



**UCL**

# ***MSc Conservation***

***Handbook  
2012-2013***

This information is provisional as the programme may be subject to revisions.  
It should be read in conjunction with:

***MSc Conservation web pages***

[www.geog.ucl.ac.uk/conservation](http://www.geog.ucl.ac.uk/conservation)

***UCL Graduate School web pages***

[www.grad.ucl.ac.uk](http://www.grad.ucl.ac.uk)

***Sources of Funding for Graduate Students***

[www.grad.ucl.ac.uk/funds](http://www.grad.ucl.ac.uk/funds)

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**Other sources of information**

This booklet must be read in conjunction with the following:

UCL Code of Practice for Taught Masters Programmes  
[www.grad.ucl.ac.uk/codes/CoP\\_Taught\\_10.pdf](http://www.grad.ucl.ac.uk/codes/CoP_Taught_10.pdf)

You may also find it helpful to consult the following:

- UCL Guide to Graduate Study  
[www.ucl.ac.uk/prospective-students/graduate-study/](http://www.ucl.ac.uk/prospective-students/graduate-study/)
- Information for students from overseas  
[www.ucl.ac.uk/prospective-students/international-students](http://www.ucl.ac.uk/prospective-students/international-students)
- Sources of Funding for Graduate Students  
[www.grad.ucl.ac.uk/funds/](http://www.grad.ucl.ac.uk/funds/)
- Department of Geography Graduate Programmes  
[www.geog.ucl.ac.uk/admissions-and-teaching/postgraduates](http://www.geog.ucl.ac.uk/admissions-and-teaching/postgraduates)

**Disclaimer**

This booklet provides information for those interested in the UCL MSc Conservation. While every effort has been made to ensure that the information in this handbook is correct at the time of going to press, UCL cannot be responsible for any errors it contains. UCL Department of Geography reserves the right to cancel or make adjustments to the specifications of particular modules if necessary.

## Introduction

The UCL MSc in Conservation is strongly interdisciplinary and engages with environmental, social and policy dimensions. It has a vocational orientation, with residential field-classes providing first-hand experience of practical conservation challenges. The programme is unique not only on account of its long history covering more than five decades and of the resulting extent of its alumni network, but also due to the active involvement of nature conservation professionals in the delivery of course material.

At the same time, the programme provides the scientific rigour needed for evidence-based analysis and understanding of the natural environment. The MSc provides an excellent preparation for employment with the full range of public sector and voluntary conservation organisations, environmental consultancies, or in academia.

As one of the world's top universities, UCL excels across the physical and natural sciences, social sciences and humanities. The MSc is run by UCL Geography, which enjoys an outstanding international reputation for its research and teaching. Research groups contributing to the MSc include those concerned with Environmental Change; Environmental Modelling; and Environment, Landscape and Society. The programme also benefits from the participation of staff from a variety of external conservation and environmental organisations.

## Aims and core questions

The MSc in Conservation was established as a vocational degree in 1959 by UCL's Departments of Botany, Zoology and Geography in collaboration with the Nature Conservancy. It has kept its vocational focus, providing an ideal training for students intending to embark on a career in conservation, but also in scientific research. The programme focuses on principles (conservation biology and ethics), policy (socio-economics, law and governance) and practice of conservation in relation to the following inter-related driving forces:

- Climate change
- Habitat degradation
- Loss of biodiversity
- Globalisation
- Demographic trends
- Introduced species

The evolving nature of these aspects raises a number of key questions, which are addressed as emerging themes in many of the modules:

1. What is the appropriate balance between top-down and bottom-up approaches?
2. Should nature reserves be managed or remain as wilderness?
3. How can conservation priorities be reconciled with global environmental changes?

What are the appropriate balances between:

4. Conservation of protected areas versus conservation of the wider landscape?
5. Conservation of representative habitats/particular species versus conservation of ecosystem functioning?

Against this background, the programme has several more specific aims:

- To engage with current thinking about ecological concepts and ideas and their application.
- To acquire an understanding of the practices of institutions engaged in conservation.
- To acquire knowledge of the ecology and management of ecosystems.
- To develop an understanding of the planning and regulatory framework relevant to conservation.
- To appreciate the implications of different approaches to implementing conservation policies.

## Learning outcomes

Students taking the MSc will:

- develop an understanding of contemporary debates in ecology, conservation ideas and practices through critical review of research.
- engage with debates on key conservation issues in discussions and seminars held with conservation professionals.
- develop identification skills of a range of taxa during field projects.
- gain insights into biological and physical processes operating in a variety of ecosystems.
- develop an understanding of methods to evaluate conservation importance of sites and ecosystems.
- acquire transferable skills in project design, management, report production and presentation through the conduct of independent projects and presentations. - complete an independent study based on the collection and analysis of primary data that demonstrates advanced knowledge and application of research skills and has practical relevance to conservation.

## Staff Research Interests

Research groups closely involved with the programme include the UCL Environmental Modelling Group ([www.geog.ucl.ac.uk/emg](http://www.geog.ucl.ac.uk/emg)), the Environmental Change Research Centre ([www.geog.ucl.ac.uk/ecrc](http://www.geog.ucl.ac.uk/ecrc)) and the Environment Landscape and Society Group ([www.geog.ucl.ac.uk/research/environment-landscape-and-society](http://www.geog.ucl.ac.uk/research/environment-landscape-and-society)).

Staff contributing to the MSc have a diverse range of interests in Conservation. Contributors may vary from year to year, but currently include:

Dr Jan Axmacher	Biodiversity; terrestrial ecology; conservation ecology; entomology
Dr Helene Burningham	Coastal and estuary geomorphology; GIS and historical shoreline change; climate forcing of coastal morphodynamics
Dr Sophie des Clers	Sea fisheries policy; social science of aquatic ecosystem management
Dr Mat Disney	Remote sensing; vegetation modelling; fire ecology
Prof. Jon French	Environmental system modelling; coastal and estuarine processes; geomorphology; hydrodynamics
Dr Peter Jones	Marine protected areas; governance of protected areas; marine conservation

Dr Anson Mackay	Palaeoecological reconstructions; wetland ecology
Dr Sam Randalls	Relationships between environments, commerce and science, with a particular focus on weather and climate
Dr Carl Sayer	Shallow lake palaeoecology and ecology; aquatic macrophytes; algae; fishes; river-floodplain restoration
Dr Julian Thompson	Monitoring and modelling hydrological processes within wetlands

## Course Structure and Timetable

In the first term, students take three compulsory core modules, including two associated field courses of about 6 days in length. In the second term, students select four optional modules from a range of choices and start to develop an individual dissertation research project. Modules are typically delivered through of a mixture of lectures, seminars and practical classes. The research project includes meetings with project supervisors, individual project presentations and skills training. Fieldwork is an important component of this MSc and in addition to the residential field courses in the first term, further field excursions are associated with some of the 2<sup>nd</sup> term modules.

The structure and timetable of the programme is summarised below.

### Term 1

Four compulsory core modules (15 credits each):

Scientific Basis for Freshwater and Coastal Conservation  
 Environmental Data Acquisition and Analysis  
 Conservation and Environmental Management  
 Rural Matrix

### Term 2

Four option modules (15 credits each) chosen from the following selection:

Changing Landscapes – Nature Conservation  
 Changing Landscapes – Nature, Culture, Politics  
 Marine Conservation  
 Coastal Change  
 Wetlands  
 Lakes  
 Aquatic Macrophytes  
 Environmental GIS  
 Politics of Climate Change  
 Biological Proxies of Environmental Change  
 Non-Biological Proxies of Environmental Change

### Dissertation (60 credits)

An individual research dissertation is usually a novel piece of research, often involving field sampling, experimentation, laboratory and data analysis

The following pages provide details of the core and option modules that are usually offered.

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**CORE GEOGG069 – CONSERVATION AND ENVIRONMENTAL MANAGEMENT**  
(15 credits, Term 1)**Staff:**

Sam Randalls, Jan Axmacher

**Aims:**

The module has three aims:

- To enable students to critically evaluate current conservation practice and underlying theoretical concepts
- To analyse the rationales for and place of people, markets and science in conservation practice and environmental management
- To be able to apply these debates to practical examples

**Content:**

The course will provide an integrated approach to conservation in theory and practice. It draws on debates about and within conservation science, economics and governance, and applies these to contemporary examples.

The course has the following foci:

- Biodiversity
- Politics of Biodiversity
- Conservation Practice
- Scientific proposal writing and the scientific approach
- Conservation economics and brochure preparation
- People and conservation

**Assessment:**

Brochure for a new nature conservation project - produced in group projects (3-4 students per group) and submitted as a group assignment (30%), Scientific research funding proposal for the conservation project (individual assessment) (70%)

**Format:**

Most of the course is lecture based with Moodle used as a repository for lecture-based material and information. The other part is based upon independent research and will culminate in student presentations of their research.

**Learning Outcomes:**

On completion of the module learners will be able to:

- Demonstrate understanding of key concepts and debates in contemporary conservation science, practice and governance
- Be able to assess the challenges and opportunities in integrating science, economics and people in decision-making
- Critically reflect upon conservation in practice
- Be able to apply these understandings to examples
- Design innovative solutions to problems
- Learn practical skills of justifying funding applications for both scientific and private funders
- Peer-learning with others and teamwork in student-led groups
- Formulate a reasoned argument about conservation practice

**CORE GEOG055 – RURAL MATRIX**

(15 credits; Term 1)

*Staff:*

Peter Jones

*Aims:*

This module introduces students to rural agri-environment and nature conservation policies in which many biodiversity conservation issues in the UK are framed, with a particular focus on uplands.

*Content:*

- Social, economic and political drivers for change in rural areas
- Recent changes to rural policy and associated legislation, especially agricultural policy, and to place these in their historical context
- Introduction to the environmental implications of modern agriculture, especially for conservation;
- Outline of priorities and challenges of upland conservation;
- Consideration of the different uses in an upland National Park and the issues in reconciling different priorities.

*Assessment:*

Essay (maximum 2000 words) on the prospects for nature conservation in the UK's uplands, with a particular focus on Snowdonia National Park.

*Format:*

This course is revolves around a five day residential field study in Snowdonia National Park, North Wales, involving input from various Snowdonia National Park Authority Officers. This is preceded by introductory lectures on agri-environment and upland conservation issues.

*Learning outcomes:*

- Understand the key role of agriculture in nature conservation;
- Appreciate the recent revisions to European and UK agri-environment policies;
- Understand the challenges and opportunities of upland conservation;
- Understand the many priorities for the use of an upland national park and the challenges of reconciling them.

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**CORE GEOGG104 – SCIENTIFIC BASIS FOR FRESHWATER AND COASTAL CONSERVATION** (15 Credits, Term 1)**Staff:**

Carl Sayer, Jan Axmacher and UCL Geography Laboratory Staff

**Aims:**

- to introduce environmental and ecological survey methods
- to provide field identification skills for both wetland vegetation and aquatic animals
- to introduce physical and biological factors governing the structure and function of freshwater and coastal systems
- to introduce students to key conservation issues in freshwater and coastal environments including management and restoration techniques

**Content:**

This core module is based on a 1 week field class to the North Norfolk Coast, a world famous and highly designated region for nature conservation in the UK. Here, a range of freshwater and coastal environments are visited, including ponds, rivers, fens, saltmarshes and sand dune systems, and issues relating to the conservation of these environments are discussed. In the field, students are introduced to a range of aquatic species including fish, crayfish, invertebrates, birds, plants and algae. Emphasis is placed on field survey techniques. When highlighting key conservation issues, management and restoration responses made by conservation agencies and land managers are also outlined. Environmental samples collected during the module are subsequently used in the closely linked module Environmental Data Acquisition and Analysis.

The main sessions include:

- Introduction to freshwater and coastal environments on the North Norfolk coast
- Identification of aquatic animal and plants groups, especially saltmarsh and fen meadow plants, aquatic invertebrates (including native and non-native crayfish) and fishes
- Introduction to freshwater and coastal conservation issues

**Assessment:**

Written report in the form of a site and/or species conservation plan. In this assessment the student is put in the position of a conservation manager. They need to detail and justify a practical plan aimed at addressing a key conservation issue introduced during the field course (max. 2000 words; worth 100%).

**Format:**

The course is based on a residential field class to Norfolk (combining fieldwork, identification work and lectures) with some follow-up seminars based at UCL

**Learning Outcomes:**

At the end of the course students should:

- have gained knowledge of the physical, chemical and biological controls on the function and behaviour of freshwater and coastal ecosystems
- be aware of techniques for surveying and monitoring specific habitats and species
- be aware of the complex issues associated with the conservation and management of freshwater and coastal environments due to their biological and physical dynamics

**CORE GEOGG102 – ENVIRONMENTAL DATA ACQUISITION AND ANALYSIS**

(15 credits; Term 1)

**Staff:**

Jan Axmacher and UCL Geography Laboratory Staff

**Aims:**

- to develop skills in the analysis of complex environmental datasets
- to attain field surveying skills
- to develop skills in nutrient analysis and data interpretation
- to gain skills in taxonomy and microscopy

**Content:**

This core module for both the MSc Conservation and MSc Aquatic Science comprises a mixture of numerical analysis and laboratory methods teaching. It is strongly linked to the “Scientific Basis for Freshwater and Coastal Conservation” fieldclass module, and the samples and data we use originate from this field-class module.

Invertebrate samples taken in Norfolk will be identified, and water samples will be analysed for their nutrient content. Furthermore, students will learn some basic field surveying skills. The data collected both at UCL and as part of the “Scientific Basis” module will form the basis of a series of lectures and practicals focussing on the statistical analysis of environmental and biological datasets.

The main sessions include:

- Identification of aquatic invertebrates
- Nutrient analysis with detailed investigations into precision and accuracy
- Multivariate statistical analysis of complex environmental and ecological datasets
- Surveying in the UCL quad and surrounding area.

**Assessment:**

Written report in the form of a scientific publication based on the data gathered in the Scientific Basis field class module and analysed within the framework of this module (3000 words max. - worth 8% of the overall assessment).

**Format:**

The course is based on practical work in the laboratory and lectures and practical exercises focusing on the numerical analysis.

**Learning Outcomes:**

At the end of the course students should:

- have an improved understanding of the biological and physical controls on the function and behaviour of environmental systems
- have experience in the implementation of field surveying techniques
- be aware of the quality and limitations of standard approaches used in water and sediment nutrient analysis
- have obtained skills in multivariate statistical analysis
- gain skills in the taxonomy of freshwater invertebrates

**OPTION GEOGG068 – CHANGING LANDSCAPES: NATURE CONSERVATION**

(15 credits, term 2)

**Staff:**

Jan Axmacher, Sam Randalls

**Aims:**

- To introduce students to non-UK environmental conditions and processes at different spatial scales
- To explore how different approaches to nature conservation relate to regional environmental settings
- To evaluate how awareness for the natural environment and nature conservation is being enhanced

**Content:**

Based on a case study outside the UK, this course will provide insights into

- Natural processes occurring at varying geographic scales and their effects on natural ecosystems and the wider landscape
- Multiple ways and scales at which humans interact with and shape the availability of natural resources
- Approaches to manage, conserve and protect natural ecosystems

**Assessment:**

A 2,000 word field report. Course contributes 7.5% of the final assessment for the degree. Submission due between 11-12pm Monday 23rd April 2012

**Format:**

The course is based around a residential field-class in China with an introductory lecture at the beginning of the 2<sup>nd</sup> term.

**Learning Outcomes:**

There are 7 primary learning outcomes:

- Understanding large-scale ecosystem processes and natural and anthropogenic factors influencing these processes
- Exploring relationships between environmental settings and conservation agendas
- Evaluating the connections between landscape and land-use
- Researching a topic in an international setting
- Presentation skills (formatively assessed)
- Field-based learning skills
- Developing international intercultural skills and knowledge of debates beyond the UK

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**OPTION GEOGG067 – CHANGING LANDSCAPES: NATURE, CULTURE, POLITICS**  
(15 credits, term 2)**Staff:**

Jan Axmacher, Sam Randalls

**Aims:**

- To introduce students to non-UK perceptions of nature and landscape
- To explore the often contested relationship between human aspirations and environmental agendas
- To evaluate the relationship between landscape, politics and cultural identity

**Content:**

Based on a case study outside the UK, this course will provide insights into

- Historical and contemporary perceptions of nature and landscape
- The multiple relationships between human aspirations and environmental agendas
- The relationship between landscape, politics and cultural identity

**Assessment:**

A 2,000 word field report. Course contributes 7.5% of the final assessment for the degree. Submission due between 11-12pm Monday 23rd April 2012

**Format:**

The course is based around a residential field-class in China with an introductory lecture at the beginning of the 2<sup>nd</sup> term.

**Learning Outcomes:**

There are 7 primary learning outcomes:

- Appreciation of alternative ways of viewing nature and landscape
- Exploring relationships between human aspirations and environmental agendas
- Evaluating the connections between landscape, politics and cultural identity
- Researching a topic in an international setting
- Presentation skills (formatively assessed)
- Field-based learning skills
- Developing international intercultural skills and knowledge of debates beyond the UK

**Preliminary readings include:**

Callicott J. B. 1997. *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback* Berkeley: University of California Press

Cooper, D.E. and Palmer, J.A. 1998. (eds) *Spirit of the Environment: Religion, Value and Environmental Concern*, Routledge, London

Cosgrove, Denis and Daniels, Stephen (eds.) 1988 *The iconography of landscape: essays on the symbolic representation, design and use of past environments*. Cambridge: Cambridge University Press.

Holm, J. 1994. (ed) *Attitudes to Nature*, Pinther Publishers, London

Mitchell, W.J.T 2002. (ed.) *Landscape and power*. Second edition. Chicago: Chicago University Press.

Nasr, S.H. 1996. *Religion and the Order of Nature*, Oxford University Press, New York

Selin, H. (ed) 2003. *Nature Across Cultures: Views of Nature and the Environment in Non-Western Cultures*, Dordrecht

## **OPTION COURSE GEOG061 – MARINE CONSERVATION**

(15 credits; Term 2)

### *Staff:*

Peter Jones

### *Aims:*

This module is focused on the challenges of conserving marine biodiversity and ecosystems and the approaches that are being developed to address these challenges.

### *Content*

- Differences between terrestrial and marine ecosystems and their implications
- The role of marine protected areas and the challenges of governing them
- The impacts of fishing and the options for addressing them
- The role of the ecosystem approach and marine spatial planning

### *Assessment*

Essay (maximum 2000 words) from a choice of titles reflecting the course content

### *Format*

This course is taught through a programme of lectures.

### *Learning outcomes*

- Appreciate the differences between terrestrial and marine ecosystems and their implications for conservation
- Understand the role of marine protected areas and the governance challenges of effectively implementing them in different international contexts;
- Understand the links between fisheries management and marine conservation and the challenges of integrating these policies;
- Have a knowledge of the emerging approaches for implementing the ecosystem approach and for marine spatial planning, with particular reference to emerging UK policies

**OPTION GEOGG100 – COASTAL CHANGE**

(15 credits; Term 2)

**Staff:**

Helene Burningham, Jon French

**Aims:**

The Coastal Change option aims to explore the dynamics of coastal systems through consideration of scales and types of change, and a critical review of alternative approaches to the analysis and prediction of change, and their application to the broader use, management and conservation of shoreline environments.

**Content:**

The course starts out by examining the scales of coastal behaviour in response to external environmental forcing (climate, sea-level etc) and intrinsic system dynamics. The UCL-developed Coastal System Mapping methodology is introduced as a tool for conceptualising and formalising expert knowledge of large-scale coast and estuary behaviour. Conceptual frameworks and analytical tools appropriate to the understanding and prediction of macro-, meso- and micro-scale coastal change are then explored through linked lecture and practical sessions.

The main sessions cover:

- Scales of coastal behaviour
- Coastal system mapping
- Coastal sediments and grain size trend analysis
- Macroscale and meso-scale change
- Historical Trend Analysis
- Coastal sediments and grain size trend analysis
- Coastal stratigraphic analysis
- Instrument-based monitoring and the analysis of coastal time-series datasets

**Assessment:**

Written report based upon a write up of **one** of three practical exercises (max 2000 words; worth 8% of total assessment).

**Format:**

The course is based upon lectures, and on supervised and self-paced practical work.

**Learning outcomes:**

At the end of the course students should:

- have an improved knowledge of scales of variability and change in coastal systems over the short, medium and long term
- be aware of the approaches and methods available for the analysis of coastal change at various scales, and the types and sources of appropriate data
- understand the role that sedimentology and ecology plays in the examination of coastal evolution and dynamics
- have a conceptual and technical grasp of key analytical tools (Sediment Trend Analysis; Historical Trend Analysis; time-series analysis)
- have a clearer understanding of the challenges and decisions associated with the management of dynamic coastal systems

**OPTION G057 – WETLANDS**

(15 credits, Term 2)

**Staff:**

Julian Thompson (convenor) and others.

**Aims:**

The overall aim of this module is to provide students with an introduction to a range of issues relevant to the management and conservation of wetland habitats in the UK and overseas.

The module aims to

- Outline wetland definition and classification schemes
- Introduce the concepts of wetland benefits
- Explore wetland hydrology and its controls on wetland hydrochemistry and ecology
- Illustrate the application of hydrological monitoring and modeling to understanding and managing wetland environments
- Illustrate issues with specific case studies from around the world

**Content:**

The Wetlands option commences with an introduction to wetlands, their definition and classification. The concept of wetland benefits is introduced using international examples. The central role of hydrology within the functioning of wetlands is explored. Techniques used to monitor hydrological processes and conditions within wetlands are discussed whilst an account of the hydrochemical processes in operation within wetlands is provided. The role of hydrological modelling in enhancing understanding of wetland functioning, assessing impacts of climate change and anthropogenic interventions is discussed using specific examples. Water balance modelling applied to wetlands is introduced using a relatively simple practical based around the Stella systems modelling package. Issues of impact assessment including the application of modelling are discussed in detail. The final sessions of the module explore a range of issues using examples of different wetland types and specific wetlands. These include issues of floodplain / wet grassland restoration, peatlands and the Broads. The final session provides an example of the application of hydrological science, including modelling, to improve the management of a major floodplain wetland. It includes a practical exercise which demonstrates the use of Stella for the development of a more complex wetland hydrological model.

**Assessment:**

A course paper (maximum 2000 words) chosen from a selection of titles which reflect the content of the module. The course paper is worth 8% of total assessment.

**Format:**

The module is based upon lectures and on supervised practicals.

**Learning Outcomes:**

At the end of the module students should:

- Understand the issues of wetland definitions and classification
- Appreciate the values associated with wetland environments.
- Understand the central role of hydrology to the functioning of wetlands including interactions with hydrochemistry and ecology.
- Have a clearer understanding of the role of hydrological monitoring and modelling within wetland science and management.
- Be able to implement relatively simple water (mass) balance model using the Stella modelling package.
- Have detailed knowledge of how the issues discussed in the module relate to specific case studies.

**OPTION GEOGG074 - LAKES**

(15 credits; Term 2)

*Staff:*

Carl Sayer, Ewan Shilland, Helen Bennion, Roger Wotton, Martin Kernan, Chris Curtis, Suzanne McGowan (Nottingham), John Anderson (Loughborough), Stewart Clarke (Natural England)

*Aims*

- to provide an introduction to lakes in the landscape
- to provide an understanding of ecosystem structure and function in lakes
- to combine these in an integrated way to provide the holistic framework underpinning approaches to management and conservation of lakes

*Content:*

This course aims to develop an holistic understanding of both lakes and pond environments. Different lake and pond types typically found along a range of environmental gradients are introduced. The focus then shifts to the nature of lake – catchment systems. Hydrological and physical physico-chemical processes and the effects of geographical, geological and climate setting on these are covered. The structure and functioning of biological communities within lake systems and the natural and anthropogenic stresses affecting these are described, and the importance of lake – catchment systems to conservation and management is explored. A field class introduces sampling in lakes and practical classes demonstrate laboratory methods used to analyse samples collected.

The following specific topics are covered:

- Introduction to lakes and lake types
- Lake-catchment interactions
- Hydrological and physical processes
- Lake chemistry
- Primary production and food-webs
- Ponds ecosystems and their conservation
- Disturbance of lake-catchment systems, conservation, restoration and management

*Assessment:*

Site review and management plan for a case study lake (worth 8% of total assessment)

*Format:*

The course is based upon lectures, seminars, practical classes and fieldwork

*Learning Outcomes*

At the end of the course the student should:

- understand the diverse nature of lakes and pond ecosystems in the landscape
- be able to conceptualise the integrated nature of lake – catchment systems
- appreciate the interrelationships between hydrological, physical and chemical processes operating within the lake – catchment systems.
- understand the nature of ecosystem structure and function in lakes and ponds
- have a good knowledge of practical lake sampling approaches and numerical analysis techniques that can be used to classify lakes for conservation purposes
- have an awareness of the problems posed by human impacts on lakes and ponds and how these can be addressed by conservation and management approaches

**OPTION GEOGG103 – AQUATIC MACROPHYTES**

(15 credits; Term 2)

**Staff:**

Carl Sayer, Ben Goldsmith

**Aims:**

- to introduce students to the structure, ecology and identification of aquatic macrophytes
- to provide students with practical skills in the field sampling of aquatic macrophytes

**Content:**

This is a residential course that will be based in Dorset and Somerset. The course will be delivered through a combination of lectures (2 hours in the mornings for 5 days), fieldwork (late morning to late afternoon) and laboratory sessions (late afternoon and some evenings). Fieldwork will take place in a range of environments including shallow lakes, ponds, rivers, ditches and coastal lagoons.

The following specific topics are covered:

- structure and ecology of freshwater-brackish aquatic plants
- role of aquatic macrophytes in aquatic ecological functioning
- methods for surveying aquatic macrophytes
- design of sampling programmes
- taxonomy and identification of aquatic macrophytes
- importance of aquatic macrophytes to conservation and developing water legislation

**Assessment:**

Plant identification exercise (20%)

Essay from a choice of titles (80%)

**Format:**

The course is based upon lectures, fieldwork and practical classes

**Learning Outcomes:**

At the end of the course students should:

- understand the physiology and adaptations of aquatic macrophytes
- appreciate the key ecological structuring role of aquatic macrophytes in aquatic habitats
- understand the importance of macrophytes to lake restoration, management and developing water legislation
- have practical experience of sampling aquatic plants using a variety of tools and recording systems in a range of habitats
- identify aquatic plants (including all key genera in the GB flora) using standard identification guides and keys both in the field and using a low powered microscope
- design sampling programmes for aquatic plants

**OPTION GEOGG065 – ENVIRONMENTAL GIS**

(15 credits; Term 2)

**Staff:**

Helene Burningham

**Aims:**

This module aims to provide an applied introduction to the use of GIS in the environmental sciences. The module will cover the underlying concepts of spatial data and its analysis and will offer extensive hands-on experience of GIS as applied to practical problems and research questions in the environmental sciences. The module will also introduce students to a wide range of published GIS applications.

**Content:**

The *Environmental GIS* module commences with an introduction to the concept of GIS and explores the range of software options available to undertake GIS. The course provides a foundation in cartography, coordinate systems and data types. The course then progresses through a range of data integration, data management and analytical procedures to provide a hands-on experience of the application of GIS to real environmental problems. The last few sessions focus on some specific case studies, in theory and in practice.

The main sessions cover:

- Principles of cartography; Coordinate systems and projections
- Types and sources of spatial data; Raster and vector data
- GIS software and capabilities
- Integration and organisation of spatial data in a GIS
- Georeferencing and image analyses
- Spatial analyses in GIS
- 3D visualisation and data presentation

**Assessment:**

Written report based upon the practical application of GIS to an environmental research or management question (max 2000 words; worth 8% of total assessment).

**Format:**

The course is based upon lectures, and on supervised and self-paced practical work.

**Learning Outcomes:**

At the end of the course students should:

- have a detailed knowledge of the principles of GIS, and the sources and acquisition of spatial data
- have an improved understanding of coordinate systems and projections in the context of spatial data, mapping and GIS analyses
- have a working knowledge of how spatial data can be integrated and analysed within a GIS
- be able to clearly present spatial data and produce appropriate maps

**OPTION GEOGG043 – POLITICS OF CLIMATE CHANGE**

(15 credits; Term 2)

**Staff:**

Sam Randalls, Mark Maslin

**Aims:**

- To explore the ways in which different people frame climate change as an issue
- To examine the science and politics of these debates
- To critically assess proposed solutions to climate change

**Content:**

The course focuses upon the different ways in which climate change is framed as an issue. With political rows about climate policy and justice, regular interventions from activist scientists and skeptics, and the various analyses by economists and environmentalists, climate change encompasses far more issues than carbon dioxide science and policy. Each week of the course is devoted to a different approach to climate change, exploring economic, ethical, political, security and scientific framings amongst others.

How climate change is considered a problem has significant repercussions for the types of solutions envisaged. An economist, for example, may come up with different solutions to an ethicist. As part of the module students will conduct research projects on proposed or existing responses to climate change (where responses are defined broadly to include mitigation, adaptation and scientific or political solutions). A critical assessment of the researched response, drawing upon social science debates, forms the assessment for the course.

**Assessment:**

A 3,000 word essay based upon a project

**Format:**

The course is taught through lectures, group discussions and projects

**Learning Outcomes:**

At the end of the course students should be able to:

- Appreciate the diversity of debates and perspectives on climate change
- Critically assess the science and politics of climate change
- Apply this understanding to a practical example
- Engage in group discussions about and individual evaluation of social science literatures on climate change

**OPTION COURSE GEOGG135 – BIOLOGICAL INDICATORS OF ENVIRONMENTAL CHANGE** (15 credits; Term 2)

*Staff:*

Viv Jones, Chronis Tzedakis, Jonathan Holmes, Carl Sayer and others

*Aims:*

- to introduce students to the range of biological indicators used for determining environmental change
- to provide students with practical skills in the identification of biological indicators of environmental change

*Content:*

The course aims to cover the variety of biological indicators used in both present-day aquatic ecosystem monitoring and in assessing past conditions using a palaeoecological approach.

A selection from the following biological indicators are covered:

- diatoms
- pollen
- plant macrofossils
- chironomids
- ostracods

*Assessment:*

Class book from practical exercises (50%)

Essay from a choice of titles (50%)

*Format:*

The course is based upon lectures and practical classes

*Learning Outcomes:*

At the end of the course students should:

- understand how to classify and identify a range of biological materials.
- have an experience of a range of microscopical techniques
- have an understanding of how biological proxies are used for aquatic monitoring and environmental reconstruction
- appreciate the advantages and disadvantages of different biological indicators of environmental change

**OPTION COURSE GEOGG136 – NON-BIOLOGICAL INDICATORS OF ENVIRONMENTAL RECONSTRUCTION**

(15 credits; Term 2)

**Staff:**

Jonathan Holmes (convenor) and others

**Aims:**

The aim of this module is to introduce students to a range of physical and geochemical techniques used for environmental reconstruction. The module will:

- Provide an overview of the application of non-biological proxies in sediments to the reconstruction of environmental variables
- Provide specific theoretical and practical training in the use of selected techniques for the analysis of sediments for environmental reconstruction
- Explore the limitations of specific techniques and associated uncertainties in reconstructions

**Content:**

The module will cover theoretical and practical training in the use of non-biological indicators in environmental reconstruction, with particular emphasis on the laboratory analysis of Quaternary sediments. Techniques to be covered will be selected from the following: basic sediment description and characterization; particle-size analysis; mineral magnetics; sediment geochemistry using XRF; analysis of contaminants; carbonate geochemistry using ICP-OES; stable-isotope analysis of carbonates and organic material.

**Assessment:**

Lab-book write-up for practical classes (50%) and a 2000-word essay on application of non-biological indicators to environmental reconstruction (50%)

**Format:**

The module is based upon lectures and on supervised practicals.

**Learning Outcomes:**

At the end of the module students should have:

- a knowledge of the range of techniques used in environmental reconstruction;
- an understanding of the complexities associated with the interpretation of non-biological data;
- a critical appreciation of the advantages and limitations of the different techniques for reconstruction of past environments.

## Individual Research Project (Dissertation)

An individual research dissertation of up to 12,000 words is to be completed by the end of August. Apart from forming an essential part of the degree with a contribution of 36% to the overall degree result, the dissertation can provide students with a variety of benefits. These might include the acquisition of new skills, the establishment of key contacts / employment opportunities in the conservation community, or the publication of dissertation results in scientific journals as a great starting point for a research career. It is important that these potential benefits are carefully considered during the planning stages of the dissertation.

Generally, dissertations can be classified into the following three categories:

- **Self-designed project.** Many students design and initiate their own project. A good project of this type demonstrates considerable self-initiative, but allows greatest flexibility in relation to topic and approach. Most potential dissertation projects of this kind will need some development and focusing, and UCL staff will constructively critique proposals as a means of ensuring that they are workable and appropriately focused.
- **Project aligned to staff research.** Staff teaching the MSc in Conservation will often propose potential MSc Conservation dissertation ideas aligned to their own research programmes. This type of project is more likely to lead to a published paper, and the work will be clearly manageable as an individual project. By undertaking work that is generally part of a larger overall effort, students are likely to acquire new skills and be able to go into considerable depth in their study. There may be some financial support available for these projects.
- **Commissioned project.** Each year numerous MSc dissertation projects are offered as commissions from conservation agencies, conservation NGOs or relevant research groups. These have the advantage of giving students experience of a real-world situation and the satisfaction of knowing that a good report will be put to use by the commissioning agency. Work will be likely to provide a sound guide to a future employer. There may also be some financial support for such projects. In following this route, it is important to note that a report is distinctly different both in style and format from an MSc dissertation, and a strong scientific grounding of the thesis needs to be ensured. In effect, two separate, distinctly different documents – the dissertation and a report – might have to be produced.

In all cases, we expect students to demonstrate initiative in developing their projects, and routine studies following an established methodology will need to be accompanied by a substantial section in the dissertation evolving from the student's own, independent ideas. During the first week of the summer term, students are required to present their dissertation proposals to staff and fellow students in order to gain feedback and aid in the development of their proposal. This proposal presentation is examined and counts 10% towards the overall dissertation mark.

Finally, it is critical that the dissertation findings can be discussed in terms of their implications for nature conservation, ie projects which are pure ecology or pure social studies which do not support the development of nature conservation approaches are not appropriate for the MSc Conservation.

A list of recent dissertation titles illustrating the range of issues researched is provided in Appendix 1.

## Administration

**MSc Course Tutor** Dr Jan Axmacher, x 30520  
Pearson 105  
j.axmacher@ucl.ac.uk

**MSc Admissions:** Fiona Mannion, x 30575  
Pearson G15  
f.mannion@ucl.ac.uk

**MSc Physical Geography Tutor:** Dr Mat Disney, x 30592  
Pearson 113  
m.disney@geog.ucl.ac.uk

### Office Hours:

The Geography Department requires staff to post office hours during which they are expected to be present in their offices to see students. This benefits both staff and students. It is frustrating for students to find that a member of staff is not in their office when they want to see them, whilst constant interruptions can make research and teaching preparation difficult for staff. Please observe office hours and do not drop in on staff outside of these hours unless it is really urgent. If you cannot make the office hours posted you may find it easier to e-mail the staff member concerned to make an appointment.

The course tutor will post office hours but **will always do their best to see students in an emergency**. In the case of an emergency and if the course tutor is not in their office, please see either of the MSc Secretaries who should be able to advise you.

### PORTICO: The UCL Student Information Service

UCL uses an administrative system called **PORTICO**.

Access to PORTICO is available to everyone across UCL – both staff and students alike - via the web portal [www.ucl.ac.uk/portico](http://www.ucl.ac.uk/portico). You will need to logon using your UCL userid and password, which are issued to you once you have enrolled. These are the same as the ones used for accessing UCL restricted web pages, UCL email and the Windows Terminal Service (WTS). If you do not know them, you should contact the IS Helpdesk as soon as possible ([www.ucl.ac.uk/is/helpdesk](http://www.ucl.ac.uk/is/helpdesk)). You can change your password on the web, at any time, at <https://www.ucl.ac.uk/is/passwords/changepw.htm>. More information can be found at <http://www.ucl.ac.uk/isd/common/servicesdesk> .

As a student you can take ownership of your own personal data by logging on to PORTICO.

In PORTICO you can:

- edit your own personal data (e.g. contact details);
- complete online module registration, in accordance with the rules for your programme of study (subject to formal approval and sign off by the Department);
- view data about courses/modules;
- view your own examination results online.

### On-line module registration

This facility enables you to choose your modules in accordance with the rules for your programme of study. You can access the Module Selection screen in Portico via the option

'Select your modules/course components' in the Student Academic Details container. Clicking on this option opens the following screen:

Select Your Modules/course components

This page shows the selections you have already made (as they may be compulsory modules) and also those selections which you need to make. Note that any selections that you make will be subject to the approval of the teaching department for each module and your parent department.

Details for the current student including which year and period the selections are for						
Student	40193311/1					
Name	JESSICA POTTS					
Programme	BSc(Econ) Economics					
Route	BSC(ECON) ECONOMICS					
Mode of Attendance	Full-time					
Registration Year	2005					
Registration Period						
Selections	You have currently selected 3 Module(s) with a total of 3 Credit(s)					

Module	Occ	Period	Level	Credits	Status	Module Name
ECON2001	A	T1/2	2	1.00	Compulsory	Microeconomics
ECON2004	A	T1/2	2	1.00	Compulsory	Macroeconomic Theory and Policy
ECON2007	A	T1/2	2	1.00	Compulsory	Quantitative Economics and Econometrics

Shown below is a list of selections that you need to make. Use the Select button on each row to open the module selection screen. The Clear button can be used to clear the current rows selections. When all selections are complete, use the Submit Selections button to continue the process.

Select	Rule	Overarching	Selections	Total	State	Clear
<input type="button" value="Select"/>	(Take a maximum of 1 credit from All undergraduate modules in Autumn/Spring term)	Subject to an overall minimum of 1 credit and an overall maximum of 1 credit				<input type="button" value="Clear"/>
<input type="button" value="Select"/>	Take a maximum of 1 credit from ECON7001/A, ECON7002/A, ECON7003/A, ECON7004/A, ECON7005/A, ECON7006/A, ECON7007/A, ECON7008/A, ECON7009/A in Autumn/Spring term)					<input type="button" value="Clear"/>

The top of the screen shows any compulsory modules. To complete the module registration process you should select any optional/elective modules as listed at the bottom of the screen. Clicking on the 'Select' button next to the appropriate rule, which will open the optional/elective selection screen.

### Selection screen – optional modules

If the rule specifies choosing a module from a defined list (an optional module), you will be presented with a screen as follows:

Select Your Modules/course components

This page allows you to select your modules from the available choices. Note that any selections that you make will be subject to the approval of the teaching department for each module and your parent department.

Details for the current student including which year and period the selections are for:						
Student	40193311/1					
Name	JESSICA POTTS					
Programme	BSc(Econ) Economics					
Route	BSC(ECON) ECONOMICS					
Mode of Attendance	Full-time					
Year	2005					
Period	T1/2					
Current Selection	2					
Total Selections	2					

If a list of modules is displayed then choose the required number of modules from the list by clicking in the 'Select' box next to the appropriate module. If there is no list displayed then you should input the appropriate module code and insert an 'A' in the 'Occ' field and click on the Validate button to check that you have input the correct code and it is a valid module. If you do not know the module code then use the 'Search' button to find the module you want to select. Once you have completed your selections on this page, click on the 'Submit Selections' button to return to the main screen.

You must select a minimum of 0.00 credit and a maximum of 1.00 credit in total.

Select	Module	Occ	Period	Level	Credits	Module Name
<input type="checkbox"/>	ECON7001	A	T1/2	INTER	0.50	Economics of Labour
<input type="checkbox"/>	ECON7002	A	T1/2	INTER	0.50	Economics of Finance
<input type="checkbox"/>	ECON7003	A	T1/2	INTER	0.50	Money and Banking
<input type="checkbox"/>	ECON7004	A	T1/2	INTER	0.50	The Economics of Industrial Relations
<input type="checkbox"/>	ECON7005	A	T1/2	INTER	0.50	Economics of the Public Sector
<input type="checkbox"/>	ECON7006	A	T1/2	INTER	0.50	Economics of Regulation
<input type="checkbox"/>	ECON7007	A	T1/2	INTER	0.50	Environmental Economics
<input type="checkbox"/>	ECON7008	A	T1/2	INTER	0.50	Economics of Tax Policy
<input type="checkbox"/>	ECON7009	A	T1/2	INTER	1.00	Public Economics

Click in the 'Select' box next to the appropriate module to choose the module(s) you wish to take. To view further details about the module, click on the module name. The rule in the header above the list of modules states how many modules/credits you should choose. You must enter the correct number and then click on the 'Submit Selections' button to return to

the main screen. To return to the main screen without submitting any selections, click on the 'Cancel Selection' button.

### Selection screen – elective modules

If the rule specifies choosing 'any undergraduate' or 'any postgraduate module' (an elective module, subject to approval), clicking on the 'Select' button next to the appropriate rule on the main screen will open the following screen:

Select Your Modules/course components

This page allows you to select your modules from the available choices. Note that any selections that you make will be subject to the approval of the teaching department for each module and your parent department.

Details for the current student including which year and period the selections are for.	
Student	40193311/1
Name	JESSICA POTTS
Programme	BSc(Econ) Economics
Route	BSC(ECON) ECONOMICS
Mode of Attendance	Full-time
Year	2005
Period	T1/2
Current Selection	1
Total Selections	2

If a list of modules is displayed then choose the required number of modules from the list by clicking in the 'Select' box next to the appropriate module. If there is no list displayed then you should input the appropriate module code and insert an 'A' in the 'Occ' field and click on the Validate button to check that you have input the correct code and it is a valid module. If you do not know the module code then use the 'Search' button to find the module you want to select. Once you have completed your selections on this page, click on the 'Submit Selections' button to return to the main screen.

You must select a minimum of 0.00 credit and a maximum of 1.00 credit in total.

Select	Module	Occ	Period		Level	Credits	Module Name
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	T1/2	<input type="button" value="Search"/>			
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	T1/2	<input type="button" value="Search"/>			
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	T1/2	<input type="button" value="Search"/>			
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	T1/2	<input type="button" value="Search"/>			
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	T1/2	<input type="button" value="Search"/>			

As with the optional module selection screen, the rule in the header will state how many modules/credits you should choose. You should input the appropriate module code(s) in the module box and insert an 'A' in the 'Occ' (Occurrence) field. Alternatively, you can use the 'Search' button to find a module. Use the 'Submit Selections' button to enter the modules, or the 'Cancel selections' button to return to the main screen without submitting anything. Please note that you can "save for later" your course choices, which means if you change your mind you can go back into Portico and amend your selection before finally confirming your choices. Once you have "saved for later" your module choices will show up in your on-line personal timetable so you can see if there are any timetable clashes.

### Validation/Confirmation of selections

Once you have completed all of your selections, ensure that they comply with any 'Overarching rule' indicated in the 'Overarching' column on the main screen and then click on the 'Submit Selections' button on the main screen.

Once you have submitted your selections, you will be presented with a final screen, where you can either undo your last change or you can confirm your selections by clicking on the 'Confirm Selections' button. **Note that once you have clicked on this button you cannot go back – you will then need to contact the Departmental office to make any amendments to your selections.** Following your confirmation, you will be presented with a screen that confirms you have completed the module registration process, listing the modules you have selected.

All of your selections are subject to Departmental approval. You will receive an automatic email to your UCL email address if any of your selections are rejected and **you must ensure that you respond to this by contacting the Departmental office**, whom you should also contact if you wish to amend a selection. You can check on the approval status for each of your modules by clicking on the 'View Module Selection status' option in your Student Academic Details container.

## Scheme of Awards MSc Conservation

### 1. Requirements for a Pass

In order to achieve a Pass on this Master's programme, candidates must achieve a mark of 50% or above in:

- Six of the eight module assessments
- and the dissertation

The weighting applied between the elements is as follows:

4 core modules (Term 1) @ 8 % each:	32%
4 specialised (option) modules (Term 2) @ 8 % each:	32%
Dissertation (including assessed oral presentation of proposal):	36%
	100%

A condoned pass (40-49%) is allowed in up to two modules. The total allowable number of condoned passes applies to all modules but not the dissertation. When three or more results are in the condoned pass range, students must retake the appropriate assessments. Where the assessment is coursework only, this may be resubmitted in the same session. Students must note that resubmission within the same session will count as the second and final attempt at a module. Assessments graded at less than 40% must be resubmitted.

Students who successfully complete the four core and four specialised option modules but do not submit the dissertation can be awarded a Diploma, provided that at least six modules achieve a mark of 50% or more. Two condoned passes (40-49%) are allowed for module assignments, in the same manner as for the MSc.

Students who successfully complete the four core modules (and all associated coursework) in Term 1 can be awarded a Certificate.

#### Other compulsory element

The dissertation proposal oral presentation to members of the Examination Board is formally examined and is compulsory. This element represents 10% of the total dissertation assessment, *i.e.* 3.6 % of the overall weighted mean for the MSc.

### 2. Requirements for a Distinction

The criteria for the award of a Distinction are that: (a) the mark for the dissertation, after rounding to the nearest integer, is 70% or more, (b) the overall weighted mark (combining the taught elements and the dissertation) is 70% or more. If the overall mark is 69% a candidate is in the borderline zone. In this case, an award of a Distinction can be made:

- (a) where the mark in the dissertation is 70% or above; and
- (b) where at least half of the taught credits are at or above 70%, after rounding; and
- (c) where there is no mark below 50%, after rounding; and
- (d) where there are no re-sit marks and all the marks for the modules are first attempts.

Rounding should be applied to obtain the integer marks given above: for example, 64.4 is rounded to 64%, but 64.5 is rounded to 65%. In either case, all criteria must be satisfied.

### 3. Requirements for a Merit

The criteria for the award of Merit are that:

- (a) the overall mark, based on 180 credits, is 60% or greater; and
- (b) the mark for the dissertation is 65% or greater, and
- (c) there are no marks below 50%, no condoned marks, no re-sits, and
- (d) all marks are based on first attempts.

Rounding should be applied to obtain the integer marks given above.

All criteria, a to d, must be satisfied. If the weighted overall mark is 59%, an award of a Merit can be made:

- (e) where, after rounding to the nearest integer, the mark in the dissertation is 65% or above; and
- (f) where at least half of the taught credits are at or above 60%, after rounding; and
- (g) where there is no mark below 50%, after rounding; and
- (h) where there are no re-sit marks and all the marks for the modules are first attempts.

Again, all criteria must be satisfied.

### 4. Coursework submission regulations

All coursework should state the number of words in the text (excluding tables and figures, footnotes, reference list and appendices, but including quotations and citations in the text) r. Please note that the following penalties will apply for work that is overlength:

- Assessed work should not be more than 10% longer than the prescribed word limit. Assessed work with a stated word count above this maximum will not be accepted for submission (i.e. it will not be date-stamped or otherwise recorded as formally submitted), but immediately returned to the student with instructions to reduce the word length. The work may then be resubmitted, except insofar as penalties for late submission may apply.
- If submitted work is subsequently found to have an inaccurately stated word count, and to exceed the upper word limit by at least 10% and by less than 20%, the mark will be reduced by ten marks, subject to a minimum mark of a bare pass (assuming that the work merited a pass).
- For work exceeding the upper word limit by 20% or more, a mark of zero will be apply.

If you have any doubts about this, please check with the module convenor.

ALL coursework essays **MUST** be handed in between **11.00-12.00 noon** (unless otherwise specified) on the due date, to the Geography office and via Moodle for TurnItIn® (see details below). **It is your responsibility** to ensure that work is submitted on time; please do not entrust your work to other students for delivery. It should never be left in staff pigeonholes; work that is left for a member of staff to collect will be counted as not having been submitted.

Please note that:

- Work handed in up to 24 hours late will be penalised by the loss of 5 marks. Work handed in up to six days after the first 24 hours will be penalised by a further loss of an additional 10 marks. Any work handed in after this, but before the end of the penultimate week of term three, will be marked at zero but the coursework will be considered complete.

- In the case of dissertations the same penalties apply and for work submitted more than seven days late, the mark will be recorded as zero but the assessment would be considered to be complete.
- Please note that work must be submitted BOTH in hard copy and electronically via Moodle. If the hard copy is submitted on time but the electronic copy is submitted late a 5 mark penalty will be applied. If, by the end of the penultimate week of term three, one but not both hard copy and electronic copy have been submitted a mark of zero will be recorded.

Extensions are authorised by the Chair of the Board of Examiners; they are normally **only** granted for illness of some other **serious** reason. If you wish to seek an extension you should contact the Department Office (Pearson G02) and speak to Lyn Hollyman. You may be required to complete a special circumstances form and will have to provide medical evidence where appropriate. Coursework for which an extension has been granted should be submitted to the Geography Office by the date of the extension and via Moodle.

**Computer or printer problems are not acceptable grounds on which to seek an extension.** You should **always** keep backup copies of files and also paper copies of draft course papers. If all else fails, these, or hand written notes, should be submitted by the deadline indicated and the course tutor or chair of the board of examiners should be informed of the problem.

**Never** assume that an extension will be granted retrospectively. You need to inform us as soon as any circumstances that might lead to an extension request arise.

#### 5. Grievances with the examination process

Any grievances with the examination process should be addressed to the first instance to the Chair of the Board of Examiners. Formal representations to the university are only considered if there appear to be genuine grounds for review of the result of the examination concerned. Representations on the grounds that the examiners' assessment of the performance of the candidate in the examination was incorrect, or against academic decisions properly arrived at in accordance with approved procedures, will not be considered.

#### 6. Over-reliance and plagiarism

Students are reminded that all the work they submit must be their own and the use of published material must be cited and reference appropriately. Quotes from other peoples' work must be clearly identified as such by being placed inside "quotation marks". Module assignments and the exam essay will be screened for plagiarism using *Turnitin*. Students are advised to consult the plagiarism guidelines that are available at <http://www.ucl.ac.uk/current-students/study/plagiarism>.

#### Submission of coursework

Students are required to submit a copy of their coursework by **hard copy** as well as an **electronic copy** submitted to TurnItIn® via Moodle. Deadlines for submission of the electronic and hard copy of coursework are the same.

When submitting the **hard copy** of each piece of coursework, you will have to sign a form to:

1. Confirm that you understand the meaning of plagiarism and that you may be penalised for submitting work that has been plagiarised.
2. Confirm that any work submitted is your own unaided work and that all sources used in its preparation and all quotations are clearly cited.

3. Confirm that all work will also be submitted electronically and that this can be checked using the JISC detection service, Turnitin®.
4. Confirm that you understand that the work cannot be assessed unless you have handed in both hard copy and electronic versions.

You will need to submit a copy of your work electronically as a single file in one of the following formats: Microsoft Word (.doc), PDF, Postscript (.PS), HTML, RTF or plain text.

**Any student who submits a hard copy that is different from the electronic version risks failing their degree, as this will be considered evidence of intention to cheat.**

## How to submit work to Turnitin via Moodle

### Step 1:

Access the relevant Moodle course page and find the correct assignment, such as the one shown below. Click on the assignment. You will see instructions and the date that it is due:

### Step 2:

Click on the **My Submissions** tab:

Assignment Part	Start Date	Due Date	Post Date	Max Marks
Part 1	14/10/10, 14:59	21/10/10, 14:59	21/10/10, 14:59	100

### Step 3:

Enter a title for your assignment and click **Browse** to find the file on your computer. Read the declaration carefully, and if you confirm all of the points listed, then click the check box next to it. Finally click **Add Submission** to upload your work.

Submission Type File Upload

Submission Title

Submission Part Part 1

File to Submit

DECLARATION OF OWNERSHIP:

- I confirm that I have read and understood the guidelines on plagiarism, that I understand the meaning of plagiarism and that I may be penalised for submitting work that has been plagiarised.
- I confirm that all work will also be submitted electronically and that this can be checked using the JISC detection service, Turnitin@.
- If I have been asked to submit hard copy, I understand that the work cannot be assessed unless both hard copy and electronic versions of the work are handed in.
- I declare that all material presented in the accompanying work is entirely my own work except where explicitly and individually indicated and that all sources used in its preparation and all quotations are clearly cited.

**Once your submission has been accepted, you will receive a digital receipt of your submission by email. Make sure you keep this.**

#### Step 4:

You will then see this screen (see overleaf), although the Similarity will just show as 'Pending' until the report is completed. It normally only takes a minute or so, so click on 'Refresh submissions' to check if it is available.

The number in the similarity score (in this case 100%) shows how much of your work Turnitin has matched against other sources – but a number above 0% doesn't automatically mean that it is plagiarism. Click on your similarity score to view your full Turnitin report.

Summary My Submissions

Submission	Submitted	Similarity	Grade	Feedback		
My essay Status: Submission successfully uploaded to Turnitin.	14/10/10, 16:30	<input type="button" value="100%"/>	-/100	(0)		

Add Submission

Submission Type File Upload

Submission Title  (Resubmission)

Submission Part Part 1

File to Submit

You should be allowed to resubmit again before the deadline.

In the unoriginality report (example below) you can see the work you submitted with colour-coded sections highlighting where Turnitin has identified a match from another source. The details of the match (e.g. the website, journal or student essay) are shown on the right. In this document there are three matches that Turnitin has found, covering all of the student's essay – hence the similarity score of 100%

Reviewing Module assignment - Part 1 (Mo) My essay BY LTSS TEST ACCOUNT 01

Originality GradeMark PeerMark

turnitin SIMILARITY 100% GRADE --  
INDEX OUT OF 100

**Primary Source View**

Rank	Source	Similarity Index
1	www.freebase.com Internet source	54%
2	blog.turnitin.com Internet source	28%
3	www.anti-plagiarism.org Internet source	18%

**Plagiarism**

1 Plagiarism is defined in dictionaries as "the wrongful appropriation, close imitation, or purloining and publication, of another author's language, thoughts, ideas, or expressions, and the representation of them as one's own original work." The modern concept of plagiarism as immoral and originality as an ideal emerged in Europe only in the 18th century, while in the previous centuries authors and artists were encouraged to "copy the masters as closely as possible" and avoid "unnecessary invention."

The 18th century new morals have been institutionalized and enforced prominently in the sectors of academia and journalism, where plagiarism is now considered academic dishonesty and a breach of journalistic ethics, subject to sanctions like expulsion and other severe career damage. Not so in the arts, which have resisted in their long-established tradition of copying as a fundamental practice of the creative process, with plagiarism being still hugely tolerated by 21st century artists.

3 The most important steps in preventing plagiarism are those taken to address its causes. The strategies in this section are intended as guidelines to help you:

1. become aware of the reasons plagiarism occurs
2. identify the different forms of plagiarism
3. integrate plagiarism prevention techniques into your courses

2 Some students believe that they can "beat" Turnitin by employing various tactics. Instructors should rest assured that these tactics do not work as our algorithms take such "tricks" into account. In addition, the best practice for ensuring that students are not able to "beat the system" is to review all Originality Reports – regardless of the percentage shown as the Similarity Index. Instructors who look at the Originality

PAGE: 1 OF 1

Text-Only Report

## Interpreting the unoriginality score and report

There are a number of things to note when interpreting your unoriginality score and report.

- The score that you receive and any matches found in the report do not automatically indicate that you have committed an offence of plagiarism. For example, if you have included quotes in your document, these may show up as matching the original sources and count towards your unoriginality score. However, provided they are correctly referenced they are perfectly legitimate in academic writing and are not an example of plagiarism.
- If your document includes references, it is very common for them to show as matches and count towards your unoriginality score, simply because another source has used the same reference as you. Again, simply having references that are the same as those used by other sources does not indicate plagiarism.
- There is no particular score to aim for – a high score does not necessarily indicate plagiarism and a low score does not necessarily indicate original work. Do not try to aim for the lowest score possible, instead aim to make sure that you are using your sources correctly and referencing the work you use.
- Some common phrases and short pieces of text (typically 5-10 words) may show as matches just because they are in common usage. Unless they are particularly relevant phrases in your subject or have a particular relevance to your work that you wish to emphasise, they do not need to be referenced.

If you do find matches in your document:

- Where you have copied text from a source word-for-word, ensure you are using quotation marks around the copied text and that the source is correctly referenced.

- Where you are paraphrasing from a source, ensure that you have NOT copied the text word-for-word and that the source is correctly referenced.

In advance of the deadline you are allowed to amend your work based on your Turnitin report, and then re-submit the assignment. You will need to wait 24 hours after the first draft submission before you can see your new originality report. Therefore, you must make sure that you submit your draft to Moodle at least 24 hours before the coursework deadline if you wish to see an unoriginality report before you submit your final version.

## Assessment Criteria

All work is marked using on a percentage scale, from which your final classification of degree is calculated. Feedback through the year will either use a percentage or an alpha grade scale (usually until the work has been double marked and moderated by the external examiner). The following table explains the broad criteria used for assessment, and the equivalence of these marking systems. Please note this is a guideline only as criteria for assessment may vary according to the assignment set. Please consult module convenors for further information about assessment criteria for individual assignments.

	Classification/Mark	Guidelines
<b>Distinction</b>	Distinction: <i>Outstanding</i> 90-100%	Surpasses the standards associated with the 80-89% level. Outstanding contribution to the discipline, which, with minor changes, is publication quality, in terms of content, approach, critical insight and presentation.
	Distinction: <i>Excellent</i> 80-89%	Surpasses the standards associated with the 70-79% level. Superior work that demonstrates clear, independent thinking beyond taught elements of the programme/module. Excellent, critically perceptive and detailed contribution.
	Distinction 70-79%	Distinction level that demonstrates clarity, exceptional understanding, analytical ability and critical thought, which are achieved through and evidenced by extensive reading, comprehensive analysis, original insights and thorough interpretation.
<b>Pass</b>	Pass: <i>Merit</i> 60-69%	Clear understanding of the topic, and a well organised and informed approach. Evidence of good analytical skills, critical thinking and a logical argument, but does not display the critical acuity or originality of distinction level work.
	Pass 50-59%	Overall satisfactory pass that presents some competent reproduction of ideas/concepts and demonstrates a general understanding, but is limited in terms of context and wider reading, and the lack of critical approach and independent evaluation.
<b>Fail</b>	Fail: <i>Marginal</i> [May become a condoned pass] 40-49%	Shows some understanding of the topic and broader discipline, but provides little evidence of detailed knowledge and wider reading, and/or not sufficiently focused on the subject area.
	Fail 30-39%	Presents a muddled or incomplete attempt that shows a partial understanding of the topic, but poor or limited and uncritical consideration of material.

Fail: *Serious*  
0-29%

Fundamental lack of understanding of the topic and the context of the work required. Very poorly expressed and presented, with inadequate analysis and interpretation.

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## Teaching and Research Resources

### *Wider Participation in the UCL academic community*

The Department of Geography, UCL has over 120 Masters students annually on 13 MSc courses (including Conservation, Aquatic Science, Remote Sensing, Climate Change, Environmental Modelling, Environmental Mapping, GIS, Quaternary Science and Environment, Science and Society) and over 60 PhD students. This gives rise to a vibrant postgraduate community and access to well-established procedures/facilities including induction/training programmes and excellent teaching facilities/IT access. In particular, MSc Conservation benefits from close collaboration with the MSc Aquatic Science with a shared core course (Environmental Data Acquisition and Analysis) and several shared option courses.

MSc Conservation students are strongly encouraged to attend other relevant lectures and seminars from the wide range of programmes in and around UCL. Seminar programmes and meetings of interest include:

UCL Geography Research for the Environment lunchtime seminar series; the UCL Environment Institute Water and Climate seminar series; the UCL Centre for Ecology and Evolution seminars and further UCL Geography and Biology seminar series.

### *Facilities*

Excellent facilities are available to students at UCL. These include access to world class library resources, for example the central collections of the University of London and UCL library systems and Departmental collections of key papers, unpublished reports, and teaching resources. The UCL Geography Department is home to specialist laboratories for wet chemistry, sediment analysis, and microscopy with associated technical support as well as the new SRIF I and II funded Bloomsbury Environmental Isotope Facility (BEIF), which provides state-of-the-art facilities for mass spectrometry and gamma spectrometry. Furthermore, by linking closely with Nature Conservation organisations students on the MSc may also have access to a wide range of specialist equipment and experimental facilities that can be used as part of linked dissertation projects.

## Health and Safety

### **Sources of Information**

All MSc Conservation students, at the start of their course, should read the Geography Departmental Safety Policy at: <http://www.geog.ucl.ac.uk/safety>

and UCL Safety Office statements at <http://www.ucl.ac.uk/estates/safetynet/>

**Safety Issues and Fieldwork:** A full risk assessment must be carried out prior to every piece of research.

### **Statement of safety policy for the Department of Geography:**

1. The policy of the Department is to promote the safety, health and welfare of all its staff, students, visitors, contractors and members of the public on the Department's premises and to protect them elsewhere from any adverse effect on their health or safety arising from the activities of the Department.

2. The Department is committed to ensuring that risk assessments are carried out as required by the Management of Health and Safety at Work Regulations 1992 and other regulations. These risk assessments will be made by the staff responsible for the work, set out in writing and signed by the relevant manager or supervisor. No work is permitted to start unless it is covered by a suitable and sufficient assessment of the risks involved in the work.
3. The Department arranges for all work activities to be performed by persons competent to perform those activities. To this end, the Department is committed to ensuring that all members of the Department receive such training as required for them to be able to discharge their tasks and duties in a competent manner.
4. The Department arranges for staff activities and work activities to be supervised by competent people.
5. A person can only be competent in discharging a duty if they accept that duty, understand the responsibility of that duty and are allocated sufficient time to be able to discharge that duty.
6. The Department is a Department of University College London, and as such is responsible to the Provost, through the Management Team, for the implementation of the arrangements in the College Statement of Safety Policy.
7. It is a legal duty for all staff, students and visitors in the Department to co-operate with the arrangements for safety set out in this document.
8. To give effect to this policy, the organisation and arrangements as described in this document have been approved and authorised by the Head of Department upon whom rests the ultimate responsibility for the standard of safety within the Department.
9. This policy is intended to reflect the current state of affairs within the Department. To this end, it will be revised upon any substantial change of organisation or arrangements within the Department, and in any case, annually. This policy and its revision will be communicated to all persons affected by the activities of the Department.

**The following members of staff have primary responsibility for Health and Safety arrangements in the Department of Geography:**

<b>Title</b>	<b>Name</b>	<b>Telephone</b>
Head of Department	Prof. JR French	3 0580
Departmental Radiation Protection Supervisor	Dr JR Thompson	3 0589
Departmental Safety Officer	Ms J. Hope	3 0551

The following UCL Safety Office Representative is the primary Area Safety Officer assigned to the Department:

Ms E. Clarke elaine.clarke@ucl.ac.uk 6363

**Safety Information for Bedford Way**

In the interest of safety all staff and students in the **Pearson Building** of the Department of Geography are asked to follow this procedure.

**When the fire alarm bells sound:**

1. Close all windows and doors.
2. If it does not interfere with experiments in progress:
  - (a) stop all machinery;
  - (b) switch off electrical supplies to equipment; and
  - (c) turn off gas supplies and gas cylinders.
3. DO NOT use the lifts.
4. Leave the premises by the nearest fire exit or staircase that is free from smoke.
5. On leaving the premises, assemble in **the front quad**. Do not stand in the roadway or obstruct exits.

On each floor Fire Wardens have been appointed, their main duties are:

- a) to ensure as far as possible, taking due regard of their own safety, that all personnel under their control leave the building speedily and safely;
- b) to report to the Departmental Safety Officer at the assembly point when they leave the building.

Staff and students in **26 Bedford Way** should follow the same steps as those listed above in the event of a fire. On leaving the premises assemble in **Woburn Square**, beyond the rear access.

Staff and Students should, in their own interest, make themselves familiar with all fire exits, and should not rely on Fire Wardens being present.

**YOUR SAFETY DEPENDS ON YOUR CO-OPERATION****Fees and Funding***Fees*

Tuition fees for full time UK/EU students for 2012-13 are £7,750. Fees for full time overseas students for 2012-13 are £15,500. For further information on fees and costs, please visit the UCL web pages at [www.ucl.ac.uk/prospective-students/graduate-study/fees-costs](http://www.ucl.ac.uk/prospective-students/graduate-study/fees-costs).

Overall fieldwork costs and associated expenses (accommodation and transport) for the Term 1 core modules are expected to be approximately £1000. Some choice modules in Term 2 incur additional fieldwork costs, particularly Changing Landscapes, with costs for the field class to China expected to amount to approximately £950.

*Funding*UCL scholarships

For further information on UCL scholarships, please visit <http://www.ucl.ac.uk/prospective-students/scholarships/>

### Other sources of funding

There are a number of other potential sources of financial assistance for UCL Conservation students:

- John Lyon UCL Masters Scholarships: Up to two scholarships annually enabling UCL undergraduates from certain London boroughs to pursue a taught Masters course at UCL. For further information see: <http://www.ucl.ac.uk/prospective-students/scholarships/graduate/researchyear/johnlyon/>
- Gay Clifford Awards (UCL): for academically outstanding female students; more information at <http://www.ucl.ac.uk/prospective-students/scholarships/graduate/researchyear/gay-clifford/>

Other sources from which UK MSc Conservation students have received funds:

- Royal Geographic Society
- Laurence Attwell Charity: Skinner's Hall, 8 Dowgate Hill, London EC4R 2SP
- The Ian Karten Charitable Trust: The Mill House, Newark Lane, Ripley, Surrey GU23 6DP
- The Mercers' Company: Educational Grants Secretary, The Mercers' Company, Mercers' Hall, Ironmonger Lane, London EC2V 8HE
- The Richard Newitt Fund: The Correspondent, The Richard Newitt Fund, Trustee Department, The Lawn, Speen, Newbury, Berks. RG13 1QN
- The Radley Trust: Philip Radley, The Radley Trust, 53 Sherlock Close, Cambridge CB3 0HP
- The Percy Sladen Memorial Fund: The Linnean Society of London, Burlington House, Piccadilly, London W1V 0LQ
- The Sir Richard Stapley Educational Trust: 1 York Street, Baker Street, London W1H 1PZ

An excellent web site listing many relevant international sources of funding and for dissertation studies: <http://www.wildlife.wisc.edu/simbiota/s-list.htm>

### *Overseas Students*

You are also strongly encouraged to contact your own Ministry of Education or Education Department, who will have details of most funding schemes and who will be able to advise you of your own government's conditions for studying abroad. You should also contact the nearest British Council office in your own country, which will have details of scholarship schemes and provide information and advice on educational programmes and living in the UK. If there is no British Council office, then contact the nearest British Embassy, High Commission or Consulate. There is additionally funding available from sources such as the World Bank, the Asian Development Bank, African Development Bank and the European Commission, whom you should contact directly.

## **Admission Requirements**

Potential applicants are expected to have a first or upper second-class Honours degree in a relevant discipline (e.g. Environmental Science, Geography or Biology) from a UK university or an overseas qualification of an equivalent standard. Applications with relevant professional experience in conservation or environmental management will also be considered.

To apply, please follow the instructions on [www.ucl.ac.uk/admission/graduate-study/application-admission/](http://www.ucl.ac.uk/admission/graduate-study/application-admission/)

Academic enquiries may be addressed to [conservation@geog.ucl.ac.uk](mailto:conservation@geog.ucl.ac.uk)

Application for 2011-12 admission closes Friday August 5th. We will not accept any applications after this date. Applicants who require a student visa should do their utmost to submit the programme application form before 31st July to ensure that there is enough time to process all the necessary paperwork.

Students whose first language is not English must be able to provide recent evidence that their spoken and written command of the English Language satisfies the UCL English language proficiency requirement. Necessary grades for IELTS and TOEFL are:

### **International English Language Testing System (IELTS) Academic**

Standard level: Overall grade of 6.5 with a minimum of 6.0 in each of the subtests.

Good level: Overall grade of 7.0 with a minimum of 6.0 in each of the subtests.

Advanced level: Overall grade of 7.5 with a minimum of 6.5 in each of the subtests.

### **Test of English as a Foreign Language (TOEFL)**

#### ***Paper based version***

Standard level: Score of 580, plus 4 in Test of Written English (TWE).

Good level: Score of 600, plus 5 in Test of Written English (TWE).

Advanced level: Score of 630, plus 5 in Test of Written English (TWE).

#### ***Internet based version***

Standard level: Score of 92, plus 24/30 in the reading and writing subtests and 20/30 in the listening and speaking subtests.

Good level: Score of 100, plus 24/30 in the reading and writing subtests and 20/30 in the listening and speaking subtests.

Advanced level: Score of 109, plus 24/30 in the reading and writing subtests and 20/30 in the listening and speaking subtests.

## **Career opportunities**

More than 75% of graduates from the course are known to have gained a post in the conservation sector or in conservation-related research. Many potential employers have themselves graduated from the course over the last 50 years. Overall, the record of graduate employment shows that the course equips students very well for the following areas (% for years 1999-2008 with a total of 185 graduates):

- non-governmental conservation organisations (29%)
- nature conservation agencies or governmental bodies related to nature conservation (17%)
- PhD research (6%)
- other research (10%)
- conservation/environmental consultancy or industry environmental representative (9%)
- teaching/education (5%)

Other employment, mostly outside the conservation sector, was secured by 6% of the MSc Conservation graduates, whereas the job destination of a further 17% is currently unknown to us.

By way of illustration, a list indicating initial and, where known, subsequent posts secured by graduates in recent years is provided in Appendix 2.

## **Further Enquiries**

Application materials may also be downloaded at:

[www.ucl.ac.uk/admission/graduate-study/application-admission/](http://www.ucl.ac.uk/admission/graduate-study/application-admission/)

Academic enquiries may be addressed to [conservation@geog.ucl.ac.uk](mailto:conservation@geog.ucl.ac.uk)

## Appendix 1: Examples of recent MSc Conservation dissertation titles

- The value of pond management for biodiversity conservation
- Mapping of peatlands using kite aerial photography
- The development process of a participatory management plan in an environmental protection area situated within the Brazilian Atlantic Forest
- The invasion of two garden plants into ancient woodland
- A least cost model for lion *Panthera leo* movement
- Perceived effectiveness of domestic dogs and other livestock husbandry tools in mitigating human-cheetah conflicts in the Salama-Kiu region, Kenya
- The impact of artificial lighting on the commuting and foraging behaviour of the Soprano Pipistrelle *pipistrellus* at the WWT London Wetland Centre
- Evaluation of group definitions in population of bottlenose dolphins (*Tursiops truncatus*), Western Greece
- Conservation, biodiversity and community: how do successful community groups do it?
- Alienated or empowered? A critical analysis of the relationship between an understanding of environmental law and grass-roots conservation in London
- A study of possible environmental factors in the spread of invasive species of lowland heath and possible management and restoration techniques
- An assessment of the health of the lake Naivasha RAMSAR site with special consideration of the population and breeding dynamics of the African Fish Eagle, *Haliaeetus vocifer*
- Quelling urban invasions: *Genista monessulana* and *Delairea ororata* control in San Francisco natural areas
- One size fits all management: the effect of Common standards monitoring on Lepidoptera of calcareous grassland SSSIs
- Impacts of the invasive crayfish, *Procambarus clarkii*, on the native freshwater assemblage of the River Melewa, Kenya
- Modelling the distributions of wetland birds of Madagascar: Implications for conservation and management
- Impact of Bti mosquito treatments on foraging and breeding success of house martins (*Delichon urbicum*) in Camargue, France
- A study of naturally regenerated calcareous grasslands on former arable land in the Cotswolds
- Investigation into how indigenous bushmeat hunting effects the recruitment of Atelid dispersed tree species in a terra firme habitat in Amazonian Ecuador
- Habitat requirements of the water vole, *Arvicola terrestris*: a case study of the Beverley Brook, Richmond, UK
- Planning and biodiversity conservation: mitigation for habitat loss of calcareous grasslands, Northamptonshire
- The influence of ecological factors on groups of bottlenose dolphins (*Tursiops truncatus*) Cardigan Bay, Wales
- Analysis of breeding Tufted Duck (*Aythya fuligula*) numbers at Walthamstow reservoirs SSSI: Implications for common standards monitoring methodology and site management
- Vegetation Patterns and Anthropogenic Effects in Al-Reem Biosphere Reserve in Qatar
- Transfers down the CITES Appendices: to what extent can these be used as a criterion of conservation success?
- Changes in Psittaciform Red List Status and their Effect on the international Caged Bird trade
- Natural Resource use in Ribeira Valley, Brazil: Analysis of a Community-Based Conservation programme
- Impacts of pheasane releasing on carabid and other epigeal invertebrate assemblages and diversity in broadleaved deciduous woodland
- Public attitudes towards nature conservation in Malta
- An Assessment of the by-catch impacts in the Maltese longline fisherie
- Impacts of recreational disturbance on the ecological functioning of Rđum tal-Madonna SPA/SAC, Malta
- Public attitudes towards nature conservation in Malta
- A sustainable future for our seas? An analysis of issues related to the decision at Lyme Bay and implications for the forthcoming Marine Bill
- An assessment of the Ballaugh Curragh Ramsar population