

## **2019/0 - ENV-4006B SUSTAINABILITY, SOCIETY AND BIODIVERSITY**

Spring Semester, Level 4 module

(Maximum 170 Students)

UCU: 20

Organiser: Professor Carlos Peres

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot:D1/, D3/, F2-A2\, E1-H3\

Exam Paper(hrs):1

Striking a balance between societal development, economic growth and environmental conservation has proven challenging and contentious at many scales. The concept of 'sustainability' was coined to denote processes aiming to achieve this balance. This module introduces sustainable development, and examines why sustainability is so difficult to achieve, bringing together social and ecological dimensions. It also explores sustainability from an ecological perspective, introducing a range of concepts relevant to the structure and functioning of the biosphere and topics ranging from landscape and population ecology, to behavioural ecology, molecular ecology, and biodiversity conservation from single organisms to the entire biomes. This module is assessed by coursework and an examination.

## **2019/0 - ENV-4007B ATMOSPHERE & OCEANS I**

Spring Semester, Level 4 module

(Maximum 100 Students)

UCU: 20

Organiser: Dr Parvatha Suntharalingam

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot:D2-I2\, E2, C3, A1-F1\

Exam Paper(hrs):2

**IN TAKING THIS MODULE YOU CANNOT TAKE ENV-4008B**

The habitability of planet Earth depends on physical and chemical systems that control everything from the weather and climate to the growth of all living organisms. This module introduces you to some of these key cycles and the ways in which physical and chemical scientists investigate and interpret them. It leads naturally to second and third year study of these systems in more detail, but even if you choose to study other aspects of environmental sciences, a basic knowledge of these systems is central to understanding our planet and how it responds to human pressures. The module is made up of two distinct components. One focuses on the physical study of the environment (Physical Processes: e.g. weather, climate, ocean circulation, etc.) The other focuses on the chemical study (Chemical Processes: weathering, atmospheric pollution, ocean productivity, etc.). Interrelationships between these components are explored throughout. Teaching of this module is through a mix of lectures, laboratory practical classes, workshops and a half-day field trip. This module provides a Basic Chemistry introduction for those students who have little or no background in chemistry prior to joining UEA.

## **2019/0 - ENV-4008B ATMOSPHERE & OCEANS II**

Spring Semester, Level 4 module  
(Maximum 60 Students)

UCU: 20

Organiser: Dr Parvatha Suntharalingam

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot:D2-I2\, E2, C3, A1-F1\

Exam Paper(hrs):2

**IN TAKING THIS MODULE YOU CANNOT TAKE ENV-4007B**

The habitability of planet Earth depends on physical and chemical systems that control everything from the weather and climate to the growth of all living organisms. This module introduces you to some of these key cycles and the ways in which physical and chemical scientists investigate and interpret them. It leads naturally to second and third year study of these systems in more detail, but even if you choose to study other aspects of environmental sciences, a basic knowledge of these systems is central to understanding our planet and how it responds to human pressures. The module is made up of two distinct components. One focuses on the physical study of the environment (Physical Processes: e.g. weather, climate, ocean circulation, etc.) The other focuses on the chemical study (Chemical Processes: weathering, atmospheric pollution, ocean productivity, etc.). Interrelationships between these components are explored throughout. Teaching of this module is through a mix of lectures, laboratory practical classes, workshops and a half-day field trip. This module is for students with previous experience of chemistry.

### **2019/0 - ENV-5002B ENVIRONMENTAL POLITICS AND POLICY MAKING**

Spring Semester, Level 5 module  
(Maximum 90 Students)

UCU: 20

Organiser: Professor Andy Jordan

MODULE - 40% PASS ON AGGREGATE

Module Type: Coursework

Timetable Slot:D3\, A2/, G1/-H2\

The most significant obstacles to problem solving are often political, not scientific or technological. On this module, you'll examine the emergence and processes of environmental politics. You will analyse these from different theoretical perspectives, particularly theories of power and public policy making. The module is focused on contemporary examples of politics and policy making at UK, EU and international levels. We will support student-led learning by enabling students to select (and develop their own theoretical interpretations of) 'real world' examples of politics. Assessment is via seminar presentations and a case study essay. The module assumes no prior knowledge of politics.

### **2019/0 - ENV-5004B APPLIED GEOPHYSICS**

Spring Semester, Level 5 module  
(Maximum 15 Students)

UCU: 20 Organiser: Dr Jessica Johnson

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot:D3\, A2/, G1/-H2

Exam Paper(hrs):2

Exam Period:SPR-02

IN TAKING THIS MODULE YOU CANNOT TAKE ENV-5005K  
BEFORE TAKING THIS MODULE YOU MUST TAKE ENV-4015Y OR TAKE ENG-  
4004Y OR TAKE MTHA4004Y OR TAKE CMP-4004Y OR TAKE CMP-4005Y OR  
TAKE ENV-4014Y OR TAKE MTHA4007Y OR TAKE MTHA4008Y

What lies beneath our feet? This module addresses this question by exploring how wavefields and potential fields are used in geophysics to image the subsurface on scales of metres to kilometres. You'll study the basic theory, data acquisition and interpretation methods of seismic, electrical, gravity and magnetic surveys. A wide range of applications are covered, including archaeological geophysics, energy resources and geohazards. Highly valued by employers, this module features guest lecturers from industry who explain the latest 'state-of-the-art' applications and give you unique insight into real world situations. In taking this module, you'll normally expected to have a good mathematical ability, notably in calculus and algebra.

### **2019/0 - ENV-5005K APPLIED GEOPHYSICS WITH FIELD COURSE**

Spring Semester, Level 5 module

(Maximum 15 Students)

UCU: 20

Organiser: Dr Jessica Johnson

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot:D3\, A2/, G1/-H2

Exam Paper(hrs):2

IN TAKING THIS MODULE YOU CANNOT TAKE ENV-5004B  
BEFORE TAKING THIS MODULE YOU MUST TAKE ENV-4015Y OR TAKE ENG-  
4004Y OR TAKE MTHA4004Y OR TAKE CMP-4004Y OR TAKE CMP-4005Y OR  
TAKE ENV-4014Y OR TAKE MTHA4007Y OR TAKE MTHA4008Y

What lies beneath our feet? This module addresses this question by exploring how wavefields and potential fields are used in geophysics to image the subsurface on scales of metres to kilometres. You'll study the basic theory, data acquisition and interpretation methods of seismic, electrical, gravity and magnetic surveys. A wide range of applications are covered, including archaeological geophysics, energy resources and geohazards. Highly valued by employers, this module features guest lecturers from industry who explain the latest 'state-of-the-art' applications and give you unique insight into real world situations. In taking this module, you'll normally be expected to have a good mathematical ability, notably in calculus and algebra. This module also includes a one-week field course, currently held in the Lake District during Easter break. The cost of attending the field course is heavily subsidised by the School but students enrolling must commit to paying a sum to cover their attendance.

### **2019/0 - ENV-5028B GIS SKILLS FOR PROJECT WORK**

Spring Semester, Level 5 module  
(Maximum 100 Students)

UCU: 20 Organiser: Dr Katy Appleton

MODULE - 40% PASS ON AGGREGATE

Module Type: Coursework

Timetable Slot:E1-H3\, F1/, A3

This module builds upon the introduction to GIS provided in the first year Research and Field Skills module, focusing on how you obtain your data, integrate it and then undertake analysis and presentation tasks. ESRI ArcGIS will be the main software used, but there will also be an introduction to scripting tools (Python), open source software (QGIS) and online GIS (ArcGIS Online). Teaching will consist of a one-hour lecture and a three-hour practical class each week.

### **2019/0 - ENV-5031B SOCIAL RESEARCH SKILLS**

Spring Semester, Level 5 module  
(Maximum 55 Students)

UCU: 20 Organiser: Dr Noel Longhurst

MODULE - 40% PASS ON AGGREGATE

Module Type: Coursework

Timetable Slot:F2, B1\, D1

IN TAKING THIS MODULE YOU CANNOT TAKE ENV-5036K

How do we respond to social and environmental change? Why are some of our beliefs and behaviours so persistent, even when we agree that they should change? How do people inhabit the places where they live and work? This module will provide you with tools to investigate the social, cultural, psychological and political processes that shape us and our world. Human geography and the environmental social sciences employ a range of approaches and methods with which to explore their diverse research questions. This module will introduce you to the practice of social science research, including methods that use quantitative (numerical) and qualitative (non-numerical) data. Through a combination of lectures, workshops, and practical activities, you will learn how to design and carry out your own research. By the end of the module you will know how to formulate an interesting research question; how to choose an appropriate method to investigate it; how to ensure that you collect good quality data; how to analyse and interpret your data; and how to present the results of your research. The module is recommended if you intend to use social research methods in your independent dissertation project. In addition to gaining practical research skills, you will develop your ability to critically evaluate research studies that use social science methods. As well as benefiting your academic studies, these analytical and practical research skills are highly valued in many occupational sectors.

### **2019/0 - ENV-5035B SEDIMENTOLOGY**

Spring Semester, Level 5 module  
(Maximum 40 Students)







UCU: 20

Organiser: Dr Richard Cooper

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot: E2+-C3, B2, F1\

Exam Period: SPR-02

In this module, you will adopt an integrated approach to studying surface water and groundwater resources in river basins. You will address the fundamental requirement for an interdisciplinary catchment-based approach to managing and protecting water resources that includes an understanding of land use and its management. The module content includes the design of catchment monitoring programmes, nutrient mass balance calculations, river restoration techniques, an overview of UK and European agri-environmental policy and approaches to assessing and mitigating catchment flooding.