Programme Information		
Programme Title	Programme Code	HECoS Code
Earth Science	F645/F644	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
MSci – F645	4 years	Full time	None *	240	480
BSc (Hons) – F644	N/A	N/A	None *	180	360
BSc (Ordinary)	N/A	N/A	None †	150	300
Diploma of Higher Education	N/A	N/A	None †	120	240

*MSci and BSc Earth Science degrees are not available for year one entry. Students registered for MSci or BSc degrees in Geology, Geophysics, or Earth and Planetary Science may transfer onto the Earth Science programme after the successful completion of the first year of one of those programmes.

†The Diploma and the BSc (Ordinary) are exit awards and are not available for entry.

Ownership			
Awarding Institution	Imperial College London	Faculty	Faculty of Engineering
Teaching Institution	Imperial College London	Department	Earth Science and Engineering
Associateship	Royal School of Mines	Main Location of Study	South Kensington Campus
External Reference			
Relevant QAA Benchmark Statement(s) and/or other external reference points		QAA Subject Benchmark Statement for Earth Science, Environmental Sciences and Environmental Studies	
FHEQ Level		MSci: Level 7 BSc: Level 6 Diploma: Level 5 Certificate: Level 4	
EHEA Level		MSci: 2nd Cycle BSc: 1st Cycle	
External Accreditor(s) (if applicable)			
External Accreditor 1:	None		
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 Mark Sutton, Director of Undergraduate Studies
Student cohorts covered by specification	2023-24 entry
Date of introduction of programme	October 2019
Date of programme specification/revision	August 2023

Programme Overview

BSc and MSci degrees in Earth Science are not available for entry. These programmes are designed to provide a suitable exit route for students who would otherwise be unable to meet the accreditation criteria for graduation on an accredited degree scheme. All accredited degrees in the wider geoscience programme have minimum fieldwork requirements which in practice involve considerable time spend in the field in relatively remote locations.

The Earth Science BSc and MSci programmes provide a route to graduation for students who are unable or prefer not to undertake the volume of fieldwork required in order to obtain an accredited degree. In the Earth Science programme, laboratory, practical and computer exercises substitute for accredited field work leading to a degree programme that contains all the elements of an accredited degree scheme except for the fieldwork.

BSc vs MSci

Three year programmes lead to the BSc Honours degree and four year programmes lead to the MSci (Master in Science) degree. You will gain independent project experience in both the BSc and MSci programmes; the MSci programme, however, provides greater depth and breadth, and additionally provides you with the opportunity to take more elective modules and hence increase your breadth of subject-knowledge.

Learning Outcomes

Upon successful completion of four years of study (leading to the award of an MSci for students graduating after four years), a typical Earth Science graduate will be able to:

- Demonstrate mastery of the terminology of geology, geophysics and geochemistry.
- Demonstrate a comprehensive knowledge of the principal characteristics and histories of the interior, surface, climate and biosphere of the Earth, the methods used to ascertain these characteristics, and the physical, chemical and geological processes that explain them.
- Demonstrate confidence and accuracy in identifying important rocks, minerals and structures in hand specimens.
- Use effectively the principal techniques and theories of mathematics, physics, chemistry, engineering and computer programming required across geoscience.
- Evaluate geological, geophysical, geochemical and remote sensing data, and infer appropriately by extrapolating realistically from incomplete or inadequate data.
- Synthesise observations, evidence and theory across different areas of earth and planetary science, recognising and explaining similarities and differences between different regions, times, planets and processes.
- Work independently, evaluate progress, and report technical observations, methods and conclusions

effectively.

- Explain the concepts of plate tectonics, isostasy and heat transport in the Earth.
- Demonstrate awareness of societal and industrial needs, practical engineering solutions to real-world problems, and environmental and human impact in relation to geoscience.
- Describe the principal characteristics of the terrestrial planets, major moons and minor bodies in the Solar System, and the processes that explain these characteristics.
- Describe and explain how major earth resources are generated, their global distribution and characteristics, and the methods that can be used for their discovery and exploitation.
- Discuss with confidence the theories, principles, and outstanding controversies for major processes, phenomena and observations within earth science.
- Demonstrate a high-level of professional skill in written, verbal and online technical communication, engaging and persuasive presentation, problem solving and project management.
- Demonstrate mastery of at least one advanced technique for acquiring, generating, analysing, evaluating or challenging observations or theory within earth and planetary science.
- Conceive, design, execute, critique, revise, document and present an original research project.
- Synthesise original scientific literature extending into active research areas at the boundaries of the subject.
- Analyse major unsolved questions within earth science, understanding their history, context and importance, and display confidence in formulating, evaluating and advancing well-argued opinions on how these questions might be resolved.

Upon successful completion of three years of study (leading to the award of a BSc for students graduating after three years), a typical Geology graduate will be able to:

1. Demonstrate mastery of the terminology of geology, geophysics and geochemistry.
2. Demonstrate a comprehensive knowledge of the principal characteristics and histories of the interior, surface, climate and biosphere of the Earth, the methods used to ascertain these characteristics, and the physical, chemical and geological processes that explain them.
3. Demonstrate confidence and accuracy in identifying important rocks, minerals and structures in hand specimens.
4. Use effectively the principal techniques and theories of mathematics, physics, chemistry, engineering and computer programming required across geoscience.
5. Evaluate geological, geophysical, geochemical and remote sensing data, and infer appropriately by extrapolating realistically from incomplete or inadequate data.
6. Synthesise observations, evidence and theory across different areas of earth and planetary science, recognising and explaining similarities and differences between different regions, times, planets and processes.
7. Work independently, evaluate progress, and report technical observations, methods and conclusions effectively.
8. Explain the concepts of plate tectonics, isostasy and heat transport in the Earth. Describe the principal characteristics of the terrestrial planets, major moons and minor bodies in the Solar System, and the processes that explain these characteristics.
9. Demonstrate awareness of societal and industrial needs, practical engineering solutions to real-world problems, and environmental and human impact in relation to geoscience.
10. Describe the principal characteristics of the terrestrial planets, major moons and minor bodies in the Solar System, and the processes that explain these characteristics.
11. Describe and explain how major earth resources are generated, their global distribution and characteristics, and the methods that can be used for their discovery and exploitation.
12. Discuss with confidence the theories, principles, and outstanding controversies for major processes,

phenomena and observations within earth science.

13. Demonstrate a high-level of professional skill in written, verbal and online technical communication, engaging and persuasive presentation, problem solving and project management.

Upon successful completion of two years of study (leading to the award of a Diploma for students exiting after two years), a typical student will be able to:

1. Demonstrate accuracy in their use of the terminology of geoscience.
2. Demonstrate a good knowledge of the principal characteristics of the interior, surface and biosphere of the Earth, their histories, and the physical and geological processes that explain these characteristics.
3. Demonstrate accuracy in identifying important rocks, minerals and structures in hand specimens.
4. Apply the principal techniques and theories of mathematics, physics, chemistry, engineering and computer programming to geoscience.
5. Evaluate geological, geophysical, geochemical and remote sensing data.
6. Explain accurately the methods used to make observations about the surface and interior of the Earth, and be able to report the principal results produced by these methods.
7. Work independently, evaluate progress, and report technical observations, methods and conclusions effectively.
8. Explain the concepts of plate tectonics, isostasy and heat transport in the Earth.
9. Demonstrate awareness of societal and industrial needs, practical engineering solutions to real-world problems, and environmental and human impact in relation to geoscience.

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

Entry Requirements	
Academic Requirement	**A-level** A minimum of AAA overall or equivalent. To include at least two of the following subjects: Mathematics, Physics, Chemistry, Geology, Biology, Geography. General Studies and Critical Thinking are **not** accepted. **International Baccalaureate** A minimum of 38 points overall. To include a minimum of 6 in two of the following at higher level: Biology, Chemistry, Geography, Mathematics or Physics. For further information on entry requirements, please go to www.imperial.ac.uk/study/apply/undergraduate/entry-requirements/
Non-academic Requirements	None
English Language Requirement	Standard requirement Please check for other Accepted English Qualifications
Admissions Test/Interview	N/A

The programme's competency standards documents can be found at:
www.imperial.ac.uk/engineering/departments/earth-science/current-student-staff-info/ug/

Learning & Teaching Approach

Earth Science is an inherently interdisciplinary and practical science, which lends itself to a diverse range of classroom, laboratory and field-based teaching methods. As an Earth Scientist at Imperial, you will learn about both the latest data acquired for example by a rover on Mars, or by the most recent high-tech mass spectrometer uncovering the isotopic chemistry of life in an ancient ocean, first-hand from the scientists who are making these discoveries, and about established theories and observations that provide the foundations for our modern understanding. Reflecting this, our teaching approach is dynamic and flexible, matching the breadth, diversity and rapid evolution of our subject matter.

In the first two years, the major taught elements of the programme are provided by:

- formal lectures to develop necessary theory and background, and expand your intellectual understanding,
- supervised problem and laboratory classes to advance your practical skills and hands-on experience,
- a field module, run typically in southern Europe, that integrates this theory and practice, building upon your direct observations in the field to advance your confidence and reinforce the knowledge gained during earlier classroom-based learning.

Most modules involve both theory and practical elements in which the two teaching styles are blended together, so that both forms of learning typically occur within a single class-room session involving student participation integrated into formal lectures. The advantage of this approach is that learning is carefully scaffolded for the student, for example delivering new terminology, concepts and ideas at the beginning of a session, and then immediately reinforcing and integrating this information in a teacher-facilitated, student-focused practical lab class, where knowledge is applied to real-world problems. During most practical classes, graduate teaching assistants are on-hand to support the lecturer and to provide you with continuous opportunities to check and extend your understanding, ask questions, and engage in an informed and productive dialogue.

You will often be encouraged to work in small groups during practical classes and to engage in discussion with your peers and teachers about the material covered. The learning gained from this combination of lecture and practical is supported and strengthened by small-group tutorials, group seminars, and computer-programming workshops. Ultimately, this blended approach to learning will help to make you into a professional geoscientist, confident in the necessary mathematics, physics and chemistry, able to write original computer programs, and with skills and knowledge applicable across the breadth of the Earth and planetary sciences.

In year three, an independent laboratory project will occupy about a quarter of your total time; regular workshops will support you in this challenging endeavour. In years three and four, formal teaching will also become more diverse and wide-ranging as you choose from a range of elective modules that typically span pure geology, geophysics, geochemistry, climate, environmental and engineering geology, the petroleum and mining industries, planetary science, and a range of transferable skills including management, business and technical writing. The elective modules introduce both depth and breadth to your studies – taking some subjects to the limits of what is currently known and understood, and introducing new topics in areas that you will not previously have studied in detail. These modules are designed to challenge you, and are taught using a diverse range of techniques – some will be strongly practical, others will be predominantly theoretical, and yet others will be project based.

For MSci students, the fourth and final year involves advanced taught modules and the major MSci research project. The results of many MSci projects are of publishable quality, and some are published in peer-reviewed academic journals. MSci projects vary hugely from student to student, and may involve almost any combination of laboratory experiment, computer simulation, theory and practical work. An MSci project will develop your high-level transferable skills in scientific research, synthesis, analysis, collaboration and project management, help you to master some advanced techniques, technologies and ideas, and expose you to rigours of solving real difficult scientific and technical problems in a finite time.

Throughout the programme, a number of workshops, tutorials and other activities run that are designed to build a particular focus, and develop particular skills, in each year. These are:

- Year 2 – Engineering Focus: builds awareness of society, industry, and practical solutions to problems.
- Year 3 – Professional Focus: develops skills in communication, presentation, teamwork, problem-solving and project management.
- Year 4 – Research Focus: develops skills in project design, advanced research methods, and frontier geoscience, and actively explores the scientific boundaries of human knowledge.

Throughout the programme, extensive use is made of technology to enhance and support you in the classroom, during private study, and on fieldwork. If, for example, you choose to take an elective module that covers processes on another planet, then you may find yourself involved in a virtual field trip to the surface of

that planet, or if you study advanced seismic interpretation, then you will be using advanced 3D commercial software to explore the subsurface of the Earth for valuable resources. Lecturers also seek to integrate technology into their day-to-day teaching, using online voting, instructional videos and e-books to support and diversify your learning experience.

Workload

Module size at Imperial is measured in ECTS (European Credit Transfer System) credits. One ECTS represents about 25 hours of student effort for a typical conscientious student, including formal teaching, fieldwork, private study, examination preparation and assessment. A full academic year involves 60 ECTS, or about 1500 hours of study in total.

A typical module taught over one term will be worth 5 ECTS. It will involve about 30 hours of formal teaching in lectures, practicals, tutorials and workshops, about 64 hours of coursework, problem solving, private study and project work, and about 30 hours of revision for a one-hour examination. There is significant variation in this balance between different modules, but all modules of equivalent value involve similar levels of commitment and workload.

Lectures, practicals and other formal activities take place on weekdays only, with Wednesday afternoons normally remaining free. There is no teaching at weekends except for the first-year field module that is run outside London; this typically runs for ten to twelve days and so involves a weekend spent on fieldwork. We do not normally schedule teaching out of term time.

Assessment Strategy

Assessment Methods

You will have already experienced various forms of academic assessment during your previous education. At Imperial, we use assessment in two ways: Formative assessment is used to develop your skills, knowledge and understanding, and to help you judge your own progress; formative assessment does not contribute to your final marks and class of degree awarded. Summative assessment involves formal assessment of your work, through examination, coursework and project work; summative assessment does contribute to your final result.

Formative assessment is provided throughout the programme in a variety of forms. Almost all practical classes, problem classes workshops, and field trips involve formative assessment throughout, supported by direct verbal feedback from lectures and graduate teaching assistants in the classroom, the provision of worked examples and correct solutions for practicals and coursework, and written comments in field and laboratory notebooks. Fieldwork provides ample opportunity for formative feedback, as students and teachers engage in dialogue at the outcrop. Many lectures involve mini tests, and other forms of rapid assessment within the lecture or associated practical class, and tutorial work and small independent projects in the first two years provide more-structured formative assessment.

Summative assessment is provided through formal written examinations, practical examinations, assessed coursework, and independent project, laboratory and fieldwork reports. The independent project may also be assessed by oral examination, and some specialist elective modules may involve assessment of oral presentations, posters and team performance. All assessment is aligned with the intended learning outcomes for the taught modules, and is intended to act as a method of consolidating learning through revision and application, rather than simply as a measure of progress.

The exact balance of summative assessment through the programme depends upon which elective modules are taken, but is likely to be approximately:

	Coursework	Practical	Examination
Year 2	10%	30%	60%
Year 3	5%	40%	55%
Year 4	5%	55%	40%

Coursework: unsupervised written assessment such as essays and problem sheets – typically you will conduct coursework independently outside normal timetabled classes.

Practical: assessment of your performance in timetabled practical, laboratory and field classes, and in major projects – typically assessment is through project reports, field and laboratory notebooks, verbal and poster presentations, oral

examinations, and group exercises.

Examination: invigilated assessment, including practical examinations and supervised in-class tests as well as conventional written examinations – typically you will answer previously unseen questions in a fixed time period.

In Earth Science, many examinations will have a strong practical element. As the course progresses, the importance of examination decreases, and more weight is placed upon performance in independent projects.

Academic Feedback Policy
Timely, well-structured, relevant feedback is an integral part of the learning process; it is prioritised by teachers and highly valued by students in Earth Science and Engineering. Feedback is provided frequently and in many different formats throughout the programme. Both written and verbal feedback is provided during practical and problem classes, in workshops, in tutorials, during field work, and in response to assessed and unassessed coursework. Much of this feedback is instant; it occurs as students are engaging with the task, and helps them to check their understanding, and evaluate their own progress, in real time. For example, during fieldwork, verbal feedback is provided constantly throughout the working day, allowing students to change and improve their learning approaches in an iterative fashion. Students are encouraged to reflect and act upon their feedback, particularly with regard to their written projects in years one, two and three, which build in complexity and difficulty. Written feedback on minor coursework is normally be provided within two weeks of submission. Feedback will normally be individual on assessed summative coursework and project work, and will normally be generic on unassessed formative coursework, provided verbally or in writing, typically during the next teaching session or delivered online. Feedback on major projects will normally be provided within five weeks in term time; this is typically written feedback focussed on how the student could improve the work for the future Generic feedback is provided on all examinations, once summative marks are released; where appropriate, individuals can request to be given supervised access to their exam scripts. 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/
Re-sit Policy
The College's Policy on Re-sits is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/
Mitigating Circumstances Policy
The College's Policy on Mitigating Circumstances is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

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
Field clothing	Optional	£150 total
Funding is available for students who may require additional support towards mandatory fieldwork costs. You should refer to the departmental webpages for the latest funding schemes and application deadlines: www.imperial.ac.uk/earth-science/current-student-staff-info/ug/ (see Funding & Scholarships tab)		

Important notice: The Programme Specifications are the result of a large curriculum and pedagogy reform implemented by the Department and supported by the Learning and Teaching Strategy of Imperial College London. The modules, structure and assessments presented in this Programme Specification are correct at time of publication but might change as a result of student and staff feedback and the introduction of new or innovative approaches to teaching and learning. You will be consulted and notified in a timely manner of any changes to this document.

Programme Structure[1]

Year 2 - FHEQ Level 5

Students study all core and compulsory modules, plus three modules from group F and one from group G.

Code	Module Title	Core/ Compulsory/ Elective	Group	Term	Credits
EART50001	Solar System Science	Core		Autumn	5
EART50002	High-temperature Geochemistry	Core		Autumn	5
EART50003	Maps and Structures	Compulsory		Autumn	5
EART50004	Pure and Applied Geophysics	Compulsory		Autumn-Spring	7.5
EART50009	Remote Sensing Earth and Planets	Compulsory		Spring	5
EART50017	Palaeontology and Optical Petrology	Elective	F	Autumn-Spring	7.5
EART50010	Maths for Scientists and Engineers	Elective	F	Autumn-Spring	7.5
EART50007	Igneous and Metamorphic Geology	Elective	F	Spring	7.5
EART50018	Seismology and Numerical Methods	Elective	F	Spring	7.5
EART50011	Mechanics and Waves	Elective	F	Autumn-Spring	7.5
EART50008	Sediments and Stratigraphy	Elective	F	Autumn-Spring	7.5
EART50012	Environmental Geochemistry and Climate Report	Elective	G	Spring-Summer	10
EART50005	Rocks and Structures in the Field	Elective	G	Spring-Summer	10
EART50006	Field Geophysics	Elective	G	Spring-Summer	10
EART50019	Field Geology and Environmental Geochemistry[2]	Elective		Spring-Summer	10
				Credit Total	**60**

Year 3 - FHEQ Level 6

Students study all core and compulsory modules, plus two modules from group C, and **either**: one module from group H, and four modules from group D, **or**: five modules from group D which may include a second co-curricular module for credit. Students may take a maximum of three level-7modules.

Students must have earned 60 ECTS at Level 7 by the end of Year 4.

Code	Module Title	Core/ Elective/ Compulsory	Group	Term	Level	Credits
EART60001	Independent Project	Core		Autumn	6	15
EART60003	Climate	Core		Autumn	6	5

[1] Core modules are those which serve a fundamental role within the curriculum, and for which achievement of the credits for that module is essential for the achievement of the target award. Core modules must therefore be taken and passed in order to achieve that named award. Compulsory modules are those which are designated as necessary to be taken as part of the programme syllabus. Compulsory modules can be compensated. Elective modules are those which are in the same subject area as the field of study and are offered to students in order to offer an element of choice in the curriculum and from which students are able to select. Elective modules can be compensated.

[2] Field Geology and Environmental Geochemistry is only available when agreed by the department's Director of Undergraduate Studies.

	I-Explore	Compulsory		Autumn &/or Spring	6	5
EART60002	Continental Tectonics	Elective	C	Autumn	6	5
EART60005	Advanced Remote Sensing	Elective	C	Autumn	6	5
EART60004	Near-surface Seismic Imaging	Elective	C	Autumn	6	5
EART60023	Practical Seismic Data Processing	Elective	H	Summer	6	5
EART60006	Integrated Advanced Field Geology	Elective	H	Summer	6	5
					Credit Total	**60**

Year 4 - FHEQ Level 7

Students study the core module, plus **either**: five modules from group D and one module from group J, **or**: six modules from group D. Students may take a maximum of three level-6 modules which may include I-Explore as an elective for credit.

Students must have earned 60 ECTS at Level 7 by the end of Year 4.

Code	Module Title	Core/ Elective	Group	Term	Level	Credits
EART70009	MSci Independent Project	Core		Autumn-Spring	7	30
EART70019	Field Geology of an Active Mountain Belt	Elective	J	Summer	7	5
EART70157	Geophysical Synthesis Group Project	Elective	J	Autumn-Summer	7	5
					Credit Total	**60**

Year 3/4 - FHEQ Level 6/7 – Group D electives

Different sub-sets of modules are offered each year, with a minimum of 12 elective modules normally available.

Code	Module Title	Core/ Compulsory/ Elective	Group	Term	Level	Credits
EART60008	Mining Environmental Management	Elective	D	Spring	6	5
EART60009	Ore Deposits	Elective	D	Spring	6	5
EART60011	Environmental Seminars	Elective	D	Spring	6	5
EART60010	Hydrogeology and Fluid Flow	Elective	D	Spring	6	5
EART60028	Tectonics of the Oceans	Elective	D	Spring	6	5
EART60024	Planetary Surfaces	Elective	D	Spring	6	5
EART60014	Advanced Programming	Elective	D	Spring	6	5
EART60021	Gravity, Magnetism and Orbital Dynamics	Elective	D	Spring	6	5
EART60016	Geological and Coastal Engineering	Elective	D	Spring	6	5
EART60017	Astrobiology	Elective	D	Spring	6	5

EART60018	Earth Systems	Elective	D	Spring	6	5
	I-Explore	Elective	D	Autumn &/or Spring	6	5
EART60034	Advanced Applied Geophysics	Elective	D	Autumn	6	5
EART70004	Planetary Chemistry	Elective	D	Spring	7	5
EART70155	Planetary Physics	Elective	D	Spring	7	5
EART70152	Palaeobiology	Elective	D	Spring	7	5
EART70153	Palaeoceanography	Elective	D	Spring	7	5
EART70008	Geohazards	Elective	D	Spring	7	5
EART70048	Geodynamics	Elective	D	Spring	7	5
EART70010	Applied Geomorphology	Elective	D	Spring	7	5
EART70049	Collisions and Craters	Elective	D	Spring	7	5
EART70012	Meteorites	Elective	D	Spring	7	5
EART70013	Geophysical Inversion	Elective	D	Spring	7	5
EART70014	Advanced Exploration Geophysics	Elective	D	Spring	7	5
EART70151	Geological Reactive Transport	Elective	D	Spring	7	5
EART70016	Minerals Processing	Elective	D	Spring	7	5
EART70050	Magmatic Processes and Products	Elective	D	Spring	7	5
EART60041	Data Science and Machine Learning for Geoscientists	Elective	D	Spring	6	5
EART70015	Advanced Exploration Seismology	Elective	D	Spring	7	5
EART70186	Sea-Level Change	Elective	D	Spring	7	5

Progression and Classification

Progression

Year Two: Candidates must achieve an aggregate mark of at least 40.00% for the year, must pass all core modules, and must have earned at least 60 ECTS credits for the year. No more than 15 ECTS may be earned as compensated passes per credit level during the programme.

Additionally, for progression on the MSci, candidates must normally achieve an aggregate mark of at least 60.00%, weighted across years 1 and 2.

Year Three: Candidates must achieve an aggregate mark of at least 40.00% for the year, must pass all core modules, must have earned at least 60 ECTS credits for the year, and must have earned at least 45 credits at level 6 or higher. No more than 15 ECTS may be earned as compensated passes per credit level during the programme.

Year Four: Candidates must achieve an aggregate mark of at least 50.00% for the year, must pass all core modules, must have earned at least 60 ECTS credits for the year, and must have earned at least 60 credits at level 7. No more than 15 ECTS may be earned as compensated passes per credit level during the programme.

- The pass mark for modules at levels 4, 5 and 6 is 40.00%, and at level 7 is 50.00%.
- At the discretion of the Board of Examiners, compensated fails may be awarded in non-core modules at levels 4, 5 and 6 that have been awarded 30.00% or higher, and in non-core modules at level 7 that have been awarded 40.00% or higher. Compensated passes are not allowed in core modules. Marks for modules awarded a compensated pass are included in year and programme overall weighted marks.
- A single compulsory I-Explore co-curricular module must be taken, and subsequently passed or awarded a compensated fail, but will not be included in calculating the aggregate mark for the year. If optional additional co-curricular modules are taken for credit, then their marks will be included in calculating the aggregate mark for the year.
- The marks for both level-6 and level-7 modules are included in calculating aggregate marks in year 3 and in year 4.

Classification

The marks from modules in each year contribute towards the final degree classification using the weighting:

	BSc	MSci
Year 1:	7.50%	7.50%
Year 2:	35.00%	20.00%
Year 3:	57.50%	36.25%
Year 4:	-	36.25%

Final degrees are classified as:

First:	70.00% or above for the average weighted module results
Upper Second:	60.00% or above for the average weighted module results
Lower Second:	50.00% or above for the average weighted module results
Third:	40.00% or above for the average weighted module results

Please find the full Academic Regulations at www.imperial.ac.uk/about/governance/academic-governance/regulations/. Please follow the prompts to find the set of regulations relevant to your programme of study.

Programme Specific Regulations

None

Supporting Information
The Programme Handbook is available at: www.imperial.ac.uk/engineering/departments/earth-science/current-student-staff-info/ug/
The Module Handbook is available at: www.imperial.ac.uk/engineering/departments/earth-science/current-student-staff-info/ug
The College's entry requirements for postgraduate programmes can be found at: www.imperial.ac.uk/study/apply/postgraduate-taught/entry-requirements/
The College's Quality & Enhancement Framework is available at: 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
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/
Imperial College London is regulated by the Office for Students (OfS) www.officeforstudents.org.uk/advice-and-guidance/the-register/
This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes 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.

Modifications			
Description	**Approved**	**Date**	**Paper Reference**
N/A	N/A	N/A	N/A