Course ID 027148

Integrated Subsurface Description

EART 20021

Credit rating 10
ECTS credits 5

Unit coordinator: Jonathan Redfern

Full year

School of Earth and Environmental Sciences
Undergraduate

Level 2

FHEQ level ' Middle part of Bachelors'

Course unit overview
This unit will introduce students to the full range geological types of oil and gas reservoirs in the sub-surface (shallow marine, deep marine, fluvial, glacial and carbonate) and show how a geological understanding of these rock types can improve predictive models for the production and development of sub-surface oil and gas reservoirs, for which data is commonly limited, This unit will provide an understanding of how outcrop analogues can be used to inform these models, as well as sub-surface data sets. Both depositional and post depositional processes will be considered.

Aims
The aim of this unit is to provide a thorough grounding in how integrated outcrop and subsurface data collection and analysis can improve models for oil and gas reservoirs and aid production and development.

Assessment methods
Assignement 1a Report (individual) 25% 1500 words, ILOs tested = 1, 3Assignment 1b Class Test 25% Computer Based, ILOs tested = 4Assignment 2 Exam 50% 1.5 hours, ILOs tested = 1, 2, 4, 5

Course ID 005884

Global Biogeochemical Cycles

EART 20092

Credit rating 10
ECTS credits 5

Unit coordinator: James Allan

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
This course introduces the rationale for considering the fluxes and interactions of the main elements and nutrients in the earth system in a holistic, 'top down' and interdependent manner. It includes the necessary descriptions of its major compartments: the atmosphere, biosphere, hydrosphere, the cryosphere and the lithosphere; and introduces key concepts of reservoirs, fluxes, equilibrium and turnover times. The main cycles are considered, including the carbon, water, sulphur, nitrogen and phosphorous cycles and their couplings and feedbacks are discussed. There relevance within the earth system will be covered, with a particular emphasis on issues such as climate change, eutrophication and air quality. Human impacts on the key natural cycles will be discussed in the context of global and regional environmental change, which will include what efforts are being employed to mitigate or remediate these effects.

Aims
To provide an overview of the cycling of key chemicals through the earth system focussing on carbon, nitrogen, sulphur, phosphorous and water and their roles within the atmosphere, hydrosphere, cryosphere and lithosphere.
To introduce the reservoir model, concepts such as turnover time and equilibrium, and develop quantitative approaches to assessing budgets and fluxes in global natural cycles.
To give an understanding the role of couplings and feedbacks within the earth system and how this makes different aspects interdependent.
To identify and quantify anthropogenic perturbations to these aspects of the earth system and understand what effects these may have.

Assessment methods

Other	20%
Written exam	60%
Set exercise	20%

Report (individual) (20%)Online test (20%)Exam (60%)

Course ID 005885

Global Tectonics

EART 20101

Credit rating 10

ECTS credits 5

Unit coordinator: Julian Mecklenburgh

Semester 1

School of Earth and Environmental Sciences

Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview

Global tectonics will provide an understanding of plate tectonic processes that underpin the interpretation of the geological record.

Aims

To examine Plate Tectonic processes at an intermediate level, building upon the grounding provided by the EART1011 Planet Earth module. To examine the development of orogenic belts and sedimentary basins in a plate-tectonics context.

Assessment methods

Online test 1, one hour (4%)Online test 2, one hour (6%)Online test 3, one hour (10%)Exam, 1.5 hours (80%)

Course ID 005886

Palaeobiology

EART 20112

Credit rating 10

ECTS credits 5

Unit coordinator: Russell Garwood

Semester 2

School of Earth and Environmental Sciences

Undergraduate ***Level 5***

FHEQ level ' Middle part of Bachelors'

Course unit overview

Life first appeared on earth more than 3000-million years ago, and since this time has undergone many changes, driven by evolution. This course will explore the evolution of life in deep time, from its origins, through major evolutionary transitions, to the ecosystems we have today. It will: explore the approaches employed in the study of past life; the uses of both invertebrates and vertebrate fossils in the broader context of earth and environmental sciences; and highlight the applications of palaeontology in other fields. Key topics include: evolution and the tree of life, biostratigraphy, palaeoecology, fossils as indicators of the environment, extinction, and the preservation of fossils.

Aims

This course has three primary aims:

-- To provide an overview of major milestones in the history of life, the patterns and processes of evolution, and the structure of the tree of life.

-- To explore the uses, description and classification of both invertebrates and vertebrate fossils through geological time. This will include an introduction to microfossils.

-- To cover topics in palaeoecology such as fossils as indicators of environment, and the development of ecosystems.

Assessment methods

Other	25%
Written exam	50%
Practical skills assessment	25%

Written Exam, 2 hours (50%) Poster, 650-1000 words (25%) Practical Test, 1 hour(25%)

Course ID 005888

Sediment transport processes and depositional environments

EART 20121

Credit rating 10
ECTS credits 5

Unit coordinator: Merren Jones

Semester 1

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
Deciphering the language of sediments and the stratigraphic record is one of the great enterprises of the Earth Sciences. This course is designed to develop students' practical ability to describe and make process-based interpretations of sedimentary rocks. The course builds from one week to the next, and the concepts discussed increase in scale, beginning with the study of a particle within a flow, and concluding with large scale controls on basin fills. Emphasis is placed on problem solving and thinking quantitatively, and physical experimentation plays a central role in the course to both visualise processes (e.g., the formation of individual bedforms and structures) and to explore the physics behind sediment transport and deposition. During the practical classes students work collaboratively in research teams to develop skills in defining a hypothesis and planning and executing experiments to test those hypotheses.

Aims
The aim of this course is to learn to 'read' features you observe in the stratigraphic record. A more complicated way of saying this is, this course unit aims to develop the skills needed to describe and interpret the stratigraphic record in both space and time, emphasising the processes of sediment transport and deposition, and the interpretation of clastic depositional environments.

Assessment methods

Other	50%
Written exam	50%

Exam, 2 hours (50%)Test, 2 hours (50%)Test (quiz) formative (0%)

Course ID 005889

Igneous Petrology

EART 20131

Credit rating 10

ECTS credits 5

Unit coordinator: Margaret Hartley

Semester 1

School of Earth and Environmental Sciences

Undergraduate ***Level 5***

FHEQ level ' Middle part of Bachelors'

Course unit overview

The course investigates the variety of igneous rock types observed on Earth, and the processes that form them. It covers magma generation in the Earth, differentiation processes, and the links between magma compositions and tectonic setting, It explains how to use analytical, graphical and theoretical techniques to understand and model a variety of igneous processes, and hence interpret the origin of igneous rock samples. This module provides the foundations for interpreting igneous rocks encountered elsewhere in the degree programme, in particular those in the 2-year Easter field course to Glencoe.

Aims

The aim of this course is to explain the diversity of igneous rock types observed on Earth. You will learn the skills needed to recognise the compositions, mineralogies and textures of all the major igneous rock types, and hence to interpret the melting and crystallization processes that occur in igneous and magmatic systems.

Assessment methods

Other	40%
Written exam	60%

Report (individual), up to 8 pages (30%)BB quizzes (2% each = 10% total)Written Exam, 2 hours (60%)

Course ID 005891

Geochemistry

EART 20151

Credit rating 10

ECTS credits 5

Unit coordinator: Greg Holland

Semester 1

School of Earth and Environmental Sciences

Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview

The course illustrates the importance of Geochemistry to global evolution of the Earth. The first half of the module teaches geochemical theory which is used to interpret the laboratory practicals. The second half of the module expands on the theory and discusses geochemistry is a broader planetary scale context. Students will have 10 hrs lectures, and 5 lab based practicals. The practical classes involve lab chemistry experiments and paper-based write-up exercises.

Aims

To outline the origin of the elements and their isotopes, their gross distribution throughout the Earth and the key processes controlling their partitioning with particular focus on fluid geochemistry.

Assessment methods

Other	50%
Written exam	50%

Exam, 1.5 hours (50%)Report (individual) (50%)

Course ID 005892

Environmental Investigative Methods

EART 20162

Credit rating 10
ECTS credits 5

Unit coordinator: Stephen Boult

Semester 1

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
Data and background information will be provided for students to produce several research projects across the range of environmental sciences. The projects are designed to demonstrate the requirements of research, a common process for carrying out research, and to teach the skills needed. Projects will progress from those based on comparison of measurements to comparison of relationships to comparison to models. All projects will teach students how to communicate by construction of logical written argument and are fully supported by videos on Blackboard.

Aims
To prepare students to carry out an independent research project by defining a process to be followed and teaching particular skills using environmental science case studies.

Assessment methods
Test, 1.5 hours (100%)

Course ID 005900

Carbonate and Evaporite Depositional Systems

EART 20222

Credit rating 10
ECTS credits 5

Unit coordinator: Stefan Schroeder

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview

A module building on fundamental sedimentology and palaeontology, giving students ample practical experience of looking at the diversity of carbonate and evaporite rocks, as well as understanding their formation, diagenesis and applied aspects. Students will discover these rocks as systems integrating aspects of biology, chemistry and physics, as archives of past climates, and of great economic importance.
Students will learn techniques of rock description and interpretation of processes and environments from their observations. The course covers methods such as facies analysis, logging, correlation tools and sea level analysis to encourage an integrated view of depositional systems. A particular emphasis is placed on applied aspects of carbonate / evaporite depositional systems to highlight possible employment directions.

Aims

This module aims to give students a sound overview of the nature and origin of carbonate and evaporite rocks, depositional processes and environments of deposition as well as the evolution of depositional systems with time. This will prepare students for fieldwork and for basin analysis in year 3, and for more specialist studies. A particular emphasis is placed on applied aspects of carbonate-evaporite depositional systems.

Assessment methods

Written exam	50%
Practical skills assessment	50%

Course ID 005901

Metamorphic Petrology

EART 20232

Credit rating 10

ECTS credits 5

Unit coordinator: Alison Pawley

Semester 2

School of Earth and Environmental Sciences

Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview

In this course students will learn how to identify metamorphic rocks (mineralogy, texture, protolith), how to infer conditions of formation (P,T,X) from mineral parageneses and mineral equilibria, about the metamorphic processes involved, and how metamorphic rocks can be used to help the geologist understand large-scale earth processes (e.g. orogenesis, subduction).

Aims

The aim of the course is to learn how to extract as much information as possible about metamorphic processes from the rocks themselves, on all scales from the microscopic to regional tectonic environments, and to use this information to infer their tectonic settings and aid in the interpretation of their geological histories.

Assessment methods

3 x 30 minute tests, (12% each = 36%)Report (individual) (14%)Exam, 2 hours (50%)

Course ID 005905

Understanding our Metal Resources

EART 20262

Credit rating 10
ECTS credits 5

Unit coordinator: Victoria Coker

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
In order to gain a practical understanding of metal resources students will be first introduced to the technique and skill of reflected light microscopy, essential for identifying phases non-transparent (opaque) in 30 micron thick thin sections, and thus critical for holistic petrography. Many of the world's main metalliferous ores comprise suites of non-transparent oxides and sulphides, and therefore reflected light microscopy is essential for examining these deposits and their mineral processing. This skill will be then used to examine a range of ore textures and examples of mineral deposits. Other aspects of mineral deposit study will be introduced - fluid inclusions and beneficiation, the processing of an ore deposit to separate out the economic components. Four classic types of major mineral deposit will be studied as case studies.

Aims
The aim of this course is to give students practical knowledge and skills used directly in the discovery and exploitation of metal deposits, critical for a career in the mining industry. Students will learn the technique of reflected light microscopy for the study of non-transparent phases and its application in the study of metalliferous ores and their processing as well as obtain an understanding of metalliferous mineral deposits, their characteristics, methods of study and formation.

Assessment methods

Other	25%
Written exam	50%
Practical skills assessment	25%

One hour practical test (25%)Individual report (25%)Final written exam, 2 hours (50%)

Course ID 005907

Atmospheric Physics & Weather

EART 20281

Credit rating 10
ECTS credits 5

Unit coordinator: Jonathan Crosier

Semester 1

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
The module provides an overview of the atmosphere and the atmospheric processes that lead to the weather we experience. We look at the forces that determine air motion (wind), and the behaviour of dry and moist air (clouds and rain). We describe how the atmosphere is observed and measured, and how those measurements are combined with the laws of physics to provide a weather forecast, or on a longer timescale to explore climate change.

Aims
To give an understanding of the physics determining the behaviour of the Earth's atmosphere and its observed weather phenomena.

Assessment methods

Other	20%
Written exam	80%

Coursework assignment (20%)Exam, 1.5 hours (80%)

Course ID 005909

Structural Geology

EART 20292

Credit rating 10

ECTS credits 5

Unit coordinator: Stephen Covey-Crump

Semester 2

School of Earth and Environmental Sciences

Undergraduate ***Level 5***

FHEQ level ' Middle part of Bachelors'

Course unit overview

The lectures provide an overview of the subject, describing the geometry of geological structures and their associated minor structures, together with the key mechanical concepts of stress, strain and microscale rock deformation processes. The last three lectures seek to integrate the preceding eight by describing the interrelationships between these structures in contractional, extensional and strike-slip tectonic settings. Examples are taken from other planetary bodies in addition to Earth. The lectures are densely packed with content so that the overview of the subject is comprehensive - it is intended that the PowerPoint presentations (which include substantial extra comments/further reading in the notes pane to each slide) may be used as a reference source in future studies. As such, this is a road map of the subject - different students will focus on different aspects. Assessment, however, focuses on key material (highlighted within each lecture) that any geologist should be familiar with.

The practicals develop a working understanding of structural analysis, focusing on the use of stereonet techniques to carry out such an analysis. There is a particular (but not exclusive) emphasis on techniques that students might use while undertaking their Independent Mapping Project. The initial focus is upon the use of stereonets for analysing the geometry of folds and faults and for constructing cross sections on dipping planes to illustrate that geometry. Three practicals are devoted to stress and strain analysis to develop the content of the lectures on those subjects. We then establish a deeper understanding of what stereonets can do for us by using them to solve a range of geometrical tasks, including unrotating dipping units and showing how they may be used to establish the kinematics of large scale faults from minor fractures and fabrics found in fault zones.

Aims

The aim of this unit is to outline the principal types of geological structures that are formed when rock sequences are deformed (*e.g.*, folds, faults, fractures and shear zones), and to provide practical training in analysing the geometry of these structures. Along the way, an introduction to the concepts of stress and strain and to the processes by which rocks deform is provided because these are pivotal in developing the subject within the broad field of geomechanics. The unit complements material covered within the 2 year field

courses (EART20300). It provides the necessary grounding in all the structural techniques required for the Independent Mapping Project (EART30000) at the end of the 2 year, while also providing the prerequisites for those planning to pursue further studies in structural processes and geomechanics (engineering geology, petrophysics) within their 3 year.

Assessment methods

Other	50%
Written exam	50%

(1)"Theory" exam [summative] Diagrammatic, short answer questions primarily on lecture content but with aspects that were developed in the practicals (e.g., stress and strain analysis). 2.5 hours (50%)(2)"Practical" exam [summative] map-based exercise with accompanying short answer questions focusing primarily on analysis of the geometry of folds and faults. 2.5 hrs (50%)

Course ID 028733

Reservoir and Production Chemistry

EART 20301

Credit rating 10
ECTS credits 5

Unit coordinator: Roy Wogelius

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
Building on first year modules covering basic geology (rock identification) and a basic knowledge of generation and migration (A-level maths + 1 yr Eng Maths + A level chemistry) this second year module will present the fundamental chemistry of the reaction pathway leading to hydrocarbon generation and will develop an understanding of how the chemical properties of the product phases affect hydrocarbon migration from source to reservoir as well as detail key reactions that occur during extraction such as degassing. Critical inorganic and organic concepts involving hydrocarbon generation include: clay mineral stability, surface catalysis, and kinetics within source and reservoir rocks. The course will conclude with basic flow modelling based on an advanced understanding of system chemistry.

Aims
This course will give the student an advanced understanding of the key chemical processes that control the fundamental pathways to hydrocarbon generation and how these processes also affect fluid migration in the subsurface.
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Assessment methods

Other	40%
Written exam	60%

Report- Assessed practical 1, 5 pages (10%)Report- Assessed practical 2, 5 pages (10%)Report- Assessed practical 3, 5 pages (10%)Test, 1 hour (10%)Exam, 1.5 hours (60%)

Course ID 031063

Urban Geoscience and Contaminated Land Projects

EART 20352

Credit rating 10
ECTS credits 5

Unit coordinator: Colin Hughes

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
Teams of students will work on literature based projects investigating different UK case study cities. Using a wide range of information sources, students will develop a scientific understanding of the regional and local physical geography and geology, in particular the role of local natural resources in the development of the city, including mineral resources, fossil fuels, hydrology and hydrogeology. From the literature and online historical sources they will investigate the underpinning science of industrial processes, products and waste outputs from a city's primary industrial and domestic activities over time, including likely future development. In particular, they will pay attention to impact on surface and subsurface natural environments (air quality, surface and groundwater, soils and sediments, and solid and drift geology) and the wider potential harm to ecosystems and human health. Each individual student will be allocated a specific site within their case study city, and carry out a comprehensive 'Phase 1' baseline desk study to determine the site's physical geography, geology, ecology and land use history to evaluate the likely environmental impact of human activity over time, including potential legacy and current environmental problems; and consider technological approaches to remediation. Throughout the course unit students will be expected to develop and demonstrate an in depth understanding of the science underpinning all aspects of their project work.

Aims
- To build upon individual and team project based working in the first year by studying the past, present and potential future of selected UK cities in the context of natural resourceexploitation, urban development and environmental impact, mitigation and clean-up
- Examine how a city's geology and wider natural environment have influenced itsdevelopment and land use over time, especially since the Industrial Revolution andthroughout the 20th and into the 21st centuries.
- Investigate the underpinning science of how urban development, and city specificindustries, have left legacies of environmental degradation at and below the surfacethroughout brownfield sites, and more widely, across city landscapes.
- Understand how regulatory frameworks and environmental technologies can help in theremediation of legacy environmental degradation, and in the control and mitigation

ofcurrent and future development activities.

- Key topics will include: ‘pollutant sources and sinks’; ‘source pathway receptor model forenvironmental pollution’; water utilities; quarrying; mining and other heavy industries;and industrial and domestic waste disposal.
- Explore the relationship between environmental problems in cities and the widersociological, technological, economic and political factors that influence urbandevelopment
- Develop academic and professional skills, including: literature review, media monitoring,essay and report writing, team working, project management and presentation skills

Assessment methods

Essay (individual) (media journal) (10%)Essay (individual) (project diary) (10%)Essay (individual) (reflective appraisal) (10%)Essay (group) (co-authored team city case study) (30%)Essay (individual) (Phase 1 environmental site assessment) (20%)Oral (group) (final) (20%)See Blackboard for full details of all assessments, including formative ones.

Course ID 038380

Meteorites and Planetary Material

EART 20382

Credit rating 10
ECTS credits 5

Unit coordinator: Raymond Burgess
Unit coordinator: Rhian Jones

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
This unit is an overview of extraterrestrial material, including meteorites and lunar samples. Students will examine the properties of meteorites and lunar samples and learn how to interpret the formation of these samples and the geological processes that they record. The unit builds on petrology skills that students have acquired in Geology classes (Earth Materials, Igneous Petrology) and their understanding of the formation of the Solar System from prior classes in Planetary Science. Since the unit demonstrates the breadth of sample studies it will assist with student choices of third and fourth year research projects.

Aims
The unit aims to introduce students to the diversity of extraterrestrial materials available for study on Earth. Students will investigate the formation conditions and origins of different materials, and the role played by sample studies in interpreting the formation and geological evolution of the solar system. This involves studies of meteorites and lunar samples in hand sample, and using transmitted and reflected light microscopy. Students will also be introduced to peer-reviewed literature of sample studies.

Assessment methods
Report (individual) - Descriptions, 20 pages (70%)Report (individual) - Poster (30%)

Course ID 029811

Subsurface Techniques

EART 20411

Credit rating 10

ECTS credits 5

Unit coordinator: Mads Huuse

Semester 1

School of Earth and Environmental Sciences

Undergraduate ***Level 5***

FHEQ level ' Middle part of Bachelors'

Course unit overview

In this unit students will be introduced to the basic interpretation of seismic and borehole data for subsurface structure and stratigraphy. Lectures will provide an overview of the creation and interpretation of seismic images and practicals will focus on aspects of rock physics fundamentals and hands-on seismic and borehole log interpretation. The unit starts with classroom-based lectures and practical exercises on paper, followed by workstation-based 3D interpretation of oil field seismic data using state-of-the-art workstation techniques. The latter part enables students to create the basic input for use in reservoir modelling.

Aims

The aim of this unit is to familiarise students with key techniques for subsurface interpretation and to enable them to undertake the basic subsurface interpretation required to build a reservoir model using oil field data

Assessment methods

Other	40%
Written exam	60%

Practical Assignment Report (individual), 8 pages (40%) Written exam, 2 hours(60%)

Course ID 029812

Geomechanics for Petroleum Engineers

EART 20422

Credit rating 10
ECTS credits 5

Unit coordinator: Ernest Rutter

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
The theories of stress, infinitesimal strain and elasticity, and the strength and modes of failure of rocks are topics that must be understood by the practising Petroleum Engineer. The aim of this course is to introduce these topics. The practical applications of this subject are (a) to understand stresses around boreholes, borehole failure, in-situ stress measurement, hydraulic fracture and enhanced hydrocarbon recovery, (b) to understand stress states in reservoirs and how they arise, allowing us to minimise reservoir damage and maximise productivity.

Aims
The aim of this course unit is to introduce the theories of stress, infinitesimal strain and elasticity, and the strength and modes of failure of rocks.

Assessment methods
Mid-tem summative test in the same style as the final exam, 1 hour (40%)Final exam in May, 1.75 hours (60%)

Course ID 023000

Formation Evaluation I

EART 20432

Credit rating 10

ECTS credits 5

Unit coordinator: Catherine Hollis

Semester 2

School of Earth and Environmental Sciences

Undergraduate ***Level 5***

FHEQ level ' Middle part of Bachelors'

Course unit overview

Formation Evaluation is the study of the physical properties of rocks and their ability to store and flow hydrocarbon. This unit will introduce the fundamental principles of petrophysics and its importance to resource evaluation in hydrocarbon reservoirs. It focuses on how porosity, permeability and hydrocarbon saturation are measured in rock samples and from geophysical logs.

The unit integrates lectures and class-based practical activities and experiments and a 1 day fieldtrip to the British Geological Survey core store in Keyworth, Nottingham.

Aims

To develop an understanding of the key techniques used for the petrophysical characterisation of reservoir rocks in the subsurface. It will introduce the principles of net-to-gross, porosity, permeability and saturation determination and the controls on their distribution.

Assessment methods

Report (group): core description [2 pages + core sedimentological log] (25%)Practical test (in-class) (25%)Examination, 1.5 hours (50%)

Course ID 025476

Environmental Soil Science - biogeochemistry

EART 20802

Credit rating 10
ECTS credits 5

Unit coordinator: Clare Robinson

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
It is only through an understanding of soil processes that effective strategies can be made to counteract humankinds effects of pollution and disturbance on soils.

Aims
To examine the soil as a functional unit of terrestrial ecosystems and human-made environments.

Assessment methods
Report (individual), one A4 page (15%)Test, 2 hours (15%)Exam, 1.5 hours (70%)

Course ID 024307

Introduction to Drilling and Production Engineering

EART 20901

Credit rating 10
ECTS credits 5

Unit coordinator: Catherine Hollis

Semester 2

School of Earth and Environmental Sciences
Undergraduate

Level 5

FHEQ level ' Middle part of Bachelors'

Course unit overview
Classroom-based short course taught by an external lecturer, John Galvin, aimed at introducing the fundamentals of drilling engineering.

Aims
The aim of this module is to build a basic understanding of drilling techniques and introduce the fundamentals of well testing and engineering safety during drilling and production.

Assessment methods
In Class Assignment (100%)