Swansea University
Prifysgol Abertawe

FACULTY OF SCIENCE AND ENGINEERING

UNDERGRADUATE STUDENT HANDBOOK

YEAR 2 (FHEQ LEVEL 5)

BSC PHYSICAL GEOGRAPHY
UNDERGRADUATE PROGRAMMES

SUBJECT SPECIFIC
PART TWO OF TWO
MODULE AND COURSE STRUCTURE
2022-23

DISCLAIMER

The Faculty of Science and Engineering has made all reasonable efforts to ensure that the information contained within this publication is accurate and up-to-date when published but can accept no responsibility for any errors or omissions.

The Faculty of Science and Engineering reserves the right to revise, alter or discontinue degree programmes or modules and to amend regulations and procedures at any time, but every effort will be made to notify interested parties.

It should be noted that not every module listed in this handbook may be available every year, and changes may be made to the details of the modules. You are advised to contact the Faculty of Science and Engineering directly if you require further information.

The 22-23 academic year begins on 19 September 2022

Full term dates can be found here

DATES OF 22-23 TERMS

19 September 2022 – 16 December 2022

9 January 2023 – 31 March 2023

24 April 2023 – 09 June 2023

SEMESTER 1

19 September 2022 – 27 January 2023

SEMESTER 2

30 January 2023 – 09 June 2023

SUMMER

12 June 2023 – 22 September 2023

IMPORTANT

Swansea University and the Faculty of Science of Engineering takes any form of **academic misconduct** very seriously. In order to maintain academic integrity and ensure that the quality of an Award from Swansea University is not diminished, it is important to ensure that all students are judged on their ability. No student should have an unfair advantage over another as a result of academic misconduct - whether this is in the form of **Plagiarism**, **Collusion** or **Commissioning**.

It is important that you are aware of the **guidelines** governing Academic Misconduct within the University/Faculty of Science and Engineering and the possible implications. The Faculty of Science and Engineering will not take intent into consideration and in relation to an allegation of academic misconduct - there can be no defence that the offence was committed unintentionally or accidentally.

Please ensure that you read the University webpages covering the topic – procedural guidance here and further information here. You should also read the Faculty Part One handbook fully, in particular the pages that concern Academic Misconduct/Academic Integrity. You should also refer to the Faculty of Science and Engineering proof-reading policy and this can be found on the Community HUB on Canvas, under Course Documents.

Welcome to the Faculty of Science and Engineering!

Whether you are a new or a returning student, we could not be happier to be on this journey with you.

This has been a challenging period for everyone. The COVID-19 pandemic has prompted a huge change in society as well as how we deliver our programmes at Swansea University and the way in which you study, research, learn and collaborate. We have been working hard to make sure you will have or continue to having an excellent experience with us.

We have further developed some exciting new approaches that I know you will enjoy, both on campus and online, and we cannot wait to share these with you.

At Swansea University and in the Faculty of Science & Engineering, we believe in working in partnership with students. We work hard to break down barriers and value the contribution of everyone. Our goal is an inclusive community where everyone is respected, and everyone's contributions are valued. Always feel free to talk to academic staff, administrators, and your fellow students - I'm sure you will find many friendly helping hands ready to assist you.

We all know this period of change will continue and we will need to adapt and innovate to continue to be supportive and successful. At Swansea we are committed to making sure our students are fully involved in and informed about our response to challenges.

In the meantime, learn, create, collaborate, and most of all – enjoy yourself!

Professor Johann (Hans) Sienz
Interim Pro-Vice Chancellor/Interim Executive Dean
Faculty of Science and Engineering

Faculty of Science and Engineering	
Interim Pro-Vice Chancellor/Interim Executive Dean	Professor Johann Sienz
Head of Operations	Mrs Ruth Bunting
Associate Dean – Student Learning and Experience (SLE)	Professor Paul Holland
School of Biosciences, Geography and Physics **Head of School: Siwan Davies**	
School Education Lead	Laura Roberts
Head of Geography	Kevin Rees
Geography Programme Director	Joanne Maddern
Year Coordinators	Year 0 – Dr Kath Ficken Year 1 – Dr Kath Ficken Year 2 – Dr Nick Felstead Year 3 – Professor Neil Loader PGT – Dr Iain Robertson

STUDENT SUPPORT

The Faculty of Science and Engineering has two **Reception** areas - Engineering Central (Bay Campus) and Wallace 223c (Singleton Park Campus).

Standard Reception opening hours are Monday-Friday 9am-5pm.

The **Student Support Team** provides dedicated and professional support to all studentsin the Faculty of Science and Engineering. Should you require assistance, have any questions, be unsure what to do or are experiencing difficulties with your studies or in your personal life, our team can offer direct help and advice, plus signpost you to further sources of support within the University. There are lots of ways to get information and contact the team:

Email: studentsupport-scienceengineering@swansea.ac.uk (Monday–Friday, 9am–5pm)

Call: +44 (0) 1792 295514 and 01792 6062522 (Monday-Friday, 10am–12pm, 2–4pm).

Zoom: By appointment. Students can email, and if appropriate we will share a link to our Zoom calendar for students to select a date/time to meet.

The current student **webpages** also contain useful information and links to otherresources:

https://myuni.swansea.ac.uk/fse/coe-student-info/

READING LISTS

Reading lists for each module are available on the course Canvas page and are also accessible via http://ifindreading.swan.ac.uk/. We've removed reading lists from the 22-23 handbooks to ensure that you have access to the most up-to-date versions. Access to print material in the library may be limited due to CV-19; your reading lists will link to on-line material whenever possible. We do not expect you to purchase textbooks, unless it is a specified key text for the course.

THE DIFFERENCE BETWEEN COMPULSORY AND CORE MODULES

Compulsory modules must be **pursued** by a student.

Core modules must not only be **pursued**, but also **passed** before a student can proceed to the next level of study or qualify for an award. Failures in core modules must be redeemed.

Further information can be found under "Modular Terminology" on the following link - https://myuni.swansea.ac.uk/academic-life/academic-regulations/taught-guidance/essential-info-taught-students/your-programme-explained/

Year 2 (FHEQ Level 5) 2022/23
Physical Geography
BSc Physical Geography

Total 120 Credits

Optional Modules

Choose exactly 20 credits

Cannot select GEC276 with GEG276, GEC277 with GEG277 and GEC278 with GEC278 as they are the Welsh and English equivalent of the same module.

GEC276	Systemau Gwybodaeth Ddaearyddol	Dr RH Meara	TB2	20
GEG276	Introduction to Geographic Information Systems	Prof AJ Luckman	TB2	20

And

Choose exactly 20 credits

GEC277	Dulliau ac Ymagweddau Daearyddol	Dr RH Meara/Dr A Closs Stephens	TB1	20
GEG277	Geographical Methods and Approaches	Dr KJ Ficken/Prof SH Doerr/Dr KH Halfacree/..	TB1	20

And

Choose exactly 20 credits

GEC278	Sgiliau Dadansoddi Data a Pharatoi Traethawd Hir	Dr A Closs Stephens/Dr RH Meara	TB2	20
GEG278	Data Analysis and Dissertation Preparation Skills	Dr NJ Felstead/Dr A Closs Stephens/Dr KJ Ficken/..	TB2	20

And

Choose exactly 20 credits

This module has been pre-allocated to your module selections after our application process in April. Therefore any selection made here will be overwritten by the Geography Department

GEG252L	Geographical Fieldwork Skills: Exploring Geographical Themes in Swansea and south Wales	Dr H Hallang/Dr A Closs Stephens/Dr SL Cornford/..	TB1+2	20

And

Choose exactly 40 credits

GE-200	Professional Development and Career Planning	Miss VV Wislocka/Mr N Clarke	TB1+2	0
GEC269	Cyfathrebu Gwyddoniaeth	Dr RH Meara/Prof SM Davies/Mr SC Owen/..	TB1	10
GEG211	Glacial Environments	Dr J Hiemstra	TB1	10
GEG236	Earth from Space: Monitoring Global Environmental Change	Prof PRJ North	TB1	10
GEG273	Geographies of Climate Action and Activism	Dr AL Pigott	TB1	10
GEL203	Earth history	Dr NJ Felstead	TB1	10
GEL204	Geological Record of Past Environments	Dr KJ Preece/Dr KJ Ficken	TB2	10

Year 2 (FHEQ Level 5) 2022/23
Physical Geography
BSc Physical Geography[F840]
BSc Physical Geography with a Year in Industry[F931]

Total 120 Credits

Optional Modules
Choose exactly 20 credits
Cannot select GEC275 with GEG275, GEC276 with GEG276, GEC277 with GEG277 and GEC278 with GEC278 as they are the Welsh and English equivalent of the same module.

GEC276	Systemau Gwybodaeth Ddaearyddol	Dr RH Meara	TB2	20
GEG276	Introduction to Geographic Information Systems	Prof AJ Luckman	TB2	20

And
Choose exactly 20 credits

GEC277	Dulliau ac Ymagweddau Daearyddol	Dr RH Meara/Dr A Closs Stephens	TB1	20
GEG277	Geographical Methods and Approaches	Dr KJ Ficken/Prof SH Doerr/Dr KH Halfacree/..	TB1	20

And
Choose exactly 20 credits

GEC278	Sgiliau Dadansoddi Data a Pharatoi Traethawd Hir	Dr A Closs Stephens/Dr RH Meara	TB2	20
GEG278	Data Analysis and Dissertation Preparation Skills	Dr NJ Felstead/Dr A Closs Stephens/Dr KJ Ficken/..	TB2	20

And
Choose exactly 20 credits
This module has been pre-allocated to your module selections after our application process in April. Therefore any selection made here will be overwritten by the Geography Department

GEG252L	Geographical Fieldwork Skills: Exploring Geographical Themes in Swansea and south Wales	Dr H Hallang/Dr A Closs Stephens/Dr SL Cornford/..	TB1+2	20

And
Choose exactly 40 credits

GE-200	Professional Development and Career Planning	Miss VV Wislocka/Mr N Clarke	TB1+2	0
GEC269	Cyfathrebu Gwyddoniaeth	Dr RH Meara/Prof SM Davies/Mr SC Owen/..	TB1	10
GEG211	Glacial Environments	Dr J Hiemstra	TB1	10
GEG236	Earth from Space: Monitoring Global Environmental Change	Prof PRJ North	TB1	10
GEG273	Geographies of Climate Action and Activism	Dr AL Pigott	TB1	10
GEG283	Sustainable Land Management	Dr E Urbanek/Prof SH Doerr	TB1	10
GEL203	Earth history	Dr NJ Felstead	TB1	10
GEL204	Geological Record of Past Environments	Dr KJ Preece/Dr KJ Ficken	TB2	10

GE-200 Professional Development and Career Planning

Credits: 0 Session: 2022/23 September-June

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Miss VV Wislocka, Mr N Clarke

Format: 6 hours consisting of a mix of podcasts, recorded lectures and Zoom sessions and optional 1-2-1 meetings and weekly drop-in sessions. Prior to the change it was 6 hours of face to face delivery via PC labs, and a 1-2-1 meeting where applicable / requested.

Delivery Method: These modules are delivered through online resources, scheduled Zoom sessions and 1-2-1 meetings. There is self-directed learning required using online resources provided.

Module Aims: This module is a mandatory module for all students who have enrolled (or transferred) onto the Science Industrial Placement Year but is also available to all other Geography students. The module focuses on the underpinning and fundamental requisites required to gain, enter and progress through a successful career. Learners will be introduced to (a) sourcing placements, CV writing, and application techniques; (b) Interview techniques, how to pitch yourself and be successful; (c) workplace fundamentals and IP awareness, behaviors and expectations; and, (d) Key employability skills; getting the most from your job or placement.

Module Content: The module will focus on the key requirements to gain and be successful whilst on a placement. Directed and self -directed activity will address the following topics:

1) Science Industrial Placements - What they are, how to search and how to apply.

2) CV writing, cover letters and application processes.

3) Assessment centres, interview techniques and a mock interview.

4) Recognizing and developing employability skills.

5) reflecting and maximising your placement experience.

6) one to one meeting with careers and employability officers.

Intended Learning Outcomes: By the end of this module, students will be able to:

1) Be aware of and possess the essential skills needed to secure placement opportunities; alongside having the skills to apply for relevant jobs and placements.

2) Have a general understanding of an interview process and what tools and attributes make a good interview.

3) Discuss and share what is expected within the workplace including behavioral and professional conduct.

4) Identify personal employability skills and how these will be used in a workplace setting.

5) Understand the need to reflect and maximise the placement experience in future career decisions.

Assessment: Assignment 1 (100%)

Assessment Description: Students are required to attend all taught sessions and the one to one meeting (if required). This module has no credit attached. However to ensure engagement with the content a compulsory quiz will be added in session 5. Students who do not attend and have no valid reason will not be permitted to continue on a Science Industrial Placement Year programme of study.

Moderation approach to main assessment: Not applicable

Assessment Feedback: N/A

However feedback on progress and the progression through the module will be provided in the one to one mandatory meeting and MCQ quiz.

Failure Redemption: Successful completion of this module depends upon satisfactory attendance at, and engagement with, all sessions. Therefore there will normally be no opportunity to redeem failure. However, special provision will be made for students with extenuating or special circumstances.

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

The module will focus on the key requirements to gain and be successful whilst on a placement or in work. Directed and self -directed activity will address the following topics:

1) Science Industrial Placements - What they are, how to search and how to apply.

2) CV writing, cover letters and application processes.

3) Assessment centres, interview techniques and a mock interview.

4) Recognizing and developing employability skills.

5) reflecting and maximising your placement experience.

6) one to one meeting with careers and employability officers.

GEC269 Cyfathrebu Gwyddoniaeth

Credits: 10 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr RH Meara, Prof SM Davies, Mr SC Owen, Dr SG Roberts, Dr GR Thomas

Format: Module is taught via 6 x 2h sessions (including pracitcals and lectures) and 3 x 1h seminars and tutorials. Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

The module will include 6 x 2 h sessions including practical work and theoretical lectures. There will be an additional 3 x 1 h seminar and tutorial sessions.

Practical sessions will be run in conjunction with staff members across the university and external guest lecturers.

Module Aims: This module introduces students to the subject of Science Communication.

Students will learn how to communicate complex science and social science concepts to different audiences using a variety of techniques. Each session of the course will focus onto different modes of communication and will include theoretical and practical components.

Examples of sessions include:

- Personal communication styles and performance training.
- Press releases and print media
- Critical thinking and agendas
- Audible media
- Visual media
- Science communication and outreach
- Social Media and Blogs

Module Content: This module introduces students to the subject of Science Communication.

Students will learn how to communicate complex science and social science concepts to different audiences using a variety of techniques. Each session of the course will focus onto different modes of communication and will include theoretical and practical components.

Lectures and Practicals

1. Science Communication theory and history
2. Personal communication styles and performance training.
3. Press releases and print media
4. Audible media
5. Visual media
6. Science communication and outreach

Seminars and Tutorials

1. Seminar: Esboniadur y CCC
3. Seminar: Social Media and blogs
5. Seminar: Geraint George Workshop

Intended Learning Outcomes: By the end of this module you should be able to:

- define and understand science communication theory.
- communicate complex concepts to a wide range of audiences.
- explain how to write a press release.
- communicate complex ideas via printed media.
- communicate complex ideas via audible media.
- communicate complex ideas via visual media.
- communicate complex ideas and perform to a young audience.

Assessment: Coursework 1 (10%)
Coursework 2 (45%)
Coursework 3 (45%)

Assessment Description: Coursework 1: students will write a newspaper article based on a press release written by the Swansea University Press Office (500 words).

Coursework 2: Students will work in a group to develop and record an hour long science magazine radio show with a focus on geographical, biosciences, and nature themes.

Coursework 3: Students will write an individual essay focussing on mis-communication of science to the public, using a case study of their choice (1,500 words).

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Students will receive individual written summative feedback on all coursework components and will receive regular formative feedback on work completed during practical classes and semiars.

Failure Redemption: Coursework 1: students will write a newspaper article based on a press release written by the Swansea University Press Office (500 words).

Coursework 2: Students will work in a group to develop and record an hour long science magazine radio show with a focus on geographical, biosciences, and nature themes.

Coursework 3: Students will write an individual essay focussing on mis-communication of science to the public, using a case study of their choice (1,500 words).

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Module is available to all Welsh-medium students within the College of Science.

GEC276 Systemau Gwybodaeth Ddaearyddol

Credits: 20 Session: 2022/23 January-June

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr RH Meara

Format: 11 hours lectures
22 hours computer lab exercises

Delivery Method: Lecture and computer practical

Module Aims: A Geographic Information System (GIS) is a computer-based technology for solving problems of a geographical nature – i.e. involving spatial relationships between people, places and objects. It can be applied to a wide range of disciplines within geography and has developed to provide a means to quickly and professionally produce maps from geospatial data. This module provides a basic grounding in GIS from the nature of spatial information, through the use of GIS in social and physical geography contexts, to the application of computers to solving complex geographical problems. Most importantly, it allows hands-on experience in using Quantum GIS (QGIS), the leading open-source GIS software package, and therefore provides a valuable skill for research and the for workplace.

Module Content: 1. Module introduction
2. A digital model of the real world
3. Comparing raster and vectors data models
4. Coordinates and geographic reference systems
5. Geographic presentation and map design
6. GIS data sources and formats
7. Digital land surface topography
8. The Global Positioning System (GPS)
9. Route-finding in a network
10. The future of GIS

Intended Learning Outcomes: • A broad understanding of the purpose and scope of Geographical Information Systems
• An appreciation of the way in which geographical entities can be represented in a computer
• A critical awareness of the increasing role of GIS in government, commerce and science
• The ability to use QGIS software to explore and analyse a range of geospatial data
• The ability to present geospatial data as a well constructed and complete map
• A basic understanding of GIS-related technologies such as route-finding and GPS
• An appreciation of the future direction of GIS in geography and beyond
All marking will be carried out on-line

Assessment: Coursework 1 (20%)
Coursework 2 (30%)
Coursework 3 (20%)
Coursework 4 (30%)

Assessment Description: Coursework 1: Map figure with caption using given datasets.
Project: Series of maps and captions to present and justify the best location for a windfarm in a region of Wales.

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Students will receive feedback on each piece of coursework within 3 weeks of the submission deadline.
Each student will receive individual comments on their work.
All feedback will be provided online

Failure Redemption: Resubmit failed components

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Nid yw ar gael i fyfyrwyr ymweld a chyfnewid.

Available to visiting and exchange students.

GEC277 Dulliau ac Ymagweddau Daearyddol

Credits: 20 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr RH Meara, Dr A Closs Stephens

Format: Lectures: 11 hours
Practical Classes: 21 hours (desk and field based)

Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

Cyflwynir y modiwl craidd hwn drwy gyfuniad o ddarlithoedd a sesiynau ymarferol (gan gynnwys rhywfaint o waith grp) ar Gampws Singleton ac mewn safleoedd maes lleol amrywiol. Caiff myfyrwyr ddewis o'r amrywiaeth o brosiectau sydd o ddiddordeb iddynt.

This core module will be delivered through a combination of lectures and practical sessions (including some group work) on Singleton campus and at various local field sites. Students will be able to select from the range of projects that interest them.

Module Aims:

Mae'r modiwl 20 credyd craidd hwn yn cyflwyno'r amrywiaeth o ymagweddau at Ddaearyddiaeth Ddynol a Ffisegol a geir, gan ddarparu trosolwg o'r prif ddulliau a ddefnyddir yn y ddisgyblaeth. Cyflwynir y paradeimau hyn a rhoddir cyfle i chi bwyso a mesur pa fathau o ddulliau sy'n cyd-fynd â'r ymagweddau daearyddol hyn. Mae'r modiwl yn cyflwyno dulliau data allweddol a'u gwreiddiau damcaniaethol a bydd cyfle i 'ymarfer' y dulliau allweddol hyn mewn gweithdai estynedig – yn yr ystafell ddosbarth ac yn y maes.

This core 20 credit module introduces the variety of approaches to Human and Physical Geography that exist, providing an overview of the key methods used in the discipline. These paradigms will be introduced and then you are given the opportunity to 'think through' what kinds of methods chime with these geographical approaches. The module introduces key data methods and their theoretical roots, with an opportunity to 'practice' these key methods extended workshops - both desk based and in the field.

Module Content:

Mae'r modiwl hwn yn cyflwyno rhai o'r prif ddulliau ymchwil a ddefnyddir ar hyn o bryd gan ddaearyddwyr dynol a ffisegol, ynghyd ag ystyriaethau cynllunio ymchwil, damcaniaethol a moesegol. Mae'r modiwl yn cynnwys darlithoedd a hyfforddiant ymarferol a gofynnir i'r myfyrwyr gynnal prosiect ymchwil mewn grwpiau bach ar y diwedd.
Bydd y maes llafur yn cynnwys:
Darlithoedd ar gynllun ymchwil; darlithoedd ar ddata meintiol ac ansoddol; darlithoedd ar foeseg ymchwil; sesiynau ymarferol ar holiaduron ac arolygon; data'r Cyfrifiad a ffynonellau eilaidd; y dull gwyddonol; prosiectau maes daearyddiaeth ffisegol; sgiliau adolygu llenyddiaeth.

This module introduces students to some of the main research methods in currently employed by human and physical geographers, along with research design, philosophical and ethical considerations. The module includes lectures and practical training, and culminates in a research project conducted in small-groups. The syllabus will include:
Research Design lectures;
Quantitative and Qualitative data lectures;
Research Ethics lectures;
Questionnaire surveys practicals;
Census data and secondary sources;
The scientific method;
Physical Geography Field Projects;
Literature Review Skills.

Intended Learning Outcomes:

Dangos ymwybyddiaeth o ymchwil effeithiol, gan gynnwys nodi cwestiwn, nodau ac amcanion ymchwil, cynllun ymchwil a dewis dull ymchwil priodol.
Arddangos gwerthfawrogiad o'r cyd-destunau cymdeithasol amrywiol lle defnyddir dulliau ymchwil mewn Daearyddiaeth Ddynol a'r cyd-destunau amgylcheddol lle defnyddir dulliau ymchwil mewn Daearyddiaeth Ffisegol.
Dangos y gallu i werthuso priodoldeb pob dull mewn cyd-destunau ymchwil gwahanol, boed yn yr ystafell ddosbarth neu yn y maes.
Dangos y gallu i adolygu'r llenyddiaeth mewn maes penodol er mwyn lleoli dull mewn cefndir gwyddonol neu wyddor gymdeithasol benodol.

By the end of this module you should be able to:
Demonstrate an awareness of effective research, including identification of a research question, aims and objectives, a research design and selection of an appropriate research methods.
Exhibit an appreciation of the varying social contexts within which research methods are used in Human Geography and the environmental contexts within which research methods are used in Physical Geography.
Illustrate the ability to evaluate the appropriateness of each method in different research contexts, whether desk or field based.
Evidence the ability to review the literature in a chosen field in order to situate a method within a particular scientific or social science background.

Assessment: Coursework 1 (50%)
Coursework 2 (50%)

Assessment Description:
50% Adolygiad llenyddiaeth ar sail maes astudio a ddewiswyd
50% Portffolio ar sail pynciau prosiect a ddewiswyd

50% Literature review

50% Portfolio based on chosen project topic

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback:
Rhoddir adborth ysgrifenedig parhaus ar asesiadau yn electronig, gan ddefnyddio templed safonol a blwch sylwadau. Darperir adborth yn y dosbarth hefyd, drwy werthuso gan gymheiriaid a¿r addysgwr, ar sail cryfderau a gwendidau cyffredin.

Continual assessment feedback is given in writing electronically using a standard rubric and comments box. Feedback also to be provided in class through peer evaluation and from the instructor on common strengths and weaknesses.

Failure Redemption: Ailsefyll arholiad neu ailgyflwyno gwaith asesiad parhaus, p¿un bynnag sy¿n berthnasol.

Resit examination or resubmit continual assessment whichever is applicable

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Nid yw ar gael i fyfyrwyr ymweld a chyfnewid.

Not available to visiting and exchange students.

GEC278 Sgiliau Dadansoddi Data a Pharatoi Traethawd Hir

Credits: 20 Session: 2022/23 January-June

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr A Closs Stephens, Dr RH Meara

Format: Darlithoedd/gweithdai: 24 hours
Gwaith maes: 8 awr
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

Addysgir y modiwl hwn drwy gyfuniad o ddarlithoedd, sesiynau ymarferol a gweithdai cynllunio traethawd estynedig.

This module is to be delivered through a mixture of lectures, practical sessions and dissertation planning workshops.

Module Aims: Mae'r modiwl hwn yn adeiladu ar wybodaeth y myfyrwyr am ddulliau ymchwil gymdeithasol a dulliau amgylcheddol (a addysgir yn GEG277) i lunio cynnig am draethawd estynedig. Mae'r modiwl yn canolbwyntio ar sgiliau allweddol i gynllunio a pharatoi am draethawd estynedig a gyflwynir ar y cyd â'r Ganolfan Llwyddiant Academaidd, megis rheoli amser, meddwl yn greadigol ac yn feirniadol a datblygu ffocws, ysgrifennu cynnig etc. Mae'r modiwl yn canolbwyntio hefyd ar ddadansoddi data ansoddol a meintiol a sut i ddefnyddio data'n effeithiol wrth baratoi am brosiect traethawd estynedig yn y flwyddyn olaf.

This module builds upon student knowledge of social research methods and environmental methods (delivered in GEG277) through to the formulation of a dissertation proposal. The module focuses on key dissertation planning and preparation skills delivered in association with the Centre for Academic Success (CAS) such as time management, creative and critical thinking and developing a focus, writing a proposal etc.The module also focuses on qualitative and quantitative data analysis and how to use data effectively in preparedness for a final year dissertation project.

Module Content: Darlith cyflwyno/paratoi: y pwnc ymchwil, y broses a disgwyliadau
Llunio cwestiwn ymchwil, nodau, amcanion a chynllun ymchwil
Dewis a datblygu eich dulliau casglu data / arolwg / rhannu tasgau mewn grp
Casglu data sylfaenol (gwaith maes mewn grp / sesiwn cymorth a chyngor
Codeiddio a rhannu data sylfaenol /sesiwn cymorth a chyngor
Dadansoddi data meintiol
Dadansoddi data ansoddol
Sesiwn cymorth a chyngor
Llunio a chyflwyno adroddiad ymchwil

Introductory / preparatory lecture: the research topic, process and expectations
Formulation of research question, aims, objectives and research design
Selecting and developing your data collection methods / survey / group division of labour
Primary data collection (group fieldwork) / help and advice session
Codifying and sharing of primary data / help and advice session
Quantitative data analysis
Qualitative data analysis
Help and advice session
Production and submission of research report

Intended Learning Outcomes: Erbyn diwedd y modiwl hwn, dylech allu:
• Dangos ymwybyddiaeth o natur fwriadus a strwythuredig ymchwil effeithiol, gan gynnwys nodi cwestiwn, nodau ac amcanion ymchwil, cynllun ymchwil a dewis dull ymchwil priodol;

• Datblygu cynnig ar gyfer darn o ymchwil ddaearyddol sy'n seiliedig ar gysyniad ar ffurf cynnig traethawd ymchwil;

• Dangos meistrolaeth o amrywiaeth o dechnegau addas ar gyfer dadansoddi data meintiol ac ansoddol;

By the end of this module you should be able to:
• Demonstrate an awareness of the considered and structure nature of effective research, including identification of a research question, aims and objectives, a research design and selection of an appropriate research method;
• Develop a proposal for a conceptually grounded piece of geographical research in the form of a dissertation proposal;
• Show mastery of a range of suitable techniques for the analysis of quantitative and qualitative data;

Assessment: Coursework 1 (40%)
Coursework 2 (40%)
Coursework 3 (20%)

Assessment Description: Gwaith cwrs 1: Prosiect a phoster (ffocws dadansoddi data). 1,500 o eiriau a phoster.

Gwaith cwrs 2: Cynnig am draethawd estynedig (gyda'r opsiwn i gael adborth ffurfiannol ar y drafft cyntaf). 1,500 o eiriau.

Gwaith Cwrs (Dadansoddi data) – 20%

Coursework 1: 1 project+1 poster (data analysis focus). 1,500 words plus poster.
Coursework 2: dissertation proposal (with option of formative feedback on first draft). 1,500 words.
Coursework 3 (Data Analysis)

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Adborth unigol a ddarperir yn electronig, o natur ffurfiannol a chrynodol

Individual typed electronic feedback which is formative and summative.

Failure Redemption: Ailgyflwyno cydrannau yn ôl yr angen.

Resubmit components as required.

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Nid yw'r modiwl yma ar gael i fyfyrwyr cyfnewid na'r rheini sy'n ymweld dros dro.

GEG211 Glacial Environments

Credits: 10 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr J Hiemstra

Format: 15 hours lectures and 6 hours of seminars
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

Lectures and seminars on campus.

Module Aims: This module provides a comprehensive examination of processes, sediments and landforms associated with glacial, glacifluvial and glacilacustrine activity. It considers aspects of both past (Quaternary) and present-day glacial environments. The module also introduces basic glaciological concepts such as glacier mass balance, transformation of snow to ice, glacier hydrology and glacier thermal regime, and thus provides a foundation for Level 3 module GEG344 (Glaciology). The basic glaciological concepts are used to illustrate their implications for ice movement, glacial erosion and glacial deposition, and hence, their role in creating 'glacial' landscapes.
Teaching and Learning will be conducted via a combination of lectures, student-led seminars (not assessed) and fieldwork. The fieldwork elaborates on skills and experience acquired in the GEG108P module. The module is assessed through an May/June examination (1 from 3 essay questions, 50%), a poster (40%) and an individual oral 3-minute presentation (10%), based on data collected as a group in a guided fieldwork or laboratory exercise.

Module Content: Growth, development and behaviour of glacier ice are discussed (1 lectures).

Key components of water storage in glacial systems are described followed by an introduction to glacial hydrology (3 lectures).

Adoption of the landsystem-approach for studying ice-marginal, subglacial, glacifluvial and glacilacustrine environments, together with the most important processes, landforms and sediments are considered (6 lectures).

Processes of glacial erosion are described followed by the resulting landforms, which are considered with respect to scale (2 lectures).

Glacial depositional landforms are considered according to their orientation with respect to ice flow movement (2 lectures).

Intended Learning Outcomes:
At the end of this module the student should be able to:

1 Identify differences between temperate and cold ice masses in terms of movement characteristics.
2 Identify the different mechanisms of glacial erosion and present a reasoned account as regards their operation.
3 Discuss the form and typical dimensions of features and landforms formed by glacial erosion.
4 Evaluate critically different published views concerning the origins of various glacial erosional forms.
5 Discuss the typical locations, forms and dimensions of glacial depositional landforms.
6 Evaluate critically different published views concerning the origins of various glacial depositional features.
7 Describe the processes involved in the transformation from snow to glacier ice.
8 Identify and discuss the physical processes and factors that control glacier mass balance.
9 Describe in detail the basic principles of glacial hydrology.
10 Identify the role of water in the dynamics of glacier systems.
11 Discuss the range of glacifluvial processes and identify the products.
12 Discuss the range of glacilacustrine processes and identify the products.

Assessment: Examination 1 (50%)
Coursework 1 (40%)
Oral Examination (10%)

Resit Assessment: Examination (Resit instrument) (100%)

Assessment Description: One-hour, end-of-term examination. One from three essay-type answers. Weighting 50%

Coursework 1: poster. Weighting 40%.
Coursework 2: conference-style pitch (3-minute), Weighting 10%

Re-sit examination: two-hour exam, two essay-type answers from six. Weighting 100%.

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Students will receive examination feedback after exams (tutorial session). Continual assessment feedback is given in writing on standard departmental feedback forms. Additional oral feedback available on request.

Failure Redemption: Re-sit examination (2 hours instead of 1).

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Available to visiting and exchange students, who are expected to be in Swansea for the exam.

GEG236 Earth from Space: Monitoring Global Environmental Change

Credits: 10 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Prof PRJ North

Format: 20 (10 lecture + 10 small-group computer project)
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

Half lecture based and half computer based classes. On campus.

Module Aims: This module introduces the growing role of Earth Observation in Geography, in the context of monitoring global environmental change. Emphasis will be given to practical use of airborne and satellite imagery in a range of geographical applications. In addition to a grounding in the principles of remote sensing, the course will offer in-depth understanding of the use of satellite observations in the study of global change in particular of deforestation and desertification. Practical exercises will teach image processing skills and familiarity with the range of information sources available for remotely sensed imagery.

Module Content: Outline of lecture topics:
Overview and history of Earth Observation in geography.
Principles of airborne remote sensing, focusing on optical imagery and lidar.
Satellite remote sensing, focussing on Landsat imagery.
Methods for interpreting imagery and production of classified maps.
Study of deforestation using remote sensing.
Application to management and monitoring desertification.
Applications to climate change science and environmental modelling.

Example practical sessions:
Analysis of airborne and lidar aircraft imagery.
Familiarisation with different sources of satellite and aircraft imagery.
Image processing using Landsat imagery.
Interpretation and classification of imagery.
Monitoring global vegetation change.

Intended Learning Outcomes: By the end of this module students should be capable of demonstrating:

A broad understanding of the purpose and scope of Earth Observation in Geography.

A critical awareness of the range of modern geographical applications to which remote sensing contributes.

An ability to analyse remotely sensed data using image processing software.

An understanding of the technology behind satellite and aircraft imagery.

Assessment: Coursework 1 (50%)
Coursework 2 (50%)

Assessment Description:
Two items of coursework:
(i) Classification of imagery for land cover mapping
(ii) Global time series analysis

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Students will receive feedback after exams. Continual assessment feedback is given in writing on standard departmental feedback forms.

Failure Redemption: Resit examination or resubmit continual assessment whichever if applicable.

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

There are no pre- or co-requisites for this module. Available to visiting or exchange students

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GEG252L Geographical Fieldwork Skills: Exploring Geographical Themes in Swansea and south Wales

Credits: 20 Session: 2022/23 September-June

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr H Hallang, Dr A Closs Stephens, Dr SL Cornford, Prof SH Doerr, Prof MH Gagen, Dr J Hiemstra, Dr CM Muellerleile, Dr KJ Preece, Dr KG Rees, Dr E Urbanek

Format: 40+ hours contact on field course, plus 5 hours preparatory lectures.

Delivery Method: 5 preparatory lectures.
40 plus hours of contact on the field days.

Module Aims: The module is concerned with gaining experience of the geographical skills needed to explore the physical and human geography environments around us. We use our considerable local and regional geographical assets to explore multiple themes in human and physical geography. The general aims are to observe, analyse and achieve an understanding of the varied geographical landscape and inherent features in Swansea and South Wales. The module is run via up to 10 'pick and mix' field days, with a human, physical or human and physical geography theme. Students will be required to chose 4 of the field days to attend. Students taking this module will gain experience in research design, methodologies, data analysis and presentation methods. Students taking this field course can choose to focus on either the physical or human geography elements or the mixed human/physical days, or a mix of all three. Maximum flexibility is afforded by the range of topics we can explore in the local and regional area. Each day will be accompanied by online and lecture materials. The days will be run at various times in the Semester and students will book on to their chosen field days independently. The theme of the trip is "South Wales: Environments, Landscapes, Heritage and Community".

Module Content: Teaching and learning will be centered on the field days and supplemented by lectures and further study before and after the field-course. Any group work will take place in the field. Assessment will be your individual work. Assessment is via a portfolio of coursework (100%). There is no examination for this module.

Intended Learning Outcomes: On completion of the module, students should be able to do most of the following:

ALL

•Explain the geographical landscapes explored and the aspects of human and physical geography they encompass.
•Evaluate, where appropriate, the relevance of established models and theories (including those of other modules in Geography) to the local case studies explored.
•Use varied geographical methods for studying our field areas and their landscapes.

HUMAN GEOGRAPHY STRAND

•Identify and evaluate the nature and impacts of socio-economic forces in the human geography landscapes explored. (Human geographers)

PHYSICAL GEOGRAPHY STRAND

•Identify and evaluate the nature and impacts of the landscape-shaping forces at work in the physical geographical features explored. (Physical geographers)

MIXED HUMAN AND PHYSICAL GEOGRAPHY STRAND

•Identify key issues facing the environments and case studies and explore the key policy issues relevant to the appropriate environment.

Assessment: Assignment 1 (100%)

Assessment Description: Students attend 4 out of up to 10 field days from a selection. Students may select which days they wish to attend but must attend 4 days in total. Each field day is a full day trip and accompanied by a 5 credit assignment. Students must participate in 4 of the days offered and submit 4 accompanying assignments. Assignments will include field notebook write-ups, reports, data analysis, visual/graphic assignments (for example a photo essay). Should a student attend more than 4 days they may select which 4 field days to submit for assessment.

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Continual assessment feedback is given in writing on standard departmental feedback forms and electronically via Canvas or email.

Failure Redemption: Resubmit continual assessment.
Additional Notes: Available to visiting and exchange students on a discretionary basis.

GEG273 Geographies of Climate Action and Activism

Credits: 10 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr AL Pigott

Format: Lectures 10 hrs
Seminars 10 hrs

Delivery Method: Predominantly lectures (including classroom discussions and group work)

Module Aims: This course will explore the kinds of knowledge, politics, and imaginations that underpin current responses to the climate crisis. It will engage critical and cutting-edge debates in Geography and related fields to help us grapple with the multiple ways we might understand and respond to a warming world. The module will begin by introducing climate change as a ‘hyperobject’ - that is, a phenomenon that is so vast in its temporality and scale that it is hard to grasp as a traditional ‘object', but nonetheless requires urgent and widespread action. We will explore the particular politics and imaginaries associated with past and recent prominent climate movements (Extinction Rebellion, Greta Thunberg, and the School Strikes, for example) whilst examining the various attempts at thinking environment and politics differently that some of these movements embody. The final part of the module will engage with the concepts of ecological anxiety and ecological citizenship. This is a crucial and exciting time to be studying the emerging responses to the climate crisis, as there are so many examples from the world around us, and geographers are especially well placed to explore their tensions and possibilities. This course will help students to develop their ‘climate change literacy’ and to learn how to navigate and contribute to the complex political worlds of climate science, activism, and agency.

Module Content: 1. Introduction to the climate crisis
2. Geographies of climate action: Key approaches
3. Geographies of climate action: Emergency politics
4. Geographies of climate action: Anthropocene imaginaries
5. Activism and agency: Climate Justice and Governance
6. Activism and agency: The New Climate Movements
7. Activism and agency: Activism and Agency
8. Ecological distress
9. Ecological citizenship
10. Citizens' assembly

Intended Learning Outcomes: · Explain key conceptual and theoretical debates in contemporary academic environmental politics and be able to apply those to the world around us;
· Critically evaluate key concepts including climate change, nature, activism, imaginaries, narrative, identity, agency, Anthropocene, as well as the relationship between them;
· Demonstrate a good awareness of cutting edge debates in the academic fields of cultural and critical geography as well as related debates in fields such as political ecology.
· Be able to critically reflect on our own positions in relation to political issues and environmental crises taking place in the world;
· Explain how approaches to environmental politics enable and disable different political possibilities in terms of policy and practice.

Assessment: Coursework 2 (40%)
Coursework 1 (60%)

Assessment Description: Coursework 1 (due in December 2022) 60%: Option 1 - this will require students to undertake a climate action of their choice and to write a reflective report. Option 2 - to imagine a carbon-free 2040 (1500 words) on it.

Online multiple choice questions (December 2022) 40%.

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Feedback on the Online MCQ will be provided via a recorded video published on Canvas

Failure Redemption: Projects continual assessments to be redeemed on an essay based on the topic covered by the project.

Additional Notes: Open to visiting and exchange students.

GEG276 Introduction to Geographic Information Systems

Credits: 20 Session: 2022/23 January-June

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Prof AJ Luckman

Format: 11 hours lectures
22 hours computer lab practicals
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

Lecture and computer practical

Module Aims: A Geographic Information System (GIS) is a computer-based technology for solving problems of a geographical nature – i.e. involving spatial relationships between people, places and objects. It can be applied to a wide range of disciplines within geography and has developed to provide a means to quickly and professionally produce maps from geospatial data. This module provides a basic grounding in GIS from the nature of spatial information, through the use of GIS in social and physical geography contexts, to the application of computers to solving complex geographical problems. Most importantly, it allows hands-on experience in using Quantum GIS (QGIS), the leading open-source GIS software package, and therefore provides a valuable skill for research and the for workplace.

Module Content: 1. Module introduction
2. A digital model of the real world
3. Comparing raster and vectors data models
4. Coordinates and geographic reference systems
5. Geographic presentation and map design
6. GIS data sources and formats
7. Digital land surface topography
8. The Global Positioning System (GPS)
9. Route-finding in a network
10. The future of GIS

Intended Learning Outcomes: • A broad understanding of the purpose and scope of Geographical Information Systems
• An appreciation of the way in which geographical entities can be represented in a computer
• A critical awareness of the increasing role of GIS in government, commerce and science
• The ability to use QGIS software to explore and analyse a range of geospatial data
• The ability to present geospatial data as a well constructed and functionally complete map
• A basic understanding of GIS-related technologies such as route-finding and GPS
• An appreciation of the future direction of GIS in geography and beyond

Assessment: Coursework 1 (20%)
Coursework 2 (30%)
Coursework 3 (20%)
Coursework 4 (30%)

Assessment Description: Coursework 1 - Project Figure 1
Coursework 2 - Project Figure 2
Coursework 3 - Multiple choice questions
Coursework 4 - Project Figure 3

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Students will receive feedback on each piece of coursework within 3 weeks of the submission deadline.
Each student will receive individual comments on their work.
The cohort will also receive general feedback in lectures, including an ideal example.
All feedback will be provided online.

Failure Redemption: Resubmit failed components.

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Available to visiting and exchange students.

GEG277 Geographical Methods and Approaches

Credits: 20 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr KJ Ficken, Prof SH Doerr, Dr KH Halfacree, Dr H Hallang, Prof NJ Loader, Dr JF Maddern, Dr KG Rees, Dr I Robertson, Dr E Urbanek

Format: 11 hours of lectures
21 hours of workshops (desk based and field based).

Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

This core module will be delivered through a combination of lectures and practical sessions (including some group work) on Singleton campus and at various local field sites. Students will be able to select from the range of projects that interest them.

Module Aims:

This core 20 credit module introduces the variety of approaches to Human and Physical Geography that exist, providing an overview of the key methods used in the discipline. These paradigms will be introduced and then you are given the opportunity to 'think through' what kinds of methods chime with these geographical approaches. The module introduces key data methods and their theoretical roots, with an opportunity to 'practice' these key methods extended workshops - both desk based and in the field.

Module Content:

This module introduces students to some of the main research methods in currently employed by human and physical geographers, along with research design, philosophical and ethical considerations. The module includes lectures and practical training, and culminates in a research project conducted in small-groups. The syllabus will include:

Research Design lectures;
Quantitative and Qualitative data lectures;
Research Ethics lectures;
Questionnaire surveys practicals;
Census data and secondary sources;
The scientific method;
Physical Geography Field Projects;
Literature Review Skills.

Intended Learning Outcomes:

By the end of this module you should be able to:

Demonstrate an awareness of effective research, including identification of a research question, aims and objectives, a research design and selection of an appropriate research methods.

Exhibit an appreciation of the varying social contexts within which research methods are used in Human Geography and the environmental contexts within which research methods are used in Physical Geography.

Illustrate the ability to evaluate the appropriateness of each method in different research contexts, whether desk or field based.

Evidence the ability to review the literature in a chosen field in order to situate a method within a particular scientific or social science background.

Assessment: Coursework 1 (50%)
Coursework 2 (50%)

Assessment Description:
Coursework 1 Literature review based on a chosen field of study.

Coursework 2 Either Human Geography or Physical Geography projects

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Continual assessment feedback is given in writing electronically using a standard rubric and comments box.
Feedback also to be provided in class through peer evaluation and from the instructor on common strengths and weaknesses.

Failure Redemption: Resit examination or resubmit continual assessment whichever is applicable

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Not available to visiting and exchange students.

GEG278 Data Analysis and Dissertation Preparation Skills

Credits: 20 Session: 2022/23 January-June

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr NJ Felstead, Dr A Closs Stephens, Dr KJ Ficken, Dr J Hiemstra

Format: Lectures/practicals: 17 hours
Dissertation preparation lectures and workshops: 15
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

This module is to be delivered through a mixture of lectures, practical sessions and dissertation planning workshops.

Module Aims: This module builds upon student knowledge of social research methods and environmental methods (delivered in GEG277) through to the formulation of a dissertation proposal. The module focuses on key dissertation planning and preparation skills delivered in association with the Centre for Academic Success (CAS) such as time management, creative and critical thinking and developing a focus, writing a proposal etc.The module also focuses on qualitative and quantitative data analysis and how to use data effectively in preparedness for a final year dissertation project.

Module Content: Introductory / preparatory lecture: the research topic, process and expectations

Formulation of research question, aims, objectives and research design

Selecting and developing your data collection methods / survey / group division of labour

Primary data collection (group fieldwork) / help and advice session

Codifying and sharing of primary data / help and advice session

Quantitative data analysis

Qualitative data analysis

Help and advice session

Production and submission of research report

Intended Learning Outcomes: By the end of this module you should be able to:

• Demonstrate an awareness of the considered and structure nature of effective research, including identification of a research question, aims and objectives, a research design and selection of an appropriate research method;

• develop a proposal for a conceptually grounded piece of geographical research in the form of a dissertation proposal;

• Show mastery of a range of suitable techniques for the analysis of quantitative and qualitative data;

Assessment: Coursework 1 (40%)
Coursework 2 (40%)
Coursework 3 (20%)

Assessment Description: Coursework 1: 1 project+1 poster (data analysis focus). 1,500 words plus poster.

Coursework 2: dissertation proposal (with option of formative feedback on first draft). 1,500 words.

Coursework 3 (Data Analysis)

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Individual typed electronic feedback which is formative and summative.

Failure Redemption: Resubmit components as required.
Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus. This module is not available to visiting or exchange students.

GEG283 Sustainable Land Management

Credits: 10 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules: GEG264

Lecturer(s): Dr E Urbanek, Prof SH Doerr

Format: lectures, workshops, field visits
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

The module will be taught, but will include some practical aspects and field visit.

Module Aims: Sustainable Land Management course focuses on the understanding and maintaining of the environmental values of LAND and SOIL for food production, water quality, flood defence and climate regulation. To understand the Sustainable Land Management the basic understanding of SOIL properties, functions will be introduced followed by the main threads and challenges to soil health connected with climate change and incorrect land management. Case studies of Sustainable Land Management in agriculture, fire prevention and mitigation, peatland restoration and land remediation will be showcased and discussed.
The module will contain a series of lectures, workshops and field visit.
Students are recommended to sign up to the GEG277 Environmental Research Methods - Soil, but the knowledge from the GEG277 sessions are not essential to complete the module.

Module Content: 1 (2hrs) Sustainable land management, soil functions
2 (2hrs) Soil components, soil formation, soil classification
3 (2hrs) Soil hydrology;
4 (2hrs) Greenhouse gas emissions from land, Carbon and Nitrogen cycle;
5 (2hrs) Climate change adaptation and mitigation
6 (2hrs) Land degradation and global challenges
7 (2+4hrs) Sustainable land management - agriculture + Field visit to sustainable farm
8 (2hrs) Fire prevention and mitigation
9 (2hrs) Land reclamation, peatland restoration

Intended Learning Outcomes: On successfully completing this module, students will be able to:
- Understand main soil properties and processes occurring in healthy and degraded soils;
- Understand and describe key soil functions and ecosystem services;
- Describe the main land-related challenges and suggest mitigation strategies to improve soil health and functioning of land;
- Recommend sustainable solutions for prevention and mitigation of soil problems related to land mismanagement and climate change.

Assessment: Online Multiple Choice Questions (30%)
Examination (70%)

Assessment Description: 3 MCQ tests (30%) following each learning block
Essay exam (70%)

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Written feedback on exam.

Failure Redemption: Exam resit

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

Available to visiting and exchange students.

GEL203 Earth history

Credits: 10 Session: 2022/23 September-January

Pre-requisite Modules:

Co-requisite Modules:

Lecturer(s): Dr NJ Felstead

Format: 18 hours: lectures

Delivery Method: Lectures

Module Aims: This module will investigate the history of planet Earth with particular emphasis on the fossil evidence. Life appeared very early on Earth, and changes in the oceans, atmosphere and in climate are intimately linked to the evolution of life. Large changes in the fossil record represent major events in Earth's history, including the catastrophic collapse of ecosystems and major radiations of diversity. We will take a journey through the history of the planet, tracking major changes in ecosystems and focussing on the major events, as well as considering the way that the fossil evidence has been used in debates about the way that evolution works.

Module Content: The nature of the fossil record
Formation of Earth and Moon and conditions on the early Earth
The origin of life and implications for the chemistry of the atmosphere and oceans
Proterozoic life and the Cambrian explosion of diversity
Ecosystems in the Palaeozoic, Mesozoic and Cenozoic
Major extinction events and the recovery of ecosystems
Vertebrate evolution and the origin of humans
How the fossil record has been used in debates about evolution

Intended Learning Outcomes: Overview of the major changes in environments and ecosystems that have occurred on Earth

Understanding of the way that the fossil evidence can be used to interpret ancient environments and ecosystems

Understanding of the contested ways that the fossil evidence has been used in debates about evolution

Assessment: Examination 1 (80%)
In class test (Invigilated on campus) (20%)

Assessment Description: Weekly quiz - 20 questions each

Two hour examination comprising short answers and/or multiple choice questions and an essay

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: individual feedback through the tutorial system

Failure Redemption: Re-sit the examination

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

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Available to visitng and exchange students - must be available to sit examination.

GEL204 Geological Record of Past Environments

Credits: 10 Session: 2022/23 January-June

Pre-requisite Modules: GEL121

Co-requisite Modules:

Lecturer(s): Dr KJ Preece, Dr KJ Ficken

Format: Online lecture content
10 x 1 hour synchronous sessions
20 hours enquiry-based field course
Contact Hours will be delivered through a blend of live activities online and on-campus, and may include, for example, lectures, seminars, practical sessions and Academic Mentoring sessions.

Delivery Method: All Programmes will employ a blended approach to delivery using the Canvas Digital Learning Platform for live and self-directed online activity, with live and self-directed on-campus activities each week. Students may also have the opportunity to engage with online versions of sessions delivered on-campus

Lectures: on campus.
Coursework: field course.

Module Aims: The geological record gives a long-term perspective on environmental and climatic change, including changes that occurred over hundreds of thousands to millions of years. This record, derived from the interpretation of rocks, provides a long-term perspective on the magnitude and extent of environmental changes and their causes.

This module focuses on the reconstruction of environmental parameters from the geological record. Principles and techniques for palaeoenvironmental reconstruction are outlined, with an emphasis on facies analysis and palaeoecology. Sedimentary structures are interpreted in terms of processes of sediment transport, deposition and disturbance. The facies characteristics of major depositional systems are outlined, including deserts, rivers, deltas, the deep sea and volcaniclastic environments.

This module builds on aspects of geology introduced at Year One and provides a long-term perspective on environmental and climatic conditions that complements Earth history and physical geography modules. The module is compulsory for students taking BSc Physical Earth Science.

Module Content: Topics include
1. Introduction and overview of sedimentology
2. Physical processes and sedimentary structures
3. Facies analysis and characteristics of deposits from different depositional environments

Intended Learning Outcomes: By the end of this module you should be able to:
• explain the concept of sedimentary facies and how this is used to reconstruct depositional palaeoenvironments;
• interpret a range of sedimentary structures in terms of processes of sediment transport, deposition and disturbance;
• recognise the evidence for and roles of different types of events in the sedimentary record;
• describe and interpret the facies characteristics of several depositional environments, including deserts, rivers, deltas, the deep sea and volcaniclastic environments;
• relate facies changes in the rock record to environmental and climatic changes;

Assessment: Coursework 1 (50%)
Examination 1 (50%)

Assessment Description: Coursework (50%)
Examination 1 - June examination (50%)

Moderation approach to main assessment: Second marking as sampling or moderation

Assessment Feedback: Students will receive examination feedback after exams. Coursework feedback is given in writing on standard departmental feedback forms.

Failure Redemption: Resit examination or resubmit coursework reports, whichever is applicable.

Additional Notes: Delivery of both teaching and assessment will be blended including live and self-directed activities online and on-campus.

This module is compulsory for students enrolled for the BSc Physical Earth Science degree scheme.
This module is not available to visiting or exchange students.