing up a project report and preparing a presentation for an oral exam (~5 months). Students will learn scientific knowledge, laboratory techniques, scientific writing skills, presenting skills and scientific practice from their supervisor and day-to-day supervisor.

### Overall Workload

Your overall workload consists of face-to-face sessions and independent learning. While your actual contact hours may vary according to the optional modules you choose to study, the following gives an indication of how much time you will need to allocate to different activities at each level of the programme. At Imperial, each ECTS credit taken equates to an expected total study time of 25 hours. Therefore, the expected total study time for this 90 ECTS MSc programme is 2250 hours per year, subject to reasonable adjustments.

Most of the time will be spent in the lab on research projects.

## Assessment Strategy

### Assessment Methods

- Research project report (40%)
- Research project oral presentation (10%)
- Research project viva (30%)
- Supervisor's assessment of laboratory skills (10%) and understanding and analytical skills (10%)

Each research project is **40 ECTS**

- Review/highlight of a recent preprint (part of the Research Project 1 module - **5 ECTS**)
- Flash talks (peer assessment, moderated by academic staff) (part of the Research Project 2 module - **5 ECTS**)

## Academic Feedback Policy

Feedback for the written report, the oral presentation and the viva is recorded by the two examiners after the examination. This is made available to students. The feedback from the first project is provided towards the beginning of the second project so that students can reflect on their strengths/weaknesses to help improve their performance for project 2.

Feedback for the review/highlight of a recent preprint will be provided by the students first project supervisor using Turnitin.

The flash talks are peer-assessed. The scores will be moderated by academic staff to reduce bias. Anonymised comments and an aggregate score will be provided to the students

Staff-student meetings are held termly to communicate general feedback between student representatives and the course directors. Additional meetings are held to provide general feedback and guidance e.g. on project selection.

Imperial's Policy on Academic Feedback and guidance on issuing provisional marks to students is available at: [www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/](http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/)

#### Re-sit Policy

Imperial's Policy on Re-sits is available at: [www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/](http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/)

#### Mitigating Circumstances Policy

Imperial's Policy on Mitigating Circumstances is available at: [www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/](http://www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/)

#### Additional Programme Costs

This section should outline any additional costs relevant to this programme which are not included in students' tuition fees.

Description	Mandatory/Optional	Approximate cost
N/A	N/A	N/A

**Important notice:** The Programme Specifications are the result of a large curriculum and pedagogy reform implemented by the Department and supported by the Learning and Teaching Strategy of Imperial College London. The modules, structure and assessments presented in this Programme Specification are correct at time of publication but might change as a result of student and staff feedback and the introduction of new or innovative approaches to teaching and learning. You will be consulted and notified in a timely manner of any changes to this document.

## Programme Structure<sup>1</sup>

### Year 1 – FHEQ Level 7

You will study all core modules.

Code	Module Title	Core/ Elective	Group	Term	Credits
LIFE70031	Research Project 1 (includes Review/highlight of a recent preprint – 5 ECTS)	Core		Autumn	45
LIFE70032	Research Project 2 (includes Flash talk – 5 ECTS)	Core		Spring- Summer	45
Credit Total					90

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<sup>1</sup> **Core** modules are those which serve a fundamental role within the curriculum, and for which achievement of the credits for that module is essential for the achievement of the target award. Core modules must therefore be taken and passed in order to achieve that named award. **Compulsory** modules are those which are designated as necessary to be taken as part of the programme syllabus. Compulsory modules can be compensated. **Elective** modules are those which are in the same subject area as the field of study and are offered to students in order to offer an element of choice in the curriculum and from which students are able to select. Elective modules can be compensated.

## Progression and Classification

### **Award of a Masters Degree (including MRes)**

To qualify for the award of a postgraduate degree you must have:

1. accumulated credit to the value of no fewer than 90 credits at level 7 or above of which no more than 15 credits may be from credit level 6;
2. and no more than 15 credits as a Compensated Pass;
3. met any specific requirements for an award as outlined in the approved programme specification for that award.

### **Classification of Postgraduate Taught Awards**

The university sets the class of Degree that may be awarded as follows:

1. Distinction: 70.00% or above.
2. Merit: 60.00% or above but less than 70.00%.
3. Pass: 50.00% or above but less than 60.00%.

Your classification will be determined through the Programme Overall Weighted Average and the designated dissertation or final major project module meeting the threshold for the relevant classification band.

Your degree algorithm provides an appropriate and reliable summary of your performance against the programme learning outcomes. It reflects the design, delivery, and structure of your programme without unduly over-emphasising particular aspects.

## Programme Specific Regulations

N/A

## Supporting Information

The Programme Handbook is available at: [www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/mres-in-molecular-and-cellular-biosciences/](http://www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/mres-in-molecular-and-cellular-biosciences/)

The Module Handbook is available at: [www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/mres-in-molecular-and-cellular-biosciences/](http://www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/mres-in-molecular-and-cellular-biosciences/)

Imperial's entry requirements for postgraduate programmes can be found at: [www.imperial.ac.uk/study/pg/apply/requirements](http://www.imperial.ac.uk/study/pg/apply/requirements)

Imperial's Quality & Enhancement Framework is available at: [www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance](http://www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance)

Imperial's Academic and Examination Regulations can be found at: [www.imperial.ac.uk/about/governance/academic-governance/regulations](http://www.imperial.ac.uk/about/governance/academic-governance/regulations)

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[www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/](http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/)

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[www.officeforstudents.org.uk/advice-and-guidance/the-register/](http://www.officeforstudents.org.uk/advice-and-guidance/the-register/)

This document provides a definitive record of the main features of the programme and the learning outcomes that you may reasonably be expected to achieve and demonstrate if you take full advantage of the learning opportunities provided. This programme specification is primarily intended as a reference point for prospective and current students, academic and support staff involved in delivering the programme and enabling student development and achievement, for its assessment by internal and external examiners, and in subsequent monitoring and review.