Programme Information		
Programme Title	Programme Code	HECoS Code
Chemical Biology and Bio-Entrepreneurship	F1U3	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
MRes	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	Chemistry
Associateship	Diploma of Imperial College (DIC)	Main Location(s) of Study	White City campus
External Reference			
Relevant QAA Benchmark Statement(s) and/or other external reference points		Master's Degree in Chemistry	
FHEQ Level		Level 7	
EHEA Level		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 Laura Barter Dr Rudiger Woscholski	
Student cohorts covered by specification		2025-26 entry	
Date of introduction of programme		October 01	
Date of programme specification/revision		August 23	

Programme Overview

Chemical Biology is an emerging discipline that sits at the interface of traditional chemistry and biology, drawing on the tools and ideas of modern Physical Sciences and applying them to the solution of biological problems at the molecular level.

This is a discipline that is perfectly poised to address the next great challenge in biological science – to understand how gene products are used in and interact with the cellular environment.

The programme is run by the Institute of Chemical Biology's Centre for Doctoral Training.
The research element provides physical scientists with the ability to bridge disparate fields and gain the confidence to grapple with biomolecular research in a multidisciplinary environment.

Students can apply for a one-year stand-alone MRes course or a four-year programme (one year MRes followed by a three-year PhD (F1ICB)).

Learning Outcomes

The programme will enable **you** to:

1. **Demonstrate** a deep understanding of the core concepts in chemical biology associated to your chosen research area, with the ability to **conceptualise** and **explore** theories, data and methods relevant to the field.
2. **Employ** research and prototyping techniques, including information retrieval, experimental design and statistics, modelling, sampling, biomolecular and physical/chemical/engineering techniques and laboratory safety.
3. **Independently evaluate** and **apply** the essential facts, concepts, principles and theories relevant to the student's project.
4. **Perform** research within a multi-disciplinary environment, **developing** management and communication skills, including problem definition, project design, decision processes, teamwork, written and oral reports, scientific publications.
5. **Critically evaluate** your own and others' work, including an appreciation of novelty and significance.
6. **Recognise and critically appraise** broader issues in biomedical research including the commercialisation and prototyping of tools and technologies relevant to the research area.
7. **Compose and deliver** written, oral and visual science communications, which are effective at conveying the message to a variety of audiences.
8. **Demonstrate** laboratory and/or computational **skills** required to perform biomedical research and prototyping.
9. **Design** a novel research project and **compose** a corresponding grant proposal, appropriate for submission to an academic funding body.
10. **Propose** tractable research objectives for your research project.

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	The minimum requirement is normally a 2:1 UK Bachelor's Degree with Honours in a physical science or engineering based subject (or a comparable qualification recognised by the university). Applicants with at least 50% physical sciences content in Life Sciences/Biomedical degrees may be considered. For further information on entry requirements, please go to PG: www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/accepted-qualifications/

Non-academic Requirements	None
English Language Requirement	Standard requirement (PG) Please check for other Accepted English Qualifications
Admissions Test/Interview	Candidates will be invited for interview in person or online.

The programme's competency standards documents can be found at: www.imperial.ac.uk/chemistry/postgraduate/mres/

Learning & Teaching Approach

Learning and Teaching Delivery Methods

The course's aim is to teach the practice of science with the learning and teaching strategy being constructively aligned with the knowledge, skills and abilities required by professional scientists in academia, government, industries, and NGOs.

Most of the weighting in the course is focussed on the research component- a proposal writing exercise and the research project – which reflect the major activities undertaken by modern scientists. In addition, the taught component exposes you to fields outside your immediate project area, including generic research skills at the interface of physical and biological sciences and the entrepreneurial skills of designing and prototyping equipment relevant to this research area.

Across the programme, a range of teaching methods are used including: laboratory work, computational work, tutorials, seminars, lectures, practicals, workshops, facility tours and online material. 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.

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 is 2250 hours per year comprising approximately 375 hours for the FutureLab prototyping practical, 125 hours of webinar preparation, 250 hours of planning and designing the research project guided by your supervisors, and 1500 hours of individual research project work.

Assessment Strategy

Assessment Methods

Each assessment is designed to test your appropriate acquisition of separate skills required for the furthering of a career in chemical biology research and associated professional paths (All assessments are linked to the intended learning outcomes listed above as indicated in brackets).

The Webinar presentation assess your ability to condense a body of knowledge on a subject treated in a textbook and orally present this summary clearly with the help of visual tools using a narrated PowerPoint presentation (Learning outcomes 1, 2, 3, and 7).

The FutureLab assessments will test your understanding and communication of various prototyping methods and experimental evaluation of the created prototype equipment (Learning outcomes 1, 2, and 6 - 8).

The Project proposal will assess your aptitude to critically analyse published scientific literature, plan the work packages necessary to complete the research project and reflect on the ethical, safety and commercial/societal considerations (Learning outcomes 1,3, 5-8 and 10).

The Research Project will be judged through a manuscript, a presentation, and an oral examination. The manuscript will evaluate your skills at presenting, describing and critically discussing your own experimental data in the format typical of an article published in peer-reviewed journals. At the presentation, you will be assessed on your ability to present your research to your examiners with the help of visual tools in a clear, concise fashion, summarising your findings and their relevance. You will also be tested on your ability to answer questions directly relevant to your project. Your oral examination will probe your knowledge and understanding of the relevant literature, methodology

and research outcomes including theoretical and practical knowledge of the subject area, of the experimental techniques used and their limitations as well as the proposed follow-on work (Learning outcomes 1-8 and 10).
Academic Feedback Policy
With the exception of the major research project module you will receive feedback within 2 week of submission and where this is not possible students will be advised. This feedback should inform learning and performance in subsequent modules. 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/
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/
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/

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
Laptop with camera and microphone	Mandatory	£400-600

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[1]					
Year 1 - FHEQ Level 7 **You will study all core and compulsory modules**					
Code	Module Title	Core/ Compulsory	Group	Term	Credits
CHEM70043	Webinar Design and Delivery	Compulsory	N/A	Autumn	5
CHEM70044	FutureLab	Compulsory	N/A	Autumn-Spring	15
CHEM70045	Proposal for Chemical Biology Research Project	Core	N/A	Autumn	10
CHEM70046	Chemical Biology Research Project	Core	N/A	Spring-Summer	60
				Credit Total	90

[1] **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
2. and no more than 15 credits as a Compensated Pass

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 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 upon enrolment.
The Module Handbook is available upon enrolment.
Imperial's entry requirements for postgraduate programmes can be found at: www.imperial.ac.uk/study/pg/apply/requirements
Imperial's Quality & Enhancement Framework is available at: 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
Imperial College London is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of Imperial's Centenary, 8th July 2007, established Imperial as a University with the name and style of "The Imperial College of Science, Technology and Medicine". www.imperial.ac.uk/admin-services/secretariat/university-governance-structure/charters/
Imperial College London is regulated by the Office for Students (OfS) 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.