MSc in Environmental Management (full-time)
For students entering in 2017/8

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	n/a
Programme length:	1 year
Date of specification:	15/Aug/2017
Programme Director:	Dr Elizabeth Shaw
Board of Studies:	The SAGES BoS for PGT Programmes
Accreditation:	Climate KIC label

Summary of programme aims
This MSc aims to provide a thorough understanding of the key scientific and socio-economic principles of environmental management and their relationships with current policy and regulatory processes. It also aims to equip students with relevant technical, research and business skills that underpin the application of environmental management in society, industry and government.

It is intended that students will gain an understanding of (i) the human impact on the natural environment and natural resources; and (ii) how that impact can be managed from a natural and social science perspective.

Transferable skills
The following transferable skills are provided:

- information technology;
- quantitative and qualitative problem-solving;
- communication in written, visual and oral forms
- team working
- time and project management
- self-reflection and academic/ career learning needs analysis

Programme content
Compulsory modules (130 credits):

code	title	credits	level
APME58	Resource and Environmental Economics	10	7
GVMWENM	Waste and Environmental Management	10	7
APMA91	Environmental Management: Principles and Practice	10	7
HEM01	Research Skills and Career Learning	10	7
APMA102	Ecosystem Services	10	7
LWMENV	Environmental Law	10	7
GVMRP	Research Project	60	7

Optional modules
Students should choose optional modules totalling 60 credits from the lists below. Choices must be made in consultation with the Programme Director and subject to timetabling constraints and availability, with no less than 150 credits out of the total 180 being at Level 7. When choosing modules, students are encouraged to align their options to one of the streams indicated below and it is recommended that they take one of the following recommended level 7 modules on qualitative/ quantitative research methods; the choice of module to be informed by past statistical training and likely topic of the research project:
GVMQAD Quantitative Analysis of Environmental Data (10 credits)
APME40 Qualitative Reseach Methods (10 credits)
Stream1: Contaminated and Urban Environments

ARMEMP	Research and Enterprise Micro-placement	10	7
GVMEPM	Environmental and Pollution Microbiology	10	7
GVMENVC	Environmental Consultancy	20	7
GVMPBE	Pollutant Behaviour in the Environment	20	7
GVMLASP	Laboratory Analysis of Soils and Pollutants	10	7
GVMAP	Air Pollution: Effects and Control	20	7
GVMFC	Field Class	10	7

GVMEVP	Environmental Pollution	10	7
APMA96	Plants, greenspace and urban sustainability	10	7
BI3EF7	Urban Ecology	10	6

Stream 2: The Changing Environment

GVMFC	Field Class	10	7
ARMEMP	Research and Enterprise Micro-placement	10	7
GVMAP	Air Pollution: Effects and Control	20	7
APMA90	Climate Change and Food Systems	10	7
GVMPFF	Preparing for Floods	10	7
IDM092	Global Environmental Change and Development	20	7
MTMCC	The Science of Climate Change	10	7
GVMCGC	Carbon and Global Change	10	7
GVMCC	Climate Change	20	7
GV3CJS	Climate Policy, Justice and Society	20	6
APME75	Energy Climate Change and Development	20	7
IDM092	Global Environmental Change and Development	20	7

Stream 3: Agricultural and Rural Environments

GVMFC	Field Class	10	7
ARMEMP	Research and Enterprise Micro-placement	10	7
APMA41	Agriculture in the Tropics	10	7
APMA89	Water, Agriculture and Irrigation	10	7
APMA90	Climate Change and Food Systems	10	7
APME72	Agricultural Project Planning and Management in Developing Countries	20	7
APMA112	Issues in Agricultural Systems	20	7
APMA104	Principles of Integrated Pest Management	20	7
APMA103	Rethinking Agricultural Development	20	7
AP3AE75	Wildlife and farming	10	7
BI3EW8	Conservation Biology	20	6

Part-time or modular arrangements
Part time participants may either follow all the modules taught in the Autumn term in their first year and all the modules taught in the Spring term in their second years or alternatively may follow half the modules form the Autumn and Spring terms in both their first and second years. The most appropriate arrangements for the individual applications will be discussed with the Programme Director. Part time students will be encouraged to consider running a long-term research project over the two years that they are registered on the course but may carry out their research project in either their first or second year, again as is appropriate to their circumstances.

Progression requirements
After the results of the taught modules, weak candidates, who in the opinion of the examiners and Board of Studies, will struggle to carry out a Research project to the required standard may be recommended to transfer to a Diploma in which the requirement for a pass is 50% in a total of 120 credits rather than the 180 required for the M.Sc. In this situation a research project would not be carried out but examinations could, if necessary be retaken in September. It is important to realise that failure in the research project will result in failure of the M.Sc. In summary, candidates may be told after the papers have been marked that either they

1. have passed or

2. are marginal or have failed by a small amount (an overall result of 40 - 49% in the written papers + course work with a mark of < 40% in no more than 30 credits and a mark of <50% in no more than 55 credits) so that, subject to an adequate mark for the dissertation, no resit is required *or*

3. have failed by a substantial margin (<40% in more than 30 credits and a mark of < 50% in more than 55 credits), and that a resit in September will be required and that a transfer from the M.Sc. to the Diploma is advised.

Summary of Teaching and Assessment

Teaching is through a combination of lectures, seminars, practical's, computer-based self-taught exercises, site visits and talks by invited speakers. Assessment is through a combination of exams, assessed practicals, essays, scientific reports and presentations.

The University's taught postgraduate marks classification is as follows:

Mark	Interpretation
70 - 100%	Distinction
60 - 69%	Merit
50 - 59%	Good standard (Pass)

Failing categories:

40 - 49%	Work below threshold standard
0 - 39%	Unsatisfactory Work

For Masters Degrees

To pass the MSc students must gain an average mark of 50 or more overall including a mark of 50 or more for the dissertation. In addition the total credit value of all modules marked below 40 must not exceed 30 credits and for all modules marked below 50 must not exceed 55 credits.

Students who gain an average mark of 70 or more overall including a mark of 60 or more for the dissertation and have no mark below 40 will be eligible for a Distinction. Those gaining an average mark of 60 or more overall including a mark of 50 or more for the dissertation and have no mark below 40 will be eligible for a Merit.

For PG Diplomas

To pass the Postgraduate Diploma students must gain an average mark of 50 or more. In addition the total credit value of all modules marked below 40 must not exceed 30 credits and for all modules marked below 50 must not exceed 55 credits.

Students who gain an average mark of 70 or more and have no mark below 40 will be eligible for the award of a Distinction. Those gaining an average mark of 60 or more and have no mark below 40 will be eligible for a Merit.

For PG Certificate

To pass the Postgraduate Certificate students must gain an average mark of 50 or more. In addition the total credit value of all modules marked below 40 must not exceed 10 credits.

Normally, candidates registered for a diploma will complete the taught courses offered in the Autumn and Spring terms and candidates registered for a certificate will complete the taught courses offered in the Autumn or Spring term.

Admission requirements

Entrants to this programme are normally required to have obtained a second class honours degree in a related field, e.g. Environmental Science, Earth / Geoscience, Chemistry, Biology, Geography and Agriculture. Applications from those with no first degree but who have previous experience may also be considered.

Admissions Tutor: Dr Tom Sizmur

Support for students and their learning

University support for students and their learning falls into two categories. Learning support is provided by a wide array of services across the University, including: the University Library, In-sessional English Support Programme, the Study Advice and Mathematics Support teams and IT Services. There are language laboratory facilities both for those students studying on a language degree and for those taking modules offered by the Institution-wide Language Programme. Student guidance and welfare support is provided by Personal Tutors, School Senior Tutors, the Students' Union, the Medical Practice and the Support Centres. If a student has a general enquiry and is unsure where to seek help, they should visit their Support Centre. There are five Support Centres across the University, including one based at the London Road Campus. The Support Centre will be able to advise on matters such as extenuating circumstances, module selection, suspensions, withdrawals, timetable queries and transferring programme. The Support Centre will also be able to signpost students to Carrington building where other University services related to disability, financial support, counselling and

wellbeing, accommodation and careers can be found. More information on what student services are available can be found here: http://student.reading.ac.uk/essentials.

Career prospects

On completion of this course, graduates may expect to find employment in the Environmental Sector, specifically within consultancies, local government and government research agencies, industry and within academia.

Opportunities for study abroad or for placements

During their research projects, students may be based abroad or with the UK at consultancies, governmental agencies, research institutes or industrial bodies provided the Programme Director is satisfied that suitable facilities and supervision are available to them.

Programme Outcomes

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Knowledge and Understanding

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A. Knowledge and understanding of:

1. Environmental and natural resource problems arising from the activity of humans
2. Scientific and socioeconomic principles of the management of human impacts on natural environments
3. Managed environments and the ecosystem services they provide
4. Techniques and processes involved in site investigation and risk assessment
5. Sources, processing and disposal of waste materials
6. Key concepts such as public goods and environmental externality and how this links to sustainability of natural and social systems.
7. Key areas of environmental law and regulation in England and Wales and Europe
8. Statistical methods and their application to environmental data
9. Experimental and survey design and sampling strategy

Teaching/learning methods and strategies

Lectures, laboratory and field practicals, seminars, group discussions, videos, presentations by industrial practitioners, site visits, data handling exercises, computer-based exercises.

Assessment

Practical reports, examination, essays, computer and laboratory-based practicals

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Skills and other attributes

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B. Intellectual skills - *able to:*

1. Explain how environmental economics can be used to understand the processes which have given rise to environmental problems and identify appropriate policy measures to contradict them.
2. Explain the main issues and concepts associated with sustainability and assess the effectiveness of policies, governance structures and environmental management systems in managing and assessing the process of change to more sustainable systems
3. Evaluate ecosystem services provided in a range of environments and the impact of human activities on their provision.
4. Outline strategies and procedures for site

Teaching/learning methods and strategies

Lectures, laboratory and computer based practicals

Assessment

Exams, essays, written reports, project thesis and presentation.

investigation, risk assessment and
environmental management
5. Illustrate sources and pathways of pollution and
disposal routes for industrial and domestic
waste
6. Discuss key areas of environmental law and
regulation in England and Wales, including the
impact of EU law
7. Plan and carry out a research project

C. Practical skills - *able to:*

1. Analyse environmental data using classical and
spatial statistical methods
2. Use computer packages to graphically present
field data
3. Carry out risk assessments and site
investigations
4. Use laboratory skills to characterise the
biological, physical and chemical components
of the environment
5. Plan and carry out a research project

D. Transferable skills - *able to:*

1. Produce word documents containing tables,
numbered and bulleted lists, a variety of fonts,
graphics and pictures.
2. Sort data and perform basic arithmetic and
statistical procedures within Excel
3. Produce charts and graphs in a variety of
formats using Excel
4. Produce slides for a presentation within the
PowerPoint package that include text, bullet
points, drawings, use of pre-set animations for
the appearance of text
5. Give clear presentations on science and social
science topics
6. Effectively use library and internet resources to
search and retrieve information
7. Produce clearly-written scientific reports
8. Work in teams
9. Plan and carry out research projects including
managing time in an efficient fashion
10. Reflect and evaluate own academic progress
and its implications for career planning

Teaching/learning methods and strategies

Laboratory practicals, seminars, lectures,
independent research project

Assessment
Laboratory and/or field reports, project thesis and
presentation.
These skills are assessed primarily with reference to
specific modules (see module descriptions for
details) and will depend on choice of optional
modules and topic of research project.

Teaching/learning methods and strategies

Lectures, self-taught computer packages, seminars,
tutorials, individual research projects, data
exercises, team-based presentations, mock
interviews.

Assessment
Transferable skills are largely assessed indirectly
through individual assignments (essays, scientific
reports). Skill 9 is assessed through the individual
research project and skill 10 is assessed directly on
the research skills and career learning module.

**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
he/she takes full advantage of the learning opportunities that are provided. More detailed information on
the learning outcomes, content and teaching, learning and assessment methods of each module can be
found in the module description and in the programme handbook. The University reserves the right to
modify this specification in unforeseen circumstances, or where the process of academic development and
feedback from students, quality assurance process or external sources, such as professional bodies,
requires a change to be made. In such circumstances, a revised specification will be issued.**