

Postdoctoral Teaching Associates (2 positions available) Location: Department of Biological and Environmental Engineering in the College of Agriculture and Life Sciences, Cornell University, Ithaca, NY 14853-5701 (<https://bee.cals.cornell.edu/>)

Position Description and Responsibilities:

The Department of Biological and Environmental Engineering (BEE) invites applications for two postdoctoral positions in Engineering Pedagogy, specifically the development of a curriculum-level vision for the implementation of active learning strategies.

The initial appointments are for one year, renewable for up to two additional years.

These positions are part of the Cornell's Active Learning Initiative: [University-wide Active Learning Initiative website](#)).

Goals of the Active Learning Initiative:

In this Active Learning Initiative (ALI), BEE will transform four courses in the broad biological engineering curriculum via an integrated, spiral approach that progressively builds students' understanding of complex problem formulation. A core component of this ALI is ongoing documentation of the process and outcomes, continuously communicating with departmental colleagues to reduce the barrier to infusion of active learning throughout the curriculum and department. Initially, the ALI will transform

Sustainable Engineering Design, a new course to merge Principles of Biological Engineering and Introduction to Environmental Engineering; BEE 3500: Heat and Mass Transfer BEE 4530: Computer-Aided Engineering: Applications to Biological Processes; BEE 4500: Bio-instrumentation.

Role of Postdoctoral Associates:

- The postdocs will work closely with faculty instructors to design active learning strategies, implement these strategies through creating in-class activities, digital course content and assignments.
- Help develop student assessments and feedback mechanisms to refine course material and strategies for the next year's implementation.
- Responsible for documenting and disseminating ALI strategies to the BEE faculty and assisting faculty to strategize ways to incorporate active learning into more courses.
- Work alongside a cohort of Cornell ALI postdocs through the Cornell Center for Teaching Innovation to elevate their department-level work to advancements in pedagogical research.
- Depending on the career goals of the postdocs, they may have the opportunity to directly mentor undergraduate students in research-based course projects, to develop in-class laboratory activities and/or digital laboratory content for more widespread dissemination, and to make presentations at relevant engineering pedagogy conferences.

Qualifications:

- A Ph.D. in an appropriate discipline and demonstrated capability and success in the engineering classroom are required.
- Must have demonstrated interest or have experience in creating and/or applying active learning strategies and advancing engineering pedagogy.
- Must have relevant background to develop courses in at least two of the following areas: Transport Phenomena, Fluid Mechanics; Instrumentation, Computational Methods, and Introduction to Environmental and Biological Engineering.

Applications and Starting Date:

Anticipated start date is July 2019.

Applications including a CV, a statement of teaching experience and pedagogy development, and the names of at least three references and [a statement of contribution to diversity, equity, and inclusion](#) should be submitted to the Department of Biological and Environmental Engineering via <https://academicjobsonline.org/ajo/jobs/13195>.

Applications will be reviewed starting 1 March 2019 and will be accepted until this position is filled. 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.

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