

The Center for Excellence in Teaching and Learning and the NEAG School of Education are pleased to host this workshop:

- ▶ November 17, 2022
- ▶ 12:00–1:00 (Extended Q&A)
- ▶ Workshop offered remotely through WebEx

(Register at link below)
https://fins.uconn.edu/secure_inst/workshops/workshop_view.php?ser=2686



Active Learning and Student Engagement in Large Lecture STEM Classes: lessons learned and findings from a decade of research and teaching

Dr. Talbot will share results from decades of research that inform innovative approaches to teaching large STEM courses. Introductory science courses are often taught in a large lecture format, in which 100-400 students and a single instructor convene in a traditional, stadium style seating classroom. Students' success in these courses is a prerequisite for further study in STEM and progression towards a degree. In their research, they found that when these courses are designed around near-peer learning support (in the form of Learning Assistants), student success (as defined by passing with a grade of A, B, or C) increases by 10-20%. They also found that students are more likely to be actively engaged with their peers during in-class activities. In this talk, Dr. Talbot will share examples of some of the pedagogies that are supported and enacted by adoption of the Learning Assistant model and which could be applied generally, and the associated curricular changes and artifacts which support these pedagogies.

Some suggested pre-reading:

Doughty, L., Hartley, L., Le, P., Nyaema, M., Boyer, J., & Talbot, R. M. (2018, December). Investigating the relationship between active learning task characteristics and student success. *2018 Physics Education Research Conference Proceedings*.

Huvar, H., Talbot, R. M., Mason, H., Thompson, A. N., Ferrara, M., & Wee, B. (2020). Science identity and metacognitive development in undergraduate mentor-teachers. *International Journal of STEM Education*, 7(1), 31.

Talbot, R. M., Hartley, L. M., Marzetta, K., & Wee, B. (2015). Transforming undergraduate science education with learning assistants: Student satisfaction in large enrollment courses. *Journal of College Science Teaching*, 44(5), 24-30.

Thompson, A. N., Talbot, R. M., Doughty, L., Huvar, H., Le, P., Hartley, L., & Boyer, J. (2020). Development and application of the Action Taxonomy for Learning Assistants (ATLAs). *International Journal of STEM Education*, 7(1), 1.

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