School of Earth and Environmental Sciences
Spring 2025 Colloquium Series

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12:15 PM -1:30 PM
Science Building C-207

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Enhancing Student Achievement in a Large Geoscience Course through Active Learning Strategies

Large introductory environmental science courses often face challenges in student engagement and content relevance. This study is evaluating the implementation of active learning methods and skill-building exercises in a large-enrollment environmental science course for non-majors. The research combines multiple teaching approaches including modified laboratory exercises that emphasize collaborative problem-solving across disciplines, along with lectures, group discussions, in-lecture worksheets, structured reflection exercises, and peer mentor review sessions. Initial results compare student performance across traditional and active learning environments, examining the impact of peer review participation and group engagement levels. The data analysis explores student self-reported gains in critical thinking, problem solving, data analysis, teamwork, and environmental awareness, with particular focus on students' understanding of environmental issues as complex challenges requiring cross-disciplinary solutions. In this colloquium, I will present the preliminary findings on these teaching interventions.