



Discipline of Geography, Climate & Sustainability
2nd year timetable 2026/2027

Semester 1

ECTs	Second Year	Coordinator	Day, Time
10	TI2102 Introduction to GIS (CORE)	Dr Oisín Callery	Mon 10am: Emily Anderson Theatre

5	Please select only one GCS2100 Geographic Data Analysis	Dr Chaosheng Zhang	Wed 3pm: CSB1009 Wed 5pm: CA111
	OR TI235 Biogeography	Dr Terry Morley	Wed 3pm: CSB-1006 Thurs 10am: CSB-1006
	OR TI230 Economic Geography	Dr Pat Collins	Mon 1pm: AM150 Mairtin O Tnuthail Theatre Tues 1pm: AM150 Mairtin O Tnuthail Theatre

Semester 2

5	TI2111 Theory & Practice (CORE)	Dr Kevin Lynch	Mon 1pm: Anderson Lecture Theatre Wed 5pm: AUC G002 Theatre Aras Ui Chathail
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5	Please select only one TI2112 Environmental Planning, Sustainability and Climate Action	Dr Elaine Williams	Mon 10am: CSB-1006 Tues 1pm: Fottrell Theatre
	OR TI2108 Introduction to Palaeoclimatology	Dr Karen Taylor	Mon 10am: Tyndall Theatre Tues 1pm: AC214

5	Please select only one TI248 Coastal Environments	Dr Eugene Farrell	Wed 3pm: CSB-1006 Fri 10am: AMB1023 Mairtin O'Tnuthail Theatre
	OR TI2113 Agricultural Policy, Farming & the Rural	Dr John McDonagh	Wed 3pm: AM150 Mairtin O Tnuthail Theatre Fri 9am: Anderson Lecture Theatre
	OR TI2110 Perspectives of Climate Change	Dr Gordon Bromley	Wed 3pm: Venue TBC Fri 9am: Venue TBC

***** 15 ects are required for semester 1 and 15 ects for semester 2, so 60 ects in total for the year. Students, please ensure to contact the discipline if you are short or over credits immediately.**

Key contacts

Head of Geography, Climate & Sustainability	Dr Pat Collins
Geography Administrator	Christina Costello
Senior Technician	Billy Hamilton
2 BA Programme Coordinator	Dr Kevin Lynch
BA International / Visiting Students / Erasmus	Professor Ulf Strohmayer
Staff-Student Liaison Officer	Billy Hamilton
Plagiarism Matters	Dr Kathy Reilly
Safety Officer	Billy Hamilton

Academic Calendar 2026/2027

Academic Year 2026-2027	
Orientation 1st years	Thursday 3rd September to Friday 4th September*
Start of teaching all years	Monday 7th September (<i>*1st Year Undergrad to be confirmed</i>)
End of teaching all years	Friday 27th November (12 weeks of teaching)
Study week	Monday 30th November to Friday 4th December
Semester 1 exams start	Monday 7th December
Semester 1 exams end	Friday 18th December (10 days of exams)
Christmas Holiday	Saturday 19th December
2027	
Start of Teaching	Monday 11th January 2027
Easter	Good Friday 26th March to Easter Monday 29th March
End of Teaching	Friday 2nd April (12 weeks of teaching)
Field Trips	Monday 5th to Friday 9th April
Study Week	Monday 12th to Friday 16th April
Semester 2 Exams Start	Monday 19th April
Semester 2 Exams End	Thursday 6th May
Autumn Repeat Exams	Tuesday 3rd August to Friday 13 August (9 days of exams)
Holidays	Easter: Good Friday 26th March to Easter Monday 29th March 2027
	Bank Holidays: Monday 26th October 2026 / Monday 1st February 2027/ Wednesday 17th March 2027
	Monday 3rd May 2027/ Monday 7th June 2027 / Monday 2nd August 2027

2BA Geography, Climate & Sustainability

Module Outlines 2026/2027

Module: TI2102 - Introduction to GIS

Lecturer: Dr Oisin Callery

Module Objectives/Learning Outcome:

- Understand basic concepts in GIS
- Solve basic GIS application problems
- Acquire computer skills in GIS, including data collection, editing, database management, basic analysis, and map design
- Produce professional GIS maps
- Analyse geographical data using GIS

This course covers the basic concepts and applications of a geographic information system (GIS). The topics of GIS data concept, data modelling, attribute management, data input and analysis are explained. GIS software ArcGIS is selected as the main training software package for computer practical in this course. Students will have general knowledge of a GIS and acquire the basic techniques of GIS software to independently produce professional maps and carry out spatial queries and GIS analyses. Upon successful completion of this course, students will be able to independently complete a simple GIS project.

Lecture content

- Introduction: overview, definition
- Spatial data concept
- Spatial data modelling
- Attribute data management
- Data input
- Data analysis

Computer practical content

- Getting started; Interacting with data; Coordinates; Symbolizing; Classifying
- Labelling; Layout design; Table joining; Selecting; Editing; Querying; Analyzing; QGIS

Practical: 44 hours Computer practical (AC 216 GIS Lab, Arts/Science Building)
Extra hours Tutorial (Optional, for students needing help for the assignments)
4 hours (2h on Monday/Tuesday + 2h on Tuesday/Wednesday) per week
Due to Covid-19 restrictions, students are separated into 3 groups.
Sign-up sheet will available via Blackboard in Week 1.
Mon 12-2, 2-4, Tues 10-12, 12-2, Wed 9-11, 11-13.
Computer practical starts from Week 2.

Module: GCS2100 Geographic Data Analysis
Lecturer: Prof Chaosheng Zhang

Data analysis is a critical skill for geography students, forming the foundation for evidence-based research. This course is designed to enhance students' research capacity by introducing essential data analysis techniques commonly applied in geographical studies, with particular emphasis on cross-tabulation and correlation analysis. These skills will enable students to complete their dissertation projects with greater competence and confidence. Through practical, geography focused examples, students will learn how to prepare, analyse, and interpret data effectively. The course covers key topics including geographic data concepts, descriptive statistics, data presentation, probability distributions, sample comparisons, and correlation methods. Students will also develop the ability to critically assess the strengths and limitations of these techniques and apply them appropriately to investigate geographical problems.

Learning Outcomes

- Understand the role of data analysis in geographical research.
 - Perform basic descriptive statistics and data presentation.
 - Apply cross-tabulation techniques to analyze categorical data.
 - Conduct correlation analysis to examine relationships between variables.
 - Interpret and present analytical results in a geographical context.
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Module: TI 235 - Biogeography
Lecturer: Dr Terry Morley

This class provides an introduction to the study of biogeography. Bridging the fields of biology (particularly ecology) and geography, biogeography is the study of the spatial patterns of biological diversity and its causes. We will identify how historical, physical, and biological factors affect present and past distributions of individuals, species, populations, communities, and ecosystems. The actions of humans are a critical force impacting other species, and the human influence on past, present, and future species distributions is a central topic in this module. Key Learning Outcomes: This course offers a survey of the basics of biogeography and introduces students to various methodologies used in biogeographic research. Hands-on field, lab, and data analysis exercises will allow students to put learned concepts into practice, and give students experience working with the techniques used by biogeographers.

The following learning outcomes are expected upon completion of this course:

- To identify and differentiate the basic principles and theories of biogeography
- Application of standard field methodologies and data analysis techniques used in biogeography to analyse and examine applied problems
- To assess and evaluate human impacts on species distributions and apply modern conservation strategies to these issues

Module: TI 2110 – Perspectives of Climate Change
Lecturer: Dr Gordon Bromley

This course is designed to provide students with applied example of weather and climate phenomena that have a strong impact on human activities. Each week will focus on an acute environmental problem that will be explained and analysed in in-class exercises. Case studies will focus on weather (e.g. storms, hurricanes, drought, flooding) and climate (e.g. past climate change and future global warming) events to provide students with context.

(Language of instruction: English)

Learning Outcomes

- Sketch and explain simple diagrams, maps, or figures relating to weather and climate related environmental issues.
 - Explain extreme weather events (including storms and heat waves) in Ireland.
 - Explain risks associated with global warming for Ireland and Europe.
 - Discuss mechanisms controlling global and regional climatologies (e.g. Monsoons, El Niño)
 - Diagram and explain positive and negative feedbacks in climate systems
 - Use examples from Earth history to explain how Earth's climate changes on a variety of different timescales
 - Comprehend a basic weather map
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Module: TI230 - Economic Geography
Lecturer: Dr Pat Collins

Economic geography offers a unique perspective on many of today's key issues. From the economic restricting resulting from a global pandemic to the ongoing globalisation experiment, the aim of this course is to offer students an alternative viewpoint that comes from the plurality of approaches in economic geography. The course will introduce you to some of the key thinking in economic geography, which seeks to explain the clustering and unevenness of economic activity throughout the world. It will explore the process of globalisation and the role of transnational corporations and foreign investment in that process. An underlying theme of the course will be the impact of technology on the evolution and changing nature of economic activity. From infrastructure investments to smart phone, the new geography of economic activity is changing rapidly. Throughout the course you will be reminded of policy relevance of economic geography. In addition to examining regional development challenges, attention will also be given to the challenge faced by peripheral rural areas in exploiting the benefits of new technologies. The approach taken in this course will be very applied and related to the policy issues focused on by government agencies in Ireland such as the IDA Ireland, Enterprise Ireland and case studies of emerging industries (App developers and craft beer brewers). The course will consider economic geographies of recession as well as focus on the rise of creative and cultural economic geographies.

Key Learning Outcomes:

- An understanding of key issues in today's global economy
- An ability to critically engage with current debates on uneven development
- An understanding of the theory – policy – reality continuum and the place of academic thought.
- Exploration of case studies of particular industrial sectors
- A consideration of the lasting impacts of COVID 19.

Module: TI2111 – Theory & Practice
Lecturer: Dr Kevin Lynch

The intention of this course is to develop students' understanding of the various traditions of doing geographical research and producing geographical knowledge. The course introduces students to both theory and practice in geography, focusing in particular on relationships between geographical concepts and the practices of geographical research. Geographical thought will be considered through lectures and assignments that examine the wide range of interconnected theoretical and methodological assumptions that underwrite analysis and evidence gathering in the discipline. In addition, the course aims to familiarise students with the different ways that geographers do research. Critical analysis of all approaches to geographical knowledge will be stressed. Particular emphasis is put on developing a critical understanding of what it means to do geography and make geographical claims.

Key Learning Outcomes:

- Upon completion of this course, students are expected:
- to gain an understanding of the history and practice of the discipline;
- to gain a critical understanding of the different theoretical and methodological approaches to all knowledge production in geography;
- to develop the ability to think critically about geography and what it means to 'do' geography

Module: TI2112 – Environmental Planning, Sustainability & Climate Action
Lecturer: Dr Elaine Williams

This course draws on environmental planning principles to explore pathways towards a sustainable future. It emphasises our collective role in climate action and active citizenship, underlining why these have never been more urgent. Students will examine pressing environmental issues impacting our societies, critically evaluate Irish and international climate policies, and consider alternative approaches through sustainability frameworks. Guest speakers working within their fields of environmental planning and community-led adaptation will provide first-hand insights, enabling students to connect principles learned in lectures with real life examples.

The module addresses sustainability challenges across different scales, emphasising the importance of bottom-up approaches to change. Through their course assessments, students will take part in practical exercises designed to build skills in community engagement and climate action, while reflecting on their own roles in shaping future societies. Case studies highlight the limitations and opportunities of climate policy, empowering students to think critically about how they can contribute to creating a more sustainable world.

Key Learning outcomes:

- Explain how environmental planning principles can inform approaches to sustainability and climate action.
- Critically evaluate Irish and international policies addressing climate change and sustainability.
- Analyse sustainability issues across different scales, with particular attention to bottom-up approaches to change.
- Apply insights from regional and international case studies to identify the limitations and opportunities of climate policy.
- Demonstrate practical skills in community engagement and climate action through applied coursework.
- Communicate sustainability challenges and solutions effectively to public audiences.
- Reflect on their own role as active citizens in shaping future societies and contributing to sustainable change.

Module: TI 2108 Introduction to Palaeoclimatology
Lecturer: Dr Karen Taylor

This module introduces students to the field of palaeoclimatology (the study of past climates). Climate change is not a modern phenomenon, as Earth's systems are dynamic and rarely stable over extended periods of time. Climate variability occurs across multiple spatial and temporal scales, but we generally lack long enough scientific or historical records to directly measure most long-term patterns of climate change. Palaeoclimatology fills this void by offering evidence of environmental conditions across timescales, providing a broader context for studying modern environmental phenomena.

Key Learning Outcomes:

- Demonstrate an understanding of palaeoclimatology as it relates to modern environmental systems
- Critique the array of methodologies which are used in reconstructing past environments
- Assess long-term human-environment interactions through time
- Apply theoretical concepts in a real-world context through hands-on lab-based instruction

Module: TI248 Coastal Environments
Lecturer: Dr Eugene Farrell

The purpose of this module is to train students on the physical principles used to understand some basic questions about the Earth's physical landscape: how do natural physical systems (e.g., coastal beach-dune systems; river catchment systems) behave today? how did they behave in the past? and, based on the answers to the first two questions, can we predict how they will behave in the future? In order to answer these questions we examine the characteristics of different processes (water, wind, slope, weather) that shape different landforms in different regions of the world, including some classic case studies in Ireland. This course examines landscape form and function, working through from the theoretical understanding of the landscape to hands-on practical fieldwork by collecting, analysing and presenting data. Emphasis is put on critical analyses of the process-landform models (e.g. sediment transfers; system equilibria) operating on different time scales (seconds to millennia). A core aspect of the course will focus on using a field-based systems approach, emphasizing (1) the connectivity of the different components of our landscape, and (2) how our landscape responds to human and natural pressures.

Module: TI2113 Agricultural Policy, Farming & the Rural
Lecturer: Prof John McDonagh

Rural areas are spaces of opportunity, engines of growth in a world of economic uncertainty. Rural areas are challenged in terms of their role in providing safe and secure food supplies; they are lauded and criticized in terms of climate change and mitigation. Alongside the decline in traditional activities there is equally a growth in terms of new demands being placed on rural environments, demands for quality food production, public amenity space, conservation and environmental protection. The multiple scales of these discussions, global to local, and the intensity and increased volume of rural debate that has emerged, sees rural geographers occupy a very interesting space in terms of conceptualisations, engagement and understanding of rural livelihoods and rural sustainability. Through the lens of agriculture and related spheres, this course seeks to explore some of these challenges as they are played out in contemporary society. The course uses national and international examples to explore such issues as agricultural policy particularly CAP, landscape management, conservation and sustainability. The aim of the course is one of encouraging students to view the rural as a combination of forces that interact within and between different systems to produce the complex environment in which we live. This course engages with key issues that focus on: CAP; Rural Policy and Strategy; Issues of Governance; Management issues; Multifunctionality; the Family Farm, Rural Tourism, Agri-environmental Policies and Rural Futures

Key Learning Outcomes:

- To understand the rural landscape its policy, governance and management
- To improve critical and analytical skills;
- To link theoretical observations with practical examples;
- To assess the principal methods and approaches that can be employed to develop our understanding of the rural landscape.