

# Cornell University

Applications are invited for a post-doctoral researcher in engineering education in the Sibley School of Mechanical and Aerospace Engineering at Cornell University. The successful candidate will take a leading role in the redesign and evaluation of two required junior-level mechanical engineering classes, supported by a Cornell University Active Learning Initiative grant.

## **Job description:**

The successful candidate will take a leading role in the redesign and evaluation of two required mechanical engineering courses, most likely in the solid mechanics area. The postdoc will work with a group of faculty and postdocs, including the course instructors, to develop and document course materials emphasizing active and inductive learning and real-life applications. Additional duties include developing and implementing metrics for the learning objectives of each class, and using those metrics to determine the efficacy of the course interventions. Opportunities for teaching may also be available. This position is part of a Cornell-wide initiative to shift the undergraduate curriculum toward active learning approaches; the wide range of participating departments is summarized here: <http://news.cornell.edu/stories/2019/02/active-learning-initiative-funds-nine-projects>. The postdocs will have the opportunity to engage with the Center for Teaching Innovation and participate in weekly seminars with other Active Learning Initiative postdocs to receive training and support in designing and implementing research-based teaching strategies. We expect the course redesign project to lead to archival publications in the Engineering Education literature.

## **Logistics:**

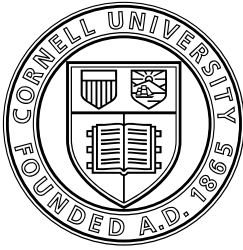
Employer: Cornell University

Location: Ithaca, NY

Start date: June 1, 2019

Length of appointment: 2 years

Time commitment: full time, but will consider part-time appointments.



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## **Required qualifications:**

- Ph.D. in mechanical engineering, engineering education research, or a closely related field.

## **Preferred qualifications include some combination of the following:**

- Experience with relevant literature and education research methods
- Strong background in solid mechanics
- Ability to work collaboratively with multiple faculty members and postdocs, adapting to diverse views and approaches
- Ability to work independently
- Project leadership, time management, communication, and writing skills
- Experience with curriculum development, teaching assistant training, or faculty development
- Enthusiasm for learning new things (Because this project will involve integrating and applying many different research areas, an ability to grow is even more valuable than extensive experience in any one of the above areas.)

## **To apply:**

Submit a CV, cover letter, a brief teaching and research statement emphasizing relevant background and/or interest in engineering education research, and the names and email contacts of three professional references to Prof. Elizabeth Fisher at [emf4@cornell.edu](mailto:emf4@cornell.edu). Evaluation of applications will start on March 15, 2019.

Please also contact Prof. Fisher with any questions.

Diversity and inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.