UNIVERSITY OF LEICESTER

Programme Specification (Undergraduate) FOR ENTRY YEAR: 2026/27

Date created: 28/11/2024 **Last amended:** 23/07/2026 **Version no.** 3 **Date approved by EQED:**
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1. Programme title(s) and code(s):

STEM International Foundation Year

The STEM International Foundation Year programme provides progression onto BSc / Integrated Masters degrees in Chemistry, Computer Science, Creative Computing, Engineering, Environmental Science, Geography, Geology, Mathematics, and Physics. It is not available as a stand-alone award.

This specification should be read in combination with the specification for the degree to which a student intends to progress for the full course structure, content and other information such as accreditation.

a) HECOS Code

Chemistry with international foundation year	100417
Computer Science with international foundation year	100366
Creative Computing with international foundation year	100368
Engineering with international foundation year	100184
Environmental Science with international foundation year	100381
Geography with international foundation year	100409
Geology with international foundation year	100395
Mathematics with international foundation year	100403
Physics with international foundation year	100425

b) UCAS Code

Geography with international foundation year	
Geology with international foundation year	
Chemistry with international foundation year	
Engineering with international foundation year	
Environmental Science with international foundation year	
Physics with international foundation year	
Mathematics with international foundation year	
Computer Science with international foundation year	
Creative Computing with international foundation year	

2. Awarding body or institution:

University of Leicester

3. a) Mode of study

Full-time

b) Type of study

Campus-based

4. Registration periods:

The STEM International Foundation Year will count towards the normal and maximum registration period of the degree programme that a student may progress to.

The normal period of registration for the STEM International Foundation Year is one year (progressing to a 3 or 4 year UG degree).

The maximum period of registration for the STEM International Foundation Year is 2 years.

5. Typical entry requirements

A-level: BCC/CCC or points equivalent from best three A-levels, to include appropriate subject(s).

BTEC Diploma: DDM in an appropriate scientific or engineering discipline.

Access to HE courses in Science and Engineering: 45 L3 credits, including 24 at Distinction.

International equivalents of the above.

Students must be at least 17 on the programme start date.

The STEM International Foundation Year is designed to provide a route to higher education for applicants who do not have the necessary entry requirements for first year entry to the undergraduate programmes.

6. Accreditation of Prior Learning

Not applicable

7. Programme aims

The programme aims to:

- Develop the professional attributes and study skills that will equip students to thrive in an undergraduate degree programme and beyond
- Enable students to progress to an appropriate undergraduate programme through the acquisition of discipline specific knowledge at the required standard
- Develop the transferable academic skills and English language knowledge required to succeed at the University of Leicester

8. Reference points used to inform the programme specification

- QAA Benchmarking Statements
- Framework for Higher Education Qualifications (FHEQ)
- UK Quality Code for Higher Education
- Education Strategy
- University Assessment Strategy [login required]
- University of Leicester Periodic Developmental Review Reports
- External Examiners' reports (annual)

- United Nations Education for Sustainable Development Goals
- Student Destinations Data
- Specification documents for various A-level mathematics qualifications
- Specification documents for various A-level science (Physics, Chemistry, Geography, Geology, Computer Science) qualifications

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9. Programme Outcomes

Unless otherwise stated, programme outcomes apply to all awards specified in 1. Programme title(s).

a) Knowledge and Critical Understanding

i) Competence in an appropriate body of knowledge

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: recall and apply discipline-specific knowledge to solve problems and draw appropriate conclusions.	Lectures Workshops Course texts/specially-prepared resources	Workshop problems Core learning exercises Group work/Peer learning in sessions Mock exam	Core Learning Exercises/Portfolio End-of-Module Exams

ii) Breadth of knowledge

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: apply mathematical techniques to solve discipline-specific problems	Lectures Workshops Course texts/specially-prepared resources	Workshop problems Core learning exercises Group work/Peer learning in sessions Mock exam	Portfolio End-of-Module Exams

iii) Understanding of source materials

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to:	Workshops/Labs	Workshop problems/Lab problems	Core learning exercises/Lab reports

evaluate the reliability of information and numerical data	Course texts/specially-prepared resources Small-group classes	Group work/Peer learning in sessions Guided Independent Study	Report Poster Presentation
Students should be able to: use electronic resources to find and evaluate information	Small-group classes	Group work/Peer learning in sessions Guided Independent Study	Report Poster Presentation

b) Cognitive and Practical Skills

i) Selection and analysis of sources

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: evaluate the reliability of information and numerical data	Workshops/Labs Course texts/specially-prepared resources Small-group classes	Workshop problems/Lab problems Group work/Peer learning in sessions Guided Independent Study	Core learning exercises/Lab reports Report Poster Presentation

ii) Critical engagement

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: record and reflect on their learning experiences	VLE instructions/recordings Small-group classes	Group work/Peer learning in sessions Mock exam marking Guided Independent Study	Reflective Presentation

iii) Presentation of an argument

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: use IT to summarise and communicate ideas, in verbal form	Small-group classes	Presentation training	Reflective Presentation Poster Presentation

iv) Independent research

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: use electronic resources to find and evaluate information	Small-group classes	Group work/Peer learning in sessions Guided Independent Study	Report Poster Presentation

v) Relevant technical skills

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: recognise and describe patterns in data	Lectures Workshops/Labs Course texts/specially-prepared resources	Workshop problems/Lab problems Core learning exercises Group work/Peer learning in sessions	Core Learning Exercises/Portfolio Lab/Project Reports End-of-Module Exams
Students should be able to: use IT to process data	Workshops/Labs Course texts/specially-prepared resources	Workshop problems/Lab problems Group work/Peer learning in sessions	Core learning exercises/Lab reports

vi) Autonomous working

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to:	Induction sessions	Core learning exercises	Core Learning Exercises

demonstrate the ability to work autonomously	Assessment Planner Small-group classes	Guided Independent study Group work/Peer learning in sessions	Reflective Presentation Report Poster Presentation

vii) Presentation of research findings

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: use IT to summarise and communicate ideas, in verbal form	Small-group classes	Presentation training	Reflective Presentation Poster Presentation

c) Transferable skills

i) Verbal, written and digital communication

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: use IT to summarise and communicate ideas, in verbal form	Small-group classes	Presentation training	Reflective Presentation Poster Presentation
Students should be able to: communicate discipline-specific ideas, in written form	Lectures Workshops Course texts/specially-prepared resources Small-group classes	Workshop problems Core learning exercises Group work/Peer learning in sessions Formative writing tasks Mock exam	Core Learning Exercises/Portfolio Short Answer Test Report Poster Presentation Written Exam End-of-Module Exams

ii) Numeracy

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: apply mathematical techniques to solve discipline-specific problems	Lectures Workshops Course texts/specially-prepared resources	Workshop problems Core learning exercises Group work/Peer learning in sessions Mock exam	Portfolio End-of-Module Exams

iii) Self-reflection

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: record and reflect on their learning experiences	VLE instructions/recordings Small-group classes	Group work/Peer learning in sessions Mock Exam Marking Guided Independent Study	Reflective Presentation

iv) Problem solving

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: apply mathematical techniques to solve discipline-specific problems	Lectures Workshops Course texts/specially-prepared resources	Workshop problems Core learning exercises Group work/Peer learning in sessions Mock exam	Portfolio End-of-Module Exams

v) Organisation and management

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type

Students should be able to: engage in professional practices such as effectively managing their time and workload, organising their course materials and revision notes, maintaining consistent engagement with sessions and seeking support as necessary	Induction sessions Course texts/specially-prepared resources Assessment Planner	Induction activities Workshop engagement Assessment Planner record-keeping Group work/Peer learning in sessions Guided Independent Study	Reflective Presentation End-of-Module Exams

vi) Teamwork

Intended learning Outcome	Teaching methods	Learning Activities	Assessment Type
Students should be able to: work in groups to solve discipline-specific problems	Workshops	Workshop engagement	Portfolio

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10. Progression points

This programme follows the standard Scheme of Progression set out in Senate Regulations – see the version of Senate Regulation 5 governing undergraduate programmes relevant to the year of entry.

The following additional award requirements for this programme have been approved.

Progression from Year 0 to Year 1:

Students are required to achieve a mark of at least 40% in **all** STEM Foundation Year modules within their stream, and to meet any School-specific progression requirements as detailed in the module specification(s) and in the table below.

Degree Programme	Additional Progression Requirements
All	In addition to achieving a module mark of at least 40% in each of FS0051 and FS0052, a student must engage with at least 75% of the FS0051 and at least 75% of the FS0052 on-campus taught classes, and achieve a mark of at least 40% in each of the Poster Presentation and Written Examination components of FS0052.
Chemistry *BSc with Foundation Year*	In addition to achieving a module mark of at least 40% in FS0030, a mark of at least 40% must be obtained in the FS0030 exam.
Computer Science *BSc with Foundation Year*	None
Creative Computing *BSc with Foundation Year*	None
Engineering *BEng with Foundation Year*	In addition to achieving a module mark of at least 40% in FS0071, a mark of at least 40% must be obtained in the FS0071 exam.
Environmental Science *BSc with Foundation Year*	None
Geography *BSc with Foundation Year*	None
Geology *BSc with Foundation Year*	None
Mathematics *BSc with Foundation Year*	In addition to achieving a module mark of at least 40% in FS0071, a mark of at least 40% must be obtained in the FS0071 exam.
Physics and Astronomy *BSc with Foundation Year*	In addition to achieving a module mark of at least 40% in FS0071, a mark of at least 40% must be obtained in the FS0071 exam.

Compensation is not permitted on the STEM Foundation Year.

Semester 1 Review:

Following the Semester 1 Panel, each student's academic profile will be reviewed. Where a student is not in a position to meet the progression requirements of the programme, they will be informed of their available options.**Reassessment:**

Resits will **normally** be offered for all modules, except for certain coursework assessment components, as detailed in the module specifications.

No reassessment is offered for the following lab-based module:

- CH0062 Introductory Chemistry Practical

Discretion may be given by the Board of Examiners, who can request (re)submission of one or more assessed coursework elements of a lab module, where it is possible for students to pass the module by either improving their mark in individual coursework elements and/or by meeting a progression requirement. There are no resit opportunities for missed practical work.

Reassessment will ordinarily be offered on one occasion only.

Transfer Options:

A student who achieves a mark of at least 40% in each of the modules in their stream, but fails to meet the School-specific progression requirements described above after reassessment, may be offered a transfer to another course with alternative progression requirements, at the discretion of the School. Transfers are permitted only to courses with fewer progression requirements, or progression requirements which are equivalent to those which have been met.

In cases where a student has failed to meet a requirement to progress, and there is no offer to transfer to another course, the student will be required to withdraw from the course.

Upon progression to Year 1, students may be eligible to transfer to any undergraduate degree offered by the School, within their discipline.

A foundation certificate is available on request to any student who achieves a pass mark of at least 40% on every module in the Foundation Year but does not progress to Year 1 of the degree programme.

11. Research-inspired Education

Students on this programme will advance through the four quadrants of the University of Leicester Research-inspired Education Framework as follows:

RiE Quadrant	Narrative
	Students on the STEM International Foundation Year engage with the Research-inspired Education Framework in a way that prepares them for their progression in their discipline-specific integrated degrees.
Research-briefed Bringing staff research content into the curriculum.	•Research-briefed: Foundation Year modules incorporate staff research and recent developments in STEM fields. Students encounter authentic research content in all streams.
Research-based Framed enquiry for exploring	•Research-based: Structured inquiry activities such as lab experiments and guided research develop students' skills in exploring existing knowledge. These experiences provide a foundation for more advanced research tasks in their chosen disciplines.

existing knowledge. **Research-oriented** Students critique published research content and process. **Research-apprenticed** Experiencing the research process and methods; building new knowledge.	•Research-oriented: Students critique and analyse published research through presentations and data analysis tasks. These activities nurture critical thinking and familiarise students with the research process, preparing them for independent inquiry. •Research-apprenticed: While opportunities to undertake original research are limited in the Foundation Year, students gain foundational skills and insights, enabling deeper engagement in research and innovation as they progress further in their degree programmes. The STEM International Foundation Year serves as a springboard, introducing students to research culture and inquiry-based learning while building transferable skills. As students advance to their respective Schools, they engage further with discipline-specific research opportunities, projects, and creative activities.

As part of studying at a research-intensive university, students on this programme have the following extra or co-curricular opportunities available to them to gain exposure to research culture:

As per undergraduate years 1 to 4

Teaching on this programme will be research-informed (it draws consciously on systematic inquiry into the teaching and learning process itself) in the following way:

The School supports all staff involved in teaching to gain an accredited Higher Education teaching qualification, in which they demonstrate their use of teaching theory to support their own practice and reflect on their current teaching and continuing professional development. The programme incorporates teaching strategies grounded in educational research, such as active learning, collaborative problem-solving, and formative assessment techniques, ensuring effective student engagement and knowledge retention. Educators on the programme draw on scholarship in STEM education research, such as best practices for teaching complex concepts in engineering, computational thinking, or mathematical reasoning, to refine their approach and support diverse learning needs. Some teaching staff are actively engaged in research within their fields, and their expertise and ongoing projects inform classroom teaching/tutoring, supporting a connection between education and professional research practices. The programme design is informed by continuous feedback and systematic review, using data from student performance, engagement, and feedback to refine teaching approaches and materials.

11b. Some of the programmes to which students may progress from this foundation year carry professional accreditation. Please see the relevant programme specification for detail. Please note that the accreditation applies only to the degree to which a student progresses. The foundation year alone does not carry independent professional accreditation.

12. Indications of programme quality

The teaching methodology for the STEM International Foundation Year programme has been informed from established foundation year programmes within the university, and nationally.

13. External Examiner(s) reports

The details of the External Examiner(s) for this programme and the most recent External Examiners' reports for this programme can be found at exampapers@Leicester [log-in required].

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Appendix 1: Programme structure (programme regulations)

The University regularly reviews its programmes and modules to ensure that they reflect the current status of the discipline and offer the best learning experience to students. On occasion, it may be necessary to alter particular aspects of a course or module.

Updates to the programme

Academic year	Module	Change
2026/27	FS0061 Scientific Computing	Replaces CH0062 Introductory Chemistry Practical on the Chemistry stream
2026/27	FS0071 Mathematical Methods	New 30 credit module replacing Mathematics 1; Mathematics 2
2026/27	FS0072 Mechanics	New 30 credit core module replacing Mechanics 1; Mechanics 2
2026/27	FS0073 Exploring Matter and Processes	New 30 credit core module on Physics and Engineering streams
2026/27	Electromagnetism and Quantum Physics	Module removed from Physics and Engineering streams
2026/27	Waves and Matter	Module removed from Physics and Engineering streams

Stream 1: Geoscience

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	45 credits	30 credits	45 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Year long	FS0030	Fundamental Mathematics	15 credits
Sem 1	FS0051	Academic English Language and Skills for STEM 1	15 credits
Sem 2	FS0033	Introductory Data Analysis	15 credits
Sem 2	FS0052	Academic English Language and Skills for STEM 2	15 credits
Sem 1	FS0061	Scientific Computing	15 credits
Sem 2	GY0011	Principles of Earth Science and Earth Systems	15 credits
Year long	FS0045	Introductory Earth and Environmental Science	30 credits

Stream 2: Chemistry

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	15 credits	60 credits	45 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	CH0065	Introduction to Chemistry 1	15 credits
Year long	FS0030	Fundamental Mathematics	15 credits
Sem 1	FS0043	Waves and Matter	15 credits
Sem 1	FS0051	Academic English Language and Skills for STEM 1	15 credits
Sem 1	FS0061	Scientific Computing	15 credits

Delivery period	Code	Title	Credits
Sem 2	CH0066	Introduction to Chemistry 2	15 credits
Sem 2	FS0033	Introductory Data Analysis	15 credits
Sem 2	FS0052	Academic English Language and Skills for STEM 2	15 credits

Stream 3: Physics

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	90 credits	15 credits	15 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	FS0051	Academic English Language and Skills for STEM 1	15 credits
Sem 2	FS0052	Academic English Language and Skills for STEM 2	15 credits
Year long	FS0071	Mathematical Methods	30 credits
Year long	FS0072	Mechanics	30 credits
Year long	FS0073	Exploring Matter and Processes	30 credits

Stream 4: Engineering

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	90 credits	15 credits	15 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	FS0051	Academic English Language and Skills for STEM 1	15 credits
Sem 2	FS0052	Academic English Language and Skills for STEM 2	15 credits
Year long	FS0071	Mathematical Methods	30 credits
Year long	FS0072	Mechanics	30 credits
Year long	FS0073	Exploring Matter and Processes	30 credits

Stream 5: Mathematics

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	90 credits	15 credits	15 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	FS0051	Academic English Language and Skills for STEM 1	15 credits
Sem 2	FS0052	Academic English Language and Skills for STEM 2	15 credits
Year long	FS0060	Introduction to Programming	30 credits
Year long	FS0071	Mathematical Methods	30 credits
Year long	FS0072	Mechanics	30 credits

Stream 6: Computing

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	60 credits	30 credits	30 credits
Optional	n/a	n/a	n/a

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Sem 1	FS0062	Introductory Linux	15 credits
Sem 1	FS0051	Academic English Language and Skills for STEM 1	15 credits
Sem 2	FS0033	Introductory Data Analysis	15 credits
Sem 2	FS0052	Academic English Language and Skills for STEM 2	15 credits
Year long	FS0060	Introduction to Programming	30 credits
Year long	FS0070	Computational Mathematics	30 credits

Appendix 2: Module specifications

See undergraduate module specification database [log-in required] (Note - modules are organized by year of delivery).