SES16-2016-000228

Abstract for an Invited Paper
for the SES16 Meeting of
the American Physical Society

A new IPLS course: From design to dissemination.[1]

DAVID SMITH, University of North Carolina at Chapel Hill

At the University of North Carolina at Chapel Hill, we have finished the complete transformation of our large-enrollment two-course sequence of introductory physics for life science majors. Both courses are now taught in the integrated lecture/studio format and use biological phenomena to motivate the physics. Across both courses, we have created a suite of 54 active-engagement modules, each consisting of studio activities, an interactive lecture, and assessment questions, all of which have been developed using the findings and best practices from PER. This suite includes materials for many topics that are important for life science majors, but are not part of the traditional introductory physics curriculum, including stress and strain, diffusion, chemical energy, and life at low Reynolds numbers. In this talk, we will provide an overview of what these two courses now look like, how we implement our curricula, the challenges we overcame during the development process, and our plans for dissemination.

[1]This work is partially funded by NSF DUE-1323008 and AAU Undergraduate STEM Education Initiative