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Assessing The Role Of Integrated Learning In The BSc International Field Geosciences (IFG) Joint Degree Programme At University College Cork, the University of Montana and the University of Potsdam.

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The Department of Geology at University College Cork (UCC), Ireland, in conjunction with the Universities of Montana (UM) and Potsdam (UP) launched a new BSc in International Field Geosciences in Autumn 2008. In this program superb natural field geoscience laboratories available in Europe and the western United States are utilized as learning environments forming the basis for a 'Joint' Bachelor of Science undergraduate degree. This programme focuses on the documentation, interpretation, and synthesis of critical geological issues in the field. It rests upon a backbone of existing modules that are the foundation of current geology programs at three partner institutions complemented by an emphasis on the development of field-based learning in an intercultural setting. The core curriculum is identical to that required for the existing BSc Geology at UCC except the third Year is spent abroad at UM while additional courses are taken at the UP at the start the fourth year. The mobility component of the programme is funded as part of a joint EU/US ATLANTIS project. The motivation for the new programme was primarily driven by the growing international demand for geoscientists with integrated field skills. Over the last two decades existing geoscience programmes in Europe and the US have tended to progressively reduce their field based learning components. One of the major reasons for this neglect is the increasing cost associated with physically transporting students into the field and maintaining a safe outdoor working environment. Heath and safety considerations in an increasingly litigious society have led to increasingly limited choices for suitable field areas in the last few decades. Lastly, recent technological advances such as GIS and various other forms of remote sensing have led to new ways of analyzing geospatial data that, while certainly useful, divert the attention of the Geoscience community away from collecting 'ground truth' data and making direct observations in the field. It is very much the case that the field experience is "greater than the sum of its parts" and that substantial time in the field;

(1) allows students to make their own conceptual connections and adopt a problem solving approach that requires them to draw on and integrate various sub-disciplines in the geosciences.
(2) provides students with direct access to their study subject (Earth)
(3) allows students to acquire 3D visualization of geological structures and relationships
(4) offers students an opportunity to take ownership and responsibility for their own learning experience
(5) offers the opportunity for students to show personal learning initiative
(6) raises awareness and enhances student appreciation for environmental issues and their complex feedback mechanisms
(7) enhances generic scientific investigative skills
(8) enhances personal development, through increased self-reliance, self-confidence and team-building
(9) promotes deeper learning through direct experience and complete immersion

We will use a variety of means of assessing the level of impact of the integrative learning aspects of our program, focusing both on the cognitive and affective domains. Cognitive activities are concerned with the direct processing of information and subsequent construction of meaning while the affective domain is related to

processes that are concerned with the learner's emotional response (feelings and attitude) to learning.