

Seminar Title: Evidence-based teaching and equity in student outcomes

Abstract

Data are challenging the assumption that higher education in the U.S. is acting as an agent of social and economic mobility. Recognizing this, it is encouraging to note that recent research from my lab and others has shown that high structure courses with intensive active learning can reduce or even eliminate historical performance differences between low-income and higher-income students, and between minoritized and non-minoritized racial and ethnic groups in undergraduate STEM courses. But data also show that traditional teaching approaches still dominate instruction in undergraduate STEM. What will drive meaningful change? In addition to evidence, faculty need tools to create high-structure course designs and institutional incentives to achieve equity in student outcomes.

Brief bio

Scott Freeman grew up in Wisconsin and received a B.A. in Biology from Carleton College in 1978. After working in environmental education and international conservation for six years, he did graduate work at the University of Washington on the molecular systematics and morphological evolution of blackbirds and received a PhD in zoology in 1991. He had a Sloan Fellowship to support a post-doctoral fellowship in molecular evolution at Princeton University, then returned to the University of Washington as Director of Public Programs at the Burke Museum. Since the mid-1990s his focus has been on textbook writing, teaching, and discipline-based education research. He co-authored *Evolutionary Analysis* and was sole author of *Biological Science*, each through four editions, and is currently lead author on *Introducing the Life Sciences* from Codon Learning. He is a recipient of a University of Washington Distinguished Teaching Award, where he taught introductory and upper-division courses to over 18,000 students, and conducts research on how active learning techniques impact student performance in undergraduate STEM courses.