UNIVERSITY OF LEICESTER

Study Abroad

Modules in Geography

2022/23 Academic Year

MODULE NAME: Human Geography for a Globalized World

MODULE CODE: GY1411

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- define key geographical concepts, such as place, space, spatiality, scale and network;

- discuss how geographers have studied contemporary geographies of globalization;

- describe geographical identity, difference and inequality at various spatial scales;

- outline how place, spatiality and networks matter to a variety of social, cultural, economic and political processes that are studied by contemporary geographers.

COORDINATOR: Martin Phillips

TEACHING AND LEARNING METHODS:

Asynchronous on-line lectures & learning activities, synchronous on-line lectures and discussions, face to face seminar discussions and learning activities, Directed Reading, Independent Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Exam, Coursework Portfolio (based around learning activities conducted on module)

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

reading for lectures; reviewing/making deeper lecture notes having followed up reading, background reading for assessments; revision for short answer test and written exam

MODULE NAME: Exploring our Digital Planet

MODULE CODE: GY1423

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

1. Produce a map with appropriate symbology, colour, scale and representation

2. Demonstrate understanding of a Geographical Information System

3. Demonstrate understanding about the nature and format of digital data and its representation

4. Demonstrate understanding of the applications of map production and spatial data analysis in a number of thematic areas in human and physical geography

5. Demonstrate abilities in the use of IT, numeracy, problem solving and information handling

COORDINATOR: Kevin Tansey

TEACHING AND LEARNING METHODS:

Lectures; Computer-Based Practicals; Independent Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Digital Geographies Short Answer coursework

Digital Map Design

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Directed reading, revision of both lecture and practical material

MODULE NAME: Evolution of the Earth System

MODULE CODE: GY1431

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

1) Outline the concept of the "Earth System" and be able to illustrate this with examples of its functioning (e.g. interactions between the "spheres")

2) Explain the major controls on planetary temperatures and the implications for planetary habitability.

3) Understand the nature and divisions of geological time

4) Outline the major classes and divisions of life on earth

5) Explain the operation of the three major biogeochemical cycles – the carbon, nitrogen and phosphorous cycles

6) Illustrate the role of the global carbon cycle in both moderating and driving global climate trends

7) Consider the impacts of human activities upon the operation of the Earth System

COORDINATOR: Andrew Carr

TEACHING AND LEARNING METHODS:

Learning objectives are taught via a series of online guided activities/computer practicals, reading assignments and worksheets and online recordings. These will be supported by weekly sessions for students to review materials and their own supplementary readings with a tutor. Five on campus face-to-face tutorials are spaced throughout the course. These will be focussed on key concepts using pre-assigned readings and worksheets as a means to begin the discussions. Supplementary numeracy and scientific terminology refresher material, designed to support ongoing learning throughout this module and the first year physical geography material, will available on Blackboard and (used where appropriate for the student) will be taught through self-help and self-assessment materials provided on the VLE.

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Students are assessed via two short answer question worksheets and a final selection of coursework essays

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Assigned reading and associated preparation for the three course tutorials, continuous reading to support lecture materials (course text book and specific reading list provided), science and numeracy self-assessment and worksheet material, optional preparation for attendance of (optional) weekly clinic sessions.

MODULE NAME: Histories and Philosophies of Human Geography

MODULE CODE: GY2410

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- understand the reasons for the changing nature of how the discipline of Geography presents itself

- explain key theoretical perspectives in Human Geography, including their historical origins and contemporary relevance

- critically assess and experiment with different theoretical approaches that move across all areas of Human Geography

- understand how theorisation is performed across a variety of different media, as well as within academic texts

COORDINATOR: Angela Last

TEACHING AND LEARNING METHODS:

Lectures, seminars, tutorials and guided independent study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Activities for guided independent study should include reading and informal discussion in support of lectures and seminars and in preparation for the exam. Additional independent study should include note revision and supplimentary research and reading to support individual learning, lectures and seminars as well as in preparation for final exam and future modules in Human Geography.

MODULE NAME: A Critical Geography of Environment and Development

MODULE CODE: GY2411

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Understand and explain the contested nature of 'development' & 'environment' in theory and practice

- Evaluate the importance of history in understanding contemporary development divides

- Analyse the impacts of contemporary 'development' on different spaces, places and environments

- Understand the contested nature and practices of 'environmental governance'

COORDINATOR: Caroline Upton

TEACHING AND LEARNING METHODS:

Online lectures; tutorials, seminars; films; independent study.

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Two pieces of coursework. CW1: 25%, CW2: 75%

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars/tutorials; preparation for coursework assignment; key readings for online lectures, online exercises.

MODULE NAME: Economy, Society and Space

MODULE CODE: GY2412

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Use a 'commodity circuits' approach to examine contemporary geographical developments in some of the key sectors in the global economy.

- Use 'nexus thinking' to examine the dynamics between key 'regions' in the global political and economic system.

Develop effective written communication and research skills about commodities and economies and their relevance for geographical research and practice.

COORDINATOR: Benjamin Coles

TEACHING AND LEARNING METHODS:

Lectures; Tutorials; Surgeries; Directed Reading; Independent. Module assessment includes 1 formative assessment weighted at 20% and 1 summative assessment weighted at 80%

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars, reviewing/making deeper lecture notes having followed up reading, background reading for assignments.

MODULE NAME: Social and Cultural Geography

MODULE CODE: GY2413

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Explain the key approaches to study of social and cultural geography.

- Assess the relevance of the cultural turn and poststructural thinking to explaining social and cultural phenomena.

- Analyse how social and cultural spaces/places are contructed, experienced, felt, represented and materialised.

- Critically analyse how social and cultural phenomena are expressed in diverse contexts (eg different places) and at various scales (local, national, global).

COORDINATOR: Zoe Gardner

TEACHING AND LEARNING METHODS:

Lectures, seminars, surgeries, driected reading, independent study and field trip

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Self-led field trips covering issues in the course.

MODULE NAME: Climate Change: Impacts, Vulnerability and Adaptation

MODULE CODE: GY2420

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

Explain the greenhouse effect and the role of humans in the climate system;

Explain the role of the IPCC, governments and policy makers in assessing scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation;

Describe how selected regions and ecosystems are likely to be affected by climate change up until 2100, including identification of the major risks, impacts and vulnerabilities;

Interpret recent scientific studies on climate change impacts in the broader context and demonstrate an ability to write scientific material aimed at different audiences (popular and professional);

Access, analyse and summarise climate data and assess vulnerabilities and likely adaptation and mitigation options.

COORDINATOR: Susan Page

TEACHING AND LEARNING METHODS:

Lectures, seminars, tutorials, coursework clinics

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Science article and poster

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Guided reading; preparation of coursework; preparation for contributions to tutorial discussions

MODULE NAME: Data Analysis

MODULE CODE: GY2431

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- analyse and critically evaluate geographical and environmental problems

- adopt appropriate methodological strategies for the quantitative analysis of geographical and environmental data

- interpret quantitative analyses of geographic and environmental data

- write up quantitative analyses and interpretations of geographical and environmental data in a stylistically appropriate and concise manner

COORDINATOR: Mark Powell

TEACHING AND LEARNING METHODS:

Lectures, Worksheets, Practical Classes, Workshops, Clinics, Guided Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Worksheets

MODULE NAME: Catchment Systems

MODULE CODE: GY2433

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the course, students should be able to:

- Describe the main components of the terrestrial water balance, along with common methods for their measurement, and explain how these components interact with one another;

- Critically evaluate the factors controlling hydrological response in river catchments with a range of different characteristics;

- Describe the variety of fluvial forms;

- Account for the variety of channel forms;

- Critically evaluate the concepts of magnitude, frequency and equilibrium morphodynamics in understanding the development of fluvial landscapes

COORDINATOR: Mark Powell

TEACHING AND LEARNING METHODS:

Lectures, Fieldwork, Exercises in Catchment Hydrology and River Geomorphology, Independent Study, Tutorials and Guided Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Worksheets, Directed reading

MODULE NAME: The Dynamic Biosphere

MODULE CODE: GY2434

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Demonstrate comprehension of basic ecosystem and biogeographical concepts and the role animal and plant species to shape their communities .

- Demonstrate knowledge on biodiversity, species and evaluation of ecosystem diversity and functioning at a range of spatial scales.

- Understand process of evolution, speciation and extinction to understand historical and evolutionary links between species and ecosystems; appreciate how environmental remote sensing can be used to provide spatial and temporal information on both the biosphere and environmental change.

- Learn how to run a simple ecological model.

COORDINATOR: Juan Berrio

TEACHING AND LEARNING METHODS:

Lectures; Tutorials; Directed Reading; Laboratory Practical Classes; Computer Practical Classes; Field Courses;

Independent Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Handouts and assigned reading associated to series of tutorials will support students for successful CW submissions. Permanent support by lecturers and further reading materials are available on BB.

MODULE NAME: Contemporary Environmental Challenges

MODULE CODE: GY3411

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

-Draw on geographical debates and concepts to analyse contemporary environmental issues and challenges;

-Analyse and critique key concepts, with reference to diverse and contested values;

-Assess the role of alternative knowledge in shaping and contesting environmental practice;

-Critically evaluate prospects for new environmental futures through analysis of various contemporary issues;

-Apply critical thinking to contemporary environmental challenges encountered beyond the core module content.

COORDINATOR: Caroline Upton

TEACHING AND LEARNING METHODS:

Online lectures, tutorials, seminars, virtual fieldwork, films, guided review/ learning activities

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Two pieces of coursework. CW1: 30%, CW2: 70%

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars/tutorials; preparation and reading for assignments; key readings and exercises for online lectures and note taking; preparation for virtual field visit

MODULE NAME: Geographies of the Market Place

MODULE CODE: GY3413

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Explain the relationships between place, place-making and economic markets

- Utilise a (critical) topographic approach to examine marketplaces as affective, as well as material, social and discursive assemblages

- Interrogate the material-semiotics of place to analyse the geographical extent of a market

- Engage a topographical analysis to articulate the intersections, interrelations and interdependancies through which markets become economic as well as geographical entities

- Develop effective research skills about cities, markets and economics, and effective communication skills for their presentation

COORDINATOR: Benjamin Coles

TEACHING AND LEARNING METHODS:

Lectures; Tutorials; Directed Reading; Workshops; Independent Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars, reviewing/making deeper lecture notes having followed up reading, background reading for assignments, attending field site and analysiing data; may also include return visits to field site as individuals or as groups.

MODULE NAME: Critical Digital Geographies

MODULE CODE: GY3425

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:- Critically review emergent spatially-enabled/enabling digital technologies- Robustly communicate and debate contemporary critical debates in the within the 'digital turn' such as Big Data, counter-data, 'smart' cities and the Internet of things, and privacy.

COORDINATOR: Claire Jarvis

TEACHING AND LEARNING METHODS:

Teaching will be in the form of lectures (1 hours per week) and seminars (7 weeks, 2 hours each). The seminars will be comprised of individual student presentations: analytical case studies of various aspects of the 'digital turn'

PRE-REQUISITES: -

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

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GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Guided reading

MODULE NAME: Understanding Ecosystems and Environments of the Distant Past

MODULE CODE: GY3433

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- A wide understanding of Quaternary environmental change

- Critically evaluate the roles of internal and external drivers of climate change

- Evaluate paleo-environmental proxy data sources employed in the Quaternary

- An understanding of the general principles of climate change and climate variability (e.g. teleconnections)

- Appreaciate and understand the importance of long-continental records to perform land-sea correlations.

- Gain practical skills in working with microfossil datasets, plotting and interpration.

- Understand the impacts of climate change on the development of pre-Columbian civilisations.

COORDINATOR: Juan Berrio

TEACHING AND LEARNING METHODS:

Lectures; Directed reading; Laboratory Classes; Computer practical Classes; Independent Study

PRE-REQUISITES: GY2436

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Directed Reading

MODULE NAME: Water Quality Processes and Management

MODULE CODE: GY3435

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 1

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:- Demonstrate an understanding of the processes controlling surface and groundwater quality – particularly when these systems receive point- and diffuse-source pollution.

- Demonstrate an awareness of water quality standards for different water uses (e.g. drinking water, ecological quality) and of the legal frameworks within which such standards are applied.

- Apply and correctly interpret simple water quality models for assessing pollutant concentrations in surface waters receiving waste water from point sources

- Identify appropriate management strategies which can be applied to different pollutant types and demonstrate an understanding of why different approaches are required for different pollutants

COORDINATOR: Mick Whelan

TEACHING AND LEARNING METHODS:

The bulk of teaching will be through the medium of lectures. Additionally, there may be a one 1-day field excursion (waste water treatment plant and sustainable urban drainage), one ½ day (4 hour) sampling trip and one ½ day (3 hour) laboratory practical class for analysis of samples in the laboratory (3 hours).

PRE-REQUISITES: -

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

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GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading selected from distributed list and supplemented with additional material.Course work will require some independent investigative work using maps and web-based literature, as well as accessing the primary literature.Students will also need to spend time revising for the examination.

MODULE NAME: Environment / Nature / Society

MODULE CODE: GY1412

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Understand the various historical and contemporary ways of conceptualising nature

- Acquire a historical perspective of environmental governance

- Explain how environmental values are changing and with what social consequences

- Use a variety of case examples to explain ecosystem degradation, land use conflicts, issues social justice, and resource extraction dilemmas

- Understand a variety of solutions to ongoing environmental tensions through restoration projects, degrowth, and alternative knowledges

COORDINATOR: Brett Matulis

TEACHING AND LEARNING METHODS:

Lectures

Topical seminars

Directed Reading

Film

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars

Independent reading for coursework assignment

Guided personal reflection exercises

MODULE NAME: Working with Geographical Information

MODULE CODE: GY1421

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- describe and summarize quantitative geographical data numerically and graphically;

- explain the difference between samples and populations of quantitative data and the implications these differences have for manipulating sampled data;

- select an appropriate test of difference or association to test hypotheses based the descriptive statistical analyses;

- carry out tests of difference (t-tests and chi-sq tests) on geographical data and interpret and evaluate the results;

- perform ordinary least squares regression and interpret the relationship between response and explanatory variables.

COORDINATOR: Kirsten Barrett

TEACHING AND LEARNING METHODS:

Lectures; Computer Based Practical Classes.

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Test

Submission One: Practical One

Submission Two: Practical Three

Submission Three: Practical Five

Submission Four: Practical Eight

Submission Five: Practical Nine

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars, reviewing lecture notes and following up on concepts with materials from Blackboard resources folder or independent searches for information, preparing for practical exercises or completing these.

MODULE NAME: The Contemporary Earth System

MODULE CODE: GY1432

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On completion of the module, students will be able to describe and account for:

- the Earth's global energy exchanges;

- the global and regional pattern of atmospheric and oceanic circulations;

- climate classification systems and the distribution and differences between global climates;

- global patterns of weathering and soil forming processes and products;

- the distribution of terrestrial biomes and their characteristics.

COORDINATOR: Jorg Kaduk

TEACHING AND LEARNING METHODS:

Lectures, Supervised problem solving, Directed Reading, Independent Study, Self Assessment

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Required reading, recommended videos, short video clips on particular concepts, development of thought/concept maps

MODULE NAME: Political Geography: Space, Territory and Power

MODULE CODE: GY2416

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- describe the development of different geographical modes of thinking about politics

- define and apply key geographical concepts pertaining to geopolitics and political geography

- explain the relationship between the state and territory at different spatial scales

- explain the changing forms and functions of the state

- explain the relationship between place, participation and citizenship

COORDINATOR: Matthew Wilde

TEACHING AND LEARNING METHODS:

Short online lectures; structured activities on virtual learning environment; online tutorials; directed reading; virtual learning environment

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Set reading from reading list; reviewing and making deeper lecture notes enhanced by follow-up reading; background reading for assessments; secondary research for assessments; suggested extension activities from virtual learning environment.

MODULE NAME: Geographical Information Science

MODULE CODE: GY2421

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Input, interrogate and map data using a GIS

- Apply the theory of basic GIS operators and analytical approaches to a variety of geographical problems

- Demonstrate an awareness of the variety of ways in which digital spatially-referenced data, qualitative or quantitative, may be collected and represented

- Outline, explain and critically evaluate a variety of spatial data analysis techniques with reference to a number of geographical examples

- Illustrate skills in web mapping

COORDINATOR: Claire Jarvis

TEACHING AND LEARNING METHODS:

Videos, Computer Practical Classes, Seminars, Guided Independent Study, Review lectures

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Coursework 100%

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading; Computer analyses; Mapping; videos

MODULE NAME: Remote Sensing of the Environment

MODULE CODE: GY2424

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- explain the physical principles underlying remote sensing studies. This includes being able to define key

concepts and terminology used in remote sensing such as electromagnetic radiation, surface reflectance and spectral reflectance curves;

- associate the data that these sensors provide with an understanding of interactions of radiation with different surface features and geographical phenomena;

- demonstrate their ability to manipulate satellite data using dedicated image-processing software. Make visual interpretations of satellite images to support theory;

- apply the principles of image acquisition and interpretation to making decisions on the appropriateness of the use of remotely sensed data to address geographical issues in both human and physical environments.

COORDINATOR: Kirsten Barrett

TEACHING AND LEARNING METHODS:

Lectures; Seminars; Computer Practical Classes; Independent Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars, reviewing lecture notes and following up on concepts with materials from Blackboard resources folder or independent searches for information, background reading for assignments

MODULE NAME: An Introduction of Past Global Climate Changes

MODULE CODE: GY2436

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Describe the major global climatic shifts, trends and cycles during the Quaternary Period

- Explain the basic principles underlying orbital ('Milankovitch') climate forcing and describe the evidence that supports this hypothesis

- Explain how the Greenland and Antarctic provide records of global climatic changes and describe the main 'internal' drivers of abrupt global climate change identified in these archives

- Summarise the range of palaeo-environmental proxy data sources used by Quaternary scientists

- Describe the principal geochronological techniques utilized in Quaternary science

- Describe the major sources of evidence for Quaternary climatic changes preserved in landscapes at low and high latitudes

COORDINATOR: Andrew Carr

TEACHING AND LEARNING METHODS:

The module will be taught using a mixture of lectures, a guided computer practical, guided/structured reading materials and homework activities, a 2 hour laboratory practical, and face to face tutorials spread through the term

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

The module will be assessed via a piece of coursework based around the analysis of real (ice core, ocean core) palaeoclimatic datasets, and via a final suite of coursework essays selected from a list of topics covering the breadth of the course

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading materials provided in specific lecture reading lists, analysis and presentaiton of data provided from practical 1 (used in coursework assessment), literature search and association reading required for intepretation of data analysed in CW1

MODULE NAME: Cities of the Global South

MODULE CODE: GY3412

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

Explain how geo-historical proceses and everyday socio-political struggles interrelate to govern and shape contemporary cities of the global south

Draw critical comparisons between different topics, cities, geographies and theoretical approaches connected by the module theme

Critically assess contemporary urbanist theories using diverse forms of empirical data

Examine contemporary challenges for cities of the global south and creatively explore their possible futures

Develop effective oral and written communication skills about cities of the global south, urban futures and their relevance for geographical research and practice

COORDINATOR: Matthew Wilde

TEACHING AND LEARNING METHODS:

Lectures; seminars; tutorials (essay planning); films (followed by critical discussion); directed reading; independent study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Reports

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for seminars; reviewing and improving lecture notes (critical reading exercises); background reading for final essay; film screenings followed by critical discussions; peer-to-peer feedback

MODULE NAME: Migration, Place and Diversity

MODULE CODE: GY3415

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Demonstrate an understanding of contemporary migrations within historical contexts of human migration and socio-spatial change.

- Demonstrate critical understanding of different forms of forced and voluntary migration across the globe and how bordering practices shape experiences of migrants.

- Critically engage with the practices, policies and discourses of receiving societies and the agency of migrants around transnationalism and home.

- Demonstrate an appreciation of theories and concepts used to understand how people live and experience ethnic diversity in different places and spaces.

- Generate focused and comprehensive written and oral presentations.

COORDINATOR: Katy Bennett

TEACHING AND LEARNING METHODS:

Teaching will be in the form of lectures, guided activities and student-led seminars. The seminars will take place in the second part of the semester and will involve student presentations.

PRE-REQUISITES: GY2410

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

Presentation/exam

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading in preparation for seminars; Wider reading around lecture material; Preparation of assessed presentation and preparation for exams.

MODULE NAME: Critical, Symbolic and Emotional Rural Geographies

MODULE CODE: GY3417

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Outline and discuss critical, symbolic and affective approaches to understanding rural geographies;

- Apply these approaches to the analysis of developments in rural spaces in the UK and elsewhere

- Construct theoretical, analytical and creative accounts of contemporary or past aspects of rural life.

COORDINATOR: Martin Phillips

TEACHING AND LEARNING METHODS:

Lectures; Seminars; Field Course

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reviewing/making deeper lecture notes having followed up reading; background reading for seminars and assignments; analysis of film, television and magazine imagery, programmes; analysis of data sources and reports; reflection on personal experiences and observations of rural areas.

MODULE NAME: Information Visualisation

MODULE CODE: GY3421

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Explain and discuss fundamental concepts related to visual perception and representation, including but not limited to: symbol, glyph, visual variables, dimensionality, models of phenomena, graphical integrity and distortion, data ink, visual hierarchy

- Explain and discuss fundamental concepts related to cartography, including but not limited to: map elements, projection, normalization, classification, choroplet mapping, proportional symbols mapping, dot mapping

- Describe advantages and issues of main visualization methods, and identify an appropriate visualization method for any given case

- Apply the visualization design process to create effective visualizations

- Use software tools (e.g., R, Excel, Illustrator, QGIS) to create effective visualizations

COORDINATOR: Stefano De Sabbata

TEACHING AND LEARNING METHODS:

Lectures, Practical Classes and Workshops (computer-based exercises)

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

The students will be presented with three (non-mandatory) formative assignments, that will guide them through a visualization design process. A first assignment will require the identification of a topic and research question. A second assignment will focus on retrieving appropriate data for the selected topic, and conduct an analysis of the collected data (not necessarily using statistical tools). A third assignment will require to create a draft of a visualization based on the analysis conducted for the second assignment. The materials produced for the formative assignment can (but not necessarily have to) be used as base for the summative assignment.

Background reading on the topics discussed during lectures and practicals will be provided.

MODULE NAME: Stable Isotopes in the Environment

MODULE CODE: GY3434

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Explain the theory of stable isotope fractionation using appropriate terminology and scientific principles
- Collect, prepare and anayse samples for stable isotope analyses
- Analyse and discuss stable isotopic datasets
- Write scientific journal article
- Understand isotope fractionation in environmental processes

COORDINATOR: Arnoud Boom

TEACHING AND LEARNING METHODS:

Lectures

Seminars

Laboratory practicals/ demonstration

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading for lectures, reviewing/making deeper lecture notes having followed up reading, background laboratory work, supporting reading for course work.

MODULE NAME: The Biosphere in the Earth System

MODULE CODE: GY3437

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- Relate certain types of biosphere-atmosphere interactions to particular biomes

- Evaluate the role of different drivers of biospheric processes

- Explain a range of feedbacks between the biosphere and other components of the Earth system

- Evaluate the role of atmosphere-biosphere interactions in the climate system

- Explain the role of carbon dioxide and photosynthesis in biosphere-atmosphere interactions

- Demonstrate awareness of the degradation of natural habitats, land use change and loss of biodiversity in various regions on the globe.

COORDINATOR: Jorg Kaduk

TEACHING AND LEARNING METHODS:

Lectures, Seminars, Laboratory and computer Practical Classes, Surgeries, Directed Reading, Field Visits, Independent Research; Independent Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Directed reading, project supervision, problems

MODULE NAME: River Dynamics

MODULE CODE: GY3438

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

- explain the dynamics of fluvial processes operating in alluvial rivers and their morphological and sedimentological consequences;

- define flow resistance and its various sources and apply simple flow resistance models to estimate hydraulic parameters;

- critically evaluate models of bedload sediment transport; describe factors controlling the processes and rates of bank erosion;

- explain some how feedbacks between the form of the channel, the bed of the channel and the flow within the channel goven channel evolution and change

COORDINATOR: Mark Powell

TEACHING AND LEARNING METHODS:

Lectures, Workshops, Independent study, Tutorials, Guided Study

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Guided reading, numerical analyses

MODULE NAME: Understanding the Tropical Forests of SE Asia

MODULE CODE: GY3439

MODULE DESCRIPTION: Click to open.

CREDITS: 15

PERIOD: Semester 2

DEPARTMENT: Geography

INTENDED LEARNING OUTCOMES:

On successful completion of the module, students should be able to:

Understand the role that tropical forests in SE Asia play in the physical environment (such as the carbon cycle) and in the human social environment (development and livelihood)

- Gain experience using some of the tools that are available to observe, measure and understand processes that exist in the tropical forests of SE Asia

- Understand the influence of geographical research on policy and development issues in the region

COORDINATOR: Kevin Tansey

TEACHING AND LEARNING METHODS:

Lectures, seminars, tutorials, computer based practicals

PRE-REQUISITES:

TOTAL MODULE HOURS: 150

ASSESSMENT METHODS:

GUIDED INDEPENDENT LEARNING: INDICATIVE ACTIVITIES:

Reading, Literature review, satellite image processing