Programme Specification

Sustainability (2017-18)

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	1
Accreditation details	None
Final award	Master of Science (MSc)
Name of Award	Sustainability Research
Interim Exit awards	Postgraduate Certificate Postgraduate Diploma
FHEQ level of final award	Level 7
UCAS code	
Programme Code	7973
QAA Subject Benchmark or other external reference	
Programme Lead	Emma Tompkins (elt1m10)

Programme Overview

Brief outline of the programme

Social, technological and environmental change is forcing an urgent global reassessment of the way we live, how we consume the planet's resources, and how we best respond to changes driven by, for example, the climate, globalisation, conflict and demographic change. Within this complex context, inputs from the social, natural and physical sciences are needed to guide and shape sustainable responses to pressing problems.

This MSc Sustainability programme is designed as a research-led, applied interdisciplinary programme that considers sustainability in both developed and developing societies, and addresses critical global challenges. These include: enabling population health and wellbeing in an increasingly stressed planet; delivering food and water to an urbanising world; understanding the present and future development impacts of patterns of settlement, land use and land cover change; understanding the inter-dependencies between people and the planet; preparing for the impact of climate change and weather extremes on people and places. Taught by research-active world-class academic experts from multidisciplinary backgrounds, the programme equips students with applied skills as well as specialised problem-solving and critical thinking skills in tackling sustainable development issues and offers a solid foundation for developing careers in the public, private and third sectors as well as national and international agencies such as the United Nations, FAO and DFID.

The cross-faculty programme brings together the key components that shape sustainability; applies sustainability research as an approach to achieve the objective and goals of sustainable development; teaches the theory and application of tools, methodologies and approaches that would typically be used in working towards sustainability. The core principles underpinning this programme relate to:

1. Centrality of global citizenship and environmental stewardship, social justice, ethics and wellbeing to sustainability. A sound understanding of these core themes is needed to identify, pursue and manage

sustainable development issues.
2. Adoption of complex, adaptive social-ecological systems as a fundamental unit of study. This provides the appropriate framework for addressing dynamic aspects of sustainability, such as: tipping points, resilience, and long-term convergence of stresses.
3. Adoption of a future-facing approach that considers the consequences of today's choices on future sustainability Future-thinking requires recognition of the temporal as well as spatial impacts of choices and actions.
4. Co-production of knowledge recognising the importance of participatory and integrative methods that enable complex problem solving, by working with multiple stakeholders.

Unique features of the MSc include: the opportunity to work with organisations working on sustainability issues, ability to participate in fieldwork and research methods courses, interdisciplinary training, the flexibility of the programme with guidance on potential themed pathways, applied modules giving opportunities to practice skills, the breadth of coverage and the wide disciplinary base.

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 programme is interdisciplinary, and innovatively, taught across three faculties (Faculty of Social, Human and Mathematical Sciences, Faculty of Engineering and Environment, and Faculty of Business, Law and Art). We adopt a teaching approach that enables students to relate their learning to real-life problems and situations, where students will learn about resource management, community relationships and local and global economic impacts.

Experiential and interactive modes of learning will encourage students to develop and reflect on their own and others' values and experiences. Critical reflection on values and assumptions supports 'transformative learning'. Most students will have knowingly, or unknowingly, engaged in learning about sustainability through their previous formal education or through informal means, and they may have diverse value positions. Prior knowledge and attitudes are therefore taken into consideration in planning teaching and learning activities. Participatory learning approaches, peer-learning and collaboration - within and beyond the classroom - are promoted, allowing students to be exposed to multiple perspectives and enabling creative responses to emerge.

We will ensure that

- Divergent views can be shared and explored in a safe environment
- There are opportunities for deep and critical reflection on students' own perspectives and what has influenced their thinking and practices in this area
- Participatory learning is encouraged
- Interdisciplinary approaches, systems and holistic thinking are employed
- Teaching, learning and assessment activities are linked to real-life concerns.

A number of teaching and learning methods that are particularly effective in supporting more traditional teaching and learning methods include:

- Case studies
- Stimulus activities
- Simulation
- Experiential project work
- Problem-based learning
- Field-based learning

Each student will work with the Programme Director, and their Personal Academic Tutor (PAT) to select modules to ensure that they achieve their study goals, and to develop a personalised degree programme within the framework of the MSc Sustainability.

Assessment
Assessment provides opportunities for students to demonstrate achievement of graduate outcomes in the core areas of sustainability, notably: 1) Citizenship, stewardship, justice and wellbeing; 2) Complex social-ecological systems; 3) Future thinking; and 4) Co-production of knowledge.

Assessment will involve:

- Formative tasks that enable the development of critical thinking and problem-solving
- Opportunities to apply these skills to real-world problems
- Synoptic assessments that explore the relationship between disciplines within the programme and wider

issues of sustainability
- Activities that encourage affective learning in the domains of values, attitudes and behaviours.

One of the exciting aspects of interdisciplinary learning is the opportunity for students to work outside of their discipline or specialisation (for example their first degree, or area of professional expertise). To support students to ensure that they benefit from truly interdisciplinary study in the area of sustainability, the Programme Director, and PAT will support the student to select modules with teaching methods and assessment practices across the faculties that are consistent and coherent. These meetings will occur during both first and second semesters to ensure students are supported throughout their degree programme.

Special Features of the programme

The programme is unique in the field-based/applied nature of the degree programme. Students will be trained in the field (in research locations across the south of England as well as with the opportunity to conduct field work overseas) in data collection methods, and will be trained in analytical skills to understand and evaluate sustainability challenges and futures. Students will be trained to work with stakeholders on complex problems to ensure that they are fully aware of the challenges of working in the sustainability field.

The programme will include occasional guest lectures from experts in particular academic topics or who are involved in the design and implementation of local, national or international sustainability policy, planning and implementation. Such guest lectures are offered on all the MSc Sustainability programmes.

Other highlights of the programme include:

(i) An optional two-week residential developing country-based field course
(ii) Opportunity to work directly with a leading sustainability institute, including competitive opportunities for consultancy-based dissertation, for example through the GeoData Institute
(iii) Visits to leading sustainability initiatives such as Thames Barrier 2100
(iv) Visits to industries leading in sustainability in relation to: i) consultancy or, ii) geo-spatial technology, such as Ordnance Survey, National Trust
(v) Opportunity to receive professional RGS-IBG accredited CPD training through the GeoData Institute (awarded 'Provider status' from the RGS for all of its current GIS courses, and accredited by the Association of Geographic Information, the professional body for the discipline). Additional costs apply.
(vi) UK field-based course providing hands-on training in natural science and social science data collection.

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 MSc Sustainability programme are to train students in the core concepts and ideas that underpin notions of sustainability (citizenship, stewardship, equity and justice; complex social-ecological systems, alternative futures; and co-produced knowledge); to engage students in the key debates, to equip students with practical sustainability evaluation skills; to enhance knowledge and skills in research methods associated with sustainability and their application so that graduates are prepared for a career working on sustainability issues.

The Sustainability (Research) pathway also aims to provide you with a broad training in Sustainability as well as social science research methodology in both quantitative and qualitative skills, including survey, design and statistical analysis.

Depending on the options selected through the MSc Sustainability, students can pursue general training in sustainability, or a specialisation in GIS and Remote Sensing, Consultancy, or Population. Irrespective of specialisation, the aims of both the MSc Sustainability and the MSc Sustainability (Research) are to provide students with:

1.1. Critical appreciation of the key theoretical perspectives within Sustainability and their application in the analysis of specific issues concerning environmental change, global citizenship, environmental stewardship, social justice, ethics and wellbeing;
1.2. Knowledge and understanding of contemporary debates within Sustainability concerning the role of different types of data, integration across disciplines, emerging technologies, scenario development, and knowledge co-production with stakeholders
1.3. Knowledge of debates on these issues in both developed and developing countries
1.4. The ability to evaluate policies and initiatives concerning global citizenship, environmental stewardship, social justice and ethics.
1.4 Knowledge of qualitative and/ or quantitative research methods and the ability to apply them appropriately to investigate key research questions.
1.5 Preparation for a career in the field of Sustainability and applied environmental sciences
1.6 The ability to design and conduct independent research within Sustainability using appropriate research methods. Please note that this programme aim (1.6) is not fully developed in the PG Diploma Sustainability, or the PG Certificate Sustainability.

Programme Learning Outcomes

Knowledge and Understanding

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

A1. The key theoretical and conceptual approaches to the study of sustainability from a multi-disciplinary perspective
A2. Key debates within sustainability
A3. The risks associated with system complexity that can lead to unexpected and novel outcomes
A4. The determinants of sustainable development and the consequences of unsustainable behaviours
A5. The sustainability interconnections between activities of different generations, demographic groups and cultures
A6. Sustainability policies and initiatives which impact upon the lives of current and future generations
A7. The importance of both lay knowledge and scholarly research in understanding sustainability
A8. Principles of research design and strategy and the appropriate choice of research method
A9. Design and conduct of individual research topics in the field of Sustainability †

† This skill is not developed fully for PGCert or PGDip students as these students are not required to take the Sustainability Dissertation module.

Teaching and Learning Methods

Having successfully completed this MSc programme you will be able to demonstrate knowledge and understanding of the core components of sustainability science, i.e.

i) the centrality of global citizenship and environmental stewardship, social justice, ethics and wellbeing to sustainability
ii) Socio-ecological systems and complexity/ complex systems thinking
iii) Future-thinking
iv) Co-production of knowledge.

Traditional methods of teaching and learning (i.e. lectures, seminars, small group meetings) will be supplemented with innovative teaching methods, notably case studies, stimulus activities, simulation, experiential project work, and problem-based learning.

- Lectures, case studies and stimulus activities (A1, A2, A3, A4, A5, A6, A7);

- problem-based learning (A3, A4, A5, A6);
- computer workshops and simulations (A8),
- research methods tutorials and experiential learning (A8),
- supervised research (A8, A9).

Teaching and Learning Methods to support core knowledge and understanding

Relationship to learning outcome TYPE and examples of teaching and learning methods:

1. Citizenship, stewardship, justice and ethics -
PROBLEM-BASED LEARNING: Field class in UK location covering environmental data collection e.g. field transects, ecological sampling including soil and water monitoring
SIMULATION: Class based and field based applied social science data collection e.g. focus groups, and Participatory Rural Appraisal methods
EXPERIENTIAL: participatory mapping
CASE STUDIES: problem based learning scenarios, with a focus on 'wicked' problems
STIMULUS ACTIVITIES: Group assignment on risk assessment report for a locally determined problem

2. Complex systems thinking -
PROBLEM-BASED LEARNING: addressing complex issues such as climate change
SIMULATION: using systems dynamic models to understand complexity
EXPERIENTIAL: seminars drawing out drivers of complex problems
CASE STUDIES: group working on single problems from multiple perspectives
STIMULUS ACTIVITIES: network maps to understand complex linkages

3. Future facing science -
PROBLEM-BASED LEARNING: e.g. field trip to co-operatively run wind and solar power farm.
SIMULATION: application of futurology methods, e.g. backcasting
EXPERIENTIAL: Seminars on developing scenarios of plausible futures (e.g. climate change, macro-economics, food pricing, "upstream" interventions etc.)
CASE STUDIES: climate change and other 'wicked' problems
STIMULUS ACTIVITIES: Production of Policy briefing note on future scenarios

4. Co-production of knowledge -
PROBLEM-BASED LEARNING: possibility of working with organisations such as UNESCO, Ordnance Survey, National Trust, New Forest Commission and Poole Harbour Commission (this will change from year to year)
SIMULATION: group participation in methods e.g. Delphi as part of teaching
EXPERIENTIAL: Delivery of an applied stakeholder engagement tool, e.g. focus group, seasonal calendars
CASE STUDIES: working with communities to undertake stakeholder mapping and analysis
STIMULUS ACTIVITIES: generation of Network maps and social network analysis

Assessment Methods

To build post-graduate skills in the three areas of - core principles of sustainability; future-facing science; co-production of knowledge, - the assessments will focus on five central aspects.

1. Field based environmental and social methods: to develop research approaches, and to gather and analyse environmental and social data
2. Integration across disciplines: this will occur through teaching approaches that draw on multiple disciplines including: System dynamics approaches: use quantitative data and qualitative relationships to integrate information about human behaviour, environment, economics, governance and decision making processes. Risk based approaches: that combine socio-economic vulnerability with the stresses associated with environmental hazards.
3. Big data and emerging technologies: this focus will ensure that students are aware of the role of emerging technologies in sustainability, and the methods to engage with and use big data in understanding and addressing sustainability issues.
4. Scenario development: Understanding future stress is central to understanding sustainability, due to its forward looking nature. Therefore teaching will include guidance on developing scenarios of plausible futures (e.g. climate change, macro-economics, food pricing, "upstream" interventions etc.).
5. Knowledge co-production with stakeholders: engagement with stakeholders is critical to the

development of this programme, hence teaching methods will cover a variety of approaches to allow for the gathering of perceptions and priorities of stakeholders, such as stakeholder analysis, network analysis, Delphi approach, and Participatory Rural Appraisal techniques. For example, the option exists for the students to undertake their Sustainability Dissertation (not available for PGCert or PGDip students), or other aspects of coursework in the form of Participatory Action Research with stakeholders to ensure their direct inclusion in the process of scientific discovery.

In addition to the standard types of assessment (essays and exams), a variety of innovative assessment methods will be used (e.g. corporate briefing notes, poster presentations, dissertation conference, and formative feedback through peer-review), these enable assessment of the novel teaching methods, i.e. case studies, stimulus activities, simulation, experiential learning, and problem based learning.

Example assessment methods to support Knowledge and Understanding development:

Relationship to learning outcome: Citizenship, stewardship, justice and ethics
Features of sustainability research: Field based environmental and social science research
Assessment methods: Field report from environmental data collection
Diary reviewing development and testing of a survey instrument to collect socio-economic data
Oral presentations of effectiveness and limitations of field data collection methods

Relationship to learning outcome: Citizenship, stewardship, justice and ethics
Features of sustainability research: Integration across disciplines
Assessment methods: Poster of a conceptual system dynamics model showing relationships and directions of impact for a key sustainability problem

Relationship to learning outcome: Complex systems thinking
Features of sustainability research: Integration across disciplines
Assessment methods: Poster of a conceptual system dynamics model showing relationships and directions of impact for a key sustainability problem

Relationship to learning outcome: Future facing science
Features of sustainability research: Big data and emerging technologies
Assessment methods: Development of a sustainability-focussed app for mobile technology
Review of approaches to use, interpret and critically analyse big data

Relationship to learning outcome: Future facing science
Features of sustainability research: Scenario development
Assessment methods: Running seminars on developing scenarios of plausible futures (e.g. climate change, macro-economics, food pricing, “upstream” interventions etc.)
Policy briefing note on future scenarios
Report on Delphi approach applied to a specific case study

Relationship to learning outcome: Co-production of knowledge
Features of sustainability research: Knowledge co-production with stakeholders
Assessment methods: Report on stakeholder mapping and analysis
Delivery of an applied stakeholder engagement tool, e.g. focus group, seasonal calendars
Network maps and social network analysis

- Coursework (A1, A2, A3, A4, A5, A6, A7)
- Exam (A1, A2, A3, A4, A5, A6, A7)
- Dissertation (A8, A9).

Subject Specific Intellectual and Research Skills

On successful completion of this programme a student will be able to:

B1. Critically evaluate alternative theoretical frameworks and apply them to sustainability issues and debates
B2. Critically analyse real-life sustainability issues

B3. Describe complex sustainability issues in clear terms and communicate about them effectively and succinctly, both orally and in writing
B4. Engage in interdisciplinary discussion to inform thinking about sustainability
B5. Critically evaluate policy options for sustainable development, in both developed and developing countries
B6. Identify and solve problems within the field of sustainability.
B7. Synthesise key library and internet resources within the field of Sustainability
B8. Identify appropriate methods of research design and data analysis
B9. Analyse and interpret data as applied to issues concerning sustainability

Teaching and Learning Methods

- Lectures, case studies and stimulus activities (B1, B2, B3, B4, B5, B6, B7);
- Problem-based learning (B1, B2, B3, B5, B6);
- Computer workshops and simulations (B2, B5, B6),
- Research methods tutorials and experiential learning (B7, B8, B9),
- Supervised research (B8, B9).
- Library sessions (B7)

Assessment Methods

- Coursework (B1, B2, B3, B4, B5, B6, B7, B8, B9)
- Exam (B1, B2, B5)
- Dissertation (B8, B9).

Transferable and Generic Skills

On successful completion of this programme a student will be able to:

C1. Think critically about new and unfamiliar ideas and concepts, drawing on evidence
C2. Contribute confidently and appropriately to group discussions/ online discussion boards/ other discussion forums
C3. Effectively communicate information through poster and oral presentations using visual aids and hand-outs
C4. Effectively communicate information through written reports
C5. Locate and use bibliographic resources for specified research purposes
C6. Manage time and resources in an individual research project †.

† This skill is not developed fully for PGCert or PGDip students.

Teaching and Learning Methods

- Lectures, case studies and stimulus activities (C1, C2, C3, C4);
- Problem-based learning (C1, C2, C3, C4, C5, C6);
- Computer workshops and simulations (C1, C2, C3, C6),
- Research methods tutorials and experiential learning (C1, C2, C5, C6),
- Supervised research (C2, C4, C5, C6),
- Library sessions (C1, C2, C5).

Assessment Methods

- Coursework (C1, C2, C3, C4, C5, C6)
- Exam (C1, C4)
- Dissertation (C1, C4, C5, C6)

Programme Structure

The programme structure table is below:

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

Research Pathway

Part I
The taught programme for the MSc Sustainability is made up of 60 ECTS/120 CATS points. Of these, 30 ECTS/60 CATS points are taken in Semester 1 and 30 ECTS/60 CATS points in Semester 2. Each module is worth 3.75, 5 or 7.5 ECTS points and the Dissertation is worth 30 ECTS/60 CATS points, making a total of 90 ECTS/180 CATS points. Taught sessions take place over 2 semesters each year and the dissertation (20,000 words excluding acknowledgements, appendices and references) is written up during the summer vacation and is submitted towards the end of September for full-time students.

The programme is normally studied over 12 months full-time. The taught component of the programme consists of 30 study weeks divided into two semesters during which time students study modules to a value of 60 ECTS/120 CATS points. Students who successfully complete the taught component undertake a three-month period of supervised research for a Master's dissertation at a value of 30 ECTS/60 CATS points.

The MSc is modular and alongside the core modules, students can take any combination of option modules to make up the required credits. Guidance in their choice will be given by staff and through the programme handbook. The flexibility in the programme allows students to study a broad range of disciplines related to sustainability to achieve general training in sustainability or look to specialise in specific areas. For example, the option modules can be used to follow pathways through the MSc Sustainability programme in consultancy, remote sensing and GIS or population.

Students will take two core modules in Sustainability in Semester 1 and one core module in Semester 2. The remaining modules can be selected from the option modules available (see programme structure below for module options.

One of the strengths in this programme is the wide range of modules offered to the students, although students need to be aware that given the large number of options, in some years there may be some timetabling clashes. To address this, and to ensure that students benefit from the large number of modules available to them, Personal Academic Tutors will work with each student at the start of each semester, to help students select modules that develop their skills in their chosen area and support their learning. Further support will be provided by module convenors to clarify for all Sustainability students, the differing approaches to assessment that are used in the three faculties.

MSc Sustainability (Research) pathway
In addition to the standard MSc Sustainability, a specialised research pathway is offered, leading to the award of MSc Sustainability (Research). The latter incorporates a more substantial compulsory research methods training element (amounting to 30 ECTS/60 CATS points).

The structure of the programme and the modules currently offered are set out below. Of the modules shown against each year of your programme, three are core for all Sustainability masters' students (i.e. enrolment is automatic), some are compulsory (on the MSc Sustainability (Research) and others are options. Against each year, students are directed to which modules are core, compulsory and options. The option modules shown below constitute an indicative list; there will always be choice but the options might vary between years. A full list of modules and rules will be available to you via the Student Record Self-Service system once you enrol at the University.

Part I Compulsory

Code	Module Title	ECTS	Type
MANG6291	International Corporate Social Responsibility	3.75	Compulsory
RESM6001	Philosophy of Social Science Research	5	Compulsory
RESM6003	Qualitative Methods 1	5	Compulsory
RESM6004	Quantitative Methods 1	5	Compulsory
RESM6002	Research Design and Practice	5	Compulsory
MANG6294	Responsible Leadership	3.75	Compulsory

Part I Core

Code	Module Title	ECTS	Type
GEOG6097	Data collection and research methods for sustainability	7.5	Core
GEOG6098	Introduction to Sustainability	7.5	Core

Part I Optional
Students on the MSc Sustainability (Research) programme must take two of three named modules (RESM6005, RESM6006, RESM6007).

Code	Module Title	ECTS	Type
RESM6006	Qualitative Methods 2	5	Optional
RESM6007	Quantitative Methods II A	5	Optional
RESM6005	Survey Design	5	Optional

Part I Optional/Compulsory
For the MSc Sustainability (Research), students should select one option module between the following:

- ENVS6011 Environmental Management Systems [7.5 ECTS/15 CATS]

OR

- ENVS3014 Sustainable Resource Management [7.5 ECTS/15 CATS]

Once selected the module becomes compulsory.

Code	Module Title	ECTS	Type
ENVS6011	Environmental Management Systems	7.5	Optional
ENVS3014	Sustainable Resource Management	7.5	Optional

Part II

Code	Module Title	ECTS	Type
GEOG6036	Research Project	30	Core

The programme structure table is below:

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Students will take two core modules in Sustainability in Semester 1 and one core module in Semester 2. The remaining modules can be selected from the option modules available (see programme structure below for module options.

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MSc Sustainability (Research) pathway
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The structure of the programme and the modules currently offered are set out below. Of the modules shown against each year of your programme, three are core for all Sustainability masters' students (i.e. enrolment is automatic), some are compulsory (on the MSc Sustainability (Research) and others are options. Against each year, students are directed to which modules are core, compulsory and options. The option modules shown below constitute an indicative list; there will always be choice but the options might vary between years. A full list of modules and rules will be available to you via the Student Record Self-Service system once you enrol at the University.

Part I Core

Code	Module Title	ECTS	Type
GEOG6097	Data collection and research methods for sustainability	7.5	Core
ENVS6028	Environmental Impact Assessment	7.5	Core
GEOG6098	Introduction to Sustainability	7.5	Core

Part I Optional
Students on the MSc Sustainability (Research) programme must take two of three named modules (RESM6005, RESM6006, RESM6007).

Code	Module Title	ECTS	Type

GEOG3057	Adapting to Climate Change & Weather Hazards	7.5	Optional
GEOG6102	Complex Social-Ecological Systems: Past, Present and Future	7.5	Optional
MANG6045	Consultancy Skills	3.75	Optional
ENVS6011	Environmental Management Systems	7.5	Optional
ENVS6006	Environmental Pollution	7.5	Optional
STAT6089	Evaluation and Monitoring	5	Optional
GEOG6095	GIS for Environmental Management	7.5	Optional
MANG6291	International Corporate Social Responsibility	3.75	Optional
GEOG6088	Programming Skills in Remote Sensing	7.5	Optional
RESM6004	Quantitative Methods 1	5	Optional
GEOG6027	Remote Sensing for Earth Observation	7.5	Optional
MANG6280	Sustainable and Responsible Innovation	7.5	Optional
DEMO6021	Understanding Population Change	5	Optional
CENV6145	Climate Design of Buildings and Cities	7.5	Optional
GEOG6061	Core Skills in GIS (15)	7.5	Optional
ENVS6030	Environmental Law and Management	7.5	Optional
GEOG6094	GIS for Analysis of Health	7.5	Optional
ENVS6033	GIS for Engineers	7.5	Optional
MATH6013	Healthcare Modelling	3.75	Optional
DEMO6026	Population and Reproductive Health	5	Optional
DEMO6023	Population, Poverty & Policy	5	Optional
GEOG6087	Practical Skills in Remote Sensing	7.5	Optional
GEOG6109	Programming for GIS and Spatial Analyses	7.5	Optional
MANG6293	Project Management	3.75	Optional
MANG6143	Project Risk Management	7.5	Optional
RESM6003	Qualitative Methods 1	5	Optional
STAT6095	Regression Modelling	5	Optional
MANG6294	Responsible Leadership	3.75	Optional
RESM6005	Survey Design	5	Optional
GEOG6104	Water, People & Environment: Cambodia Field Course	7.5	Optional

Part II

Code	Module Title	ECTS	Type
GEOG6036	Research Project	30	Core

Progression Requirements

The programme will follow the University's regulations for ***Progression, Determination and Classification of Results: Undergraduate and Integrated Masters Programmes*** or the University's regulations for ***Progression, Determination and Classification of Results: Standalone Masters Programmes*** as set out in the General Academic Regulations in the University Calendar: http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html

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.

Associated with your programme you will be able to access:

· Module co-ordinators support. Module co-ordinators will be available at designated times during the week to discuss issues related to the particular modules you are studying at the time. This will be in addition to class contact time.

· Academic/personal tutor. As soon as you register on this programme, you will be allocated a personal tutor. S/he is a member of the academic team and will be available to discuss general academic issues related to the programme as well as offer advice and support on any personal issues which may affect your studies.

· Module handbooks/outlines. These will be available at the start of each module (often in online format). The Handbook includes the aims and learning outcomes of the module, the methods of assessment, relevant background material to the module and a session-by-session breakdown of the module together with appropriate reading lists.

· Within the Faculty, administrative support is provided by your Student Office which deals with student records and related issues and with queries related to your specific degree programme.

· All students (on both programmes and all pathways) are provided with a personal tutor who can advise on academic and other University issues, and a dissertation tutor who provides advice and support during independent research.

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, Faculty 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

The ways in which the quality of your programme is checked, both inside and outside the University, are:

· Regular module and programme reports which are monitored by the Faculty
· Programme validation, normally every five years.
· External examiners, who produce an annual report
· Professional body accreditation/inspection
· A national Research Assessment Exercise (our research activity contributes directly to the quality of your learning experience)
· Institutional Review by the Quality Assurance Agency

Further details on the University's quality assurance processes are given in the *Quality handbook*.

Criteria for admission

The University's Admissions Policy applies equally to all programmes of study. The following are the typical entry criteria to be used for selecting candidates for admission. The University's approved equivalencies for the requirements listed below will also be acceptable.

Postgraduate programmes

Qualification	Grade/GPA	Subjects requirements	Specific requirements
Bachelors Degree	The usual entry requirement for the PGCert/PGDip/MSc programme is an honours degree (usually 2:1 or above) or an equivalent standard in other qualifications approved by the University. Students with lower or not usual entry qualifications may be admitted on the basis of relevant work experience or professional qualifications with the requisite approval. We welcome applications from international students.		

Mature applicants

Mature applicants without formal qualifications, or those who fail to meet minimum entry requirements, but with relevant experience are also welcomed. Such applications will be considered on an individual basis depending on experience and background and will be assessed by the Admission Team.

Recognition of Prior Learning (RPL)
The University has a **Recognition of Prior Learning Policy**

English Language Proficiency

The table below sets out the English proficiency requirements for this programme in terms of the IELTS test. We accept a range of other English proficiency tests including TOEFL and Cambridge Advanced/Proficiency. For full details of the recognised tests and the equivalent requirements in those tests please see *www.southampton.ac.uk/admissions-language*.

Overall	Reading	Writing	Speaking	Listening
6.5	6.0	6.0	6.0	6.0

Career Opportunities

Sustainability training has great job potential in local government, private sector, national and international environment, development justice and wellbeing focussed agencies, as well as research institutions (public and private). Graduates in sustainability science can be employed in most sectors: the food industry, the building sector, energy, telecoms water – all sectors need to think about sustainability either through choice or through legislation. There is a growing demand for sustainability graduates to address this gap. The approach to teaching and assessment in this programme generates products that graduates can point to showing their real-world sustainability training and experience. Employers look for graduates with interdisciplinary cross-cutting skills in communication, problem-solving, leadership, and team working, hence these skills form a core part of the assessment process. Sustainability graduates from Southampton have skills to manage complex problems, work with diverse stakeholders, understand the challenges of interdisciplinary working – but have the extensive tool kit of research and analytical skills to deliver this, and to assist them in their working life.

For those interested in PhD study, this Masters programme will provide a sound base for continued postgraduate studies in sustainability, notably in the University of Southampton MPhil/PhD Energy, Environment and Resilience.

External Examiner(s) for the programme

Research Name: Richard Armitage - University of Salford

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 s/he takes 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
Clothing	You will need to wear suitable clothing when attending fieldcourses, e.g. waterproofs, walking boots. You can purchase these from any source.
Other activities (e.g. visiting specialist marine stations and other institutions)	Geodata CPD GIS courses Geodata offers RIS-IGB accredited CPD courses which can be taken in addition to MSc modules. These courses are offered to University of Southampton PGR and PGT students at significant discount. Courses cost between £200 and £350 depending on type and length.
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.
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 model is Casio FX-570 This may be purchased from any source and no longer needs to carry the University logo.
Fieldwork: logistical costs	Any costs associated with conducting fieldwork as part of the dissertation research must be covered by the student.
Field Trips	There is an optional two-week overseas residential field course module "Water, People and Environment". Costs apply – please see the GEOG6104 module handbook for more information.
Printing and Photocopying Costs	In the majority of cases, coursework such as essays; projects; dissertations is likely to be submitted on line. However, there are some items where it is not possible to submit on line and students will be asked to provide a printed copy. A list of the University printing costs can be found here: http://www.southampton.ac.uk/isolutions/students/printing-for-students.page

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.