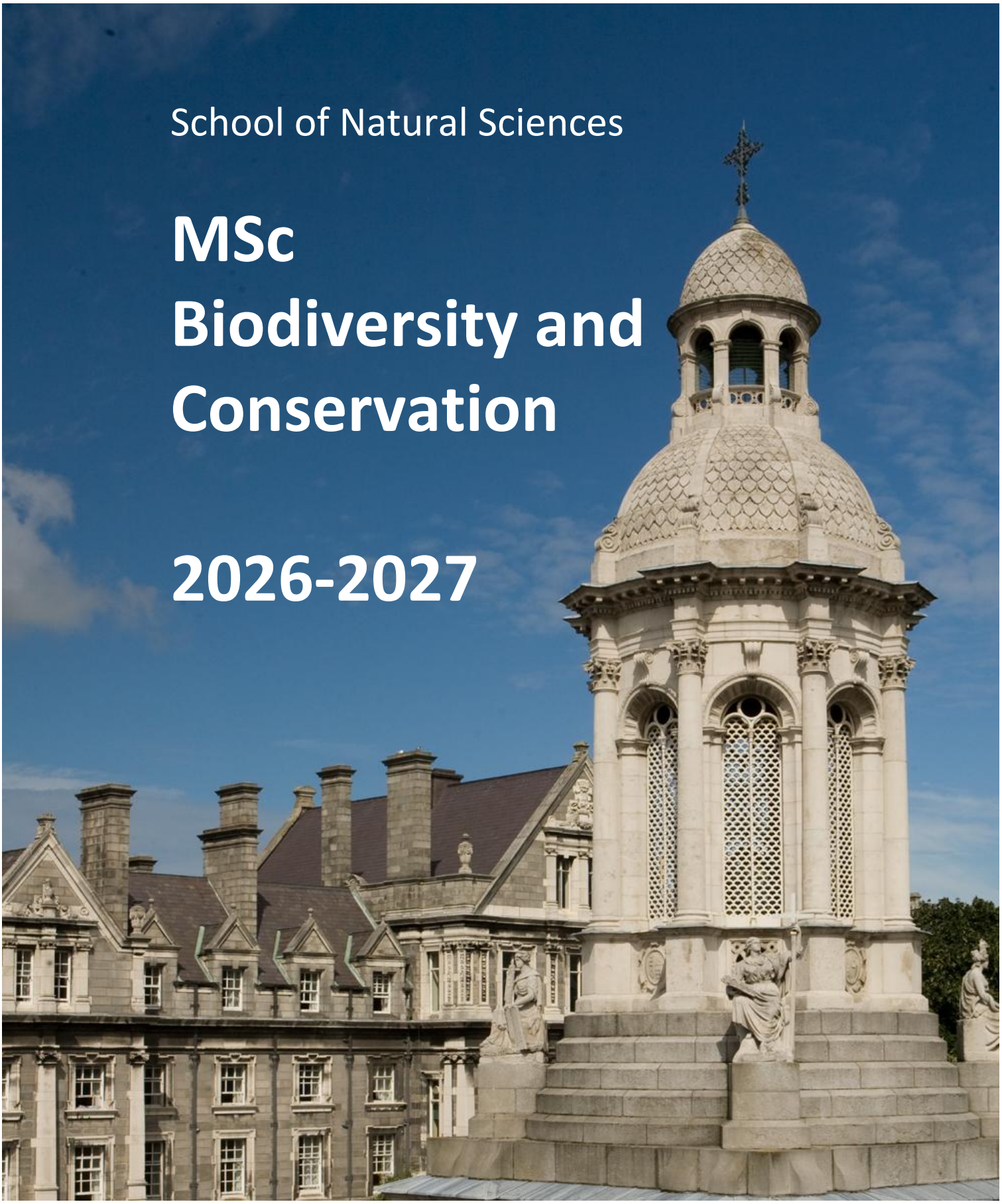
Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

School of Natural Sciences

MSc Biodiversity and Conservation

2026-2027



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Welcome

Welcome to the School of Natural Sciences!

The TCD School of Natural Sciences has an internationally recognised research profile in the areas of biodiversity research and conservation and integrates these research experiences fully within its undergraduate and postgraduate teaching programmes. We also have very close links with various State agencies and institutions with activities in biodiversity and conservation, including National Parks and Wildlife Service, the Environmental Protection Agency, various local authorities and county councils, and NGO groups.

Academic staff have significant expertise in taxonomy and systematics, ecosystem function, population biology, community ecology, policy and other related areas. Several large-scale projects involving biodiversity research operate from the School of Natural Sciences. Staff have research and teaching experience in Ireland, South-East Asia, western and southern Africa, Central America and the Caribbean, and Pacific Islands.

As an M.Sc. graduate in Biodiversity and Conservation you will be able to take advantage of the worldwide demand generated by the increasing need to document, understand and conserve biodiversity. There are a wide variety of career opportunities available, including State and non- governmental conservation bodies, biodiversity research institutions (zoological and botanic gardens, museum etc.), and numerous consultancies.

Our aim is to produce conservation scientists with an interdisciplinary background, able to tackle the broadest range of issues in biodiversity and its conservation. As new members of the Biodiversity and Conservation MSc course we hope that you will play your part in creating a more sustainable future for the varied diversity of life on this planet.

Foreword

Biodiversity represents the variety of life on earth and is currently being lost at an ever-increasing rate. Biodiversity provides us with food, clothing, fuels, construction materials, medicines and a wide range of ecosystem services. We ourselves are part of the biodiversity of this planet: we must understand and conserve biodiversity to secure a sustainable future for humanity.

This programme will provide in-depth training and experience for those looking to further their career in various aspects of biodiversity and its conservation, for students wishing to pursue further post- graduate research in this area, and for professionals already working in conservation biology wishing to obtain relevant qualifications.

This booklet contains contact information on the module coordinators and other personnel associated with the programme; an outline of the course and module structure; key deliverables and milestones; and general information on requirements and expectations.

The full timetable for each semester will be available via the my.tcd.ie portal.
The course is comprised of 10 compulsory modules (including a fieldtrip) which are each worth 5 ECTS (credits), a project planning module, which is worth 10 ECTS, and a Dissertation module, worth 30 ECTS.

Students will have access to all library facilities in TCD. Students are encouraged to avail of all resources and materials locally and online. Students are required to secure an appropriate supervisor for their dissertation. Students should identify an appropriate supervisor on the basis of the topic they have selected, and their general research interests in consultation with the module coordinator.

Please familiarize yourself with College's regulations for postgraduate students. These are available in Part III of the Calendar, accessed at

https://www.tcd.ie/calendar/graduate-studies-higher-degrees/

Your @tcd.ie email account is the only e-mail address used for official College business. Consult this email account regularly. Your personal data is kept in accordance with the Student Data Policy:

https://www.tcd.ie/info_compliance/data-protection/student-data/

College regulations require that you remain resident in the Republic of Ireland, in or near Dublin during your studies. Absence for a substantial period in either of the teaching terms is not permitted. Research abroad is permitted only with the approval of your Course Coordinator.

Although the information in this handbook is correct at the time of production, the precise content of the course is subject to change. While every effort will be made to give due notice of major changes, the School Office reserves the right to suspend, alter or initiate courses, timetables, examinations and regulations at any time.

NOTE **Students should expect to pay fees for mandatory field courses, which can take place in the 1st week of Semester 1 as well as reading week and final week of Semester 2. Fees can range from €500 to €1000 for any given field course. Details will be confirmed in advance by the Module Coordinator.*****

Module coordinators List

Dr Jean Wilson (jewilson@tcd.ie) is a Postgraduate Teaching Fellow in the School of Natural Sciences. Jean's research interests centre on environmental applications of remote sensing, GIS and spatial analysis, specifically in the context of water resources monitoring and management. Her work was funded from 2009 - 2018 under the EPA STRIVE initiative. She has developed novel methodologies in the application of thermal remote sensing and geochemical tracing techniques for localising and assessing groundwater discharge to lakes and coastal waters nationally.
Jean coordinates the module ES7062: Geographical Information Systems.

Prof Andrew Jackson (a.jackson@tcd.ie) is a Professor in Zoology. His research interests centre on understanding ecological systems and processes from an evolutionary perspective via the use of computational / mathematical models. His primary areas of interest are behavioural ecology and community ecology, but has also published in areas of conservation biology, virology and epidemiology. In addition, he develops Bayesian statistical tools for ecologists, such as stable isotope mixing models.

Andrew co-ordinates the module BD7054: Data Handling and Analysis.

Prof Peter Moonlight (moonligp@tcd.ie) is a botanist with a specialism in tropical plants and plant identification. Peter joined Trinity College Dublin as Assistant Professor in Botany and Assistant Herbarium Curator in November 2022. Peter began to specialise on the genus Begonia during his masters and continued to work on the genus during PhD. He now focusses on the taxonomy and systematics of Andean Begonia species and the adaption of several Andean Begonias to specialist pollination syndromes, including hummingbird and buzz pollination. His experience in taxonomy and forest monitoring give him a unique perspective on how systematists and forest ecologists could work together to improve the quality and quantity of tropical tree identifications available to both fields. He is currently applying for funding to build a "next generation" pipeline for tree identification in the tropics.
Peter coordinates the module BD7055: Systematics, Taxonomy and Identification Skills.

Dr Marcus Collier (colliema@tcd.ie) is an Associate Professor in Botany. He is fascinated by the human-nature interface and specialises in social-ecological systems thinking. Marcus' many research interests include land use and land-use change, resilience thinking and societal transitioning, collaborative management and planning, urban and rural governance. Notable examples of his research include the contentious policy issues of biomass/bioenergy land-use policies and implications, afforestation policies and acidification processes, field boundaries and agri-environmental change, resource use and after-use policies, rewilding, GM crops and biodiversity, marine and coastal governance, (cultural) ecosystem services, and well-being. In recent years Marcus has published extensively on contested issues such as novel ecosystems and nature-based solutions. Marcus co-ordinates the module BD7056: Human Interactions with Biodiversity.

Prof Ian Donohue (donohui@tcd.ie) is a Professor in Zoology. Ian uses theory and experiments to explore how biological networks respond to perturbations. The overarching aim of his research is to understand and predict how key elements of global change alter the functioning and stability of ecosystems. An important goal of Ian's research is to bridge the gaps between theoretical, empirical and applied ecology. His field research focuses mainly on aquatic ecosystems (both marine and freshwater), although more recently his approach to research combines theory, experimental and observational work in the field and laboratory experiments using multitrophic microbial communities.
Ian co-ordinates the module ES7058: Project Planning.

Prof Quentin Crowley (crowleyq@tcd.ie) is an Associate Professor in Geology. His main research interest is in the field of Earth System change, with a focus on characterising processes operating in both ancient and contemporary environments. Starting with evolution of the early Earth, Quentin researches interactions between the atmosphere, biosphere, and geosphere to better understand environmental change over geological timescales. He then applies knowledge of natural systems to the contemporary environment to research environmental processes in both terrestrial and marine environments. Additionally, Quentin applies knowledge of complexity in natural systems to research methodologies for education design and public engagement in a range of

contemporary societal challenges, such as climate change and environmental monitoring and protection.
Quentin co-ordinates ES7057: Navigating complexity for sustainable futures

Prof Nicholas Payne (paynen@tcd.ie) is an Associate Professor in Zoology. He has a focus on the physiological ecology of animals, particularly those in marine ecosystems. An overarching goal of Nick's work is to understand how environmental variation regulates the physiology and movement of animals and in turn, their distributions. He combines field, laboratory, and theoretical approaches, and works on species spanning cephalopods, sharks, tuna, and commercially important teleosts such as salmonids. Nick often measures the movement, behaviour, and physiology of animals in their natural environments by drawing on new technologies such as animal-borne accelerometers and video cameras. His office is on the first floor of the Zoology building.
Nick coordinates BD7050: Introduction to Biodiversity, BD7058 Overseas Field Trip, and BD7061: Research Project

Dr. Rosie Mangan (romangan@tcd.ie) Rosie Mangan is a Teaching Fellow in Ecology in the School of Natural Sciences at Trinity College Dublin. Her work focuses on applied ecology, biodiversity conservation, and sustainable environmental management, with particular interests in agroecology, ecosystem restoration, invasive species management, and sustainable agriculture.
Her research combines ecological fieldwork, quantitative analysis, and interdisciplinary approaches to address contemporary environmental challenges across terrestrial, freshwater, and agricultural systems. She has worked on projects relating to biological control, pollinator conservation, ecosystem services, freshwater biodiversity, and biodiversity policy in Europe, Africa, and South America.
Rosie completed her PhD in Zoology at University College Dublin, specialising in classical biological control, and has held research positions in Ireland, South Africa, and the UK. Her teaching emphasises practical, solution-oriented ecology and encourages students to engage critically with real-world biodiversity and conservation challenges through applied case studies, field-based learning, quantitative approaches, and innovative teaching methods, including simulation and research game-based learning.

Rosie coordinates BD7060: Conservation Biology and BD7056: Human Interactions with Biodiversity.

Other Teaching Staff

Several staff contribute their expertise to the course through teaching contributions to the various modules, and through the supervision of research projects. In addition, you may contact staff within the School of Natural Sciences regarding projects related to their research interests. See the School research webpages for details (naturalscience.tcd.ie/research/): from this page you will find links to the various disciplines that make up the School, and to the research pages of the individual staff / disciplines.

Course Administration Staff

Programme Director	Dr Nicholas Payne	paynen@tcd.ie
Postgraduate Administrative Officer	Mr George Oatridge	oatridgg@tcd.ie

Module Selection

There are no optional modules, also known as Trinity Electives, available for this course. All modules are core.

Academic Year Structure

This is a one-year, full-time postgraduate qualification that will lead to a Master of Science in Biodiversity and Conservation. As part of the Bologna Process, Trinity College ascribes credit to taught courses using the European Credit Transfer System (ECTS – see above). This course is worth **90 ECTS credits**.

One ECTS is equivalent to ~25 hours of student input, and therefore includes formal contact time (e.g. lectures), independent study, research, assessment exercises, revision etc. In this way, 2 ECTS is nominally about one week of work.

Taught Component

The taught component of this course comprises formal lectures, seminars, laboratory and desk-based practicals, fieldwork and independent study. The course commences with a compulsory *Induction Week*, Monday 8th September to Friday 12th September. *Induction Week Programme* to be circulated separately.

There are **TEN TAUGHT MODULES** which are each worth **5 ECTS credits** (see *Taught Modules* for details). In addition, there is an individual *Project Planning* module worth **10 ECTS credits** (see *Project Planning* for details). The combined taught component of this course therefore comprises **60 ECTS credits** (equivalent to a postgraduate diploma).

Module Delivery

In Semesters 1 and 2 the eight taught modules, which are worth 5 ECTS each, and which are primarily broad-skills modules, will run in a "long-thin" format. That provides sufficient time between sessions to independently catch-up on any new skills or unfamiliar content that some students may encounter. The first five of these modules will run in Semester 1 and the remaining 3 in Semester 2. There will be a Revision Week in Week 10. In addition, the 5 ECTS field course module will run during in Weeks 36-37. The 30 ECTS Research Project Module will involve the writing of a thesis, to be completed during weeks 38-52. The Project Planning module, worth 10 ECTS, will have weekly slots timetabled across both Semesters 1 and 2. Assessment for each module will usually take place during the course of module delivery, unless otherwise indicated.

Timetabling

The timetable for this course will be available on your my.tcd.ie student portal. Timetables are subject to change, so please check carefully all email correspondence from module co-

ordinators. Please follow the timetables given to you by the module co-ordinators (and available on Blackboard. In general, contact hours of teaching will be less than the allocated module time, though this will vary and will be flexible; non-contact hours should be fully utilised for reading primary literature on the study area, and for completing assignments.

Research Project

To complete the MSc degree programme a candidate must design and execute an individual research project. This project is worth **30 ECTS credits**. Further details concerning choice and design of the project along with requirements for the final dissertation will be provided throughout the course.

Field Teaching Costs

The costs of day visits are covered from general course fees, but the residential field course to South Africa will incur charges to students additional to their course fees: the main reasons for this are uncertainty over field teaching costs in advance, including foreign currency exchange rates and varying local charges. We attempt to minimise student costs, for example by taking advantage of favourable exchange rates.

Dates to note:

Event(s)	Date(s)
Semester one starts	14th September 2026
Semester one ends	4th December 2026
Semester two starts	18th January 2027
Semester two ends	16th April 2027
Publication of results	October 2027, exact date tbc

Assessment Information

Assessments must be submitted by the time and date stipulated by the module co-ordinator in the timetable; any hard copy submission will normally be to the Programme Administrator in the School Office. All work will also be submitted by the SafeAssign feature

on Blackboard. Each assessment must include a title page giving the name and number of the student, the module title and the date, and the College Plagiarism Declaration.
It is your responsibility to ensure work is signed for on receipt as a record of submission. You should keep hard copies of all work that you submit.
Assessments submitted after the deadline will receive a 10% deduction in the final mark for each working day late. Assessments will not be marked if more than two working days late unless by prior, written agreement with the module co-ordinator.

Marking and Feedback

Unless otherwise stated, indicative grades (see Table 1 for details) will be circulated within one month of submission. A date and time will also be circulated at which you can collect assessed work.
All marks are provisional until passed by the final Court of Examiners meeting with the External Examiner in attendance, which typically occurs in late October or early November. All assessed work **MUST BE RETURNED** prior to the first Court of Examiners meeting. The deadline for return of work will be circulated during the second semester.

Module Failure & Re-submission

Students must undertake **ALL 60 ECTS** of the taught component of this course and achieve a **pass** prior to embarking on the **Research Project**. A minimum pass grade must be obtained for the **Project Planning** module in order to progress to the **Research Project** (it is a non-compensable module).

Failure of taught course components equivalent to **10 ECTS or more** may result in **FAILURE OF THE COURSE**.

Assessment and Progression Regulations

Although the information in this handbook is correct at the time of production you should check the most up to date version of the regulations in the 2026-2027 School Calendar via this link: Calendar - Trinity College Dublin

The following regulations have been copied from the regulations of part VIII of the TCD Calendar. If you have any uncertainty about the regulations and how they apply to you, please contact the course director (Nick Payne).

“To pass the taught component of the programme and proceed to the research project and dissertation, the candidate must first pass, outright or by compensation, all taught modules. The pass mark for all assessment components is 50%. In the calculation of the overall average mark for the taught component and the programme as a whole, modules, including the dissertation, are weighted according to their ECTS credit weighting.

A student may be permitted to undertake supplemental assessment or examination in a maximum of one module at the discretion of the Court of Examiners. If successful, the mark for the given module will be recorded as 50%. A student may fail one module and pass the taught component of the programme by compensation providing that they have passed outright modules amounting to at least 50 credits, have an overall average mark of at least 50% across all taught modules and a mark of at least 40% in the failed module(s); the Project Planning module cannot be passed by compensation.

A candidate who fails to pass modules amounting to 10 or more credits will be required to withdraw from the programme without proceeding to the research project and dissertation module.

A student who passes the taught component of the programme but fails the Project Planning module will be required to submit a revised research project proposal prior to being permitted to commence the individual research project leading to a dissertation.

Postgraduate Diploma: students may graduate with a Postgraduate Diploma if they choose not to take the research project. Students may also be awarded the Postgraduate Diploma if the research project proposal is unsatisfactory. In both cases students must obtain an overall mark of at least 50%, pass modules amounting to at least 50 credits and have a mark of at least 40% in the failed module(s).

Master Degree with Distinction: To obtain a Master's degree with Distinction, a candidate must: (i) achieve a credit weighted average mark of at least 70% for all taught modules and a mark of at least 70% in the Research Project, or (ii) achieve a mark of at least 70% in the Research Project, and achieve an unrounded mark of at least 68% in the overall average mark for the taught modules, where modules amounting to at least half of the credits for the taught modules (30 credits) each have a mark of at least 70%. A Distinction cannot be awarded if a candidate has failed any credit during the period of study."

Progression rules

Students are assessed for each taken module with a grade/numerical percentage mark (%) at the end of the semester/term during which delivery of a module is completed. All end-of-module marks will be distributed by the module coordinators directly to the students (normally via Blackboard). The Pass mark for a module is 50% of the total marks available for the module.

The final overall mark is based on a credit-weighted average of the mark awarded in each module. A Pass mark on this course is 50% and above. Students must obtain credit for academic year of their course by satisfactory completion of all course requirements. To qualify for the relevant postgraduate award, students must, as a minimum:

a) achieve an overall pass mark which is normally the credit-weighted average mark for all taught modules taken;

b) achieve a pass mark in all modules designated as non-compensable, and;

c) achieve a pass mark in the research element or dissertation. Module marks are considered by the court of examiners at the end of year and results will be passed on to the Academic Registry and inputted to SITS.

Students may compensate for one fail mark so long as the average of all taught components is over 50% and the failed module result is between 40 and 49%. The Placement Module and the Fieldtrip Modules are non-compensable. Final results are determined at the final

Court of Examiners' meeting at the end of the academic year with the external examiner input. Students failing to pass individual taught modules may present for supplemental examination or re-submit required work. Students who, following the supplemental examination or re-assessment, have failed to pass the requisite taught modules will be deemed to have failed the course, and may apply to the School for permission to repeat it. Students who do not achieve a pass mark in the research element or dissertation will be deemed to have failed the course and may apply to the School for permission to repeat it. Alternatively, such students may be awarded an associated Postgraduate Diploma.

In order to qualify for the award of Masters with Distinction students must as a minimum (i) pass all taught modules and (ii) achieve a final overall average mark (taught modules and dissertation) for the course of at least 70% and iii) achieve a mark of at least 70% in the dissertation. A distinction cannot be awarded if a candidate has failed any taught module. Compensated modules are considered to be passed in this case. Students who do not pass the taught modules (either outright or by compensation) will be deemed to have failed overall and may apply to repeat the course.

P.Grad.Dip (exit award) A student who does not wish to submit a research project and be considered for the degree of MSc may instead opt to be considered for a Postgraduate Diploma by applying to the Course Coordinator in writing before the end of April. Where a student achieves a pass, outright or by compensation, in the 60 ECTS of taught modules and has an overall average mark of at least 50% for the taught component but does not reach the required standard in the research project, she or he may be eligible for the award of a Postgraduate Diploma.

To qualify for the award of the P.Grad.Dip, students must pass 60 ECTS of taught modules. Such students may compensate for 20 ECTS (between 40% and 49% only) as long as the overall credit weighted mark across 60 ECTS of taught modules is 50% or over and students have passed outright modules amounting to at least 40 credits.

The Postgraduate Diploma may be awarded Distinction to candidates who, in addition, achieve an overall average mark of at least 70% across the 60 ECTS modules. In order to qualify for the award of Postgraduate Diploma with Distinction students must as a minimum (i) pass all taught modules and (ii) achieve a final overall average mark (taught modules) of

at least 70%. A Postgraduate Diploma with Distinction cannot be awarded if a candidate has failed any taught module. Modules that are compensated are considered as passed in this situation.

An exit award of Postgraduate Diploma in Smart & Sustainable Cities will be considered. The graduand who has been awarded the Postgraduate Diploma is not eligible to re-register on the course in the future for the award of the MSc degree.

All postgraduate examination results are published anonymously under a student's registered number. Students who successfully complete their programme will have the qualification, where appropriate, awarded under their registered name and within grade. Students are entitled to supplement any failed module, except the dissertation which cannot be repeated, once.

The maximum grade which can be awarded to a supplemental assignment/exam is 50%.

Appeals

The appeals procedure is outlined in Section 1.10 of the *General Academic Regulations for Graduate Studies and Higher Degrees* in Part III of the College Calendar (see https://www.tcd.ie/calendar/graduate-studies-higher-degrees/fems.pdf).
Note: Appeals can only be made after the final marks are issued following the final Court of Examiner's meeting.

Plagiarism

Plagiarism is interpreted by the University as the act of presenting the work of others as one's own, without acknowledgement. Plagiarism is considered as academically fraudulent, and an offence against University discipline. The University considers plagiarism to be a major offence, and subject to the disciplinary procedures of the University.
Plagiarism can arise from deliberate actions, and also through careless thinking and/or methodology. The offence lies not in the attitude or intention of the perpetrator, but in the action and in its consequences.

It is <u>your responsibility</u> to familiarise yourself with the regulations regarding plagiarism. These are clearly outlined in Section 1.49 of the *General Academic Regulations for Graduate Studies and Higher Degrees* in Part III of the College Calendar (see https://www.tcd.ie/calendar/graduate-studies-higher-degrees/fems.pdf, p 25).

New TCD webpages have been designed to help you to understand what plagiarism is and to employ the principles of academic integrity so as to avoid plagiarising (https://libguides.tcd.ie/friendly.php?s=plagiarism).

They also set out the regulations in Trinity relating to plagiarism offences and how they are dealt with. The College Calendar defines plagiarism, gives examples of the kinds of actions that are deemed to constitute plagiarism, and elaborates on the procedures for dealing with plagiarism cases. It is essential that you read the Calendar entry that is relevant to you as a postgraduate student. You should also look at the matrix that explains the different levels of plagiarism and how they are dealt with.

The webpages also contain materials and advice on citation styles which are used to reference properly. You should familiarise yourself with the content of these pages. Your course handbook may also contain specific examples of referencing conventions in your discipline.
All students ***must*** complete the College's **Ready Steady Write** plagiarism tutorial and sign a declaration when submitting course work, whether in hard or soft copy or via Blackboard, confirming that you understand what plagiarism is and have completed the tutorial. If you read the information on plagiarism, complete the tutorial and still have difficulty understanding what plagiarism is and how to avoid it, please seek advice from your the Programme Director, your supervisor, or from Student Learning Development.

In general, ensure that you fully reference all previously published work, and check with the module co-ordinator if you are not clear of the requirements relating to group assessment exercises. Do not copy information from the internet or any other sources – you should interpret and explain the information provided in these sources in a format that is relevant to the piece of work you are writing; in any case you should also very carefully appraise the

accuracy and validity of any information you use, particularly that from internet sources. Any work that you submit will be assessed through recognised plagiarism detection software currently in use in College.

For all submitted work (online or hard-copy) a coversheet must be included and should contain the following signed declaration:

I have read the section on plagiarism in the college calendar (http://www.tcd.ie/calendar/) (Part III, page 23-24).
I have completed the online tutorial on plagiarism at https://libguides.tcd.ie/plagiarism/ready-steady-write

GenAI

Aligned with the College Statement on Artificial Intelligence and Generative AI in Teaching, Learning, Assessment & Research (2024), the use of GenAI is permitted unless otherwise stated. Where the output of GenAI is used to inform a student's document or work output, this usage should be acknowledged and appropriately cited, as per Library guidelines on acknowledging and referencing GenAI. From an academic integrity perspective, if a student generates content from a GenAI tool and submits it as his/her/their own work, it is considered plagiarism, which is defined as academic misconduct in accordance with College Academic Integrity Policy.

Overall Course Objectives/ Learning Outcomes

Our aim is to promote an understanding of biodiversity and its conservation, and help you develop the capability to apply that knowledge to current issues in the area, as part of sound environmental management for a sustainable future.
You will develop the necessary intellectual skills and practical expertise to design and execute high quality independent and group research.

Finally, we aim to produce skilled communicators who are proficient in organizing thoughts and ideas, and disseminating them effectively through written and oral presentations.

Programme Level Learning Outcomes

On successful completion of this course, the student will be able to:

- Demonstrate a critical understanding of the breadth and multi-disciplinary nature of the study of biodiversity and its conservation, including key concepts and foundational theories
- Assemble and critically evaluate information at the forefront of current understanding across a range of fields related to biodiversity and its conservation, and assess its significance for contemporary issues linking science and society
- Identify, formulate and address key research questions through the design and execution of individual projects, including discrimination in the selection and application of appropriate methods, analytical tools and statistical techniques
- Demonstrate adaptability in working practice, with the ability to work autonomously and as part of a team, incorporating the capacity to exercise a leadership role
- Identify and critically evaluate gaps in their own knowledge or expertise, and devise steps to address them through continued learning
- Appraise complex information, formulate judgements, and clearly communicate knowledge and conclusions to both specialist and non-specialist audiences in written and verbal formats.

Year Module Structure

Brief breakdown: Overview of core, approved, open, assessment modes and TEs modules for the year.

ICA = In course Assessment – Formal Assessment in exam conditions

CW = Coursework

FE = Formal Examination in Annual Examination Period

Michaelmas Term

Module code	Module title	ECTS	Term
	Module Coordinator	ICA/CW/FE	
ES7057	Navigating Complexity for Sustainable Futures	5	Michaelmas
	Professor Quentin Crowley	CW 100%	
BD7059	Global Environmental Change	5	Michaelmas
	TBC	CW 100%	
ES7062	Geographical Information Systems	5	Michaelmas
	Dr Jean Wilson	CW 100%	
BD7050	Introduction to Biodiversity	5	Michaelmas
	Dr Nicholas Payne	CW 100%	
ES7058	Project Planning	10	Michaelmas and Hilary
	Professor Ian Donohue	CW 100%	
BD7054	Data Handling and Analysis	5	Michaelmas
	Professor Andrew Jackson	CA 100%	
Total		25	

Hilary Term

Module code	Module title	ECTS	Term
	Module Coordinator	ICA/CW/FE	
ES7027	Environmental Policy	5	Hilary
	Dr Jean Wilson	CW 100%	
ES7058	Project Planning	10	Michaelmas and Hilary
	Professor Ian Donohue	CW 100%	
BD7055	Systematics and Taxonomy	5	Hilary
	Dr Peter Moonlight	CW 100%	
BD7056	Human Interactions with Biodiversity	5	Hilary
	Dr Rosie Mangan	CA 100%	
BD7058	Overseas Field Course	5	Hilary
	Professor Nicholas Payne	CW 100%	
BD7060	Conservation Biology	5	Hilary
	Dr. Rosie Mangan	Coursework 100%	
BD7061	Research Project	30	Hilary
	Professor Nicholas Payne	100%	
Total		65	

Modules

Module Code: BD7001

Module Name: Induction Week

Semester taught: Semester 1

Contact Hours: 12-20

ECTs: 5 ECTS

Module Coordinators:

Prof Juan Diego Rodriguez-Blanco (Programme Director, MSc in Environmental Science) (J.D.Rodriguez-Blanco@tcd.ie) & Prof Nicholas Payne (paynen@tcd.ie)

Module Content:

A week of seminars, activities and fieldtrips designed to introduce the course, the staff, the University and current biodiversity and conservation issues. See *Induction Week Programme* for details.

Learning Outcomes:

On successful completion of this part of the module, students will:

- Understand course structure, delivery, requirements and expectations.
- Be familiar with College facilities including the library.
- Be aware of health, safety and risk assessment requirements.

Module Code: BD7050

Module Name: Introduction to Biodiversity

Semester taught: Semester 1

Contact Hours: 24

ECTs: 5 ECTS

Module Coordinator: Dr Rosie Mangan (romangan@tcd.ie)

Module Content:

This module acts as an introduction to the MSc programme while also providing a research-led and critically focused grounding in key concepts in biodiversity science and conservation.

Topics covered include the definition and measurement of biodiversity; biodiversity across scales from genes, species, and communities to ecosystems and landscapes; global biodiversity patterns and hotspots; freshwater, marine, and terrestrial biodiversity; evolutionary and ecological processes shaping biodiversity; and the dynamics of biodiversity under environmental change.

The module emphasises conceptual integration across biodiversity scales and systems, linking theory to contemporary conservation challenges, biodiversity management, and real-world case studies. Students will also develop skills in critical evaluation, synthesis, communication, and interpretation of scientific literature relevant to biodiversity and conservation.

Learning Outcomes:

On successful completion of this module, students will be able to:

- Show an awareness of the range of biodiversity expertise and facilities available in the School of Natural Sciences and TCD in general.
- Understand fundamental concepts in biodiversity, including patterns of global distribution and drivers of biodiversity change.
- Understand, evaluate, and apply different methods of measuring biodiversity.
- Understand the hierarchical nature of biodiversity, from genes through species to communities and landscapes, and recognise issues of scale in both time and space.
- Critically evaluate contemporary biodiversity conservation challenges and assess potential management and policy responses.
- Critically review, synthesise, and communicate scientific literature in the area of biodiversity and conservation.

Assessment Details:

- Four separate exercises from different lecturers and on different topics, each worth 25% and distributed throughout the semester.
- Assessment formats will include a mixture of critical review, science communication, synthesis, and applied biodiversity analysis exercises.

Module Code: ES7062

Module Name: Geographical Information Systems

Semester taught: Semester 1

ECTs: 5 ECTS

Module Coordinator: Dr Jean Wilson (wilsonj1@tcd.ie)

Module Content:

This module provides a theoretical and practical grounding in GIS and the fundamental concepts that underlie the use of spatial data – and assumes no prior knowledge of GIS. Through a semester of twice weekly laboratory practicals you will develop skills in applying GIS (specifically ArcGIS Online & ArcGIS Pro) to solve real world problems, foster knowledge in best practices for geospatial data management, and build skills in GIS communication. The course emphasises the development of practical knowledge in modern GIS practices. Additional time outside the labs will be required to complete the assignments and weekly learning activities. Students are required to bring 1) a portable hard drive device (e.g. usb key) with at least 2GB of storage and 2) a notebook to class.

Learning Outcomes:

- Demonstrate knowledge of GIS as a tool, its principles, and concepts (including the GIS data model, GIS data sources and formats and spatial referencing systems) and GIS terminology
- Skills in applying GIS to solve real-world problems in the context of environmental science
- Working competency in geospatial data management practices (including GIS data acquisition, storage and editing)
- Practical knowledge of modern (cloud-based) GIS practices (e.g. web maps, web apps, dashboards, online surveys, hosted feature layers)
- Skills in GIS communication for diverse audiences, including data visualisation and report writing
- Cognisance of the inclusive practice of digital accessibility and its relevance to GIS

- Demonstrate competency to undertake new (i.e. unfamiliar) GIS analyses

Assessment Details:

- Short answer Quiz (15%)
- Practical exercises (weekly journal entries) (15%)
- Final AGOL assignment (analysis & report) (35%)
- Final PRO assignment (analysis & report) (35%)

Module Code: ES7027

Module Name: Environmental Policies

Semester taught: Semester 2

ECTs: 5 ECTS

Module Coordinator: Dr Corentin Loron (loronc@tcd.ie)

Module Content:

ES7027 Environmental Policies is designed to provide a high-level overview of environmental law and policy as an introduction to the fundamentals of law that govern how society interacts with the environment. As future environmental scientists, consultants, and conservationists it will be impossible to successfully deliver research or projects without careful attention to the legal framework protecting the environment. The module seeks to provide you with foundations of both theoretical and empirical knowledge of environmental law and policy, as well as equipping you with an understanding of the contemporary debates and critical issues in, and perspectives on, environmental regulation and the science-policy interface.

Learning Outcomes:

On successful completion of this module, following lecture attendance, completion of specified learning activities and the assignments students will be able to:

- Demonstrate broad knowledge of environmental law and policy and principles relevant to its application

- Describe the legal framework within which environmental law in Ireland operates and identify the scheme of environmental regulation at national, European and International level
- Advise management on compliance with the requirements of key environmental legislation, regulation and policy

Assessment Details:

- Essay 55%
- Group work (report and video presentation) 30%
- Quiz 15%

Module Code: BD7060

Module Name: Conservation Biology

Semester taught: Semester 2

Contact Hours: **30**

ECTs: 5 ECTS

Module Coordinator: Dr. Rosie Mangan (romangan@tcd.ie)

Module Content:

This module examines the scientific foundations of biodiversity conservation, integrating population biology, extinction risk, conservation genetics, and ecosystem management. Through case studies and field visits (zoo, botanic gardens, and species reintroduction programmes), students explore practical conservation applications and the role of stakeholders in addressing real-world biodiversity challenges. Particular emphasis will be placed on critically evaluating real-world conservation case studies, applying ecological theory to conservation decision-making, and assessing the strengths and limitations of conservation interventions. Lectures, field visits, and practical sessions are designed to directly support the module assessments by providing the theoretical frameworks, case studies, and applied conservation examples needed for critical evaluation and evidence-based conservation recommendations. The module will introduce several topics which will be further expanded in the Overseas Field Course module.

Learning Outcomes:

Upon successful completion of the module, students should be able to

- Demonstrate a critical understanding of classic and contemporary research in conservation biology.
- Explain key concepts in community ecology, population biology, and conservation genetics, and their role in maintaining biodiversity.
- Evaluate the major drivers of biodiversity loss and place the current extinction crisis in the context of historical extinctions.
- Apply appropriate methods to assess extinction risk, including the use of threat categories and population viability approaches.
- Critically evaluate the role of models and empirical data in informing species persistence and conservation planning.
- Synthesise ecological and socio-environmental information to develop practical conservation strategies for threatened species.
- Communicate conservation science effectively through written, oral, and applied formats.
- Critically evaluate the strengths, limitations, and practical implementation challenges of conservation interventions and management strategies

Assessment Details:

- Give a presentation on a conservation biology theme (40%). Students are expected to explicitly integrate concepts discussed during lectures (e.g. island biogeography, population viability, extinction risk, conservation planning) into their evaluation of the paper
- Model habitat restoration for an endangered species to maximise population persistence, and describe the practical application of their modelled habitat configuration. The SimUText practical and associated lectures are designed to support this assessment by introducing concepts relating to habitat fragmentation, population persistence, conservation planning, and management trade-offs (60%).

Module Code: ES7057

Module Name: Navigating Complexity for Sustainable Futures

Semester taught: Semester 1

ECTs: 5 ECTS

Module Coordinator: Quentin Crowley (crowleyq@tcd.ie)

Module Content:

In this module, students will engage with the intricate challenges of our time through a Systems Thinking lens. The focus will be on translating scientific knowledge into actionable solutions that address pressing environmental and biodiversity issues. Using a Systems Thinking approach, the module explores the interconnectedness of ecological, social, and economic systems, gaining a holistic understanding of contemporary challenges such as climate change, habitat loss, and biodiversity decline. The module adopts an experiential learning framework which applies practical tools in real-world contexts. Innovative problem-solving will be practiced through interdisciplinary collaboration and project-based learning. Competencies in systems innovation, science communication, and stakeholder engagement will be developed to enable effective communication of complex ideas to diverse audiences. Group work will focus on developing ideas aimed at transforming systems to drive sustainable change in relation to environmental sciences and biodiversity and conservation. Students will be empowered to navigate complexity and contribute meaningfully to sustainable futures, making a positive impact on the environment and society.

Learning Outcomes:

- Apply Systems Thinking: Demonstrate a comprehensive understanding of Systems Thinking principles and apply them to analyse complex environmental issues, recognising the interconnections between ecological, social, and economic systems.
- Translate Science into Action: Effectively translate scientific knowledge into practical, actionable solutions that address contemporary environmental and biodiversity challenges.
- Collaborate: Engage in interdisciplinary collaboration, working effectively within diverse teams to develop innovative solutions to complex challenges.

- Enhance Science Communication: Communicate complex scientific concepts clearly and effectively to a variety of audiences, utilising a systems perspective to enhance understanding and engagement.
- Evaluate Systemic Impacts: Critically evaluate the potential social, economic, and ecological impacts of proposed solutions, considering the broader implications for sustainability and resilience in natural systems.

Assessment Details:

- Group work, 30% (assessed on Miro).
- Group work, 20% (live presentation and slides submitted on Blackboard).
- Learning log - written account of learning and self-reflection, 50% (submitted on Blackboard).

Module Code: BD7054

Module Name: Data Handling and Analysis

Semester taught: Semester 1

ECTs: 5 ECTS

Module Coordinator: Prof Andrew Jackson (a.jackson@tcd.ie)

Module Content:

This module outlines the principles of data collection, coding and analysis within the context of research design, and provides a firm quantitative base with particular relevance to the research project. It includes an introduction to types of data, how data can be described statistically, and a series of methods used for extracting information from complex datasets. It also includes practical examples and illustrations of statistical applications to real-world research projects. The software R will be used throughout owing to its ubiquitous application in ecology and environmental science, and as a transferable skill in data analysis more generally.

Learning Outcomes:

On successful completion of this module students will be able to:

- Explain the central importance of data collection and analysis in effective research design
- Use data visualisation techniques to describe patterns in data and inform subsequent analyses
- Employ hypothesis-testing in research design
- Perform routine data manipulation and analysis using the statistical software package R
- Analyse datasets using the framework of Generalised Linear Models
- Identify appropriate statistical methods to employ for a range of research projects.

Assessment Details:

Continuous assessment, including multiple choice tests and an open book exam (100%)

Module Code: BD7055

Module Name: Systematics and Taxonomy

Semester taught: Semester 2

ECTs: 5 ECTS

Module Coordinator: Prof Peter Moonlight (moonligp@tcd.ie)

Module Content:

This module will provide an introduction to the principles of systematics, the classification of biological diversity. Various species concepts and their application will be described, and the application of classical morphological approaches and modern molecular approaches will be compared. Part of the course will involve an individual project on the systematics of a particular group of organisms.

Learning Outcomes:

On successful completion of this module students will be able to:

- Understand the rationale behind various approaches to the classification of biological diversity

- Demonstrate familiarity with historical and current approaches to systematic classification, including use of molecular phylogenies
- Interpret and use phylogenetic classifications
- Demonstrate a sound grasp of morphological features used in the identification of chosen groups
- Understand the application and merits of various species concepts
- Apply their identification skills and systematic knowledge to a wider range of taxa
- Use the study topic as a link to combine practical skills with appropriate theoretical knowledge.

Assessment Details:

Study topic essay (70%; combined group and individual work)

Phylogenetic analysis practical (30%; own work)

Module Code: BD7056

Module Name: Human Interactions with Biodiversity

Semester taught: Semester 2

ECTs: 5 ECTS

Module Coordinator: Dr. Rosie Mangan (romangan@tcd.ie)

Module Content:

This module explores the interactions between human society and biodiversity, with a particular focus on the causes, consequences, and responses to global biodiversity loss. Framed around Ireland's National Biodiversity Action Plan (2023–2030), the module examines biodiversity conservation as a scientific, societal, economic, and policy challenge.

Topics covered include:

- The biodiversity crisis and national biodiversity policy;
- Ecosystem services, valuing nature, and natural capital approaches;
- Habitat restoration and protection;
- Climate change mitigation and nature-based solutions;

- Sustainable agriculture and biodiversity-friendly land management;
- Pollution and environmental impacts on biodiversity;
- Invasive species and biosecurity challenges;
- Overexploitation of natural resources;
- Urban biodiversity conflicts and human-wildlife interactions;
- Public perception and biodiversity conflict case studies;
- Marine conservation and development pressures;
- Cross-sector approaches to biodiversity conservation and restoration.

The module incorporates Irish and international case studies, guest lectures from researchers and practitioners, discussion-based learning, and field-based learning activities, including a field trip component. Emphasis is placed on critically evaluating real-world biodiversity challenges and communicating practical, evidence-based solutions across scientific, policy, and societal contexts

Learning Outcomes:

On successful completion of this module students will be able to:

- LO1: Critically evaluate the relationships between biodiversity, ecosystem functioning, and human wellbeing in the context of the biodiversity and climate crises.
- LO2: Explain the objectives and implementation challenges associated with Ireland's National Biodiversity Action Plan and related international biodiversity frameworks.
- LO3: Assess the major drivers of biodiversity loss, including habitat destruction, climate change, pollution, invasive species, and overexploitation, and evaluate approaches to mitigation and restoration
- LO4: Critically evaluate the strengths and limitations of ecosystem service and natural capital approaches in biodiversity conservation and environmental decision-making.
- LO5: Analyse biodiversity conflicts and trade-offs across urban, agricultural, marine, and conservation contexts, including issues relating to human-wildlife interactions and public perception.

- LO6: Evaluate the role of restoration ecology, nature-based solutions, sustainable agriculture, and cross-sector collaboration in supporting biodiversity conservation.
- LO7: Interpret and communicate biodiversity-related scientific, policy, and societal issues using evidence-based written, oral, and discussion-based approaches
- LO8: Develop interdisciplinary perspectives on biodiversity conservation by integrating ecological, social, economic, and policy considerations

Recommended reading:
https://www.npws.ie/sites/default/files/files/4th_National_Biodiversity_Action_Plan.pdf

Assessment Details:

Applied Biodiversity Challenge Presentation (group mark)	30%
Policy Note on Human–Biodiversity Issues (Individual Assignment)	30%
Written Communication Piece (Individual Assignment)	40%

Module Code: BD7058
Module Name: Overseas Field Course
Semester taught: Semester 2
ECTs: 5 ECTS
Module Coordinator: Prof Nicholas Payne (paynen@tcd.ie)

Module Content:
This will be a 11/12-day residential field course based in game reserves in Limpopo Province, South Africa. The module will provide hands-on experience of wildlife ecology and conservation management, with an opportunity for close observation of large grazing and predatory animals, and the varied conservation issues that arise. For further details, see the separate Overseas Field Course handbook.

Learning Outcomes:

On successful completion of this module, students will be able to:

- Demonstrate holistic knowledge of the South African bushveld ecosystem, including the varied habitats of this ecosystem and the extent & the nature of human interactions in these habitats
- Understand the principles which underpin the ecology of tropical savannas, including the diversity of plant and animal life
- Explain and assess the impact of large mammals on the ecological functioning of bushveld
- Be able to synthesise and reconcile the conflicting arguments for ecosystems' future
- Be capable of integrating these arguments into sustainable management plans
- Be able to make written synthesis of animal abundance in relation to habitat type and management.

Individual contribution:

The cost of the field course is not included in the course fees, so students will be required to make a contribution to the total trip cost. The individual contribution will cover all accommodation, food, transit in South Africa, consumables and excursions, and several local game guides This amount varies from year to year, depending on class numbers and price fluctuation of services. Students will also need to organise and pay for their own flights to and from Johannesburg.

Assessment Details:

This will be subject to change, depending on activities in the field.

Short 'research proposal' pitch video based on observations, hypotheses and proposed methods developed during the field trip. Due before last day of trip. 90%

Overall engagement with fieldtrip content 10%

Module Code: BD7059

Module Name: Global Environmental Change

Semester taught: Semester 1

ECTs: 5 ECTS

Module Coordinator: TBC

Module Content:

This module covers the scientific basis necessary to understand environmental (including climate) change from first principles, including a particular focus on humans as agents of environmental change. Topics include the biogeochemistry of carbon and nitrogen, ocean circulation, heat and mass transfer fundamentals, as well as the tools to read and comprehend the scientific literature providing evidence of changes occurring through time. Lectures on specific topics and their wider significance will be developed through whole class discussions on their practical significance.

Learning Outcomes:

On successful completion of this module students will be able to:

- Outline atmospheric and oceanic circulation change and comment on their potential significance for abrupt climate transitions
- Explain in what way living systems control and/or are influenced by the geology and chemistry of the Earth
- Describe how records of past environmental change are constructed and illustrate their applications and limitations with reference to named examples
- Use the concepts of earth system science to assess current issues related to climate change and project their likely significance on topics of relevance for selected applications.

Assessment Details:

Group work and individual presentation including peer review (100%)

Module Code: ES7058

Module Name: Project Planning

Semester taught: Semesters 1 and 2

ECTs: 10 ECTS

Module Coordinator: Prof Ian Donohue (ian.donohue@tcd.ie)

Module Content:

During this module you will select a research project title. Workshops will be held to guide the development of key project management skills, and to initiate the process of literature review and development of methods in relation to the project. This will all be placed in the context of a grant application submission, related to the project title. The module will involve discussions with members of staff supervising project work.

Learning Outcomes:

On successful completion of this module students will be able to:

- Provide the context of a research project, through critical evaluation of published literature, and use this to refine research questions
- Develop relevant hypotheses to be tested, an outline of the methods used to test these hypotheses, and a realistic time plan for the completion of a project
- Evaluate the resources required for successful project completion
- Plan an effective timeframe for project completion
- Present the project context, research questions, methods and a delivery plan for peer review
- Develop skills in the preparation of grant applications.

Assessment Details:

Grant application based on project plan (3-4,000 words) 100%

Module Code: BD7061

Module Name: Research Project

Semester taught: Semester 2

ECTs: 30 ECTS

Module Coordinator: Prof Nicholas Payne (paynen@tcd.ie)

Module Content:

The research project provides students with an opportunity to pursue a topic in their chosen area of biodiversity and conservation biology in depth, to employ relevant skills (including research planning, literature review, experimental design, and statistical analysis) and to apply and develop their knowledge of research methods. The nature of the project work may vary, with varying amounts of experimental work included. There will be opportunities to carry out project work with collaborative institutions, including local authorities, the National Botanic Garden, National Parks & Wildlife Service, etc.; in these cases an academic supervisor from TCD who will oversee the project will be mandatory. Students will be expected to demonstrate a level of academic performance appropriate to a masters' degree.

Learning Outcomes:

On successful completion of this module students will be able to:

- Prepare a clear rationale for the selection of a problem or issue to be studied
- Carry out an appropriate review of the relevant literature and consider its implications for the proposed study
- Develop a set of hypotheses or ideas to be tested
- Select and employ suitable methods and procedures for the collection, analysis and presentation of relevant data
- Discuss the results in terms of their implications for the hypotheses
- Present the study in a coherent and acceptable fashion, in the form of a scientific paper or other report as appropriate
- Produce well-reasoned conclusions and discuss their significance and implications.

Assessment Details:

Project Selection:

Teaching staff in the school will be invited to submit research topic titles together with a brief explanation of the project in late Autumn or Winter. Students will submit preferences to the Project Planning module coordinator (see above) as instructed. In addition, students are encouraged to devise their own research project ideas, for which they will need to liaise with an academic supervisor in College. Research for projects can be undertaken overseas, and in collaboration with agencies outside of College.

Supervision:

Following discussion with the Programme Director and course teaching staff, each student will be assigned a supervisor and project. The normal expectation is that twelve supervision hours will be required for students to complete the dissertation. The precise timing of meetings will be subject to agreement between students and supervisors.

Role of the Supervisor

The supervisor will;

- Assist in selecting and developing a topic for research
- Advise on a literature search
- Advise on ethical, safety and practical issues
- Monitor data collection and general progress
- Advise on data analysis
- Advise on the format and content of the dissertation
- Review **one** draft of the dissertation to a schedule agreed with the student

Assessment

Assessment will be by means of a dissertation in the form of *either* a scientific paper, or another form of reporting as appropriate to the study, based on the investigation of a selected topic in biodiversity and conservation. Further details will be announced in the *Project Planning* module.

School Policies and Procedures

Attendance

All students should enter residence in or near Dublin and must begin attendance at the College not later than the first day of teaching term and may not go out of residence before the last day of teaching term unless **they have previously obtained permission from the Senior Lecturer through their tutor.**

Students must attend College during the teaching term. They must take part fully in the academic work of their class throughout the period of their course. Lecture timetables are published through my.tcd.ie, and on school or discipline noticeboards or in Blackboard before the beginning of Michaelmas teaching term. The onus lies on students to inform themselves of the dates, times and venues of their lectures and other forms of teaching by consulting these timetables.

The requirements for attendance at lectures and tutorials vary between the different faculties, schools, and disciplines. The school, discipline, or course office, whichever is relevant, publishes its requirements for attendance at lectures and tutorials on noticeboards, and/or in handbooks and elsewhere, as appropriate.

Assessment: Procedures for the non-submission of coursework and absence from examinations

All students must fulfil the course requirements of the school or discipline, as appropriate, with regard to attendance and course work. Where specific requirements are not stated, students may be deemed non-satisfactory if they miss more than a third of their course of study or fail to submit a third of the required course work in any term.

Full regulations on non-submission of coursework can be found via the following: https://www.tcd.ie/calendar/undergraduate-studies/general-regulations-and-information.pdf
(Specific Regulations by Course in STEM Faculty - Undergrad and postgrad) faculty-of-science-tech-eng-maths.pdf

At the end of the teaching term, students who have not satisfied the school or department requirements may be reported as non-satisfactory for that term. Students reported as non-satisfactory for the Michaelmas and Hilary terms of a given year may be refused permission to take their semester two assessment/examinations and may be required by the Senior Lecturer to repeat their year.

Further details of procedures for reporting a student as non-satisfactory are given on the College website at https://www.tcd.ie/academicregistry/student-cases/

Careers Information

Science: https://www.tcd.ie/science/careers/

School Website: https://www.tcd.ie/naturalsciences/

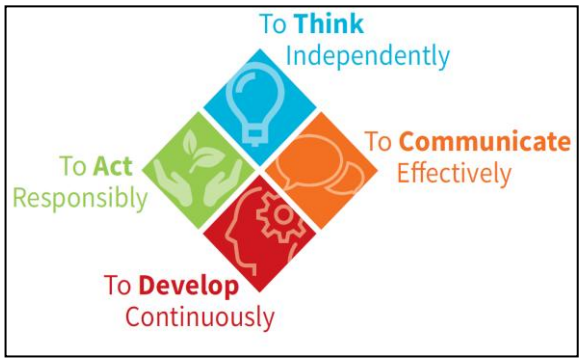
Link to School PG courses: Postgraduate - School of Natural Sciences | Trinity College Dublin

Graduate Attributes

The Trinity Graduate Attributes represent the qualities, skills, and behaviours that you will have the opportunity to develop as a Trinity student over your entire university experience, in other words, not only in the classroom, but also through engagement in co- and extra-curricular activities (such as summer work placements, internships, or volunteering).

The four Trinity Graduate Attributes are:

- To Think Independently
- To Act Responsibly
- To Develop Continuously
- To Communicate Effectively



Why are the Graduate Attributes important?

The Trinity Graduate Attributes will enhance your personal, professional, and intellectual development. They will also help to prepare you for lifelong learning and for the challenges of living and working in an increasingly complex and changing world.

The Graduate Attributes will enhance your employability. Whilst your degree remains fundamental, also being able to demonstrate these Graduate Attributes will help you to differentiate yourself as they encapsulate the kinds of transversal skills and abilities, which employers are looking for.

How will I develop these Graduate Attributes?

Many of the Graduate Attributes are 'slow learned', in other words, you will develop them over the four or five years of your programme of study.

They are embedded in the curriculum and in assessments, for example, through undertaking independent research for your final year project, giving presentations and engaging in group work.

You will also develop them through the co-curricular and extra-curricular activities. If you help to run a club or society you will be improving your leadership skills, or if you play a sport you are building your communication and team-work skills.

Important Information

Student Services

For general information on the Supports and Services available to Trinity Students please visit: https://www.tcd.ie/students/supports-services/

This is a comprehensive site which breaks down the different categories of support and services available to students is an intuitive manner.

Follow on to the next page for a breakdown of some of our key supports and services.

Postgraduate Advisory Service

The Postgraduate Advisory Service was established in 2009 to extend Trinity's historic and unique tutorial service to the postgraduate community. We offer free, independent, and confidential support, guidance and advocacy to registered postgraduate students at Trinity.

When should I contact them?

Postgraduate Advisory Service (PAS) provides support on any matter that may impact upon your time as a postgraduate at Trinity.
Some of the most common issues students come to PAS to discuss include: study-related stress or worry; concerns about academic progress; supervisor-relationship concerns; extensions and going off-books; queries regarding regulations and academic appeals; bullying; plagiarism and disciplinary cases.

What Supports do they provide to students?

They provide frontline confidential and free support, information, and referral via the Postgraduate Student Support Officer;
On referral, named academics provide advice, advocacy, and assistance via the panel of Postgraduate Advisors;
A suite of complementary supports is available including informal mediation, workshops and training to postgraduates;
Administering the Postgraduate Student Assistance Fund and other financial assistance to postgraduate students.

How do I get in touch?

For general or brief queries, you can email PAS at postgrad.support@tcd.ie. Please be sure to include your name, School/ course and a brief outline of your query/concern.

To make an appointment with the Postgraduate Student Support Officer, email PAS postgrad.support@tcd.ie, with your name, student number, School/ course and a brief outline of your query/concern.

For full details about PAS, on making a query or requesting an appointment visit: https://www.tcd.ie/seniortutor/students/postgraduate/

Disability Services

The Disability Service aims to provide appropriate advice, support and information to help students and staff with disabilities. The Disability Service has in place a range of supports to ensure that students with disabilities have full access to the same facilities for study and recreation as their peers. Most students registering with the Disability Service request access to a range of supports that help the student reach their full potential while studying. Most students' needs are accommodated through these supports. The student decides what level of support they require.

For contact information or to make an appointment please contact the Disability Services – contact details are available via the following webpage:
https://www.tcd.ie/disability/contact/

Student Learning Development

Student Learning Development offers support in a variety of study and learning skills including essay writing, exam preparation, study skills, self and time-management and note taking. Mechanisms of support are workshops, individual appointments and drop-in clinics.
For new students: https://www.tcd.ie/sld/your-student-journey/new-to-trinity/
For Undergraduate Students: https://www.tcd.ie/sld/your-student-journey/undergraduate-students/
For Postgraduate Students: https://www.tcd.ie/sld/your-student-journey/postgraduate-students/
For general information on all resources and supports available visit:
https://www.tcd.ie/sld/

Student Health and Wellbeing

College Health Service

Trinity Health Services have GP services available for the following Opening Hours: Please contact us on 01 8961556 or 01 8961591 between 9am and 1pm and from 2-4:30pm

You can email collegehealth@tcd.ie , but please note that this email is NOT FOR ANY MEDICAL/CLINICAL enquiries and is not manned to manage clinical/medical enquiries, strictly only admin.

The Physiotherapist operates daily between 09.00 and 13.00 and also Monday/Tuesday afternoons during term time.

For further information visit: https://www.tcd.ie/collegehealth/

Student Counselling

The Student Counselling Service is here to help you to manage any difficulties you are experiencing so you can enjoy and fully participate in your time here at College.

If you wish to make an appointment with the Student Counselling Service, please consider one of the options below. If you have any other queries you can call into reception on the 3rd floor of 7-9 South Leinster Street or contact us on:
Phone: (01) 896 1407
Email: student-counselling@tcd.ie

For further information visit the following webpage:
https://www.tcd.ie/StudentCounselling/

Student Life

Student life offers information on Supports and Services, Clubs and Societies, Student Unions etc., https://www.tcd.ie/students/

Academic Registry

The Academic Registry is responsible for services that support the complete student lifecycle of Trinity College Dublin – from application to graduation.

For information on Registration, Fees, Grants, ID Cards etc. visit the Academic Registry (AR). AR is located in in the Watts Building, on the first floor, or visit the AR website:
https://www.tcd.ie/academicregistry/
Queries can be emailed to academic.registry@tcd.ie, or you can telephone 01 896 4500 during office hours.

Student Accommodation

CAMPUS: The Accommodation Office is open Monday to Friday from 8.30am to 1pm and 2pm-5pm each day. Queries can be emailed to residences@tcd.ie, or you can telephone 01 896 1177 during office hours.

After hours you can contact Front Gate at 01 896 3978 in case of difficulties or key problems. In Goldsmith Hall attendants are on duty in the residential area at weekends and overnight and they will assist with local problems.

In the event of a serious emergency, particularly where you require the attendance of ambulance, fire or police services please telephone College Security at 01 896 1999 (internal 1999). To ensure a co-ordinated response please do not call these services directly. We recommend that you programme these numbers into your mobile phone using the prefix "01" before the number. https://www.tcd.ie/accommodation/

Appendix 1

Item	Reference/Source
Statement on General Regulations	Calendar, Part II, General Regulations and Information, Section II, Item 12 Calendar, Part III, GeneralRegulations, Section I
Student Supports Co-curricular activities TCDSU, GSU & student representationstructures	Student Supports
Emergency Procedures	**Standard Text:** In the event of an emergency, **dial Security Serviceson extension 1999** Security Services provide a 24-hourservice to the college community, 365 days a year. They are the liaison to the Fire, Garda and Ambulance services and all staff and students are advised to alwaystelephone extension 1999 (+353 1 896 1999) in case of an emergency. Should you require any emergencyor rescue services on campus, you must contact Security Services. This includes chemical spills,personal injury or first aid assistance. It is recommended that all studentssave at least one emergency contact in their phone under ICE (In Case of Emergency).
Data Protection	Data Protection for StudentData
Research Ethics	Policy on Good ResearchPractice
Key Locations for students: Include Programme Offices, Laboratories, Online Learning Environments, Libraries, AcademicRegistry, Places of Faith/Prayer Rooms, Photocopiers and any relevant introductory information on these locations	Blackboard Academic Registry

Item	Reference/Source
Plagiarism &Referencing Guidance	Calendar, Part B, General Regulations and Information Calendar, Part III, General Regulations & Information, Section I 'Plagiarism' Plagiarism Policy
Health and Safety Statements	Faculty of Science Engineering, Mathematics and Science website - https://www.tcd.ie/stem/undergraduate/health-safety.php
Absence fromExaminations	Calendar, Part B, General Regulations and Information Calendar, Part III, Section III,'Examinations, Assessment and Progression' Academic Policies
Reference to Relevant University Regulations	Academic Policies Student ComplaintsProcedure Dignity and Respect Policy - Equality, Diversity and Inclusion | Trinity College Dublin (tcd.ie)
Timetable for students	My TCD
Internships/ Placements forCredit	Internship and PlacementPolicy.
Marking Scale	Calendar, Part B, General Regulations and Information
Progression Regulations	Calendar, Part II, General Regulations & Information Calendar, Part II, Part C Calendar, Part III, Section III 'Examinations, Assessment and Progression' and 'Assessment and Progression Regulations'
Awards	National Framework forQualifications Trinity PathwaysTrinity Courses
Professional andStatutory Body Accreditation	Provided by School/Discipline Handbooks where applicable
Careers Information &events	https://www.tcd.ie/Science/careers/

External Examiner	Procedure for the transfer ofstudents assessed work to external examiners
Attendance Requirements	Calendar, Part B, General Regulations and Information Calendar, Part III, General Regulations and Information, Section I 'Attendance and Off-Books'; Section II 'Attendance'; Section III 'Attendance, Registration, Extensions'; Section IV 'Attendance and Examinations'
Feedback andEvaluation	Student Evaluation andFeedback Student Partnership Policy Procedure for the conduct ofFocus Groups