



## Programme Specification (UG)

|   |                                 |
|---|---------------------------------|
| Awarding body / institution:                | Queen Mary University of London |
| Teaching institution:                       | Queen Mary University of London |
| Name of final award and programme title:    | Foundation Certificate (FdCert) |
| Name of interim award(s):                   |                                 |
| Duration of study / period of registration: | 1 year                          |
| QMUL programme code / UCAS code(s):         | FGH4, UCFF-QMSEFP1, USMAS       |
| QAA Benchmark Group:                        |                                 |
| FHEQ Level of Award :                       | Level 3                         |
| Programme accredited by:                    |                                 |
| Date Programme Specification approved:      | 24/02/25                        |
| Responsible School / Institute:             | School of Mathematical Sciences |

Schools / Institutes which will also be involved in teaching part of the programme:

School of Biological & Behavioral Sciences

School of Languages, Linguistics & Film

School of Engineering & Materials Science

School of Physical and Chemical Sciences

Collaborative institution(s) / organisation(s) involved in delivering the programme:

### Programme outline

The FdCert International Science and Engineering Foundation Programme (ISEFP Mathematics) provides an alternative route onto a range of Mathematics-based undergraduate degrees. QMUL offers tailored pathways for subjects across science and engineering.

Our ISEFP Mathematics is open to international students and sessions are taught entirely at the Mile End campus by university staff. In-line with Queen Mary's 2030 Strategy, high quality learning resources and interactive sessions with academic staff will be available online. As a foundation student, you have access to all QMUL's facilities and will be a full-time student of the university.

**Highlights:**

- Opportunity to apply to Mathematics undergraduate degrees after completing the Foundation year at the appropriate level
- Study at campus-based university within easy reach of all of London's attractions
- Full access to all student facilities (academic, welfare, IT, library, social and sport)
- Experienced and well-qualified teaching staff, many of whom teach on undergraduate and postgraduate programmes

**Aims of the programme**

The ISEFP Mathematics will equip you with the skills and knowledge to undertake an undergraduate degree in Mathematics. When you apply for the ISEFP you will choose a degree that you plan to study after completing the foundation year.

On successfully completing the ISEFP, and subject to meeting the progression requirements, you are guaranteed a place on your chosen degree programme at Queen Mary:

Mathematics BSc

Mathematics and Statistics BSc

Actuarial Science BSc

Mathematics with Finance and Accounting BSc

Mathematics with Computing BSc

These degree programmes can also be taken with the option of a year abroad or professional placement.

**What will you be expected to achieve?**

- Pass 105 credits including SEF030 Communication in Science and Technology (if taken), SEF047 Further Mathematics and SEF041 Mathematics B.
- Achieve an overall mean average of 50% across all modules.
- Achieve at least 55% in SEF047 Further Mathematics and 60% in SEF041 Mathematics B.

For entry onto particular programmes there may be additional requirements. Please check the handbook or contact [fedu@qmul.ac.uk](mailto:fedu@qmul.ac.uk) for more information.

**Please note that the following information is only applicable to students who commenced their Level 4 studies in 2017/18, or 2018/19**

In each year of undergraduate study, students are required to study modules to the value of at least 10 credits, which align to one or more of the following themes:

- networking
- multi- and inter-disciplinarity
- international perspectives
- enterprising perspectives.

These modules will be identified through the Module Directory, and / or by your School or Institute as your studies progress.

**Academic Content:**

A1

Foundation of Chemistry, Physics, Engineering, Mathematics and Computer Science

|    |  |
|----|--|
| A2 | Experience the deep relationship existing between all STEM subject                     |
| A3 | Laboratory techniques and instruments from Chemistry, Physics, Biology and Engineering |
| A4 | Basis of Computer Science and Mathematics practical classes                            |
| A5 | Career opportunities available to STEM graduate  |
| A6 | Study Techniques   |
| A7 | The Impact of AI on higher education studies   |

| Disciplinary Skills - able to: |   |
|--------------------------------|---|
| B1                             | Present data in reports in a readily-assimilated fashion, and in accord with scientific conventions                             |
| B2                             | Identify most successful learning techniques to improve academic journey and success rate                                       |
| B3                             | Appreciate the interconnection between STEM subjects  |
| B4                             | Practice on a range of appropriate and relevant experimental techniques and how they are used; be able to perform some of them. |
| B5                             | Identify skills required for job applications in STEM   |

| Attributes: |   |
|-------------|---|
| C1          | To grasp the principles and practices of field of study       |
| C2          | To produce analyses which are grounded in evidence            |
| C3          | To apply analytical skills to investigate unfamiliar problems |
| C4          | To work individually and in collaboration with others         |
| C5          | To develop a strong sense of intellectual integrity           |
| C6          | To acquire substantial bodies of new knowledge                |

## How will you learn?

### Independent study

For every hour spent at university you will be expected to complete additional hours of independent study. Your individual study time could be spent preparing for, or following up on formal study sessions; reading; assessing data from experiments; completing lab reports; and revising for examinations.

The direction of your individual study will be guided by the formal study and laboratory sessions you attend, along with your reading and assignments. However, we expect you to demonstrate an active role in your own learning by reading widely and

expanding your own knowledge, understanding and critical ability.

Independent study will foster in you the ability to identify your own learning needs and determine which areas you need to focus on to become proficient in your subject area. This is an important transferable skill and will help to prepare you for the transition to working life.

### How will you be assessed?

To pass a module, you must achieve an overall mark of 40% or above. The overall mark in most modules is based on your performance in both the examination and coursework, the weighting of these two components vary.

You must also meet the necessary progression requirements in order to progress to the next year.

### How is the programme structured?

Please specify the structure of the programme diets for all variants of the programme (e.g. full-time, part-time - if applicable). The description should be sufficiently detailed to fully define the structure of the diet.

The programme structure outlined below is indicative of what you will study. It may change slightly from year to year as new topics are introduced and after we have listened to current student feedback on teaching.

The ISEFP Mathematics modules are designed to best prepare you for continuing your studies in Mathematical sciences at undergraduate level. You will take 8 modules in total over two semesters, starting in September.

#### Year Long Modules

SEF041 Mathematics B (Core)

SEF042 Science and Engineering Success (Compulsory)

SEF043 Foundations of Chemical Science (Compulsory)

SEF044 Foundations of Physical Sciences (Compulsory)

SEF046 Foundations of Engineering (Compulsory)

#### Semester 1

SEF030 Communication in Science & Technology (Core)

#### Semester 2

SEF047 Further Mathematics (Core)

### Academic Year of Study

| Module Title                                   | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester        |
|--|-------------|---------|-------|-------------------------|------------------------|-----------------|
| Communication in Science and Engineering (CST) | SEF030      | 15      | 3     | Core                    | 0                      | Semester 1 or 2 |
| Science and Engineering Success                | SEF042      | 15      | 3     | Compulsory              | 0                      | Semesters 1 & 2 |
| Further Mathematics                            | SEF047      | 15      | 3     | Core                    | 0                      | Semester 2      |

| Module Title                    | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester        |
|---------------------------------|-------------|---------|-------|-------------------------|------------------------|-----------------|
| Mathematics B                   | SEF041      | 30      | 3     | Core                    | 0                      | Semesters 1 & 2 |
| Foundations of Chemical Science | SEF043      | 15      | 3     | Compulsory              | 0                      | Semesters 1 & 2 |
| Foundations of Physical Science | SEF044      | 15      | 3     | Compulsory              | 0                      | Semesters 1 & 2 |
| Foundations of Engineering      | SEF046      | 15      | 3     | Compulsory              | 0                      | Semesters 1 & 2 |

### What are the entry requirements?

The International Science and Engineering Foundation programme (ISEFP) is suitable for international students with qualifications up to AS-level/Year 12 or equivalent. The ISEFP accepts applicants with a wide range of different qualifications. The grades you need to enter the course will vary depending on the qualification you have completed. For country-specific details, please refer to our detailed entry requirements: <https://www.qmul.ac.uk/international-students/pathway-programmes/ify/ify-entry-requirements/>

You will need to provide the following documentation as part of your application:

Copies of your high school qualifications/transcript so far. This must show the subjects you are studying in your final year;

A copy of your UKVI IELTS (or accepted equivalent) certificate if you have taken it already;

A scanned copy of the data page of your passport (including any previous UK visas);

### How will the quality of the programme be managed and enhanced? How do we listen to and act on your feedback?

The Student-Staff Liaison Committee (SSLC) provides a formal means of communication and discussion between the School and its students. The committee consists of student representatives from each year in the School, together with appropriate representation from staff within the School. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. The Student-Staff Liaison Committees meets regularly throughout the year.

The Teaching & Learning Committee advises the School's Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level, including monitoring the application of relevant QM policies and reviewing proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work in a number of ways, such as through consideration of student surveys and input from the SSLC.

All schools/institutes operate an Annual Programme Review of their taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery; the main document of reference for this process is the Taught Programmes Action Plan (TPAP) which is the summary of the school/institute's work throughout the year to monitor academic standards and to improve the student experience. Students' views are considered in this process through analysis of the NSS and module evaluations.

### What academic support is available?

Each student is provided with an advisor who is their main point of contact for advice regarding academic matters and for assistance with pastoral concerns, throughout their whole programme. Students can see their advisors in their office hours or arrange an appointment via email. Moreover, if and when advisors are unavailable or cannot help with a specific problem, the School has several Senior Advisors to assist with student concerns.

The School also operates a PASS programme for peer guidance.

## How inclusive is the programme for all students, including those with disabilities?

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia
- Applying for funding through the Disabled Students' Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one "study skills" tuition
- Ensuring access to course materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Mentoring support for students with mental health issues and conditions on the autistic spectrum.

## Programme-specific rules and facts

N/A

## Links with employers, placement opportunities and transferable skills

In today's competitive job market, it is not always enough to graduate with a good degree. Employers also expect you to have a range of skills and students take this degree programme because they are interested in both business and finance, and many go on to work for financial institutions and other businesses. Others go on to graduate training schemes in a variety of companies such as Enterprise-Rent-a-Car.

High-level numeracy is one of the most sought-after skills in the workplace and many opportunities are open to a mathematical sciences graduate. During this course students learn to apply mathematical techniques to situations across the sciences and other areas such as finance, computing and engineering. These skills are highly desirable to employers ranging from business and finance to the chemicals and materials industries. Advice and support will be provided to students applying for placements.

## Programme Specification Approval

Person completing Programme Specification:

Sarahlouse Lawrence

Person responsible for management of programme:

Matthew Fayers

Date Programme Specification produced / amended by School / Institute Learning and Teaching Committee:

20 Feb 2025

Date Programme Specification approved by Taught Programmes Board:

24/02/25