Ph.D. student in STEM Education (UMaine) – starting August 2021

UMaine faces an exciting opportunity—we are in the midst of implementing research learning experiences (RLE) to more undergraduate students than ever before, starting with a pilot of >100 students this fall and scaling up to many more students in the coming years. From water quality monitoring to phage genomics to networking with professional musicians, our students will be engaging in dozens of intensive short courses that allow them to dive into research, exploration, and careers in their majors. In STEM disciplines, experiential learning, particularly course-based undergraduate research experiences, have been found to positively affect graduation rates, recruitment into science careers, and broader inclusion of underrepresented groups.

As part of this initiative, we are seeking a Ph.D. student to conduct research on the efficacy of experiential learning, particularly for STEM education. Briefly, the research topic would be to explore what aspects of experiential learning (e.g., immersive, prolonged) lead to the best outcomes (e.g., learning, belonging, retention), particularly for STEM. This Ph.D. student would lead data collection and assessment of these RLE courses as part of an academic year graduate assistantship, and these data would also serve as the foundation of the student’s thesis to explore what makes experiential learning effective.

The ideal candidate will have interest and/or experience in STEM education, like working as part of a large, collaborative team, and excel when they get in on the ground floor. A strong interest in STEM Education is essential, but other chapters of the Ph.D. thesis can be strictly STEM focused, leveraging existing datasets, including: [20 years of tidal marsh bird populations](http://www.tidalmarshbirds.org), [an ecosystem services assessment of development on public lands](https://www.youtube.com/watch?v=3JOw5_GG9F4&t=60s), longitudinal changes in avian biodiversity in national parks, or the effects of the COVID-19 pandemic on visitation to Acadia National Park. Experience working with birds is a plus as it will increase the likelihood of obtaining summer funding. Though initial funding is in the form of a graduate/research assistantship, teaching assistantships will likely be a component of funding over time.

Qualifications:

* An undergraduate degree in EITHER biology, ecology, natural resources, environmental science OR education, psychology, AND interest in both spheres.
* Evidence of effective technical writing and a commitment to publishing peer-reviewed articles.
* Strong quantitative skills, preferably including statistical training and coding experience (e.g., in R).
* A Master’s degree in one of these fields or equivalent research experience is preferred, but eagerness to learn goes a long way.
* A positive attitude and sense of humor about working on teams, troubleshooting, and research.

Application procedures:

To apply, please send a current resume or CV, a brief (<1 page) description of your research interests, and transcripts (unofficial okay) to Kate Ruskin (Katharine.ruskin@maine.edu). Please include ‘RLE GA’ in the subject line of your email. Interested applicants would earn a Ph.D. in either [Ecology and Environmental Sciences](https://umaine.edu/ecologyandenvironmentalsciences/) or UMaine’s interdisciplinary [iPhD](https://umaine.edu/graduate/program/interdisciplinary-doctoral-study/) program, depending on the student’s preference. In addition to joining a large group of exceptional graduate students at UMaine, the successful candidate will be expected to interact closely with UMaine administration, faculty, and undergraduates as part of the RLE initiative.

Application review will begin June 1, 2021, and will continue until the position is filled. This is a unique position in a growing field, so if you have any questions, please don’t hesitate to ask! After initial review, we will be in contact to arrange a phone or Skype interview with candidates who are a good fit for the position. Top candidates will need to formally apply to UMaine.

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