

Career Opportunities with a Degree in Earth and Ocean Sciences

The degree in Earth and Ocean Sciences (EOS) at NUI Galway is unique in Ireland with a blend of marine, earth and environmental sciences. It provides both a broad range of training, but stays focussed in the earth environmental sphere. The degree has significant practical components to ensure thorough training for a broad ranging career choice. There are excellent career prospects for an EOS graduate – a recent survey of the Geoscience industry in Ireland indicated that the sphere is worth over €3billion and employs about 25,000 people directly or indirectly. Below, a selection of recent graduates are list to show this range of opportunities for an EOS Career.

Eavan Collins
Geoscientist
Geoserv (Ireland)



GeoServ is an Irish geological consultancy firm which specializes in providing advice and support to clients domestically and internationally in the sector of geothermal energy.

My role at GeoServ is mainly related to deep geothermal energy exploration; developing geological models through the integration of geological and geophysical data through seismic interpretation, fault modelling and petrophysical analysis. Using this analysis, we carry out geothermal energy resource estimates and the potential applications for geothermal energy.

Damien Lynch
Exploration Geologist
Boliden Tara Mines



I am currently employed in the Exploration department in Boliden Tara Mines as an Exploration Geologist. Within this role I have been involved in large loop EM surveys, a geological mapping Project and logging cores. Boliden Tara Mines is currently the largest Zinc mine in Europe mining 2.6 Million tonnes of ore per year from a Lower Carboniferous limestone hosted Zn-Pb deposit in Navan, Co. Meath. My time in NUIG has equipped me with the necessary skillset to thrive in this role and the academic content and practical experience I gained has proved invaluable.

Sean Heffernan
Hydrogeologist
Atkins (UK)



I graduated from Earth & Ocean science in 2014, and took a year out to get some experience in the contaminated land industry, and take an MSc in Hydrogeology & Water Management at University of Newcastle. I am now with Atkins, a UK design, engineering and project management consultancy. The work is diverse, involving contaminated land ground investigations, contaminated site remediation, groundwater abstraction projects, and GIS based resilience assessments. I spend about 50% of my time in the office and 50% outside on site (project dependent).

Alida Zauers
Outreach Officer
Tyndall Institute



My job is to involve the public and schools in Tyndall's research at a non-expert level, and hence have a beneficial influence on policy, research funding, culture and the next generation of scientists. I coordinate all education and engagement activities to encourage a greater uptake of physics and electrical engineering in students at 2nd and 3rd level.

Tyndall National Institute is a leading European research centre in integrated ICT (Information and Communications Technology) hardware and systems, specialising in electronics and photonics

Conall O'Malley
Sci/Tech Officer
Marine Institute



I graduated in 2012. I then worked as a Marine Geophysicist for an Irish survey company for 4yrs, providing a great opportunity to travel internationally and work on interesting projects ranging from oil and gas exploration in the North Sea and West Africa to archaeological shipwreck surveys in the Mediterranean.

I currently work as a Scientific and Technical Officer in the Ocean Energy Team in the Marine Institute in Renville. My work in the Marine Institute includes providing support to new marine renewable energy device developers in deploying, maintaining and optimising device performance at our various wave energy test sites around Ireland.

Rebecca Bradford
Env Consultant
Tobin Consulting



After finishing my degree, I then graduated with a MSc in Hydrogeology from Birmingham University. I am now employed by Tobin Consulting Engineers in Dublin and have been on secondment to the Geological Survey Ireland (GSI) for a 3-year groundwater flooding project. Tobin Consulting is an environmental and engineering company whereas the GSI is the national geological survey, dealing with Irish geology, groundwater, seabed mapping, natural disasters and public health risks. I am part of a team monitoring and mapping groundwater flooding across the country.

Gus Egan
Env Consultant
Malone O' Regan



Gus completed his EOS Bachelor's Degree in NUIG in 2011 and held posts within Arran Chemical Company before completing a part-time Environmental Masters in UCD and moving to Malone O'Regan in 2017, a nationwide Engineering and Environmental Consultancy firm. He is currently working as an Environmental Consultant typically managing, monitoring and/or remediating industrial and brownfield sites across the country. Gus was also actively involved in the successful planning application of Ireland's first big solar farm (5MW) in Co. Louth earlier this year.

Ciara Gilligan
Project Env Scientist
Jennings O'Donovan
& Partners Ltd.



I graduated in 2016. I am currently with Jennings O'Donovan & Partners Limited, within the Planning and Environmental Department. Jennings O'Donovan is an Irish owned multidisciplinary consulting engineering firm specialising in renewable energy, water supply, wastewater treatment and in the provision of planning and environmental services.

I provide environmental assistance with planning applications for major infrastructure projects including aquaculture-based projects, renewable energy projects (wind and solar developments), wastewater treatment systems and water supply schemes throughout Ireland.

David Burden
Env Project Manager
UK Environment Agency



David graduated in 2014. He is currently an Environmental Project Manager for the Environment Agency in the UK. My main role is to help conduct EIAs for upcoming projects. These projects are usually related to flooding defences

The Environment Agency is a public body sponsored by the UK government. As the name suggests it's main goal is protect and enhance the environment in England and part of that goal is flooding defences. It was this aspect that attracted me to my current role.

Shane Lavery
Geoscientist
SLR Consulting



Shane Lavery graduated in 2011 and went straight into the mineral exploration industry, working in Angola, Scotland, and across Ireland, followed by a secondment in the Geological Survey of Ireland. He then moved to SLR Consulting in Dublin in 2014. At SLR, he is involved in exploration fieldwork including mapping, geochemical surveys, core logging and drill programme management in a variety of settings. Exploration work also involves client and government reporting, and a wide range of environmental monitoring and stakeholder engagement.

Or an academic career...?

Many of our graduates go onto a Masters degree to specialise in a particular area of interest, or perhaps a PhD. Both have enabled our graduates to travel the world as part of the research programs and later in an industry career. Such places have including Australia, Malawi, Europe, Mediterranean, South and North America.

Over the page are two examples from recent graduates that have gone on to further study to give a flavour of what opportunities lie within this sphere.

Orla Bath Enright

I chose EOS because of the broad range of subjects it encompasses and graduated in 2014. This allowed me to study and explore different areas within the geosciences that I never imagined would spark my interest and became passionate about palaeontology and sedimentology. Since graduating, I moved to the UK to begin a PhD at the University of Portsmouth that works on the interface among palaeobiology, palaeoecology and sedimentology. I focused my research on the Burgess Shale in Canada, a site of exceptional soft-tissued fossil preservation that provide a more complete picture of the rise of animal life just after the Cambrian Explosion. My PhD has allowed me to travel and work in some fantastic places including the Canadian Rockies, the Royal Ontario Museum in Toronto and the National Oceanography Centre in Southampton



Eoin Reddin

I graduated in 2106, I have undertaken an *MSc in Volcanology in the University of Bristol.*, that has allowed me to explore the management of catastrophic natural hazards, an area which I became interested while a student of Earth and Ocean Science.

I went on a field trip to Guatemala, where I saw explosive volcanism and the effects that its associated hazards can wreak on communities and infrastructure. I first learned about volcanic hazards whilst a student in NUI Galway. This was through a range of taught modules, and during my Final Year Mapping Project; spent evaluating ancient volcanic deposits in Snowdonia. The Earth and Ocean Science degree gave me a solid background in a range of subjects, from geology, hydrology and oceanography, as well as training in technical skills such as GIS. This education gave me a strong academic foundation, one which I hope to continue to build upon as I progress my career.

