Note: To add a new row to any table sit in the last column of the last row and press the Tab key.

1. GENERAL INFORMATION

Award	Programme Title	Duration	Mode of study
MSc	Economics, Pathway Environmental Economics	12 months	FT
MSc	Economics, Pathway Environmental Economics	24 months	PT
Postgrad Diploma	Economics, Pathway Environmental Economics	9 months	FT (exit award only)
Postgrad Certificate	Economics, Pathway Environmental Economics	6 months	FT (exit award only)

School	School of Social Sciences, Economics Discipline Area
Faculty	Humanities
Awarding Institution	University of Manchester
Programme Accreditation	ESRC, to be approved
Relevant QAA benchmark(s)	There are no benchmark statements at postgraduate level for this subject area. The programme conforms to the Framework for Higher Education Qualifications.

2. AIMS OF THE PROGRAMME(S) (must include separate aims for PG Certificate and PG Diploma awards)

The programme aims to:

01.	Provide advanced instruction and rigorous training in environmental economics (especially resource economics, policy analysis, valuation) and the relevant methods of microeconomics and econometrics research in this area
02.	Develop students' powers of inquiry, critical analysis, and logical thinking. Encourage initiative and independent learning.
03.	Expose students to recent research and the state of the art tools in applied work in environmental economics, and to teach how to apply theoretical knowledge to current issues of policy and practice.
04.	Give training to students in research methods and core skills in, micro economics, econometrics, environmental and resource economics and environmental valuation, problem-solving, written and oral expression, communication presentation skills
05.	Equip students with the intellectual apparatus and practical skills necessary for an environmental economist[1] working in private or public organisations
	PG Certificate only
06.	Enable students to apply some elements of basic research skills to a relevant research area in environmental economics, via appropriate course units
	PG Dip only
07.	Enable students to apply basic research skills to a relevant research area in environmental economics, via appropriate course units

[1] From here onwards, the term environmental economics is used as a cover for environmental and resource economics and environmental valuation.

	MSc only
08.	Enable students to apply advanced research skills to a relevant research area in environmental economics, via course units and a MSc-dissertation.
09.	Provide training for those who wish to subsequently pursue a research and/or academic career via a PhD in environmental economics

3. INTENDED LEARNING OUTCOMES OF THE PROGRAMME(S) (must include separate outcomes for PG Certificate and PG Diploma awards)

A. Knowledge & Understanding

Students should be able to:

	PG Cert + PG Dip + MSc
A1.	*Acquire an advanced knowledge and understanding of the core theoretical models* of micro economics, econometrics, environmental and resource economics and environmental valuation.
A2.	*Develop and demonstrate ability to apply advanced micro- and econometric modelling tools* used in applied and empirical work in modern environmental economics.
A3.	*Develop and demonstrate ability to interpret and critically assess* the advantages and limits of methods and models used.
A4.	*Develop and demonstrate knowledge and understanding of the current and prospective developments* in the theory and applications of environmental economics.
	MSc only
A5.	*Demonstrate the ability to develop research ideas and manage research projects*, to identify and select the tools for implementing profound analyses, show ability to pursue independent learning, to analyse theoretical models and interpret quantitative and qualitative findings, and to interpret and present such findings in an appropriate (written and/or verbal) format.
A6.	*Produce an original piece of academic research in the form of a dissertation*, demonstrating a critical knowledge of the relevant literature and ability to use methodologies and quantitative tools in modelling obtaining results together with awareness and ability to present advantages and limits of methods and models used in environmental economics.

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Learning & Teaching Processes (to allow students to achieve intended learning outcomes)
Teaching methods will vary with the nature of the subject and the learning objectives. The methods include a combination of lectures and appropriate exercise classes or workshops/seminars. Lectures are used as the foundation for gaining knowledge; develop ability to interpret results and to understand the skills and methods used in their derivation. Tutorials will serve to further enhance knowledge and understanding through practice and discussions.

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Assessment (of intended learning outcomes)
The taught part of the course will have summative assessment in form of written unseen examinations for all course units. Some units are assessed partly by essays or other coursework. All assessment methods will be using the numerical marking scheme that is practiced in the University of Manchester for PGT-units. The assessment of the MSc-dissertation is also guided by a numerical marking scheme.

Lectures. In the first semester units, students will be introduced to the basic micro-economic models used in environmental economics at an advanced level of study, and to specific methods of analysis and essential theories, models and tools used in natural resource economics. In the second semester units, students will be introduced to the basic econometric models used at advanced level of study, and to specific methods of analysis and essential theories, models and tools used in environmental policy and valuation.	→	1/3 of the total grade (60 credits) is awarded to the MSc-dissertation while 2/3 of the grades will come from written examinations on course units.
Independent study. Students are expected to supplement lecture material with readings as directed by lecturers, including relevant textbooks and journal articles in the field. In addition exercises and assignments need to be prepared in advance of tutorial classes (workshops/seminars).		
Coursework assignments and formative assessment methods will also be used to support the learning process. MSc students will have a short dissertation wokshop prior to the start of the second semester in order to develop initial themes of research and select an approprite supervisor.		
The learning outcomes A1-A4 are addressed by all course units in semesters 1&2 with some units putting more emphasis on quantitative skills and others more emphasis on analytical and critical reasoning, although all units contain both aspects. A2 and A4 are achieved in the courses that are specific to this Pathway (Economics of Environmental Policy, Environmental Valuation, and Economy, Ecology & Environment). For MSc-students A5 is further enhanced through a dissertation workshop and initial individual meetings with potential MSc-dissertetion supervisors. Dissertations are supervised with a number of meetings between student and supervisor. Guidance on the selection of topics and an appropriate supervisor will be given through a mid-term dissertation Workshop. Dissertation lengths range between 12,000- 15,000 words, depending on the nature of the research. This would then achieve A5 and A6.		

B. Intellectual Skills

Students on all Programmes should be able to:

B1.	Identify appropriate theories or models, statistical or mathematical techniques, and IT support for the analysis of relevant questions in Environmental Economics.
B2.	Apply the analytical and quantitative skills required for scientific reasoning and research in Environmental Economics.
B3.	Show ability to interpret econometric results and put them into the appropriate environmental economics context.
B4.	Demonstrate capacity for independent directed and self-initiated learning and a profound management of time as required at an advanced level of study.
B5.	Show ability to use logical reasoning and scientific rigour.
B6.	Demonstrate ability to critically judge modern research in Environmental Economics.
	MSc only
B7.	Demonstrate the use of advanced skills and techniques and curiosity in developing new research ideas or new methodologies for research and applications in environmental economics and thereby be adequately prepared to pursue subsequent PhD-training or a professional career.

Learning & Teaching Processes	Assessment
Teaching methods will vary with the nature of the subject and the learning objectives. The methods include a combination of lectures and appropriate exercise classes (or workshops/seminars). Lectures are used as the foundation for gaining knowledge; develop ability to interpret results and to understand the skills and methods used in their derivation. Tutorials will serve to further enhance knowledge and understanding through practice and discussions.	Summative assessment in form of written unseen examinations for all course units and coursework assignments assess intellectual skills and covers B1-B7. B7 is additionally assessed, for MSc students, as part of the dissertation assessment.
Independent study. Students are expected to supplement lecture material with readings as directed by lecturers, including relevant textbooks and journal articles in the field. Workshops and tutorial classes will be used to develop quantitative and IT-skills and also to practice rigorous analytical reasoning. Problem-solving exercises will also support acquiring these skills. At the beginning of the second term students will be in an position to formulate a preliminary research idea, and towards the end of the second term students will have acquired the knowledge and understanding that will enable them to quickly engage on their projects. This is process is further enhanced by individual (and in some cases group) supervision, in particular for MSc-students during the dissertation supervision.	
The MSc-dissertation provides the opportunity to engage in new and modern research and applied work at advanced level in Environmental Economics.	
Formative assessment of coursework and test examinations will further enhance independent learning and critical thinking and expose students to tools and techniques used for rigorous analyses.	

C. Practical Skills

Students on all Programmes should be able to:

C1.	Manage research work effectively.
C2.	Identify, extract and analyse environmental and economic data from databases, websites, and from alternative sources, and interpret results using micro-economy and econometric modelling.
C3.	Identify relevant literature; provide appropriate citations, acknowledgements, and reference sources.
C4.	Present quantitative and qualitative information, complemented with analysis, argument, and discussion in appropriate form.
C5.	Use communications and information technology in acquiring, analysing and communicating information (spreadsheets, word-processing, on-line databases, statistical and econometric packages).

Learning & Teaching Processes		**Assessment**
The use of major econometric, statistical and related software packages (such as *STATA*, *Nlogit*, *EViews* and *Microfit*) is obtained and taught in lectures, workshops, on-line tutorials and through assessed coursework.		Practical skills C2-C5 are assessed through taught courses.
Students are frequently referred in lectures, reading lists and coursework material to sources of useful information on the Internet and the library. This information ranges from official reports, e-journals, working papers, books through to central bank web-sites, and statistical databases.	→	For MSc students, practical skills C1 – C5 are further enhanced and assessed via the work on the dissertation.
The availability of courses for postgraduates at Manchester Computing {eg in the use of statistical packages like *Stata* , or the use of the Economic and Social Data Service (ESDS International) } are brought to the attention of students.		

D. Transferable Skills and Personal Qualities

Students on all Programmes should be able to:

	PG Dip and MSc
D1.	Use the Internet, major econometric, word processing, spreadsheet and related software in an integrated approach to the presentation of research reports.
D2.	Structure and present ideas effectively orally, visually and in writing.

D3.	Plan and implement a research strategy.
D4.	Manage time effectively, prioritise learning and research activities, and work to deadlines.
D5.	Exercise initiative and self-reliance skills, and work independently.
D6.	Demonstrate numeracy and employ computational skills in research.
D7.	Appreciate alternative viewpoints.

Learning & Teaching Processes	**Assessment**
Transferable skills (including word-processing and other 'office' ICT competencies) are generally integrated into the curriculum of each course unit. Teaching and learning methods are evaluated in terms of the quality of student's output, students' effectiveness in providing and communicating the information that is required. Students develop practical skills through workshops/seminars and assessed coursework.	Transferable skills feature in assessments of coursework as appropriate. A major part of the assessment of MSc students is conducted through the dissertation project, which reports on an extensive research project.
Each MSc student has a dissertation supervisor who provides general guidance on the implementation of the student's research strategy, and works with the student to ensure that good progress is maintained and time is managed effectively in order to meet the submission deadline in September.	D2, D3, D4 (Penalties for late submission apply) and D6 are assessed by course units that include assessed coursework D3 is assessed for MSc students directly through the dissertation. D1, D6 and D7 are also assessed by a variety of course units via assessed coursework, unseen examination, and (for MSc students) the dissertation.

4. THE STRUCTURE OF THE PROGRAMME(S)

	Semester I (60 credits, 15 per course)	Semester II (60 credits, 15 per course)
Core course units	- ECON60101: Microeconomic Theory - ECON60681: Natural Resource Economics - ECON61001: Econometric Methods	- ECON60422 Environmental Valuation - ECON60052: Cross Section Econometrics - ECON60782: Economics of Environmental Policy
Optional course units.		
- 1 unit in each semester	ECON* MSc modules - IDPM60801: Environment and Development - GEOG70901: Theories of Environmental Governance - PLAN60411: Environmental Impact Assessment - PLAN60441: Concepts in Environmental Law	ECON* MSc modules - POLI61002: Politics, Economics and Environment - POLI71002: Global Environmental Politics - IDPM71952: Conservation and Development

June – September: MSc dissertation (60 credits) on environmental economics with one of the Environmental Economics RAG members as first or second marker (preferably as supervisor)

5. STUDENT INDUCTION, SUPPORT AND DEVELOPMENT (in order to deliver the intended learning outcomes, including dissertation support and guidance)

A. Induction

Induction arrangements include a general welcome, study advice, an introduction to library and IT resources and how to use them, advice on examinations and assessment, and information about student support services. A welcome party is held for MSc and Diploma students on all Economics discipline area postgraduate programmes, where students can meet each other, academic and support staff and PhD students.

The discipline area offers a one week pre-session Maths course for students who need to refresh their Maths skills before the programme begins, which most students attend.

Programme Handbooks are given to all new students. These contain comprehensive information about all aspects of the programme, as well as practical information about the Economics discipline area and the School of Social Sciences.

All information is also available on the discipline area web and intranet sites.

B Support

Programme Directors keep students' progress under review and students are encouraged to contact the Programme director and/or the PG Administrator should they need either academic guidance, or to discuss issues of a personal nature. Students are encouraged to make full use of the University support services, including the accommodation services, the Careers Service, the Central Academic Advisory Service, the Counselling Service, etc – full details of these are included in the programme handbook.

Dissertation The discipline area organises a dissertation workshop to help students prepare for their dissertations, which includes advice on how to write a dissertation outline and research plan. Students are invited to search for a supervisor, and in case they have not registered in time, students are allocated a dissertation supervisor.

IT Support Postgraduate students have access to a number of computer clusters throughout the University including: Humanities Bridgeford Street, Mansfield Cooper Building, Williamson Building
University of Manchester Library (Burlington Street in zones Blue 1, Blue 2 and Blue 3), Joule Library (Sackville Street Building on F Floor), Owens Park, University Place (Building 37a), Barnes Wallis Building (Student Association) 2nd Floor, Sackville Street (Room G11)

For more information, please see the following websites:

http://ict.humanities.manchester.ac.uk/facilities/clusters/index.html
http://www.itservices.manchester.ac.uk/pcclusters/

Research Skills Students are supported in the acquisition of research skills through the dissertation and various compulsory course units.

Each PG programme elects a student representative who sits on the PG Staff-Student Liaison committee. Student representatives thus aid the decision making process by making known the student view.

6. CURRICULUM MAP OF COURSE UNITS AGAINST INTENDED LEARNING OUTCOMES OF THE PROGRAMME

Course Unit Title and Code (including dissertations and other programme components)			**Knowledge & Understanding**						**Intellectual Skills**						**Practical Skills**					**Transferable Skills & Personal Qualities**						
Code	**Course Unit title**	**C/O**	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**C1**	**C2**	**C3**	**C4**	**C5**	**D1**	**D2**	**D3**	**D4**	**D5**	**D6**	**D7**
Econ60101	Microeconomic Theory	C	X		X							x	X		X								X	X	X	
Econ60681	Natural Resource Economics	C	X		X	X			X	x	X	X	X	X	X	X							X	X	X	X
ECON61001	Econometric Methods	C	X	X	X							X	X		X	X		X	X	X	X		X	X	X	X
Econ60782	Economics of Environmental Policy	C	X	X	X	X			X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
Econ60422	Environmental Valuation	C	X	X	X	X			x	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X
Econ60052	Cross-Section Econometrics	C	X	X	X							X	X		X	X		X	X	X	X		X	X	X	X
	Dissertation	C					X	x	x	x	x	X	x	x	X	X	X	X	X	X	X	X	X	X	X	X

Legend for cells

D = intended learning outcomes of the programme are taught or developed by students within this course unit

A = intended learning outcomes of the programme are assessed within this course unit

C = compulsory course unit

O = optional course unit

7. CRITERIA FOR ADMISSION

Candidates must be able to satisfy the general admissions criteria of the University and of the School in the following way:

An upper second class honours degree in Economics/econometrics/agricultural economics, or the overseas equivalent. Candidates should have studied Microeconomics and some econometrics, with at least one of these subjects in their final year of undergraduate studies. In addition to the normal supporting documents, applicants for the MSc in Economics must also supply the following:

- A brief description of the course units taken on their undergraduate degree, detailing core texts used. This does not have to be an official document. A paragraph for each course unit taken will be sufficient.

Applicants whose first language is not English must attain one of the following:
IELTS - Overall 7, writing score 7
TOEFL - Overall 623, TWE 5 (PBT)
TOEFL(iBT) - Overall 100, with 25 in each of the 4 sections (IBT)

8. PROGRESSION AND ASSESSMENT REGULATIONS

Please see Page 29 of Taught Postgraduate Student Handbook. These are Faculty-level regulations and cannot be changed at the School or DA level.

Date of original production:	
Date of current version:	