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

Date created: 23/02/21 **Last amended:** 01/05/2026 **Version no.** 2

1. Programme title(s) and code(s):

BSc Geology with Palaeontology F641

BSc Geology with Palaeontology with a Year in Industry *

BSc Geology with Palaeontology with a Year Abroad *

* Selected when on course

a) HECOS Code

HECOS Code	%
100395	67%
100398	33%

b) UCAS Code (where required)

F641

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 normal period of registration is three years (four years for BSc with a Year in Industry)

The maximum period of registration is five years (six years for BSc with a Year in Industry)

5. Typical entry requirements

A-level: ABB-BBB preferably including at least two from: Geology, Maths, Biology, Chemistry, Physics, Use of Maths, Computer Science, Environmental Science, or Geography. We also consider one-science profiles with Geology, Maths, Biology, Chemistry or Physics.
EPQ with A-levels: BBB + EPQ at grade B. A-level subjects preferably including at least two from: Geology, Maths, Biology, Chemistry, Physics, Use of Maths, Computer Science, Environmental Science, or Geography. We also consider one-science profiles with Geology, Maths, Biology, Chemistry or Physics.
BTEC Diploma: DDD in appropriate subject area.
Access to HE courses in Science and Engineering: 45 L3 credits, including 30 at Distinction and remaining L3 credits at least at Merit. To include Physics, Chemistry and Maths Level 3 credits.

International Baccalaureate: Pass diploma with 30 points including grade 5 in two science subjects at HL. Minimum of 3 in HL Maths or 4 in SL Maths required if grade C/4 not held at GCSE. Minimum of 4 in English Language required if grade C/4 not held at GCSE.
T Levels: Distinction in Science (with an Occupational Specialism in Laboratory technician).

For the aims, learning outcomes and application criteria for the GCSA Year Abroad please see https://le.ac.uk/study/undergraduates/courses/abroad

6. Accreditation of Prior Learning

APL will not be accepted for exemptions from individual modules, however may be considered for direct entry to year 2, on a case by case and subject to the general provisions of the University APL policy.

7. Programme aims

The programme aims to:

1) provide students with a breadth of knowledge of Geology and Palaeobiology, and exposure to some areas of research at the cutting edge of the Earth Sciences, particularly in Palaeobiology;
2) provide students with a thorough understanding of the theoretical and practical applications of Geology in the study of the Earth, and environmental and societal issues;
3) equip students with transferable and subject-specific skills necessary for a career in the Earth Sciences, other science-based industries, education, and for training at management levels in other professions;
4) promote the development of ICT and written, oral and presentation skills appropriate for a science graduate at the Bachelors level;
5) stimulate students to develop a wide range of independent and team skills;
6) ensure that students benefit from an extensive programme of work in the field, developing fundamental geological knowledge through observation and critical analysis as well as developing personal and character skills;
7) provide students, via the curriculum and research expertise of staff, with the intellectual development and stimulus for research and further study at a post-graduate level;
8) provide students with the environment in which to develop their interests in Geology and Palaeobiology;
9) enthuse and motivate all students to achieve their full potential in their degree course.

For the Year in Industry variant only, these additional programme aims apply:

- Prepare students for career and training opportunities which relates to their degree – in both the private and public sectors, and voluntary organisations.
- Construct effective applications for placement opportunities
- Provide students the opportunity to recognise suitable plans for transitioning into the workplace

8. Reference points used to inform the programme specification

Degree programmes broadly concerned with earth sciences

2.4 It is anticipated that all graduates have appropriate knowledge of the main aspects of the Earth sciences, as listed:

- A holistic view of the present and past interactions between components of the Earth system, including the effects of extra-terrestrial influences on these interactions.

- The cycling of matter and the flows of energy into, between and within the solid Earth, the Earth's surface, the hydrosphere, the atmosphere and the biosphere.
- The study of the biological, chemical and physical processes that underpin our understanding of the structure, materials and processes relevant to the Earth and planetary bodies.
- The central paradigms in the Earth sciences: uniformitarianism (the present is the key to the past); the extent of geological time; evolution (the history of life on Earth); and plate tectonics
- Geological time, including the principles of stratigraphy, the stratigraphic column, the methods of geochronology, the rates of Earth processes, major events in Earth history, the evolution of life as revealed by the fossil record, the Quaternary and Anthropocene.
- Collection and analysis of Earth science data in the field, and the appropriate presentation, manipulation and extrapolation of these sometimes incomplete data in both two and three- dimensions, including the generation of geological maps and cross sections.
- The study of structures, materials and processes that includes an appreciation of temporal and spatial variations at appropriate scales.
- The study of the structure, the composition and the materials of the solid Earth (core, mantle, crust, asthenosphere, lithosphere and so on), the hydrosphere, the atmosphere, the cryosphere and the biosphere, and the processes operating within and between them.
- An understanding of other planetary bodies.
- Earth science terminology, nomenclature and classification of rocks, minerals, fossils, and geological structures.
- The identification of rocks, minerals, fossils, and geological structures.
- Surveying and measurement both in the field and laboratory, and using quantitative and instrumental techniques.
- An awareness that the understanding and knowledge gained from the subject and its application has to be considered within a wider socio-economic and environmental context.

2.5 Typical programme elements might include: engineering geology; geochemistry; geological mapping; geomorphology; geophysics; geographic information systems and remote sensing applications; hydrogeology; igneous and metamorphic petrology, local and global tectonics; mineralogy; mineral deposits; natural hazards;; palaeobiology; palaeoclimatology; palaeontology; petroleum geology; petrology; sedimentology; stratigraphy; and structural geology.

2.6 Applications of the subject areas might include the exploration, development and remediation/storage of Earth resources (eg hydrocarbons, minerals, water, carbon dioxide sequestration, aggregates & radioactive waste), using past climates to understand climate change and the impact on the environment and society, civil engineering projects (e.g. land restoration, site investigations and waste disposal and understanding geohazards (e.g. flooding, earthquakes, volcanic eruptions and landslides.In addition, the Programme Specifications were informed by:

- QAA Benchmarking Statement
- Framework for Higher Education Qualifications (FHEQ)
- UK Quality Code for Higher Education
- University Education Strategy
- University Assessment Strategy [log in required}
- University of Leicester Periodic Developmental Review Report
- External Examiners' reports (annual)
- United Nations Education for Sustainable Development Goals
- Student Destinations Data

9. Programme Outcomes

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

a) Discipline specific knowledge and competencies

i) Mastery of an appropriate body of knowledge

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Discuss and explain the general principles and techniques of Geology, including the structure, composition and evolution of the Earth and its interrelationships with the hydrosphere, cryosphere, biosphere, and atmosphere and the perturbations of these systems by extraterrestrial influences.	Lectures; Tutorials; Practical classes; Seminars; Field Courses; Demonstrations; Example sheets; Resource-based learning; Directed reading; Problem-solving classes.	Written and practical examinations, including short-answer and essay examinations; Problem-based examinations; Coursework; Module tests; Essays; Assessment of field reports and maps; Poster presentations; Field notebooks; Problem-based exercises.
Demonstrate knowledge of the principles and techniques of palaeobiology and of its relationship to Geology.	Lectures; Tutorials; Practical classes; Seminars; Field Courses; Demonstrations; Example sheets; Resource-based learning; Directed reading; Problem-solving classes.	Written and practical examinations, including short-answer and essay examinations; Problem-based examinations; Coursework; Module tests; Essays; Assessment of field reports and maps; Poster presentations; Field notebooks; Problem-based exercises.

ii) Understanding and application of key concepts and techniques

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Describe, identify and interpret a range of geological materials, including fossils, in the laboratory and field; select appropriate techniques to enable this; and explain geological relationships.	Lectures; Tutorials; Practical classes; Field Courses; Demonstrations; Example sheets; Resource-based learning; Directed reading.	Written and practical examinations, including short-answer and essay examinations; Problem-based examinations; Field notebooks.
Examine, record and interpret the geology and palaeoenvironments (senso lato) of a region via a range of field-based techniques.	Lectures; Tutorials; Practical classes; Field Courses; Demonstrations; Independent field work.	Practical examination; Report and field notebook and map assessment
Explain geological time, rates and fluxes, and the techniques required to determine them.	Lectures, Tutorials, Practical classes; Seminars; Field Courses; Demonstrations; Example sheets; Resource-based learning; Directed reading; Problem-solving classes.	Written and practical examinations, including short-answer and essay examinations; Problem-based examinations.

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Select geological knowledge and data for modeling purposes (for example, for evaluation of scientific hypotheses, for hazard mitigation, or for resource estimation).	Lectures; Tutorials; Practical classes; Field Courses; Demonstrations.	Written and practical examinations, including short-answer and essay examinations; Problem-based examinations; field notebooks.
Describe the importance of geological materials resources, their exploitation and associated environmental impact.	Lectures, practical classes, tutorials, field courses	Exam and group work.
Demonstrate and apply knowledge of safety procedures in the field.	Field-based practical classes and demonstrations	Completion of risk assessments; Demonstration and role play; Application during Field Courses.

iii) Critical analysis of key issues

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Identify theories paradigms, concepts and principles; apply scientific principles to evaluate current geological including palaeobiological paradigms; and evaluate environmental and societal aspects of the Earth's resources.	Lectures; Tutorials; Practical classes; Field Courses; Demonstrations; Example sheets; Resource-based learning; Directed reading.	Written and practical examinations, including short-answer and essay examinations; Problem-based examinations; Coursework; Module tests; Essays; Tutorial discussions; Dissertations.

iv) Clear and concise presentation of material

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Synthesise and interpret results, in order to effectively communicate (via written, oral, graphical means) data and ideas to a range of audiences.	Tutorials; Group seminars; Practical classes	Essays, essay-based examinations; independent projects; contributions to tutorial discussions; poster displays; reports; group talks.

v) Critical appraisal of evidence with appropriate insight

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Debate geological ideas. Construct and test scientific hypotheses and analyse using geological and palaeobiological data.	Lectures; Tutorials; Practical classes; Seminars; Field Courses; Demonstrations; Directed reading; Problem-solving classes	Essays; essay- and practical examinations; reports; presentations; Dissertations.

vi) Other discipline specific competencies

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Conduct a range of field-based studies (e.g. geological mapping and recording of field observations).	Field courses, practical classes and demonstrations.	Report, field notebook, and geological map. Practical examinations.
Develop responsibility for the immediate working environment.	Field-based classes and projects.	Staff-monitoring of hazard assessment forms. Assessment of fieldwork.
Describe risks for hazard assessment for field-based work. Identify safe practice.	Field-based classes and projects.	Staff-monitoring of hazard assessment forms. Assessment of fieldwork.
Explain the geological structure and history of an area.	Field classes, lectures, practical classes.	Independent field project report.

b) Transferable skills

i) Oral communication

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Present geological data and theories using appropriate methods.	Tutorials; Group seminars/discussions; field-based presentations.	Oral presentations in tutorials and classes.
Discuss and review geological topics in tutorial and other group discussions, and respond effectively to questioning.	Tutorials; Group seminars/discussions; field-based presentations.	Oral presentations in tutorials and classes.

ii) Written communication

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Communicate effectively and appropriately in a variety of written formats including essays, reports, projects, CVs and posters	Tutorials, demonstrations and guidance notes	Assessed essays, reports, poster displays, and examinations
Draw and describe geological features, specimens and thin sections.	Practical classes, demonstrations, fieldwork, independent project work	Field notebooks; assessed practical folders; assessed reports.

iii) Information technology

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Use spreadsheets or other software to enter, manipulate and display numerical data.	Subject-embedded exercises. Tutorials.	Assessed report; practical assignments.

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Use appropriate software packages to prepare written reports, essays, dissertations, posters and presentations (e.g. Word, PowerPoint)	Report-writing for tutorials; subject-embedded exercises; presentation to tutorial groups and classes.	Assessed report; tutorial and practical assignments; independent work assignments.
ritically review information from electronic sources.	Tutorial and class supported information retrieval for projects, essays and reports.	Assessed report; tutorial; practical assignments and independent work assignments.

iv) Numeracy

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Select appropriate numerical, statistical and graphical methods to explain and interpret geological concepts.	Introduced in the first year within practical classes and tutorials.	Mid-semester progress tests and as components within subject specific modules throughout the three years of study; feedback on practical class assignments.

v) Team working

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Organize and work effectively within a team, and evaluate performance of self and of team.	Tutorials, seminars, practical classes, project work, and field-based discussions.	Tutorial-based assessments; assessed practical work, and team fieldwork.
Identify self and team goals and responsibilities for team working.	Tutorials, seminars, practical classes, project work, and field-based discussions.	Tutorial-based assessments; assessed practical work, and team fieldwork.

vi) Problem solving

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Solve numerical, spatial, temporal and geometrical problems.	Lectures, tutorials, practical and field classes, group work, projects.	Assessment of field notebooks, practical class work, project work and reports.
Solve problems with incomplete or contradictory information.	Lectures, tutorials, practical and field classes, group work, projects.	Assessment of field notebooks, practical class work, project work and reports.

vii) Information handling

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Effectively search for, gather and utilise information relevant to geological problem solving.	Lectures, tutorials, practicals, study skills within tutorials, field and lab-based projects.	Tutorial assignments, project work.

viii) Skills for lifelong learning

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Demonstrate intellectual independence via independent field-based research.	All of the above, and particularly independent project work.	Assessed independent work. Coursework within modules
Develop and implement a personal plan of work to meet a deadline.	All of the above, and particularly independent project work.	Assessed independent work.
Identify targets for personal, career and academic development.	All of the above, and particularly independent project work and in tutorials.	Assessed independent work. Successful Placement for Year in Industry students

For Year in Industry students (only)

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated
On Placement		
1. Apply the theoretical and practical aspects of the material studied at the University and demonstrate the personal and professional skills necessary for your role within the organisation.	Project supervision, independent research	Completion of Monthly Reflective Journals to record skills development, major achievements, key areas of work, learning points and challenges overcome. Assessed by a Placement Portfolio, comprising of a Reflective Summary, Professional Development Plan, and Updated CV (excluded from word count) to formally assess on a pass or fail basis. Formative feedback during a Placement Visit (in person or via Skype) from Placement Provider and Placement Tutor regarding reflection on skills development, areas of strength and weakness and contribution to the workplace.

2. Compose a Professional Development Plan considering your strengths, development areas and motivations for your next step	Project supervision, independent research	Completion of Monthly Reflective Journals to record skills development, major achievements, key areas of work, learning points and challenges overcome. Assessed by a Placement Portfolio, comprising of a Reflective Summary, Professional Development Plan, and Updated CV (excluded from word count) to formally assess on a pass or fail basis. Formative feedback during a Placement Visit (in person or via Skype) from Placement Provider and Placement Tutor regarding reflection on skills development, areas of strength and weakness and contribution to the workplace.

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 progression requirements for this programme have been approved:

Progression onto a year in industry

The progression criteria for a 'year in industry' programme is to meet the requirements needed to progress to the next level of study as outlined in the University's Senate 5 Regulations.

Where a degree programme has a requirement from a Professional or Statutory Body (PSRB) for academic attainment for students undertake a year in industry are exempt from the proposed new progression criteria and will continue to uphold existing progression criteria.

A Placement Student will revert back to the degree without Year in Industry if:

1. They fail to secure a year in industry role.
2. They fail to pass the assessment related to the year in industry.
3. The year in industry ends early due to the behaviour of the Placement Student not being in accordance with the University's Regulations for Students, Student Responsibilities. The Placement Student will need to suspend for the remainder of the academic year. To prevent such an incident from happening, processes are in place to identify any possible issues or concerns early in the year in industry role. This includes a start check, regular

communications, visits to the workplace (physical and/or virtual) and evaluation. Communication and contact between the Placement Student, Placement Provider and University provides support should issues arise.

4. They discontinue their Year in Industry. A student can return to their campus-based studies no later than the end of teaching week 2 at the start of the academic year should they decide to discontinue their Year in Industry they should complete a Course Transfer From. If a Placement Student decides to discontinue their Year in Industry after this point they will need to suspend their studies for the remainder of the academic year.

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course

a) Course transfers

Course transfers may be considered at the end of year 1.

11. Criteria for award and classification

This programme follows the standard scheme of undergraduate award and classification set out in Senate Regulations – see the version of *Senate Regulation 5 governing undergraduate programmes* relevant to the year of entry.

12. Special features

Residential field courses
Group problem solving
Student centred learning – small-group tutorials
Field-based project
Accessible, extensive mineral, rock and fossils undergraduate teaching collections
Department-based specialist careers advisors
Optional year abroad

Placements

It is the student's responsibility to secure a year in industry role. Employer led activities provide a platform for students to engage with organisations who are recruiting students for year in industry roles.

When a Placement Student starts a year in industry, they will be required to complete health and safety documents and confirm they have completed a formal induction process no later than the 2nd week of placement. A Placement Student on the Year in Industry variant will also gain from being able to:

1. Apply the theoretical and practical aspects of the material studied at the University and demonstrate the personal and professional skills necessary for your role within the organisation.
2. Compose a Professional Development Plan considering your strengths, development areas and motivations for your next step
3. Modify your CV to include the skills and experience you have gained through your significant experience gained in the past 12 months

12a. 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
	The Geology with Palaeontology programme offers a comprehensive education in geological methods, critical thinking, and problem-solving through exposure to current research and active fieldwork
Research-briefed Bringing staff research content into the curriculum.	• **Research briefed** - Students engage with challenging learning inspired by the cutting-edge research from the Evolution and Past Environments and Solid Earth research groups, as well as other experts at the University of Leicester. Our staff bring their research straight into the classroom, making learning exciting and relevant.
Research-based Framed enquiry for exploring existing knowledge.	• **Research based** - Lectures and practicals often utilize data samples from Leicester researchers, contextualizing geological interpretation and data analysis. Students receive early training to support independent geological mapping in later years.
Research-oriented Students critique published research content and process.	• **Research oriented** – Students learn to critically appraise data, conduct analyses in laboratory and computer classes, fieldwork, and various assessments. Training includes evaluating published research and data, as well as writing popular science articles based on literature interpretation.
Research-apprenticed Experiencing the research process and methods; building new knowledge.	• **Research apprenticed** – The programme includes training in report writing, group work, presentation skills, and research techniques. Students present findings through written reports, geological maps, and oral presentations. Field courses are key, providing opportunities to collect and interpret geological data, plus training in microscopy. Making an independent assessment of a new microfossil sample is a key piece of research undertaken by students. The University of Leicester's Geology programme integrates research into every aspect of learning, preparing students for advanced study and professional practice in the field.

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:

The School has a full programme of weekly seminars by outside speakers, to which Undergraduate students are encouraged to attend through promotion in the School newsletter and through lecture shout-outs. The Leicester Literary and Philosophical Society (Geology Chapter) meets regularly in the environment of the School. Staff also pen their latest research findings within the School newsletter, and pin their latest journal papers to their relevant VLE module sites in a virtual noticeboard.

The Centre for Palaeobiology offers research bursaries, which are open to all students in the School. These normally support multiple students to join a school research project.

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.

Academic staff meet twice per year to discuss the latest developments in teaching and learning, for example most recently in regard to generative artificial intelligence. Selected staff conduct horizon scanning of the latest journal papers in Journal of Geoscience Education and bring ideas at the forefront of innovation to their peers.

12b. Work-related learning

The workload of all students on this programme includes the opportunity to engage with *at least* 100 hours of employer informed, work-related learning activity. Further information regarding work-related learning is available online.

13. Indications of programme quality

Accreditation by the Geological Society of London.

The research interests of the staff strongly inform the teaching programme.

Quotes from recent External Examiners:

'The department is excellent and deserves its reputation as one of the leading centres of geoscience teaching/research in Europe.'

'This is a particularly strong programme taught by world leaders in their fields. Many of the courses have a strong practical bias and this, together with the department's excellence in field- based programmes, is particularly attractive to employers.'

14. 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]

UNIVERSITY OF LEICESTER

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

Date created: 23/02/21 **Last amended:** 01/05/2026 **Version no.** 2

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 affected	Module	Change
2027/28	GY2431 Data Analysis	New core module
2027/28	GL2101 Introduction to Geochemistry	Core module removed

BSc GEOLOGY WITH PALAEONTOLOGY

Level 4/Year 1 2026/27

Credit breakdown

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

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Year long	GL1100	Tutorials	15 credits

Delivery period	Code	Title	Credits
Semester 1	GL1103	Palaeobiology and the Stratigraphic Record	15 credits
Semester 1	GL1107	From Core to Crust	15 credits
Semester 1	GY1431	Evolution of the Earth System	15 credits
Semester 2	GL1104	Natural Resources and Energy for the 21st Century	15 credits
Semester 2	GL1105	Geological Maps and Structures	15 credits
Semester 2	GL1106	Introductory Field Course	15 credits
Semester 2	GL1108	Our Dynamic Planet	15 credits

Notes
n/a

Level 5/Year 2 2027/28

Credit breakdown

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

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	GL2107	Major Events in the History of Life	15 credits
Semester 1	GL2111	Geological Fieldwork: Methods and Applications	15 credits
Semester 1	GY2420	Climate Change: Impacts, Vulnerability and Adaptation	15 credits
Semester 1	GY2431	Data Analysis	15 credits

Delivery period	Code	Title	Credits
Semester 2	GL2102	Structure and Tectonics	15 credits
Semester 2	GL2103	Magmatic and Metamorphic Processes	15 credits
Semester 2	GL2105	Depositional Processes and Environments	15 credits
Semester 2	GL2112	Mapping Earth's History: Structural and Stratigraphic Field Techniques	15 credits

Notes
n/a

Level 6/Year 3 2028/29

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	45 credits	30 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	GL3100	Field Based Project	30 credits
Semester 1	GL3108	The Forensic, Archaeological and Geological Application of Microfossils	15 credits
Semester 2	GL3101	Dissertation	15 credits
Semester 1	GL3111	Diversity and Evolution of Vertebrates	15 credits

Notes
n/a

Option modules

Delivery period	Code	Title	Credits
Semester 1	GL3102	Environmental Geoscience	15 credits
Semester 1	GL3120	Igneous Petrogenesis	15 credits
Semester 1	NT3100	Sustainability Enterprise Partnership Project	15 credits
Semester 2	GL3109	Mineral Exploration, Economics and Sustainability	15 credits
Semester 2	GL3114	Key Events in the Evolution of Planet Earth Viewed Through the Geological Lens of Wales - a field course	15 credits
Semester 2	GL3116	Volcanology (Tenerife)	15 credits
Semester 2	GL3121	Natural Hazards	15 credits
Semester 2	GY3434	Stable Isotopes in the Environment	15 credits

Notes

This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

BSc GEOLOGY WITH PALAEONTOLOGY WITH A YEAR IN INDUSTRY

Level 4/Year 1 2026/27

Credit breakdown

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

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Year long	GL1100	Tutorials	15 credits
Semester 1	GL1103	Palaeobiology and the Stratigraphic Record	15 credits
Semester 1	GL1107	From Core to Crust	15 credits
Semester 1	GY1431	Evolution of the Earth System	15 credits
Semester 2	GL1104	Natural Resources and Energy for the 21st Century	15 credits
Semester 2	GL1105	Geological Maps and Structures	15 credits
Semester 2	GL1106	Introductory Field Course	15 credits
Semester 2	GL1108	Our Dynamic Planet	15 credits

Notes
n/a

Level 5/Year 2 2027/28

Credit breakdown

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

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	GL2107	Major Events in the History of Life	15 credits
Semester 1	GL2111	Geological Fieldwork: Methods and Applications	15 credits

Delivery period	Code	Title	Credits
Semester 1	GY2420	Climate Change: Impacts, Vulnerability and Adaptation	15 credits
Semester 1	GY2431	Data Analysis	15 credits
Semester 2	GL2102	Structure and Tectonics	15 credits
Semester 2	GL2103	Magmatic and Metamorphic Processes	15 credits
Semester 2	GL2105	Depositional Processes and Environments	15 credits
Semester 2	GL2112	Mapping Earth's History: Structural and Stratigraphic Field Techniques	15 credits

Notes

n/a

THIRD YEAR

Students who gain an industry placement will be assessed as per the standard model for undergraduate placements in the College of Science and Engineering. The marks from this year will not be included in the final degree assessment.

Year long	ADGL223	On Placement	0 credits

Level 6/Year Final 2029/30

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	45 credits	30 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	GL3100	Field Based Project	30 credits
Semester 1	GL3108	The Forensic, Archaeological and Geological Application of Microfossils	15 credits
Semester 2	GL3101	Dissertation	15 credits
Semester 2	GL3111	Diversity and Evolution of Vertebrates	15 credits

Notes
n/a

Option modules

Delivery period	Code	Title	Credits
Semester 1	GL3102	Environmental Geoscience	15 credits
Semester 1	GL3120	Igneous Petrogenesis	15 credits
Semester 1	NT3100	Sustainability Enterprise Partnership Project	15 credits
Semester 2	GL3109	Mineral Exploration, Economics and Sustainability	15 credits
Semester 2	GL3114	Key Events in the Evolution of Planet Earth Viewed Through the Geological Lens of Wales - a field course	15 credits
Semester 2	GL3116	Volcanology (Tenerife)	15 credits

Delivery period	Code	Title	Credits
Semester 2	GL3121	Natural Hazards	15 credits
Semester 2	GY3434	Stable Isotopes in the Environment	15 credits

Notes
This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

BSc GEOLOGY WITH PALAEONTOLOGY WITH A YEAR ABROAD

Level 4/Year 1 2026/27

Credit breakdown

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

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Year long	GL1100	Tutorials	15 credits
Semester 1	GL1103	Palaeobiology and the Stratigraphic Record	15 credits
Semester 1	GL1107	From Core to Crust	15 credits
Semester 1	GY1431	Evolution of the Earth System	15 credits
Semester 2	GL1104	Natural Resources and Energy for the 21st Century	15 credits
Semester 2	GL1105	Geological Maps and Structures	15 credits
Semester 2	GL1106	Introductory Field Course	15 credits

Delivery period	Code	Title	Credits
Semester 1	GL1108	Our Dynamic Planet	15 credits

Notes
n/a

Level 5/Year 2 2027/28

Credit breakdown

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

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	GL2107	Major Events in the History of Life	15 credits
Semester 1	GL2111	Geological Fieldwork: Methods and Applications	15 credits
Semester 1	GY2420	Climate Change: Impacts, Vulnerability and Adaptation	15 credits
Semester 1	GY2431	Data Analysis	15 credits
Semester 2	GL2102	Structure and Tectonics	15 credits
Semester 2	GL2103	Magmatic and Metamorphic Processes	15 credits
Semester 2	GL2105	Depositional Processes and Environments	15 credits
Semester 2	GL2112	Mapping Earth's History: Structural and Stratigraphic Field Techniques	15 credits

Notes
n/a

THIRD YEAR MODULES 2028/29

The third year will be spent abroad at one of the University's partner institutions. Students will be required to reach a prescribed level of attainment in the work done abroad (a pass in Leicester terms according to the mark translation). Any student failing the year abroad component will revert back to the standard Leicester variant of their degree."

Level 6/Year Final 2029/30

Credit breakdown

Status	Year long	Semester 1	Semester 2
Core	n/a	45 credits	30 credits
Optional	n/a	15 credits	30 credits

120 credits in total

Core modules

Delivery period	Code	Title	Credits
Semester 1	GL3100	Field Based Project	30 credits
Semester 1	GL3108	The Forensic, Archaeological and Geological Application of Microfossils	15 credits
Semester 2	GL3101	Dissertation	15 credits
Semester 2	GL3111	Diversity and Evolution of Vertebrates	15 credits

Notes
n/a

Option modules

Delivery period	Code	Title	Credits
Semester 1	GL3102	Environmental Geoscience	15 credits
Semester 1	GL3120	Igneous Petrogenesis	15 credits
Semester 1	NT3100	Sustainability Enterprise Partnership Project	15 credits
Semester 2	GL3109	Mineral Exploration, Economics and Sustainability	15 credits

Delivery period	Code	Title	Credits
Semester 2	GL3114	Key Events in the Evolution of Planet Earth Viewed Through the Geological Lens of Wales - a field course	15 credits
Semester 2	GL3116	Volcanology (Tenerife)	15 credits
Semester 2	GL3121	Natural Hazards	15 credits
Semester 2	GY3434	Stable Isotopes in the Environment	15 credits

Notes

This is an indicative list of option modules and not definitive of what will be available. Option module choice is also subject to availability, timetabling, student number restrictions and, where appropriate, students having taken appropriate pre-requisite modules.

Appendix 2: Module specifications

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

UNIVERSITY OF LEICESTER

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

Date created: 23/02/21 **Last amended:** 01/05/2026 **Version no.** 2

Appendix 3: Module mapping matrix

Research-inspired Education: Module Mapping Matrix

Please refer to the Research-inspired Education guidance document when completing the sections below. ***This is an internally-facing document which will not be shared directly with prospective or future students.***

Sub-section i: Articulation of research-inspired components within taught modules.

RiE Quadrant	Module code and name	Core[1]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-briefed Bringing staff research content into the curriculum.	GL1107 From Core to Crust	Core	Use of research data generated through staff research used in lectures and in workshops
	GL1108 Our Dynamic Planet	Core	Use of research data generated through staff research used in lectures and in workshops
	GL1103 Paleobiology & the Stratigraphic Record: Evolution & Diversity through Time	Core	Students deliver a state of the art assessment of the stratigraphic record of Earth and the UK
	GY1431 Evolution of the Earth System	Core	Lectures contain research on biogeochemistry and palaeoclimate undertaken by staff delivering the module
	GY2420 Climate Change: Impacts, Vulnerability and Adaptation	Core	Use of climate change data in tutorials and lectures
	GL2102 Structure & Tectonics	Core	Manipulation of data in lectures and practicals
	GL2103 Magmatic & Metamorphic Processes	Core	Lectures on arc magmas and large igneous provinces
	GL2105 Depositional Processes and Environments	Core	Practicals based around data collected through staff research
	GL2107 Major Events in the History of Life	Core	Workshop content using material and data generated by module convenor on exceptionally preserved deposits

[1] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).

RiE Quadrant	Module code and name	Core[2]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-based Framed enquiry for exploring existing knowledge.	GL1100 Tutorials	Core	Students research topics for an oral presentation
	GL1107 From Core to Crust	Core	Exploring the idea of early Earth formation through enquiry-based practical plus reading
	GL1108 Our Dynamic Planet	Core	Exploring dynamic Earth processes through enquiry-based practical plus reading
	GL1103 Paleobiology & the Stratigraphic Record: Evolution & Diversity through Time	Core	Practical classes enable students to examine themes from the lectures for themselves e.g. practical on graptolites which underpin the early Palaeozoic
	GL1106 Introductory Field Course	Core	Practical training in the field for collection of geological information
	GY1431 The Evolution of the Earth System	Core	Workbook reflections and calculations based on 'what if' exercises
	GL2111 Geological Fieldwork: Methods and Applications	Core	Enquiry-based training in field mapping skills
	GL2112 Mapping Earth's History: Structural and Stratigraphic Field Techniques	Core	Enquiry-based training in field mapping skills
	GL2102 Structure & Tectonics	Core	Enquiry based practical workbooks
	GL2105 Depositional Processes & Environments	Core	Active learning practicals based around data collected by teaching staff
	GL2107 Major Events in the History of Life	Core	Outline key evolutionary concepts
	GY2431 Data Analysis	Core	Problem-based statistics module – greening and browning, plastic debris transport, IODP data

[2] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).

RiE Quadrant	Module code and name	Core[2]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
	GL3100 Field Based Project	Core	Students critique and assemble data and knowledge for 4D understanding of subsurface geology
	GL3111 Diversity and Evolution of Vertebrates	Core	Use of cladistic terminology to describe phylogenetic patterns; outline basic patterns of relationships and character acquisition

RiE Quadrant	Module code and name	Core[3]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-oriented Students critique published research content and process.	GL1100 Tutorials	Core	Report investigating and interpreting published climate data
	GL2103 Magmatic & Metamorphic Processes	Core	Coursework and exam requires critique of published data
	GL2107 Major Events in the History of Life	Core	Evaluate data that is used to indicate extinction events
	GY2420 Climate Change: Impacts, Vulnerability & Adaptation	Core	Coursework writing popular scientific article
	GL3100 Field Based Project	Core	Students put desk based practical project into context with published literature
	GL3101 Dissertation	Core	A critical analysis of literature through a written report
	GL3111 Diversity and Evolution of Vertebrates	Core	Evaluate hypotheses of the ecological/functional transitions involved in the origins of major chordate crown groups

RiE Quadrant	Module code and name	Core[4]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
Research-apprenticed Experiencing the research process and methods;	GL1107 From Core to Crust	Core	Development of research skills in microscopy and geochemistry
	GL1106 Introductory Field Course	Core	Students generate data and knowledge in the field for 4D understanding of the geological subsurface and surface

[3] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).
[4] If it is not in a core module, this should be embedded in equivalent optional modules that all deliver this aspect of the framework (to ensure all students experience this element of the framework).

RiE Quadrant	Module code and name	Core[4]	How the module delivers this aspect of the RiE quadrant (one or two sentences)
building new knowledge.	GL2111 Geological Fieldwork: Methods and Applications	Core	Mapping training involving research training on new evidence for 3D sub-surface geometries
	GL2112 Mapping Earth's History: Structural and Stratigraphic Field Techniques	Core	Advanced mapping training involving research training on new evidence for 3D sub-surface geometries
	GL2101 Introduction to Geochemistry	Core	Generate new data on IODP samples and critique data quality
	GL2103 Magmatic & Metamorphic Processes	Core	Further development of research skills in microscopy and geochemistry
	GL2105 Depositional Processes and Environments	Core	Development of data interpretation skills in sedimentology
	GL3100 Field Based Project	Core	Students generate new data and knowledge for 4D understanding of geological subsurface, put into context with published literature
	GL3108 The Forensic, Archaeological Geological Application of Microfossils	Core	Independent assessment of microfossil sample (individual to each student)
	GL3111 Diversity and Evolution of Vertebrates	Core	Recognition and interpretation of vertebrate specimens with findings presented in a report

Sub-section ii: Articulation of plans / intentions for development of Research-Inspired Education beyond the existing provision. *Please capture any future ideas that are not already happening in the box below. This is an optional section and will not be subject to review.*

We need to work on the research informed side of the RiE this year – setting up groups to scan the latest research articles in Geology teaching, and working out how best to communicate research papers to students in the absence of doors to pin latest papers to. Also, developing our pedagogic research side and presenting at conferences if possible