

Programme Specification

MEnvSci Environmental Science (2020-21)

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution	University of Southampton
Teaching Institution	University of Southampton
Mode of Study	Full-time
Duration in years	4
Accreditation details	Institution of Environmental Sciences (IES)
Final award	Master of Environmental Sciences (MEnvSci (Honours))
Name of award	MEnvSci Environmental Science
Interim Exit awards	Bachelor of Science with Honours (BSc (Hons)) Bachelor of Science (Ordinary) Certificate of Higher Education (CertHE) Diploma of Higher Education (DipHE)
FHEQ level of final award	Level 7
UCAS code	F902
Programme code	8441
QAA Subject Benchmark or other external reference	Earth sciences, environmental sciences and environmental studies 2019
Programme Lead	Katherine Parks

Programme Overview

Brief outline of the programme

The programme is designed to provide flexibly structured and coherent study that prepares you for employment in a variety of environmental and sustainability related careers. The programme requires you to become an autonomous and reflective environmental scientist. Studying towards the MEnvSci fosters the development of a highly independent approach to your work, in terms of both your learning and research. Parts I – III run in parallel with our three-year BSc programme, whilst part IV enables you to develop your own research interest with an advanced individual project, along with studying taught modules at Master level. At the end of Part III you may graduate with a BSc (hons) if you wish.

Your contact hours will vary depending on your module/option choices. Full information about contact hours is provided in individual module profiles.

Learning and teaching

The wide variety of teaching and learning methods employed in our environmental science programmes include lectures, seminars, field exercises, field courses and activities such as placements within industry. Several modules involve group exercises where you learn not only about the subject but also how to operate as an effective team, managing your time and assigning roles efficiently.

Teaching is delivered on a semester pattern, each semester being of 14 weeks duration. The last two weeks of each semester are generally set aside for examinations .

The programme is offered only on a full-time basis and leads to an integrated Master's degree in Environmental Science (MEnvSci) and requires 4 years' study. At least half of each part is core to all pathways, with the remainder consisting of pathway options and one free choice option (detailed in the tables below). This enables your knowledge and understanding to be orientated around an area of specialisation, aligned with your pathway, whilst maintaining a broad overview of the wider environmental context. The programme structure is outlined in the tables below, split into the four pathways:

- Aquatic Environments and Resources (AER)
- Biodiversity and Conservation (BD&C)
- Environmental Change (EC)
- Sustainable Environmental Management (SEM)

Assessment

The wide variety of teaching approaches inevitably leads to an equally wide breadth of assessment methods. For example, students may be assessed through coursework in the form of essays, reports, policy briefs, impact statements, ISO14001 audits, grant applications, literature reviews, journal articles and presentations, as well as practical and written exams, both unseen and open book.

Special Features of the programme

Part I of the programme offers bespoke training to Environmental Science students designed to provide you with the skills essential for the remainder of your studies, and to form the foundation for your career. Part I students will attend a residential weekend field trip in the early part of semester 1; in addition to learning essential field skills, the focus is on developing a cohort bond that will promote and enable good working relationships with your colleagues over the next three years. In addition, there is a longer residential field course in Part II which offers the opportunity to environmental issues in a non-UK context. From Part II onwards, up to 50% of the curriculum consists of optional modules; these are chosen from a list tailored to your pathway thus enabling you to maintain a coherent degree whilst pursuing topics of individual interest. Among the choices, you may select one language or one curriculum innovation module (coded UOSM), provided they comprise no more than 15 ECTS / 30 CATS credits. In part III, all students undertake a substantive individual research project – allowing further specialisation into a field of interest. Part IV provides you with the opportunity to develop your employability via a Work Based Learning module, while further developing your quantitative and research skills to an advanced level with the completion of a further individual research project.

Please note: As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. As a result, this programme may be revised during a student's period of registration; however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our [Disclaimer](#) to see why, when and how changes may be made to a student's programme.

Programmes and major changes to programmes are approved through the University's [programme validation process](#) which is described in the University's [Quality handbook](#).

Educational Aims of the Programme

The aims of the programme are:

- To provide you with a deep understanding of the functioning and management of the environment, based on firm scientific foundations.
- To produce graduates who think critically about the environment in the contemporary world and are able to pursue independent study in the subject with enthusiasm.
- To give you the opportunity to develop an extensive and in-depth specialist knowledge and understanding in a chosen area of environmental science, whilst maintaining a broader view of the environment on an interdisciplinary and multidisciplinary basis.
- To provide you with extensive knowledge and understanding of the interactions of the environment and society.
- To enable you to undertake an advanced independent research project.
- To provide an education suitable for a wide variety of careers in the environment, including training for higher degrees.
- To provide the key skills transferable to other disciplines so that you are capable of reaching your full potentials and play a full role in society including careers in academic and/or professional environmental fields, and in non-environmental science professions, industry and commerce.

Programme Learning Outcomes

Knowledge and Understanding

On successful completion of this programme you will have knowledge and understanding of:

- A1. Deep knowledge and understanding of subject-specific theories, paradigms, concepts and principles
- A2. An ability to understand issues from a range of interdisciplinary and multidisciplinary perspectives

Teaching and Learning Methods

Acquisition of core knowledge and understanding is through lectures, seminars, tutorials, field and laboratory classes, workshops, and independent study and research. You are encouraged from an early stage to supplement and consolidate your understanding and knowledge by independent study. Strong emphasis is also placed on the importance of using the flexibility of the programme to build an individual portfolio of knowledge and skills which reflects your particular interest(s) in the environment.

Assessment Methods

Knowledge is assessed throughout the programme through a combination of formative methods (to provide you with constructive feedback to help you develop your skills and understanding) and summative methods (to assess your performance). Formative assessment takes the form of feedback on essays, practical reports, workshops and oral presentations, and is stressed during earlier stages of study. Formative assessment is delivered in part through informal assessment of work that does not

contribute directly to your performance in modules (e.g. class debriefings on oral presentations). Summative assessment takes the form of unseen examinations and tests, multiple choice examinations, short answer papers, and various project work and coursework. You will also be given feedback on summative project work and coursework, and will be given the opportunity to review your summative unseen examinations with your tutor.

Subject Specific Intellectual and Research Skills

On successful completion of this programme you will be able to:

- B1. Fully integrate evidence from a range of sources to test findings and hypotheses
- B2. Analyse, synthesise, summarise and critically evaluate information to a high standard, e.g. suitable for publication
- B3. Define complex problems and to develop and evaluate viable solutions

Teaching and Learning Methods

Intellectual skills are developed through lectures, seminars, tutorials, workshops, discussion groups (verbal and internet), and laboratory and practical exercises. Independent reading from a wide range of sources (printed and electronic) covering a variety of issues (linked to formal module material and general environmental issues) also contributes to the development of your intellectual skills by exposing you to differing opinions and perspectives. Applications of theoretical concepts to real-life situations are explored and evaluated by compilation of a portfolio, including personal and professional skills portfolios, and experiential learning assessment.

Assessment Methods

A wide range of assessment methods, both formative and summative, are used to assess intellectual skills. These may include formal unseen examinations, coursework, oral & poster presentations, internet discussions, and peer assessment.

Transferable and Generic Skills

On successful completion of this programme you will be able to:

- C1. Demonstrate a highly critical approach to academic literature, data and other sources of information
- C2. Interpret and evaluate practical results in a logical manner suitable for publication
- C3. Communicate in a professional manner to a wide variety of audiences using a range of formats
- C4. Demonstrate excellent interpersonal communication skills to enable effective team working

- C5. Argue a case in a coherent and persuasive manner
- C6. Work effectively as a team member in a range of roles
- C7. Recognise and respond respectfully to the views of others
- C8. Learn in an autonomous manner
- C9. Identify and achieve targets for personal, career and academic development
- C10. Reflect on the process of learning, evaluate personal strengths and weaknesses, and take steps to improve your learning practices
- C11. Display a clear profile of graduate skills relevant to career pathways

Teaching and Learning Methods

Development of key skills is through training sessions, workshops, tutorials and through self-evaluation of personal skills. Key skills are delivered through core subjects and are emphasized early in the programme to ensure that these skills are in place for use throughout later stages of study. Completion of the various tasks required in modules primarily aiming to deliver knowledge and understanding also contributes to development of these skills, for example, by self-reflection of feedback, organising time to meet deadlines, and use of ICT to produce written work and deliver oral or visual presentations. Written communication skills are practised in all modules. In addition to work done by individuals, tasks are also undertaken in groups in some modules, for which training is at an early stage in the programme (part I).

Assessment Methods

Skills are formatively assessed through written reports and oral presentations, practical and laboratory reports. Summative assessment is through unseen examinations, extended essays, literature reviews, and completion of two independent research projects.

Subject Specific Practical Skills

On successful completion of this programme you will be able to:

- D1. Conduct fieldwork and laboratory investigations at the level of competence expected of a junior researcher or consultant
- D2. Describe and record observations in the field and laboratory to an advanced level
- D3. Plan and undertake laboratory and fieldwork ethically and safely
- D4. Plan, conduct and present an advanced level independent project with appropriate guidance
- D5. Prepare, manipulate and interpret data using advanced techniques
- D6. Use advanced numerical and statistical techniques
- D7. Use advanced technologies in addressing problems effectively
- D8. Appreciate the importance of risk assessment and relevant legislation

Teaching and Learning Methods

Subject practical skills are developed early in the programme (part I) to ensure you have an appropriate level of competence, regardless of your previous training and experience. Field work opportunities focus on field techniques and practices, and on working safely. Skills acquired may underpin practical exercises and projects in optional modules and may underpin the two research projects. The use of published data and information is used to provide context and comparison for practical and research projects, along with use of secondary data.

Assessment Methods

Formative assessment of knowledge acquired is through formal written reports, oral presentations, and inspection of the risk assessments completed prior to undertaking field surveys. Summative assessment is primarily made through written reports assessments on completion of projects.

Programme Structure

The programme structure table is below:

Information about pre and co-requisites is included in individual module profiles.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Aquatic Environments and resources

Part I

The programme level learning outcomes delivered by core modules are detailed in the curriculum map (Appendix 2). For learning outcomes covered by optional modules, please see the individual module profiles. All modules are worth 7.5 ECTS (15 CATS), unless otherwise stated. You are strongly encouraged to ensure a balanced study load across semesters, i.e. 30 ECTS (60 CATS) per semester. With strong justification, you may choose to split the study load to a maximum of a 22.5:37.5 ECTS (45:75 CATS) credit ratio. You may not study more than 37.5 ECTS (75 CATS) in any one semester.

In order to graduate from the MEnvSci, over the course of your programme you must complete 60 ECTS (120 CATS) at Master's level; 37.5 ECTS (75 CATS) will come from the core Part IV curriculum. The remaining 22.5 ECTS (45 CATS) will usually be completed in Part IV, however you can use forward and back-tracking to complete the required credits over both parts III and IV. You may only backtrack in Part IV if you have completed sufficient Master's level credits in Part III to meet the 60 ECTS (120 CATS) requirement.

You will qualify to progress through your degree programme on satisfactory achievement at each level of study as outlined briefly below; regulations regarding progression as follows:

- a) The Regulations of the University of Southampton as detailed in the Calendar (<http://www.calendar.soton.ac.uk/>)
- b) The specific regulations of the Faculty of Environmental and Life Science
- c) Any programme specific amendments to the Faculty rules

Code	Module Title	ECTS	Type
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GEOG1011	Dangerous World 2020-21	7.5	Compulsory
SOES1008	Earth and Ocean System 2020-21	7.5	Compulsory
BIOL1003	Ecology & Evolution 2020-21	7.5	Compulsory
SOES1006	Introduction to Marine Ecology and Evolution 2020-21	7.5	Compulsory
ENVS1007	Environmental Field Techniques and Applications 2020-21	7.5	Core
ENVS1004	Environmental Science: Concepts and Communication 2020-21	7.5	Core
ENVS1006	Environmental Science: Research and Applications 2020-21	7.5	Core
ENVS1005	Quantitative Methods 2020-21	7.5	Core

Part II

Code	Module Title	ECTS	Type
ENVS2014	Environment and Sustainability 2021-22	7.5	Core
ENVS2006	Environmental Impact Assessment 2021-22	7.5	Core
ENVS2007	Environmental Pollution 2021-22	7.5	Core
GEOG2010	Introductory Geographic Information Systems 2021-22	7.5	Core

Part II Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

* Note that students may forward track up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Part III of their pathway.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
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GEOG2040	Coastal Landscapes and Human Interactions 2021-22	7.5	Optional
GEOG2040	Coastal Landscapes and Human Interactions 2021-22	7.5	Optional
GEOG2039	Concepts and Methods for Environmental Management 2021-22	7.5	Optional
ENVS2003	Freshwater Ecosystems 2021-22	7.5	Optional
GEOG2037	Global Water Resources 2021-22	7.5	Optional
SOES2017	Marine Benthic Ecology 2021-22	7.5	Optional
SOES2011	Marine Vertebrates 2021-22	7.5	Optional
SOES2027	Monitoring Coastal and Estuarine Environments 2021-22	7.5	Optional

Part III

Code	Module Title	ECTS	Type
ENVS3023	Advanced Quantitative Methods (UG) 2022-23	7.5	Core
ENVS3013	Environmental Law and Management 2022-23	7.5	Core
ENVS3019	Individual Project 2022-23	15	Core
ENVS3024	Literature Review 2022-23	7.5	Core

Part III Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*Note that students may forward or backtrack up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Parts II or Parts IV of their pathway. When selecting modules students should be aware of the level at which that module is delivered and ensure their options maintain the correct number of credits.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
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SOES3014	Coastal Sediment Dynamics 2022-23	7.5	Optional
SOES3017	Marine Fisheries Ecology 2022-23	7.5	Optional
CENV6172	River and Estuary Restoration 2022-23	7.5	Optional
GEOG3023	River Basin Management and Restoration 2022-23	7.5	Optional
SOES3029	Seafloor Exploration and Surveying 2022-23	7.5	Optional
SOES3013	Zooplankton Ecology and Processes 2022-23	7.5	Optional

Part IV

Code	Module Title	ECTS	Type
ENVS6009	Advanced Research Project 2023-24	30	Core
ENVS6010	Work-Based Learning 2023-24	7.5	Core

Part IV Optional Modules

Students will need to select at least two options from the below list. A third module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*In order to graduate from the MEnvSci, over the course of your degree you must complete 120 credits at Masters level; 75 credits will come from the core Part 4 curriculum (60 credits from ENVS6009 (Advanced Research Project), 15 from ENVS6010 (Work Based Learning)). The remaining 45 credits (3 modules) will usually be completed in Part 4, however you can use forward and back-tracking to complete the required credits over both Parts 3 and 4. You may only backtrack in Part 4 if you completed sufficient Masters level credits in Part 3 to meet the 120 credit requirement.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
SOES6008	Deep Sea Ecology 2023-24	7.5	Optional
SOES6021	Ecological Modelling 2023-24	7.5	Optional
CENV6174	Flood Modelling and Mitigation 2023-24	7.5	Optional
SOES6017	Introductory Remote Sensing of the Ocean 2023-24	7.5	Optional

SOES6011	Modelling Coastal Processes 2023-24	7.5	Optional
CENV6172	River and Estuary Restoration 2023-24	7.5	Optional
GEOG6009	River Basin Management and Restoration 2023-24	7.5	Optional

Biodiversity and Conservation

Part I

The programme level learning outcomes delivered by core modules are detailed in the curriculum map (Appendix 2). For learning outcomes covered by optional modules, please see the individual module profiles. All modules are worth 7.5 ECTS (15 CATS), unless otherwise stated. You are strongly encouraged to ensure a balanced study load across semesters, i.e. 30 ECTS (60 CATS) per semester. With strong justification, you may choose to split the study load to a maximum of a 22.5:37.5 ECTS (45:75 CATS) credit ratio. You may not study more than 37.5 ECTS (75 CATS) in any one semester.

In order to graduate from the MEnvSci, over the course of your programme you must complete 60 ECTS (120 CATS) at Master's level; 37.5 ECTS (75 CATS) will come from the core Part IV curriculum. The remaining 22.5 ECTS (45 CATS) will usually be completed in Part IV, however you can use forward and back-tracking to complete the required credits over both parts III and IV. You may only backtrack in Part IV if you have completed sufficient Master's level credits in Part III to meet the 60 ECTS (120 CATS) requirement.

You will qualify to progress through your degree programme on satisfactory achievement at each level of study as outlined briefly below; regulations regarding progression as follows:

- The Regulations of the University of Southampton as detailed in the Calendar (<http://www.calendar.soton.ac.uk/>)
- The specific regulations of the Faculty of Environmental and Life Science
- Any programme specific amendments to the Faculty rules

Code	Module Title	ECTS	Type
GEOG1011	Dangerous World 2020-21	7.5	Compulsory
SOES1008	Earth and Ocean System 2020-21	7.5	Compulsory
BIOL1003	Ecology & Evolution 2020-21	7.5	Compulsory
SOES1006	Introduction to Marine Ecology and Evolution 2020-21	7.5	Compulsory
ENVS1007	Environmental Field Techniques and Applications 2020-21	7.5	Core
ENVS1004	Environmental Science: Concepts and Communication 2020-21	7.5	Core
ENVS1006	Environmental Science: Research and Applications 2020-21	7.5	Core

ENVS1005	Quantitative Methods 2020-21	7.5	Core
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Part II

Code	Module Title	ECTS	Type
ENVS2014	Environment and Sustainability 2021-22	7.5	Core
ENVS2006	Environmental Impact Assessment 2021-22	7.5	Core
ENVS2007	Environmental Pollution 2021-22	7.5	Core
GEOG2010	Introductory Geographic Information Systems 2021-22	7.5	Core

Part II Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

* Note that students may forward track up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Part III of their pathway.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
BIOL2039	Animal Behaviour 2021-22	7.5	Optional
BIOL2047	Animal Conservation 2021-22	7.5	Optional
ENVS2003	Freshwater Ecosystems 2021-22	7.5	Optional
SOES2017	Marine Benthic Ecology 2021-22	7.5	Optional
BIOL2007	Plant Development and Function 2021-22	7.5	Optional
BIOL2004	Pure and Applied Population Ecology 2021-22	7.5	Optional
GEOG2006	Quaternary Environmental Change 2021-22	7.5	Optional

Part III

Code	Module Title	ECTS	Type
ENVS3023	Advanced Quantitative Methods (UG) 2022-23	7.5	Core
ENVS3013	Environmental Law and Management 2022-23	7.5	Core
ENVS3019	Individual Project 2022-23	15	Core
ENVS3024	Literature Review 2022-23	7.5	Core

Part III Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*Note that students may forward or backtrack up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Parts II or Parts IV of their pathway. When selecting modules students should be aware of the level at which that module is delivered and ensure their options maintain the correct number of credits.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
BIOL3051	Applied Plant Biology 2022-23	7.5	Optional
BIOL3072	Behavioural Ecology 2022-23	7.5	Optional
BIOL3053	Biodiversity and Conservation 2022-23	7.5	Optional
GEOG3068	Biogeography 2022-23	7.5	Optional
BIOL3074	Global Challenges in Biology 2022-23	7.5	Optional
BIOL3010	Topics in Ecology and Evolution 2022-23	7.5	Optional

Part IV

Code	Module Title	ECTS	Type
ENVS6009	Advanced Research Project 2023-24	30	Core

ENVS6010	Work-Based Learning 2023-24	7.5	Core
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Part IV Optional Modules

Students will need to select at least two options from the below list. A third module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*In order to graduate from the MEnvSci, over the course of your degree you must complete 120 credits at Masters level; 75 credits will come from the core Part 4 curriculum (60 credits from ENVS6009 (Advanced Research Project), 15 from ENVS6010 (Work Based Learning)). The remaining 45 credits (3 modules) will usually be completed in Part 4, however you can use forward and back-tracking to complete the required credits over both Parts 3 and 4. You may only backtrack in Part 4 if you completed sufficient Masters level credits in Part 3 to meet the 120 credit requirement.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
ENVS6036	Advanced GIS and Spatial Analysis 2023-24	7.5	Optional
BIOL6010	Applied Ecology 2023-24	7.5	Optional
BIOL6066	Biodiversity and Conservation 2023-24	7.5	Optional
SOES6021	Ecological Modelling 2023-24	7.5	Optional
BIOL6096	Global Challenges in Biology 2023-24	7.5	Optional
BIOL6029	Topics in Ecology and Evolution 2023-24	7.5	Optional

Environmental Change

Part I

The programme level learning outcomes delivered by core modules are detailed in the curriculum map (Appendix 2). For learning outcomes covered by optional modules, please see the individual module profiles. All modules are worth 7.5 ECTS (15 CATS), unless otherwise stated. You are strongly encouraged to ensure a balanced study load across semesters, i.e. 30 ECTS (60 CATS) per semester. With strong justification, you may choose to split the study load to a maximum of a 22.5:37.5 ECTS (45:75 CATS) credit ratio. You may not study more than 37.5 ECTS (75 CATS) in any one semester.

In order to graduate from the MEnvSci, over the course of your programme you must complete 60 ECTS (120 CATS) at Master's level; 37.5 ECTS (75 CATS) will come from the core Part IV curriculum. The remaining 22.5 ECTS (45 CATS) will usually be completed in Part IV, however you can use forward and back-tracking to complete the required credits over both parts III and IV. You may only backtrack in Part IV if you have completed sufficient Master's level credits in Part III to meet the 60 ECTS (120 CATS) requirement.

You will qualify to progress through your degree programme on satisfactory achievement at each level of study as

outlined briefly below; regulations regarding progression as follows:

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Code	Module Title	ECTS	Type
GEOG1011	Dangerous World 2020-21	7.5	Compulsory
SOES1008	Earth and Ocean System 2020-21	7.5	Compulsory
BIOL1003	Ecology & Evolution 2020-21	7.5	Compulsory
GEOG1001	The Earth System 2020-21	7.5	Compulsory
ENVS1007	Environmental Field Techniques and Applications 2020-21	7.5	Core
ENVS1004	Environmental Science: Concepts and Communication 2020-21	7.5	Core
ENVS1006	Environmental Science: Research and Applications 2020-21	7.5	Core
ENVS1005	Quantitative Methods 2020-21	7.5	Core

Part II

Code	Module Title	ECTS	Type
ENVS2014	Environment and Sustainability 2021-22	7.5	Core
ENVS2006	Environmental Impact Assessment 2021-22	7.5	Core
ENVS2007	Environmental Pollution 2021-22	7.5	Core
GEOG2010	Introductory Geographic Information Systems 2021-22	7.5	Core

Part II Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

* Note that students may forward track up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists

for Part III of their pathway.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
SOES2024	Coastal Ocean Processes 2021-22	7.5	Optional
GEOG2032	Global Climate Change: Science, Impacts and Policy 2021-22	7.5	Optional
GEOG2037	Global Water Resources 2021-22	7.5	Optional
DEMO2010	Population Change in Low and Middle Income Countries 2021-22	7.5	Optional
DEMO2005	Population Processes in High Income Countries 2021-22	7.5	Optional
GEOG2007	Remote Sensing for Earth Observation 2021-22	7.5	Optional

Part III

Code	Module Title	ECTS	Type
ENVS3023	Advanced Quantitative Methods (UG) 2022-23	7.5	Core
ENVS3013	Environmental Law and Management 2022-23	7.5	Core
ENVS3019	Individual Project 2022-23	15	Core
ENVS3024	Literature Review 2022-23	7.5	Core

Part III Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*Note that students may forward or backtrack up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Parts II or Parts IV of their pathway. When selecting modules students should be aware of the level at which that module is delivered and ensure their options maintain the correct number of credits.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
GEOG3057	Adapting to Climate Change and Weather Hazards 2022-23	7.5	Optional
SOES3011	Biogeochemical Cycles in the Earth System 2022-23	7.5	Optional
GEOG3048	Desert Landscapes: Modelling and Measuring Aeolian Systems 2022-23	7.5	Optional
GEOG3066	Environmental Sensing for Real World Geomorphological Challenges 2022-23	7.5	Optional
GEOG3020	Glaciers and Glaciation 2022-23	7.5	Optional
GEOG3062	Migration and Development 2022-23	7.5	Optional
SOES3015	Palaeoclimate Change 2022-23	7.5	Optional

Part IV

Code	Module Title	ECTS	Type
ENVS6009	Advanced Research Project 2023-24	30	Core
ENVS6010	Work-Based Learning 2023-24	7.5	Core

Part IV Optional Modules

Students will need to select at least two options from the below list. A third module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*In order to graduate from the MEnvSci, over the course of your degree you must complete 120 credits at Masters level; 75 credits will come from the core Part 4 curriculum (60 credits from ENVS6009 (Advanced Research Project), 15 from ENVS6010 (Work Based Learning)). The remaining 45 credits (3 modules) will usually be completed in Part 4, however you can use forward and back-tracking to complete the required credits over both Parts 3 and 4. You may only backtrack in Part 4 if you completed sufficient Masters level credits in Part 3 to meet the 120 credit requirement.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
SOES6007	Biogeochemical Cycles in the Earth System 2023-24	7.5	Optional
CENV6147	Climate Change, Energy and Settlements 2023-24	7.5	Optional

SOES6006	Climate Dynamics 2023-24	7.5	Optional
BIOL6028	Global Change Biology 2023-24	7.5	Optional
SOES6047	Global Climate Change: Past and Future 2023-24	7.5	Optional
SOES6073	Global Ocean Carbon Cycle, Ocean Acidification and Climate 2023-24	7.5	Optional
GEOG6027	Remote Sensing for Earth Observation 2023-24	7.5	Optional

Sustainable Environmental Management

Part I

The programme level learning outcomes delivered by core modules are detailed in the curriculum map (Appendix 2). For learning outcomes covered by optional modules, please see the individual module profiles. All modules are worth 7.5 ECTS (15 CATS), unless otherwise stated. You are strongly encouraged to ensure a balanced study load across semesters, i.e. 30 ECTS (60 CATS) per semester. With strong justification, you may choose to split the study load to a maximum of a 22.5:37.5 ECTS (45:75 CATS) credit ratio. You may not study more than 37.5 ECTS (75 CATS) in any one semester.

In order to graduate from the MEnvSci, over the course of your programme you must complete 60 ECTS (120 CATS) at Master's level; 37.5 ECTS (75 CATS) will come from the core Part IV curriculum. The remaining 22.5 ECTS (45 CATS) will usually be completed in Part IV, however you can use forward and back-tracking to complete the required credits over both parts III and IV. You may only backtrack in Part IV if you have completed sufficient Master's level credits in Part III to meet the 60 ECTS (120 CATS) requirement.

You will qualify to progress through your degree programme on satisfactory achievement at each level of study as outlined briefly below; regulations regarding progression as follows:

- The Regulations of the University of Southampton as detailed in the Calendar (<http://www.calendar.soton.ac.uk/>)
- The specific regulations of the Faculty of Environmental and Life Science
- Any programme specific amendments to the Faculty rules

Code	Module Title	ECTS	Type
GEOG1011	Dangerous World 2020-21	7.5	Compulsory
SOES1008	Earth and Ocean System 2020-21	7.5	Compulsory
BIOL1003	Ecology & Evolution 2020-21	7.5	Compulsory
GEOG1001	The Earth System 2020-21	7.5	Compulsory
ENVS1007	Environmental Field Techniques and Applications 2020-21	7.5	Core

ENVS1004	Environmental Science: Concepts and Communication 2020-21	7.5	Core
ENVS1006	Environmental Science: Research and Applications 2020-21	7.5	Core
ENVS1005	Quantitative Methods 2020-21	7.5	Core

Part II

Code	Module Title	ECTS	Type
ENVS2014	Environment and Sustainability 2021-22	7.5	Core
ENVS2006	Environmental Impact Assessment 2021-22	7.5	Core
ENVS2007	Environmental Pollution 2021-22	7.5	Core
GEOG2010	Introductory Geographic Information Systems 2021-22	7.5	Core

Part II Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

* Note that students may forward track up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Part III of their pathway.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
GEOG2040	Coastal Landscapes and Human Interactions 2021-22	7.5	Optional
GEOG2040	Coastal Landscapes and Human Interactions 2021-22	7.5	Optional
GEOG2039	Concepts and Methods for Environmental Management 2021-22	7.5	Optional
GEOG2032	Global Climate Change: Science, Impacts and Policy 2021-22	7.5	Optional

MANG2041	Management Ethics 2021-22	7.5	Optional
DEMO2010	Population Change in Low and Middle Income Countries 2021-22	7.5	Optional
DEMO2005	Population Processes in High Income Countries 2021-22	7.5	Optional

Part III

Code	Module Title	ECTS	Type
ENVS3023	Advanced Quantitative Methods (UG) 2022-23	7.5	Core
ENVS3013	Environmental Law and Management 2022-23	7.5	Core
ENVS3019	Individual Project 2022-23	15	Core
ENVS3024	Literature Review 2022-23	7.5	Core

Part III Optional Modules

Students will need to select at least three options from the below list. A fourth module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*Note that students may forward or backtrack up to 15 (ECTS / 30 (CATS) credits and should also consider modules on lists for Parts II or Parts IV of their pathway. When selecting modules students should be aware of the level at which that module is delivered and ensure their options maintain the correct number of credits.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
GEOG3057	Adapting to Climate Change and Weather Hazards 2022-23	7.5	Optional
ENVS3020	Air Quality and Environmental Pollution 2022-23	7.5	Optional
GEOG3010	Environment and Health 2022-23	7.5	Optional
MANG3046	Managing Innovation 2022-23	7.5	Optional
GEOG3023	River Basin Management and Restoration 2022-23	7.5	Optional

ENVS3014	Sustainable Resource Management 2022-23	7.5	Optional
ENVS3017	The Sustainability Professional 2022-23	7.5	Optional

Part IV

Code	Module Title	ECTS	Type
ENVS6009	Advanced Research Project 2023-24	30	Core
ENVS6010	Work-Based Learning 2023-24	7.5	Core

Part IV Optional Modules

Students will need to select at least two options from the below list. A third module must also be chosen either from the below or from the more extensive list of options found on the programme catalogue.

*In order to graduate from the MEnvSci, over the course of your degree you must complete 120 credits at Masters level; 75 credits will come from the core Part 4 curriculum (60 credits from ENVS6009 (Advanced Research Project), 15 from ENVS6010 (Work Based Learning)). The remaining 45 credits (3 modules) will usually be completed in Part 4, however you can use forward and back-tracking to complete the required credits over both Parts 3 and 4. You may only backtrack in Part 4 if you completed sufficient Masters level credits in Part 3 to meet the 120 credit requirement.

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note in some instances modules have limited spaces available.

Code	Module Title	ECTS	Type
BIOL6010	Applied Ecology 2023-24	7.5	Optional
CENV6147	Climate Change, Energy and Settlements 2023-24	7.5	Optional
CENV6148	Energy Performance Assessment of Buildings 2023-24	7.5	Optional
GEOG6009	River Basin Management and Restoration 2023-24	7.5	Optional
ENVS6037	The Sustainability Professional (MSc) 2023-24	7.5	Optional
CENV6112	Transport, Energy and the Environment 2023-24	7.5	Optional

Progression Requirements

The programme follows the University's regulations for [Progression, Determination and Classification of Results : Undergraduate and Integrated Masters Programmes](#) Any exemptions or variations to the

University regulations, approved by AQSC are located in [section VI of the University Calendar](#).

Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and up-to-date; together with assistance from Library staff to enable you to make the best use of these resources
- high speed access to online electronic learning resources on the Internet from dedicated PC Workstations onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wireless network. There is a wide range of application software available from the Student Public Workstations.
- computer accounts which will connect you to a number of learning technologies for example, the Blackboard virtual learning environment (which facilitates online learning and access to specific learning resources)
- standard ICT tools such as Email, secure filestore and calendars.
- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- IT support through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Hartley Library.
- Enabling Services offering support services and resources via a triage model to access crisis management, mental health support and counselling. Support includes daily Drop In at Highfield campus at 13.00 – 15.00 (Monday, Wednesday and Friday out of term-time) or via on-line chat on weekdays from 14.00 – 16.00. Arrangements can also be made for meetings via Skype.
- assessment and support (including specialist IT support) facilities if you have a disability, long term health problem or Specific Learning Difficulty (e.g. dyslexia).
- the Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards
- Career and Employability services, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV
- Other support that includes health services (GPs), chaplaincy (for all faiths) and 'out of hours' support for students in Halls and in the local community, (18.00-08.00)
- A Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

The Students' Union provides

- an academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- opportunities for extracurricular activities and volunteering
- an Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.

In the Faculty and your Discipline you will be able to access:

- Introductory sessions for all years of the programme
- Library information retrieval seminar
- Small group tutorials in all Parts of the programmes
- Personal tutors to assist you with personal problems and to advise on academic issues (contact maintained during periods of studying abroad). A senior tutor is also available
- Access to academic staff through an open door policy as well as timetabled tutor meetings, appointment system and e-mail
- Research seminars and invited lectures
- Faculty Student Office for the administration of your programme
- Examples of past Research Projects reports to help guide your own work
- Technical support for laboratory and fieldwork

Methods for evaluating the quality of teaching and learning

You will have the opportunity to have your say on the quality of the programme in the following ways:

- Completing student evaluation questionnaires for each module of the programme.

- Acting as a student representative on various committees, e.g. Staff/Student Liaison Committees, School Programmes Committee OR providing comments to your student representative to feedback on your behalf.
- Serving as a student representative on Faculty Scrutiny Groups for programme validation.
- Taking part in programme validation meetings by joining a panel of students to meet with the Faculty Scrutiny Group.

Further details on the University's quality assurance processes are given in the [Quality Handbook](#).

Career Opportunities

Students will gain a detailed understanding of the core areas of environmental science throughout the four years of study. Potential career routes include specialising in environmental management, sustainability, carbon management, water management, biodiversity and waste management, leading to jobs in large international consultancies, local environmental consultancies, research organisations, environmental regulators, non-governmental organisations, schools and academia (e.g. PhD degrees), local authorities, and government bodies among others. For students who decide that they do not wish to pursue a career in environmental science, they will find that their broad training and exposure to key skills provides an excellent springboard for other professions.

External Examiner(s) for the programme

Name: Dr Karen Anderson - University of Exeter

Students must not contact External Examiner(s) directly, and external examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.

External examiners do not have a direct role in determining results for individual students, and students wishing to discuss their own performance in assessment should contact their Personal Academic Tutor in the first instance.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information can be found in the programme handbook.

Appendix 1:

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. In addition to this, students registered for this programme also have to pay for:

Additional Costs

Type	Details
Anything else not covered elsewhere	ENVS3019 Individual Project In addition to the experimental, computational and workshop resources available, reasonable expenses for travel of up to £80 may be reclaimed through the Faculty Student Office. https://www.southampton.ac.uk/courses/modules/envs3019.page
Approved Calculators	Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved models are Casio FX-570 and Casio FX-85GT Plus.
Field course clothing	You will need to wear suitable clothing when attending fieldcourses, e.g. waterproofs, walking boots. You can purchase these from any source.
Optional Visits (e.g. museums, galleries)	Some modules may include additional optional visits. You will normally be expected to cover the cost of travel and admission, unless otherwise specified in the module profile
Other	For modules involving field exercises / field courses, the cost of travel, accommodation and required safety equipment, along with breakfast and dinner if required, will be paid for by the University. Costs to you: You will need to provide and wear your own suitable clothing when attending field courses, e.g. waterproofs, walking boots. You can purchase these from any source and costs will vary depending on your preference. You will be expected to purchase your own lunch and any additional refreshments. This applies to the following core modules (for optional modules, please check the module profile documentation): ENVS1004 ENVS1006 ENVS1007 ENVS2006 ENVS2014 ENVS3013
Printing and Photocopying Costs	In some cases, coursework and/or projects may be submitted electronically. Where it is not possible to submit electronically students will be liable for printing costs, which are detailed in the individual Module Profile.
Stationery	You will be expected to provide your own day-to-day stationary items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
Textbooks	Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source. Some modules suggest reading texts as optional background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.

Appendix 2: Programme learning outcome map

The map below lists all core modules and indicates which of the programme level learning outcomes they contribute towards. Refer to the Programme Learning Outcomes section of the programme specification above for the descriptor for each code.

	A1	A2	B1	B2	B3	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	D1	D2	D3	D4	D5	D6	D7	D8
ENVS1004	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
ENVS1005	X	X	X	X		X	X	X				X	X								X	X	X	
ENVS1006	X		X	X		X	X	X	X		X	X	X			X	X	X			X	X	X	
ENVS1007	X	X	X	X	X	X	X		X		X	X	X		X		X	X	X		X	X	X	
ENVS2006	X	X		X	X	X		X	X		X	X	X	X										
ENVS2007	X	X	X	X	X	X		X	X	X		X	X	X	X	X				X	X	X	X	
GEOG2010	X			X		X	X	X					X		X						X	X	X	
ENVS2014	X	X		X	X	X		X	X	X	X	X	X			X			X				X	
ENVS3013	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X			X				X
ENVS3023	X	X	X	X	X	X	X						X								X	X	X	
ENVS3019	X	X	X	X	X	X	X	X		X			X	X	X		X	X		X	X	X	X	
ENVS3XXX	X	X		X	X	X		X					X							X				
ENVS6009	X	X	X	X	X	X	X	X					X	X	X		X	X		X	X	X	X	
ENVS6010	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X				X

Appendix 3: Field and practical work opportunities

This table summarises the field and practical work opportunities within the core Environmental Science BSc – all students will complete these modules. Depending on your pathway and optional choices, there are additional opportunities for fieldwork, including our third year residential field course (currently held in Belize) as well as visits to more local sites including waste processing facilities, local and nationally important conservation sites and urban fieldwork within Southampton.

Module code	Field/Lab/Practical work*	Inclusivity measures**
ENVS1004	Practical conservation session	The main inclusivity challenge for this activity is site access. The location used has wheelchair accessible facilities and an accessible trail for students with mobility issues.
ENVS1006	Residential field course (UK based)	The accommodation provides accessible toilets, showers and bedrooms (with hoists as required). We can also arrange use of an all-terrain wheelchair.
	Social surveys	Students with additional needs relating to communication or social anxiety will be allocated roles appropriately (e.g. data recording or collation).
	Biodiversity surveys (terrestrial and aquatic) Soil surveys Water monitoring (quality and quantity)	Video links will be used if students are unable to access the site. If students are unable to collect specimens, they will be involved in data recording (carried out over a video link if necessary).
	Mapping skills	For the computer practical sessions, students with additional needs will have access to identified softwares to support them.
ENVS1007	Microplastic surveying Carbon monitoring Forestry survey	Video links will be used if students are unable to access the site. If students are unable to collect specimens, they will be involved in data recording (carried out over a video link if necessary).
	Group research project	The nature of the research project will determine the potential accessibility issues associated with the research. Students will be supported to ensure they can fully engage with their chosen topic, either in the field or virtually.
ENVS2006	Site visit	Video links will be used if students are unable to access the site.
ENVS2007	Site visit	Video links will be used if students are unable to access the site.

ENVS2014	Residential field course (Overseas)	Accommodation and travel will be wheelchair accessible if required.
	Social surveys	Students with additional needs relating to communication or social anxiety will be allocated roles appropriately (e.g. data recording or collation).
ENVS3013	Site visit	Fieldwork and site visits take place at the University of Southampton where all accessibility issues have been addressed.
ENVS3019 / ENVS6009	Individual / Advanced research project s	The nature of the research projects will determine the potential accessibility issues associated with the research. Students will be supported to ensure they can fully engage with their chosen topic and will be able to collect the necessary data. Where necessary, equipment can be modified or enhanced to increase accessibility (e.g. with magnifying devices or voice recorders).

*Please note, the exact nature of the fieldwork may change each year so this is an indicative rather than definitive guide.

**The inclusivity measures outlined here are examples of the measures which can be put into place; measures listed for one activity could equally be applied to a different activity. For students with needs other than those listed here, the module lead will work with the individual student to make adjustments to the activity enabling inclusivity. If such adjustments are not possible, virtual field work will be offered as an alternative. For example, using video links to enable students to engage with a field activity from a more accessible location. For students with complex additional needs, a full consultation will be carried out, working alongside relevant professional service colleagues, prior to any practical work to ensure that they are included in the activities.