

**University of Plymouth**

Faculty of Science and Engineering

School of Geography, Earth and Environmental Sciences

**Programme Specification**

**Master of Research MRes  
in  
Sustainable Environmental Management (1911)**

September 2019

**1. MRes Sustainable Environmental Management (SEM) (1911)**

**Final award title:** Master of Research (MRes) Sustainable Environmental Management

**Level 7 Intermediate award title(s)**

Completion of 60 credits: Postgraduate Certificate (PGCert)

**JACS code:** F810 Environmental Geography

**2. Awarding Institution:** University of Plymouth

**Teaching institution(s):** University of Plymouth

**3. Accrediting body – supplementary accreditation**

None

**4. Distinctive Features of the Programme and the Student Experience**

**Development of a professional approach to scientific inquiry** with class-leading researchers, leading to the development of a cutting-edge research project that, for exceptional students, could result in publication, and that paves the way for a research-based employment.

**A broad-based introduction to a spectrum of issues** germane to sustainable environmental management (SEM) led by academic staff with active research interests and/or direct experience of industries related to environmental management.

**Modules providing an interdisciplinary foundation** to the topic, its core philosophy, policy and regulatory matters, and a tailored variety of enabling skills and methods.

**Research-informed modules, designed for this degree** rather than arising as an 'applied addendum' to basic research interests. Students frequently find dissertation topics directly related to on-going research projects of academic staff.

**Exposure to a professional research environment:** through their research topic, students have opportunities to become integrated into the associated research group of academic staff and PhD students.

**Staff offer an enthusiastic and intensive learning environment:** the SEM External Examiner has noted that the strength of the modules lies both in their content but also in the enthusiasm and commitment of the staff who teach them.

**Emphasis on field-based experiential learning** wherever possible, including a residential field course with exercises based around ‘real-life’ regional challenges for sustainable environmental management

**Coursework assignments designed to test students across a range of presentation styles** (written, oral, graphic, debates, etc.) in preparation for employment.

**Involvement of ‘industry’ guest speakers allowing motivated students to develop an embryonic contact network.** Such networks regularly result in volunteering opportunities and/or topics for dissertation research and can lead to full-time employment.

## **5. Relevant QAA Subject Benchmark Group(s)**

There is no direct QAA benchmark statement for Environmental Management. The closest subject benchmarks are in [Geography](#) and [Earth Sciences, environmental sciences and environmental studies](#). The programmes also align with the [QAA Master degree characteristics statement](#).

## **6. Programme Structure**

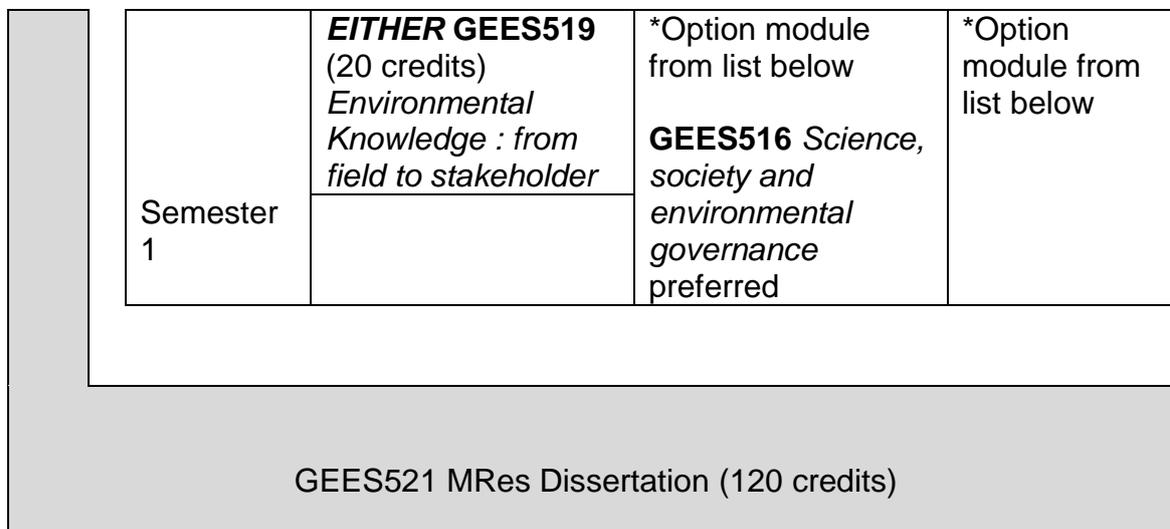
The MRes programme is part of a suite of Masters subjects offered by the School of Geography, Earth and Environmental Sciences (SoGEES). The programme is structured into a semester system, as outlined in Figure 1, with each taught module worth 20 credits, equating to approximately 200 hours of student work. The MRes degree contains 60 taught credits and a 120-credit dissertation module emphasizing its focus on research training.

The taught modules in Semester 1 one provide a comprehensive grounding in environmental management whilst allowing students to focus on areas relevant to their research interest. The flexibility also allows students embarking on the MSc Environmental Consultancy, MSc Sustainable Environmental Management and MSc Sustainable Geoscience to transfer to the MRes programme. Students must take **EITHER** GEES519 *Environmental knowledge: from field to stakeholder* a School-wide training module in research skills and methods with pathways focused on social or physical sciences **OR** GEOL5006 *Sustainable Geoscience: Research and Communication*, which has a parallel role in the MSc Sustainable Geoscience programme. Students select two further modules from those available (Figure 1) in the broad area of environmental management, that are appropriate to their research training. Students are encouraged to take GEES516 Science, society and environmental governance

Students are challenged to consider their dissertation topic during semester one within the ‘*Environmental Knowledge*’ module. Students are allocated to a dissertation supervisor through this module and embark on their research project

in semester two, after extensive discussion and agreement of the project supervisor in semester one..

**Figure 1:** Programme structure for MRes Sustainable Environmental Management



\*Option modules, all 20 credits

- ENVS5003 Ecological survey and mitigation
- GEES515 Professional Practice in the Environmental Sector
- CHM5002 Analytical chemistry Principles
- MATH513 Big Data and Social network Visualization

## 7. Programme Aims

The general aim of the MRes programme is to provide postgraduates with a broad background to the physical and social scientific basis of sustainable environmental management, and to train them towards a research-oriented career, potentially including the ambition of entering a PhD.

The MRes programme begins as a broadening experience for graduates from a variety of disciplines, as well as giving in-depth knowledge and high level skills in specific subjects. MRes students will have demonstrated their research potential as undergraduates (as evidenced by their referee’s written comments).

The specific aims of the MRes SEM programme are:

- To develop confident, adaptable and independent environmental management researchers who are committed to life-long learning and are highly suited to research-based employment.
- To offer a broad interdisciplinary and contemporary introduction to sustainable environmental management, facilitated by exposure to academic staff who are scholarly and/or practical leaders in their fields;

- To promote critical, rational, innovative, reflective and creative thinking about environmental management issues;
- To develop knowledge of a wide variety of research methods and assessment techniques relevant to quantitative and qualitative environmental data sets and management applications;
- To develop an extensive range of intellectual and analytical skills related to problem formulation, strategic analysis, problem solving, team-working and effective communication using a variety of media;
- To provide experiential learning opportunities for assimilating environmental management knowledge through practical work and fieldwork;
- To promote the ability to design, conduct and report original research relevant to environmental management, including an awareness of issues involved in research with human participants, including issues of validity, reliability and ethical considerations;

## **8. Programme Intended Learning Outcomes**

### **8.1. Knowledge and understanding**

On successful completion, graduates should be able to demonstrate a systematic knowledge and understanding of:

1. **Theoretical and research-based knowledge:** at the forefront of both practice and research in sustainable environmental management
2. **Techniques and methodologies:** applicable to analysing issues in sustainable environmental management
3. **Environmental processes:** the outcomes of humans interactions with their environment and the process implications of these interactions for sustainable management practices in the context of environmental change
4. **Political and institutional frameworks:** related to policy development and implementation in environmental management

### **8.2. Cognitive and intellectual skills**

On successful completion, graduates should be able to demonstrate the cognitive and intellectual skills of:

1. **Analysis:** the ability to undertake analysis of complex, incomplete or contradictory areas of knowledge with critical awareness, including problem formulation and solving
2. **Synthesis:** the ability to critically assess, validate and synthesise multidisciplinary evidence from disparate sources in a manner that may be innovative, utilising knowledge or processes from the forefront of sustainable environmental management
3. **Evaluation:** development of a level of conceptual excellence that allows a reasoned evaluation of research, advanced scholarship and methodologies and the development of arguments for alternative approaches to sustainable practices in environmental management

4. **Research:** to demonstrate initiative and originality in problem solving, acting independently to plan and implement novel lines of scientific inquiry to a professional or equivalent level, making decisions in complex situations
5. **Communication:** the ability to communicate outcomes effectively using a variety of media, including, potentially, peer-reviewed academic publications.

### 8.3. Key and transferable skills

On successful completion, graduates should be able to demonstrate the key and transferable skills of:

1. **Effective information sourcing:** using a full range of learning resources as training in research investigation
2. **Collation, analysis and interpretation of data:** in quantitative and qualitative forms independently and with minimum guidance
3. **Communication:** of ideas, principles and theories confidently and effectively by oral, written and visual means
4. **Use of appropriate computer and information technology:** including the internet, word-processing, graphics, spreadsheets, presentation and specialist software packages
5. **Independent working:** to organise his/her own learning autonomously to a professional academic level
6. **Effective and supportive participation:** in groups, managing their own requirements while meeting obligations to others
7. **Self-reflection:** on his/her own learning and evaluation of personal strengths and weaknesses
8. **Data synthesis and presentation:** at a standard which could be acceptable for publication in a refereed journal

### 8.4. Employment related skills

On successful completion, graduates should be able to demonstrate the employment-related skills of:

1. **Applying knowledge:** to a detailed research-based investigation that contributes to sustainable approaches in environmental management
2. **Project design and execution:** to be capable of planning and carrying out a project, presenting its results and discussing its implications at the level of professional research
3. **Effective reflection:** in action planning for personal and career development
4. **Life-long learning:** To appreciate the importance of life-long learning and reflect critically on their career plans and skills needs for continuing professional development

### 8.5. Practical skills

On successful completion, graduates should be able to demonstrate the practical skills of:

1. **Critical investigation:** identifying, formulating and resolving novel, significant and complex problems and research questions using good scientific practises and contemporary methods in environmental management
2. **Data collection:** primary and secondary data collection, including fieldwork
3. **Data analysis:** utilising manual and computer-based analysis of quantitative and qualitative data with precision and effectiveness, adapting skills or procedures for new situations
4. **Reporting original research:** planning, design, execution and report writing using personal initiative, potentially towards peer-reviewed academic publications where appropriate.

## **9. Admissions Criteria, including APCL, APEL and DAS arrangements**

The admissions policy for the programme complies with the University Policy of Admissions to Postgraduate Taught Programmes of Study.

The Programme Leader (who is also responsible for admissions) will use the criteria below as a guide in making admissions decisions. Wherever possible, established relationships or equivalencies to other national or international qualifications will be used in making decisions. Admissions are administered through the University Postgraduate Admissions Office.

Students admitted to the MRes programme are expected to have a very good Honours degree in a relevant discipline (e.g., geography, environmental science, biological conservation, sociology, business, economics, engineering, history, geosciences, biological sciences or otherwise suitably qualified candidates). The Programme Leader will be responsible for ensuring that applicants have, through prior learning (formal study and/or experience) in the critical subject areas, developed the requisite knowledge, understanding and skills required for the successful participation in this programme. The suitability of candidates will be assessed through a combination of the written application, evidence of formal qualifications, personal references and candidate interviews (where appropriate).

For MRes candidates entry will be based on (a) the classification of their honours degree, (b) their research potential as evidenced by their references and (c) their aspirations to take up a research-oriented appointment following completion of the course. MRes candidates will normally be expected to attend an interview. All will be expected to be capable of fulfilling the objectives of the programme and achieve the required standard. The final decision of whether a candidate takes the MRes or MSc route rests with the Admissions Tutor. Transfer between MSc and MRes is possible up until the end of the first semester – see section 12 for details.

In compliance with the University's policies of equality and diversity, and disability, all appropriately qualified applicants will be given equal consideration during the

selection process. The University welcomes applications from people with disabilities and the support available is described [here](#).

Entry requirements (in summary):

- Normally an honours degree (Upper Second class or better) in a relevant discipline (e.g., geography, environmental science, biological conservation, sociology, business, economics, engineering, history, geosciences, biological sciences or otherwise suitably qualified candidates) OR overseas equivalent.
- A minimum grade C in English Language at GCSE level OR a minimum score of 6.5, with 5.5 in each of listening, reading, speaking and writing in IELTS.

Overseas applicants must have proficiency in English that is in accordance with the current university regulations. Completion of an English language course prior to commencing the programme may be recommended to students for whom English is not their first language.

**Accreditation of Prior Certificated Learning (APCL):** Students can exceptionally apply for exemption from any modules through APEL or APCL, following standard University procedures, described in the University's [academic regulations](#) on admissions.

Any non-standard academic entrant onto the programme is strongly encouraged to seek support from the University's [Learning Gateway](#) team before commencing their studies as well as during the programme. This support will be additional to any support provided by staff on the MRes SEM programme. The onus is on the student to ensure that they are aware of the requirements of higher education study at Masters level and to seek appropriate help and support where extra guidance and tuition is considered necessary. Early feedback on coursework and discussions with module leaders and personal tutor will identify cases where such support would be advisable.

#### **10. Progression criteria for Final and Intermediate Awards**

Progression criteria for the final and intermediate awards, including the award of MRes with Merit or Distinction, follow the standard University regulations.

Candidates for MRes **must** make themselves available for a *viva voce* examination just prior to the Award Assessment Board, the date of which will be specified in the programme handbook.

#### **11. Exceptions to Regulations**

None

## 12. Transitional Arrangements

2018/19	2019/20
MATH500	MATH513

### **Transfer from MSc Sustainable Environmental Management, MSc Environmental Consultancy, MSc Sustainable Geoscience to MRes Sustainable Environmental Management**

It is possible for students originally enrolled on the MSc programmes identified above to transfer at the end of the first semester onto the MRes programme. Candidates will normally have met the entry requirements for the MRes degree. Potential transfers are assessed individually on the basis of student ability, the suitability of the chosen topic for extended research to the level of an MRes dissertation, and the availability of necessary supervision. Such transfers require the explicit support of the dissertation supervisor.

## 13 Mapping and Appendices

### 13.1 Programme Intended Learning Outcomes mapped against module content.

PROGRAMME INTENDED LEARNING OUTCOME	MODULES
<b>KNOWLEDGE AND UNDERSTANDING</b>	
1. <b>Theoretical and research-based knowledge:</b> at the forefront of both practice and research in sustainable environmental management	GEES521, optional module
2. <b>Techniques and methodologies:</b> applicable to analysing issues in sustainable environmental management	GEES519 GEES521
3. <b>Environmental processes:</b> the outcomes of humans interactions with their environment and the process implications of these interactions for sustainable management practices in the context of environmental change	optional module
4. <b>Political and institutional frameworks:</b> related to policy development and implementation in environmental management	optional module
<b>COGNITIVE AND INTELLECTUAL SKILLS</b>	
1. <b>Analysis:</b> the ability to undertake analysis of complex, incomplete or contradictory areas of knowledge with critical awareness, including problem formulation and solving	GEES 519/ GEOL5006 GEES521
2. <b>Synthesis:</b> the ability to critically assess, validate and synthesise multidisciplinary evidence from disparate sources in a manner that may be innovative, utilising knowledge or processes from the forefront of sustainable environmental management	GEES 519 GEES521
3. <b>Evaluation:</b> development of a level of conceptual excellence that allows a reasoned evaluation of research, advanced scholarship and methodologies and the development of arguments for alternative approaches to sustainable practices in environmental management	GEES 519 GEES521

4. <b>Research:</b> to demonstrate initiative and originality in problem solving, acting independently to plan and implement novel lines of scientific inquiry to a professional or equivalent level, making decisions in complex situations	GEES 519 GEES521
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<b>KEY AND TRANSFERABLE SKILLS</b>	
1. <b>Effective information sourcing:</b> using a full range of learning resources	All modules
2. <b>Collation, analysis and interpretation of data:</b> in quantitative and qualitative forms independently and with minimum guidance	GEES 519 GEES521
3. <b>Communication:</b> of ideas, principles and theories confidently and effectively by oral, written and visual means	All modules
4. <b>Use of appropriate computer and information technology:</b> including the internet, word-processing, graphics, spreadsheets, presentation and specialist software packages	GEES519
5. <b>Independent working:</b> to organise his/her own learning autonomously to a professional academic level	All modules
6. <b>Effective and supportive participation:</b> in groups, managing their own requirements while meeting obligations to others	GEES519
7. <b>Self-reflection:</b> on his/her own learning and evaluation of personal strengths and weaknesses	All modules
8. <b>Data synthesis and presentation:</b> at a standard which would be acceptable for publication in a refereed journal	GEES521

<b>EMPLOYMENT RELATED SKILLS</b>	
1. <b>Knowledge application:</b> of intellectual and transferable skills to a variety of practical situations in the pursuit of sustainable approaches to environmental management	GEES521
2. <b>Project design and execution:</b> to be capable of clearly and coherently presenting the results and	GEES521

discussing the implication of independent research at the level of professional research	
3. <b>Effective reflection:</b> in action planning for personal and career development	GEES519
4. <b>Life-long learning:</b> To appreciate the importance of life-long learning and reflect critically on their career plans and skills needs for continuing professional development	All modules
<b>PRACTICAL SKILLS</b>	
1. <b>Critical investigation:</b> identifying, formulating and resolving novel, significant and complex problems and research questions using good scientific practises and contemporary methods in environmental management	GEES519 GEES521
2. <b>Data collection:</b> primary and secondary data collection, including fieldwork	GEES519 GEES521
3. <b>Data analysis:</b> utilising manual and computer-based analysis of quantitative and qualitative data with precision and effectiveness, adapting skills or procedures for new situations	GEES519 GEES521
4. <b>Reporting original research:</b> planning, design, execution and report writing using personal initiative, potentially towards peer-reviewed academic publications where appropriate.	GEES521

## 13.2 Assessment against Modules Mapping

<b>Module code</b>	<b>Module title</b>	<b>Compulsory or optional module</b>	<b>Course work</b>	<b>Practical</b>	<b>Other</b>
GEES519	Environmental Knowledge: from field to stakeholder	Compulsory	100%		
GEES521	MRes Dissertation – 120 credits	Compulsory (topic selected by student)	100%		
GEES516	Science, society and environmental governance	Optional (preferred choice)	50%	50%	
ENVS5003	Ecological survey and mitigation	Optional	60%	40%	
GEES515	Professional Practice in the Environmental Sector	Optional	100%		