

# Earth & Environmental Science in Ireland



This course is designed to fulfill several needs of IDLS students, specifically those Mathematics & Science concentration candidates. With adaptation, it can also serve the needs of prospective secondary Earth and Biology teachers. It will serve as an intensive, field-based, upper division course of 3 credit hours each in Earth Science and Biology, and will last two weeks.

Specific themes to be pursued in the course design include:

- **The Bedrock** – Igneous & metamorphic rock, sediments & sedimentary rock, and fossils;
- **Shaping the Land** – Geomorphology of glacial, fluvial, and karst environments;
- **Where the Land meets Sea** – Coastal environments;
- **The Veneer of Life** – Flora and fauna of bog, lacustrine, and stream environments;
- **Impact of Humans** – The impact of development, pollution, and overall global changes;
- **Design of Field-Based Scientific Investigations** – how to design, conduct, and report the results of a field-based inquiry, translatable to a classroom or home setting;
- **Biological communities and commercial utilization of natural resources;**
- **Cultural Similarities and Differences** – Tour of Galway, Neolithic, Bronze-age, and Medieval sites.



This course will allow students to meet general program objectives for international study, specific to mathematics and science. It will also provide an inquiry-based experience for prospective teachers that match requirements of scientific investigation required by accrediting bodies, especially for prospective middle-grades teachers.

An additional 1 credit hour assignment for each course will be available for students by the completion of an additional instructional task. Instruction will include lectures, guided tours, field work, maps and laboratory reports, journal assignment and/or papers, and exams.

Tentative course offerings:

GEOL 399 or BIO 399: Earth and Environmental Studies in Ireland, (3)

GEOL 501 or BIO 501: Topics in Geology-Earth and Environmental Studies, (3)

Pre-requisites: Math and Science concentration; coursework: GSCI 161-166 completed prior to program

Please contact Dr. Eric Pyle at [pyleej@jmu.edu](mailto:pyleej@jmu.edu) for additional information