

# **Programme Specification**

## Sustainability (Part-Time) (2020-21)

### **SUBJECT TO REVALIDATION**

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 Part-time
Duration in years 2
Accreditation details None

Final award Master of Science (MSc)
Name of Award Sustainability (Part-Time)

Research

Interim Exit awards Postgraduate Certificate

Postgraduate Diploma

FHEQ level of final award
UCAS code
Programme Code
QAA Subject Benchmark or

N/A

Level 7
N/A

N/A

other external reference

Programme Lead Dr Craig Hutton Pathway Lead Dr Craig Hutton

### **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 faculties. 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 Leader, 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 Leader, 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 have the opportunity to be trained in the field (in research locations across the south of England as well as with the opportunity to conduct field work overseas) through dissertations and through the Water, People and Environment module (Cambodia Field Course). 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.

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 the GeoData Institute
- III. Opportunity to compete for a partially funded overseas dissertation with long standing collaborators, e.g. working with the Glacier Trust in Nepal Visits to leading sustainability initiatives such as Thames Barrier 2100, or in relation to: i) consultancy or, ii) geo-spatial technology, such as Ordnance Survey, National Trust
- IV. Opportunity to receive professional RGS-IBG accredited Continuing Professional Development (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 (but reduced) costs apply to attend these training courses

**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 <u>Disclaimer</u> 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 <u>programme validation process</u> which is described in the University's <u>Quality handbook</u>.

### **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
  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 you 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: Addressing client needs in delivery of environmental management systems.

SIMULATION: Class based and field based analysis of environmental data for environmental audits.

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: Seminars on developing scenarios of plausible futures (e.g. climate change, macro-

economics, food pricing, "upstream" interventions etc).

EXPERIENTIAL: A full day water resources planning exercise.

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 and sharing different knowledges.

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. 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.
- 2. 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.
- 3. 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.)
- 4. 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. 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, systematic reviews 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.

 $Features\ of\ sustainability\ research:\ Big\ data\ and\ emerging\ technologies.$ 

Assessment methods: Team work on water resources planning exercise.

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: 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

Relationship to learning outcome: Co-production of knowledge

Features of sustainability research: Knowledge co-production with stakeholders

Assessment methods: Report environmental management systems co-developed with businesses.

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 you 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 you 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 handouts
- 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**

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.

### **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 in January for part-time students.

The programme is normally studied over 27 months part-time. Each year of 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 six-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 (PATs) 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 part 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 part, 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.

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.

#### Part I Compulsory

Code	Module Title	ECTS	Туре
MANG6291	International Corporate Social	3.75	Compulsory
	Responsibility		
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	Туре
RESM6006	Qualitative Methods 2	5	Optional
RESM6007	Quantitative Methods II	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	Туре
ENVS6011	Environmental Management Systems	7.5	Optional
ENVS3014	Sustainable Resource Management	7.5	Optional

#### Part II

Code	Module Title	ECTS	Туре
ENVS6035	Research Project	30	Core

### Sustainability Pathway

#### Part

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 in January for part-time students.

The programme is normally studied over 27 months part-time. Each year of 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 six-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 (PATs) 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 part 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 part, 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.

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.

#### Part I Core

Code	Module Title	ECTS	Туре	
GEOG6097	Data Collection and Research Methods	7.5	Core	
	for Sustainability			
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).

Module Title	ECTS	Туре
Adapting to Climate Change and	7.5	Optional
Weather Hazards		
Complex Social-Ecological Systems:	7.5	Optional
Past, Present and Future		
Consultancy Skills	3.75	Optional
Environmental Management Systems	7.5	Optional
Evaluation and Monitoring	5	Optional
GIS for Environmental Management	7.5	Optional
International Corporate Social	3.75	Optional
	Adapting to Climate Change and Weather Hazards Complex Social-Ecological Systems: Past, Present and Future Consultancy Skills Environmental Management Systems Evaluation and Monitoring GIS for Environmental Management	Adapting to Climate Change and 7.5 Weather Hazards Complex Social-Ecological Systems: 7.5 Past, Present and Future Consultancy Skills 3.75 Environmental Management Systems 7.5 Evaluation and Monitoring 5 GIS for Environmental Management 7.5

	Responsibility		
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
ENVS6006	Water Pollution	7.5	Optional
CENV6145	Climate Design of Buildings and Cities	7.5	Optional
GEOG6061	Core Skills in GIS	7.5	Optional
ENVS6030	Environmental Law and Management	7.5	Optional
GEOG6094	GIS for Analysis of Health	7.5	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 and Environment: Cambodia Field Course	7.5	Optional

#### Part II

Code	Module Title	ECTS	Type	
ENVS6035	Research Project	30	Core	

#### **Progression Requirements**

The programme will follow the University's regulations for <u>Progression, Determination and</u> <u>Classification of Results: Standalone Masters Programmes</u> as set out in the General Academic Regulations in the University Calendar: <a href="http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html">http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html</a>

#### 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:

#### The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and upto-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 hehalf
- 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*.

### **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

Name: Prof Anson McKay - University College London

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.
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.
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.
Fieldwork: logistical costs	Any costs associated with conducting fieldwork as part of the dissertation research must be covered by the student.
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-forstudents.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.