Preparing Scientists for Scientific Careers: Broader Impacts from an NSF CAREER Award

ALFRED CROSBY, University of Massachusetts Amherst — The scientific focus of my NSF CAREER Award is the impact of patterns, topographical and surface chemical in design, on the adhesion of soft polymer interfaces. Although this topic has provided a strong foundation for the mentoring and training of graduate students, the primary broader impacts of my award have focused on the development of “soft” skills in graduate and post-doctoral researchers in STEM disciplines. I have developed a course on “Scientific and Engineering Management,” which provides an open forum for students to explore the skills that, in many ways, define successful careers for many scientists. Topics include: leadership, proposal writing, group management, communication in diverse environments, and ethics. In this presentation, I highlight the primary phases of this program, how it meshes with scientific goals, and general statements about the mission of education outreach within STEM disciplines.