Integration of original scientific research into an Introductory-Level Course

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Research in introductory courses can have a transformative impact on undergraduate education. The President’s Council of Advisors in Sciences and Technology (PCAST) ‘advocate and provide support for replacing standard laboratory courses with discovery-based research courses.’ These methods have documented impacts on student success metrics. This grant examines the impact of such an experience on Kutztown University undergraduates enrolled in AST 140QL – Planetary Science. After attending an NSF sponsored workshop, the PI will develop assessments of an existing pilot project to examine students’ perceptions of science, their success with course learning objectives, their success completing original research, and look for links in their overall programmatic and collegiate success. These results can inform programs and instructors about the impact of transitioning introductory courses to research-based experiences and will be disseminated beyond the university through journal and conference presentations.