

## **School of Geography & Geosciences**

**Head of School** Dr E F Graham

### **Degree Programmes**

Graduate Diploma: Health Geography Research  
Environmental History (see School of History)  
Managing Environmental Change

M.Res.: Health Geography

M.Litt.: Environmental History (see School of History)

M.Phil.: Environmental History (see School of History)

M.Sc.: Managing Environmental Change

### **Programme Requirements**

#### **Health Geography/Health Geography Research**

Graduate Diploma: 110 credits from GE5001 – GE5007, SS5001 and 10 credits from GE5010 – GE5013, MN5232 (students may substitute up to 40 credits from other modules approved by the course co-ordinator)

M.Res.: 120 credits, as for the Graduate Diploma plus a dissertation (60 credits) (GE5008) of not more than 15,000 words

#### **Managing Environmental Change**

(Taught in partnership with the Department of Geography, University of Dundee)

Graduate Diploma: 120 credits from GG5101-GG5104 (St.Andrews-based modules) and GG5105-GG5109 (Dundee-based modules) and GG5110

M.Sc.: 120 credits, as for the Graduate Diploma, plus a dissertation (60 credits, GG5111) of not more than 10,000 words

### **Modules**

**A set of formal generic research training modules are in preparation for the Social Sciences (Economics, Management, International Relations, Psychology, Geography and Social Anthropology) and details will be available at the beginning of session 2004/5.**

#### **GE5001 Health Inequalities**

Credits: 20.0 Semester: 1

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: The course will define health, disease and illness; describe the epidemiological transition and its relevance in different geographical settings; demonstrate and explain the social, demographic and ethnic inequalities in health outcomes; consider the geographical variations in health inequalities both between and within nations; and critically examine the various philosophical approaches used to understand the geography of health inequalities. Techniques will include deprivation indexes; mapping of health data; conversion of postcodes to grid references; network analysis; use of the census and major government surveys.

Class Hour: To be arranged.

Teaching: Two lectures and two seminars/practicals.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

## **Geography & Geosciences – 5000 Level Modules**

### **GE5002 Health Care Provision and Utilisation**

Credits: 20.0 Semester: 2

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: Topics covered include international perspectives on health care; allocation of resources; accessibility to services; GIS and mapping of health care; models of location and allocation in health care; spatial differences in service utilisation and their social effects; qualitative and ethnographic approaches to health care systems. The course will include both lectures and practical components.

Class Hour: To be arranged.

Teaching: Two lectures and two seminars/practicals.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

### **GE5003 Quantitative Methods in Health Research**

Credits: 10.0 Semester: 1

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: The module will cover statistical analysis, and important data sources of relevance to health geography. The main topics will be elementary probability; analysis of contingency tables; correlation; simple and multiple regression and elementary spatial statistics. It will involve a hands-on approach to real health data and will involve lectures and practicals.

Class Hour: To be arranged.

Teaching: One lecture and one practical.

Assessment: Continuous Assessment = 100%

### **GE5004 Qualitative Methods in Health Research**

Credits: 10.0 Semester: 1

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: This module will introduce students to the basic difference between quantitative and qualitative field techniques and to the theoretical and epistemological arguments that inform the choice to use one or the other or both. It will discuss a range of qualitative field techniques and offer practical experimentation with several. The module will also discuss ways in which qualitative data might be analysed.

Class Hour: To be arranged.

Teaching: One lecture and one practical.

Assessment: Continuous Assessment = 100%

### **GE5005 Introductory GIS for Health Research**

Credits: 10.0 Semester: 1

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: This module will be taught in a series of lectures, laboratory exercises and seminars and will be assessed through the final GIS project, selected laboratory exercises and an examination. The course will introduce students to the methods of acquiring, storing, analysing and displaying spatial digital data; introduce data manipulation and statistical techniques on a number of health (and related) data sets with a variety of visualisation techniques; outline GIS project design strategies; and give students the skills to design their own GIS health-related project at the end of the module.

Class Hour: To be arranged.

Teaching: One lecture and one practical.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

## Geography & Geosciences – 5000 Level Modules

### GE5006 Social Survey Methods in Health Research

Credits: 10.0 Semester: 2

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: This module takes students through the various stages of planning and conducting a questionnaire survey in the context of health research. Topics covered include the use of established social and health measures, designing and administering a questionnaire, sampling methods, conducting interviews and creating a usable database. Students are expected to devise a detailed research proposal and present it in written form. The module is inter-disciplinary in emphasis and deliberately encourages students to think outside their own discipline.

Class Hour: To be arranged.

Teaching: One lecture and one practical.

Assessment: Continuous Assessment = 100%

### GE5007 Research Design Seminar

Credits: 10.0 Semester: 2

Programme: Compulsory core module for Health Geography Postgraduate Taught Programme.

Description: This series of seminars and small group discussions is designed to allow students to develop an appropriate research design for their own dissertations. Seminars on current research in the geographies of health will be presented by both internal and external speakers. Students will have the opportunity to discuss the strengths and weaknesses of various research designs in small groups before presenting their own research design for critical comment.

Class Hour: To be arranged.

Teaching: Two seminars.

Assessment: Continuous Assessment = 100%

### GE5008 Dissertation in Health Geography

Credits: 60.0 Semester: summer vacation

Programme: Compulsory module for Health Geography M.Res. postgraduate programme.

Description: Students choose a topic in the field of health geography on which to conduct independent research. Each dissertation will be supervised by a member of the teaching staff who will provide advice throughout the research process. Research will be conducted over the summer after the end of the taught modules and the completed dissertation of no more than 15,000 words must be submitted before the end of the course.

Class Hour: To be arranged with supervisor.

Teaching: Individual supervision.

Assessment: Continuous Assessment = 100%

### GE5010 Health and Environment

Credits: 10.0 Semester: 2

Availability: not available 2004-05

Programme: Optional module for Health Geography Postgraduate Taught Programme and the M.Litt. in Environmental History.

Description: This module examines the various links between the environment and human health. The course is divided into three parts. The first considers the influence of the built environment on health, using examples such as housing and transport effects on health. The second considers the atmospheric environment, using examples including various forms of air pollution and the impact of radon on certain health outcomes. The third is more concerned with other aspects of the physical environment and case studies include the role of minerals such as asbestos and mining waste in human health.

Class Hour: To be arranged.

Teaching: Two lectures and/or seminars.

Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

## **Geography & Geosciences – 5000 Level Modules**

### **GE5011 Health Geographies in History**

Credits: 10.0 Semester: 2  
Availability: not available 2004-05  
Programme: Optional module for Health Geography Postgraduate Taught Programme and the M.Litt. in Environmental History.

Description: The module introduces students to the study of health and disease in the past. It has two elements. The first focuses on nineteenth century Britain. It examines the problems of reconstructing past trends in disease and mortality and considers the public response to contagious diseases. The second discusses the body, the gaze and the modern constitution of disease, looking at sixteenth century colonial America, Enlightenment Europe and late nineteenth century colonial India.

Class Hour: To be arranged.  
Teaching: Two lectures and/or seminars.  
Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

### **GE5012 The Geography of HIV/AIDS**

Credits: 10.0 Semester: 2  
Availability: not available 2004-05  
Programme: Optional module for Health Geography Postgraduate Taught Programme and the M.Litt. in Environmental History.

Description: This module addresses the uneven global geography of the HIV/AIDS pandemic and its concentration in Africa. It examines why social scientific, not just biomedical, research is vital and explores the regionally specific dimensions of the virus's rapid spread in this context. The module also examines the social, political and economic implications of HIV/AIDS for Africa's development. The course concludes by looking toward future local and global initiatives that might help reduce transmission and ease the human suffering caused by HIV/AIDS

Class Hour: To be arranged.  
Teaching: Two lectures and/or seminars.  
Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

### **GE5013 Migration and Health**

Credits: 10.0 Semester: 2  
Availability: not available 2004-05  
Programme: Optional module for Health Geography Postgraduate Taught Programme.

Description: This module has three elements. The first introduces human migration, discussing theoretical approaches to migration and issues such as employment, gender and the freedom to migrate. The second introduces the geography of health, focusing on socio-economic and spatial inequalities in health provision and outcomes. The third integrates these themes; topics include the role of migration in the spread of disease, adaptation to new environments and access to health care provision.

Class Hour: To be arranged.  
Teaching: Two lectures and/or seminars.  
Assessment: Continuous Assessment = 50%, 2 Hour Examination = 50%

## Geography & Geosciences – 5000 Level Modules

### GE5014 Geographies of Gender, Health and Place

Credits: 10.0 Semester: 2

Anti-requisite: GE3030

Programme: Optional module for Health Geography Postgraduate Taught Programme

Description: This module examines recent theoretical and methodological developments in social-cultural health geographies, focusing on social aspects of health, illness and health care services. The module is structured around interconnected scales at which we can think about place i.e. moves from global/international issues related to gender and health, through to more specific levels – e.g. national health care, communities, the home, the body. Along the way, students are encouraged to engage critically with a variety of perspectives and approaches to the subject, and to pursue self-directed learning on areas of specific interest to them.

Class Hour: To be arranged.

Teaching: One lecture, one seminar, one fortnightly tutorial.

Assessment: Continuous Assessment = 100%

### GE5048 The Growing Awareness of Landscape

Credits: 20.0 Semester: 1

Prerequisite: Available only to Students admitted to the M.Litt. in Environmental History.

Programme(s): Optional module for Environmental History Postgraduate Taught Programme.

Description: This module offers an extended study of the changing awareness of landscape beauty in Europe. It aims to introduce students to the idea that the awareness of landscape as an object of beauty has been growing in Europe since the Renaissance and to the fact that the European definition of ‘the beautiful landscape’ has changed markedly over that period. It explores the idea that, notwithstanding these changes, there may be some fundamental and enduring reasons for landscape preferences. The module also introduces some of the skills involved in collecting and analysing data about landscapes.

Class Hour: To be arranged.

Teaching: 20 hours of lectures and seminars, a field excursion, a presentation and tutorials.

Assessment: Continuous Assessment = 100%

### GE5051 Environmental Management in Scotland

Credits: 20.0 Semester: 1

Prerequisite: Available only to Students admitted to the M.Litt. in Environmental History.

Programme(s): Optional module for Environmental History - Postgraduate Taught Programme.

Description: This module focuses on current environmental management issues in Scotland. It provides, firstly, a presentation of the fundamental elements of the various systems of land and resource management (e.g. forestry, agriculture & crofting, wildlife, freshwater resources, conservation), and secondly, examples of the ways in which these systems interact. Throughout, the module aims to engender a holistic understanding of environmental management, in contrast to the sectoral approach traditionally employed by central and local government. The ultimate aim is to leave students with an informed conceptual framework for evaluating the merits of management proposals, with their attendant implications for environmental change and economic development. A particular focus, employing topical case studies and a field visit, will be the conflicts that are increasingly arising as interest groups with contrasting philosophies & value systems compete for the finite resources of Scotland’s wild places.

Class Hour: To be arranged.

Teaching: Two 1 hour lectures weekly, and a weekend field excursion.

Assessment: Continuous Assessment = 100%

## **Geography & Geosciences – 5000 Level Modules**

### **GG5101 Environmental Change**

Credits: 10.0 Semester: 1

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: This module places special emphasis on the interactions between the major components of the Earth system, notably lithosphere, atmosphere, hydrosphere and biosphere, and their influence on the rates of change. Issues such as carbon sources and sinks in relation to “carbon taxation” will be highlighted. The Scottish context of global change will also be considered.

Class Hour: To be arranged.

Teaching: 24 hours of lectures and seminars plus field trip and site visits.

Assessment: Continuous Assessment = 70%, 1 Hour, open book review essay Examination = 30%

### **GG5102 Environmental Management and Policy**

Credits: 10.0 Semester: 2

Programme(s): Compulsory core module for the Managing Environmental Change Taught Programme

Description: The first part of this module deals with current thinking in environmental management, environmental ethics and values, environmental legislation and planning. The module then moves on to case studies illustrating how theoretical ideas apply in practical contexts, egs. waste management, conservation and protected areas policies, flood management, environmental impacts of commercial agriculture, and Scottish land reform and access legislation

Class Hour: To be arranged.

Teaching: 16 hours of lectures and seminars.

Assessment: Continuous Assessment = 100%

### **GG5103 Data capture and analysis 1: Geophysics and Remote Sensing**

Credits: 10.0 Semester: 1

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: The module begins with field methods of survey, notably geophysical site surveying using gravity, magnetic, electric, electromagnetic, and seismic techniques, as well as topographic surveying. Field sampling techniques are applied to water and sediments. Throughout emphasis is placed on methods for storing and manipulating spatial data using GIS.

Class Hour: To be arranged.

Teaching: About 16 hours of lectures and tutorials, and about 30 hours of formal practical work.

Assessment: Continuous Assessment = 70%, 1 Hour, open book review essay Examination = 30%

### **GG5104 Data capture and analysis 2: Laboratory methods**

Credits: 10.0 Semester: 1

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: This module provides students with practical experience in using modern analytical methods relevant to environmental geochemistry. As well as gaining hands-on experience with a range of analytical equipment the module will cover relevant methods by which data from various analytical methods may be processed and represented. The concepts of precision and errors in practical analysis will be developed, and students will gain an understanding of the requirements of health and safety at work legislation for working in laboratories as well as an appreciation of good laboratory practice.

Class Hour: To be arranged.

Teaching: 8 hours of lectures plus 30 hours of formal practical work.

Assessment: Continuous Assessment = 100%

## Geography & Geosciences – 5000 Level Modules

### GG5105 Environmental Quality

Credits: 10.0 Semester: 2

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: The quality of surface water in rivers and streams, lakes, ponds and wetlands is determined by interactions with soil, transported solids (organics, sediments), rocks, groundwater and the atmosphere. It may also be significantly affected by agricultural, industrial, mineral and energy extraction, urban and other human actions, as well as by atmospheric inputs. The bulk of the solutes in surface waters, however, are derived from soils and groundwater base-flow where the influence of water-rock interactions is important. An appreciation of these interactions is an essential component of a Masters programme undertaken by potential geo-environmental engineers, environmental managers and environmental regulators.

Class Hour: To be arranged.

Teaching: 10 lectures plus practical and field work.

Assessment: Continuous Assessment = 70%, 1 Hour, open book review essay Examination = 30%

### GG5106 Environmental Risk

Credits: 10.0 Semester: 1

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: The module combines knowledge and understanding based on classroom work (lectures and seminars/discussions) with practical work in the lab (using proprietary software to quantify flood risk) and a visit to a site where flooding is a present-day hazard. The module is designed to give students the necessary grounding in this area so that they can readily acquire additional competencies in this field when required to do so by their employer.

Class Hour: To be arranged.

Teaching: 12 hours of classroom teaching plus 20 hours of seminars, practicals and fieldwork.

Assessment: Continuous Assessment = 70%, 1 Hour, open book review essay Examination = 30%

### GG5107 Elements of Environmental Law

Credits: 10.0 Semester: 2

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: This module provides familiarity with the legal and regulatory structures and mechanisms that are used in the field of environmental law. To this end, the course is structured in three parts: first an introduction to legal sources and the workings of legal systems; secondly, an overview of the principles and techniques used in environmental regulation; then thirdly the application of these in key areas of environmental concern. By concentrating on the fundamental structures of how the law goes about environmental regulation, then illustrating these in practice, the module aims to provide an enduring foundation for understanding the legal issues that will be faced. The details of the rules will vary over time and between countries, but the same basic building blocks will continue to be used to create the core of the regulatory framework.

Class Hour: To be arranged.

Teaching: 10 hours.

Assessment: 2 Hour Examination = 100%

### GG5108 The Commercial Environment

Credits: 10.0 Semester: Whole Year

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: The module is designed for students with technology or engineering backgrounds and is intended to develop their awareness and understanding of the factors, perspectives and methods that shape business decision-making. The module emphasises the application of theory in practice, in particular addressing the acquisition of the perspectives and skills of the manager engaged in their organisation's strategic management process.

Class Hour: To be arranged.

Teaching: 20 hours of seminars.

Assessment: Continuous Assessment = 100%

## **Geography & Geosciences – 5000 Level Modules**

### **GG5109 Research Methods and Project Planning**

Credits: 10.0 Semester: Whole Year

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: This module provides a practical framework for project planning, specifically for the Group and Individual Projects, but also generically. Instruction is given in effective access and utilisation of the local library resources and campus IT systems, and in communication skills in both oral and written formats. Ethical issues in research are covered. The practices and procedures that go to make effective team working are discussed along with techniques for successfully organising a work schedule. Conceptualising the phases of identifying, planning and successfully executing a research project will lead to drafting the individual research proposal.

Class Hour: To be arranged.

Teaching: 10 lectures plus 14 hours of seminars.

Assessment: Continuous Assessment = 100%

### **GG5110 Group Project**

Credits: 30.0 Semester: 2

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: The project will be based on an environmental management problem that will involve most or all of fieldwork and site visits, sampling of material (eg soils, waters), lab analysis of materials, collection and evaluation of secondary data from a range of sources and a socio-economic study. Students will work in mini-teams addressing physical and human dimensions of the issue in the field. Each member of the group will take responsibility for one aspect of the study as well as contributing to the overall investigation.

Class Hour: To be arranged.

Teaching: Primarily based on meetings with project supervisor.

Assessment: Continuous Assessment = 100%

### **GG5111 Individual Project**

Credits: 60.0 Semester: Summer

Programme(s): Compulsory module for the Managing Environmental Change Taught Programme

Description: The project will take the form of addressing a problem of environmental change management. It will involve gathering appropriate primary and secondary data, analysing the data, evaluating potential solutions and presenting the outcomes using a range of presentational methods. Two types of individual project are possible. 1. Students aiming for careers outwith academia will be encouraged to base their project within another organisation where they may have an opportunity for placement. 2. Students aiming to continue in environmental research may chose a project based in the field and/or in the lab and remain within the university to complete the work.

Class Hour: To be arranged.

Teaching: Primarily based on meetings with project supervisor.

Assessment: Continuous Assessment = 100%

### **MN5232 Health Care Management**

Credits: 20.0 Semester: 2

Programme(s): Optional module for M Res in Health Geography

Description: This module examines the nature of the organisation of health care production and delivery and the problems of resource allocation in health care. It covers the following topics: the organisation of health care delivery; output and productivity; quality control; techniques for managing resource allocation in health care, and policy implications of proposed changes.

Class Hour: 9.00 am Thursday.

Teaching: One 2 hour lecture, two seminars, two tutorials.

Assessment: Continuous Assessment = 100%