



OLLSCOIL NA
GAILLIMHÉ
UNIVERSITY
OF GALWAY

Foghlaim & Forbairt
Ghairmiúil d'Aosaigh
Adult Learning &
Professional Development

International *Summer School*

Ecology: Living Landscapes in
the West of Ireland

COURSE SYLLABUS



The contents of this booklet are for information purposes only and should not be regarded as the basis of a contract between a student and the University. The syllabus, fees or regulations may be amended at any time.

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Ecology: Living Landscapes of the West of Ireland

Programme Structure

This new course offers students practical experience of the natural environment in Ireland. It first provides students with an understanding of ecological concepts and practical field skills to identify and survey habitats and species. Students will gain an understanding of conservation and landscape management issues and develop their skills to evaluate the sustainable use and conservation of Ireland's ecological resources.

The summer school is an intensive three-week course with an emphasis on field-based learning. Teaching will be field based by means of lectures, excursions and discussions. Field trips will facilitate contact with the Irish countryside, habitats, flora, fauna and Irish conservation practitioners. Thus, students will have practical experience of the differing ecology of the landscapes of Co Galway. Assessment will be in the form of oral presentations, video blogs, and self-assessment and learning journals. Students will be provided with access to learning materials through Canvas and from the University library. Facilities and time for private study have been incorporated into the programme.

Galway City is in a unique position to offer easy access to a vast array of scenic and biodiversity-rich habitats. To the south of Galway Bay, students will explore the ecology, conservation and sustainability of the Burren region a UNESCO World Geopark. In Connemara, they will visit the uplands and blanket bogs while in East County Galway they will learn about turloughs, eskers and raised bogs. On the field trips, the students experience the key aspects of geology, hydrology, and ecology of each habitat and appreciate how the interplay of these elements with anthropogenic activities shapes the environment. Students will also develop their practical field skills in habitat classification, plant species identification and a range of animal survey techniques.

Credits

To quantify learning and to place a value on it, courses are allocated credit units. Credits may vary; however, they represent a standard number of classes contact hours and average workload for a programme. This workload includes lectures, practical work, seminars, private work and examinations. The use of the term credits is common among the third level sector and provides a "currency" with which students may transfer from one course to another or gain exemption from elements of a particular programme. This course carries 5 Semester Credits/10 ECTS Credits at graduate level.

Programme Aim

This course is designed to encourage a holistic approach to studying Irish ecology by looking at all aspects of how Irish habitats are created and maintained through natural processes and anthropogenic activity. It will also consider conservation and sustainability issues in the west of Ireland and how sound understanding of these ecological processes is used to combat the challenges facing the Irish environment.

Module Learning Outcomes Being Assessed

Upon completion of students should be able to:

1. Differentiate between different Irish habitats and associated parameters
2. Explain the interrelation between different parameters that comprise landscapes and habitats
3. Survey a range of Irish species and habitat types using appropriate survey techniques
4. Consider potential species and habitat attributes and properties which can be used to undertake an assessment of the condition of species populations and habitats
5. Identify pressures and threats to habitat and species conservation in the West of Ireland and understand the underlying causes.
6. Describe a range of species and habitat conservation and management techniques.
7. Suggest suitable management strategies for the conservation of habitats and species in a range of scenarios.
8. Translate and apply their knowledge and skills from an Irish context to their home, or any other environment.

Programme Outline

Overall Structure

The programme combines lectures, laboratory analysis, and extensive field-based learning across limestone, coastal, freshwater, peatland, woodland, upland, and urban ecosystems. Students develop practical ecological survey skills, habitat assessment techniques, and an applied understanding of conservation and landscape management in the west of Ireland.

Week 1 – Foundations of Ecology & Field Skills

The opening week introduces students to the structure and assessment of the programme, along with core ecological concepts. Topics include the geology and biodiversity of the west of Ireland, and foundational skills such as video documentation for fieldwork. Field-based learning begins immediately, with immersive investigations in limestone hydrology, habitat identification in east Galway, and landscape studies in Connemara.

Students receive practical training in animal survey techniques, including mammal trapping methods, population estimation, and laboratory analysis of field samples (hair traps, footprints, bat acoustics, and camera trap data).

Week 2 – Ecosystems, Species Survey & Habitat Assessment

Week two focuses on applied ecological survey techniques across diverse habitats. Students conduct habitat mapping and vegetation surveys in Burren National Park, using quadrats and transects for plant and habitat identification.

Invertebrate ecology is explored through field sampling methods such as moth trapping, sweep netting, and pitfall trapping, followed by laboratory identification.

Coastal ecology is examined through rocky shore investigations at Finavarra, analysing marine flora and fauna.

Freshwater ecology and conservation are addressed through river habitat assessment and biological water quality monitoring near Barna.

Lectures throughout the week cover vegetation succession (sand dunes), freshwater habitat classification, and conservation principles.

Week 3 – Conservation, Restoration & Applied Ecology

The final week examines habitat and species protection within Irish and European legislative frameworks, including conservation designations and management approaches. Students undertake upland habitat assessment and conservation management studies in Connemara National Park. Peatland ecology and restoration are explored through a field visit to Ballydangan Bog.

Woodland ecology and invasive species control are studied through restoration site visits, including fieldwork near Cong.

The programme concludes with an exploration of urban ecology and biodiversity in Galway, followed by student assessments and course completion.