

| Programme Information |                |                       |
|-----------------------|----------------|-----------------------|
| Programme Title       | Programme Code | HECoS Code            |
| Structural Biology    | C1A2           | For Registry Use Only |

| Award | Length of Study | Mode of Study | Entry Point(s)      | Total Credits |      |
|-------|-----------------|---------------|---------------------|---------------|------|
|       |                 |               |                     | ECTS          | CATS |
| MRes  | 1 calendar year | 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 Morgan Beeby |
| Student cohorts covered by specification | 2023-24 entry   |
| Date of introduction of programme        | 2005            |

|  |           |
|--|-----------|
| Date of programme specification/revision | August 23 |
|--|-----------|

## Programme Overview

This MRes in Structural Biology aims to build on the growing reputation of the preceding MRes in Structural Molecular Biology to train an elite MRes cohort to go on to successful PhD positions

The MRes will feature:

- Placement within an active research group in structural biology at Imperial or an affiliated institution to undertake an in-depth research project in structural biology sufficiently long to attain independence at a structural biology technique, and of sufficient length to present the opportunity to publish results.
- Formative and summative work for developing skills crucial for success in a research project in structural biology
- An opportunity to build a network in the field of structural biology, possibly through seminar series
- Preparing the students for independent science and research, including hard technical skills and soft research, time management, and networking skills.

Many of the students from previous cohorts have gone on to successful study in the field, including PhD positions across the UK, Europe, and the USA.

## Learning Outcomes

The course will enable you to:

1. Manage time, projects, and your supervisor.
2. Design a realistic scientific project and its experiments in the context of a concrete scientific goal
3. Proactively find and use wider learning resources including mentors, textbooks, and web tutorials
4. Complete an extended research project using structural and molecular biology techniques
5. Critically interpret your experimental results
6. Critically evaluate published research in the field
7. Clearly communicate complex concepts relating to the field.
8. Interact with local, national, and international colleagues and future colleagues.

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: [www.imperial.ac.uk/students/academic-support/graduate-attributes](http://www.imperial.ac.uk/students/academic-support/graduate-attributes)

## Entry Requirements

|                              |  |
|------------------------------|--|
| Academic Requirement         | <p>The minimum requirement is normally a 2:1 UK Bachelor's Degree with Honours in Chemistry, Biochemistry or other appropriate science subject (or a comparable qualification recognised by the College).</p> <p>Study of structural biology during Undergraduate degree is important to be able to successfully engage with the MRes. Although not required, previous research experience, and publications will further demonstrate your suitability for the course.</p> <p>For further information on entry requirements, please go to <a href="http://www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/accepted-qualifications/">www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/accepted-qualifications/</a></p> |
| Non-academic Requirements    | At least three years of work experience in structural molecular biology research would substitute for the academic requirements.   |
| English Language Requirement | <a href="#">Higher requirement (PG)</a><br>Please check for other <a href="#">Accepted English Qualifications</a>  |
| Admissions Test/Interview    | Assessment of CV and personal statement  |

The programme's competency standards document 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

- **Modules 1 and 2:** Training in key skills and conducting research in this area and communicating research. Components are summative unless otherwise stated.
  1. A project will be integrated into an Imperial College research group and work with researchers from PhD level to group leader/supervisor, often including participation in lab meetings and journal clubs.
  2. A series of lectures at the start of the course, linked to the DoLS 3<sup>rd</sup> year Structural Biology module "Structural Biology and Drug Design" that provide an overview of key technical content (Formative, though indirectly assessed in terms of background understanding exhibited in reports, presentations, and during vivas on wider course material).
  3. Workshop-style sessions based around a "coaching philosophy" including writing and communication skills that will allow students to brainstorm and learn together as a cohort to construct key skills necessary for a successful independent research project (formative).
  4. Write a News & Views of a recent paper.  
Write a literature review of the field of research the student is working in.
  5. Write a grant proposal before the research project to focus aims.
  6. Peer reviews of other student's writing
  7. Poster presentation of work in progress
  8. Formative exercises explicitly interlinked with the workshops.
- **Module 3:** An independent research project with a primary supervisor in the field. Components are summative unless otherwise stated.
  1. Continue integration into an Imperial College research group and work with researchers from PhD level to group leader/supervisor, often including participation in lab meetings and journal clubs. Evaluation is by submission of a written report, presentation, and viva.

### Overall Workload

Your overall workload consists of face-to-face sessions and independent learning. While your actual contact hours may vary, 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 MRes programme is 2250 hours per year, subject to reasonable adjustments.

From the start of the course to the Christmas break course will consist of lectures and some workshops which will focus on key content and project design. There will be some formative and summative assessment during this time. Some workshops will continue throughout the first term, for example Friday afternoons. The main project will start in November after the student has written a project proposal based on the supervisor's advice. Toward the end of the main project, there will be an increased proportion of time dedicated to writing the project report.

At Easter you will take a break from Project work to write a literature review in the field.

After this you will return to part 2 of their Project, for final assessment in August based on lab performance, written report, viva, and presentation.

## Assessment Strategy

### Assessment Methods

The first modules (term one) is assessed through coursework, including essays and presentations. The project (terms two and three) is assessed on the performance in the lab, the written report and the viva voce examination.

See individual Module specification documents for details.

## Academic Feedback Policy

- Student-centred learning at first will involve formative coaching-style facilitated workshops and “peer review” written feedback
- Feedback on formative assessment will also be provided by course directors, interlinked with student-centred workshops.
- Summative coursework will be submitted online and marked according to college guidelines with written feedback. Main project reports will be marked by supervisors and two examiners and feedback relayed via dedicated 1:1 sessions with the course director for oral feedback.
- All summative feedback will be interlinked with learning student-centred workshops.

The College’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

The College’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

The College’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 and compulsory modules.

| Code         | Module Title                                      | Core/<br>Compulsory | Group | Term              | Credits |
|--------------|---|---------------------|-------|-------------------|---------|
| LIFE70035    | Introduction to Structural Biology                | Compulsory          |       | Autumn            | 15      |
| LIFE70036    | Skills for Success in Structural Biology Research | Compulsory          |       | Autumn            | 15      |
| LIFE70037    | Research Project in Structural Biology            | Core                |       | Spring-<br>Summer | 60      |
| 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 College 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 at: [www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/mres-in-structural-molecular-biology/](http://www.imperial.ac.uk/life-sciences/postgraduate/masters-courses/mres-in-structural-molecular-biology/)

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

The College's entry requirements for postgraduate programmes can be found at: [www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/accepted-qualifications/](http://www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/accepted-qualifications/)

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

The College'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)

Imperial College 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 the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".

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

Imperial College London is regulated by the Office for Students (OfS) [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.