Suggestions on how to use the Joyce Country & Western Lakes geopark project region as a case study for

IRISH UNIVERSITY MODULES: University College Cork

The table below provides suggestions and ideas for teachers to use to incorporate aspects of the Joyce Country & Western Lakes geopark project within their classrooms. We want to encourage using the geopark region as an outdoor classroom, as a case study area and for the people living within it to realise what a special area it is and be proud of where they live.

We hope to design resources in conjunction with teachers, so if you are interested in working with us, please contact us. We look forward to hearing from and working with you.

Please note, the curriculum information is correct as of April 2020. Only the strand units that apply to the geopark project are mentioned here.

Level: UNIVERSITY	Ideas on how to incorporate JCWL geopark with your teaching
University College Cork (UCC)	
• Geological Evolution of Ireland **GL1004**	•Geopark area as a case study as has rocks from many different ages spanning most of the geological evolution of Ireland.
• Introductory Sedimentology for non-Geologists **GL2001**	•Develop an activity to recognise sedimentary depositional environments e.g. in the road section from Finny – Kilbride: shallow to deep water.
• Sedimentological Processes and Sedimentary Petrology **GL2011**	•Develop an activity to recognise sedimentary depositional environments e.g. in the road section from Finny – Kilbride: shallow to deep water.
• Igneous and Metamorphic Petrology **GL2012**	•Geopark area as a destination to see how some metamorphic and igneous rocks formed.
• Easter Field Course **GL2016**	•Geopark area as an alternative fieldtrip to what they offer. Includes stratigraphy, sedimentology, volcanology, structure, palaeontology and basic mapping skills.
• Fossils as Living Organisms **GL2019**	•Geopark area as a fieldtrip/ case study for module e.g. looking at trace fossils in limestone and behaviour and environment they represent. Detail of uses of trace fossils and micro fossils. Role of fossils in biostratigraphy and chronostratigraphy.
• Sedimentary Environments **GL3013**	•Develop an activity to recognise sedimentary depositional environments e.g. in the road section from Finny – Kilbride: shallow to deep water.
• Crustal Evolution of NW Britain **GL3023**	•Have an Irish option for this, as the geology of geopark area is similar geology and processes to those of NW Britain (part of same continent). Igneous and metamorphic rocks, structural processes, Archaean and Proterozoic metamorphism, Caledonian magmatism, Palaeogene magmatism. Include Dalradian.

• Geological Map Interpretation **GL3030**	•Develop an activity for this module e.g. deducing geological history using the geological map, interpreting geological map, using ArcGIS/ QGIS to do an activity.
• Advanced Field Geoscience Techniques **GL3033**	•Geopark area as an alternative fieldtrip to what they offer. Includes stratigraphy, sedimentology, volcanology, structure, palaeontology and basic mapping skills.
• Geology Field Project **GL4030**	•Geopark area as an alternative fieldtrip to what is offered. Includes stratigraphy, sedimentology, volcanology, structure, palaeontology and basic mapping skills.
• Igneous and Metamorphic Terrain Mapping **GL6002**	•Geopark area as an alternative fieldtrip to what is offered. Includes stratigraphy, sedimentology, volcanology, structure, palaeontology and basic mapping skills. Concentrate on the areas with igneous and metamorphic rocks and how to use small scale structures e.g. minor folds to determine bigger events.
• Structural Geology for Mineral Exploration **GL6012**	•Geopark area as a case study for the ore deposits found in the area. Gold, Lead and Silver. Where mineralising fluids came from, why they concentrated, types of mineralisation and how mineral exploration has occurred.
• Geology of Ore Deposits **GL6013**	•Geopark area as a case study for the ore deposits found in the area. Gold, Lead and Silver. Where mineralising fluids came from, why they concentrated, types of mineralisation and how mineral exploration has occurred.
• Dissertation in Field Geology **GL6018**	•Geopark area as an alternative fieldtrip to what is offered. Includes stratigraphy, sedimentology, volcanology, structure, palaeontology and basic mapping skills.
• Field Training 1 **ER2002**	•Geopark as an alternative fieldtrip to what is offered. Develop a fieldtrip/ 'pack' for this module which includes basic field mapping skills.
• Field Training 2 **ER3005**	•Geopark as an alternative fieldtrip to what is offered. Develop a fieldtrip/ 'pack' for this module which includes basic field mapping skills.