Skills for Underrepresented Populations to succeed in Engineering Academia

Enhancing skills for successful academic careers

» Sample skills for success in teaching
  · Writing a teaching philosophy
  · Developing syllabi – mini lecture
  · Assessment tools for learning outcomes, classroom management, strategies for embracing diversity in the classroom and academic integrity.

» Sample skills for success in research
  · Negotiating a start up package
  · Starting a research laboratory
  · Developing proposal budget
  · Addressing reviewer concerns: proposals & journals

June 4 - 14, 2018
— Submit survey of interest by Jan 1 2018
http://www.uakron.edu/interest-survey/

½ at end of summer
½ end of spring

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HOSTED IN 2018 BY UNIVERSITY OF HOUSTON

National Science Foundation
WHERE DISCOVERIES BEGIN
Skills for Underrepresented Populations to succeed in Engineering Academia

Benefits

- Develop research and teaching plans required for applications for tenure track positions
- Obtain best-practice teaching methods from STEM educators
- Learn about grant writing, budgets and proposal submissions
- Stipend for participants
- Opportunity to obtain a $1500 travel grant
- Network with other engineers interested in academia as well as tenured faculty

The National Science Foundation, U.S. Department of Higher Education, and department administrators from universities across the country agree that increasing underrepresented populations in STEM (science, technology, engineering and mathematics) fields is an important national need. Most of the recent activities to rectify the deficiency of underrepresented populations in STEM disciplines have focused on initiatives from grade school to undergraduate college degrees (K-16). These initiatives have made significant advances to enhancing the diversity of the US workforce, however they have had minimal effect on the number of graduating PhD students entering professional positions as faculty in academic fields. The lack of faculty diversification is alarming, considering that the primary sustainable method for developing future college-educated generations is a diverse STEM faculty. The goal of our workshops is to increase the participation of underrepresented populations in engineering that pursue academic careers. Therefore, the workshop will provide participants with training in STEM education to yield more prepared engineering educators, leading to better-equipped engineers entering the workforce. In addition, the workshop will provide additional skills to obtain research funding that will assist with participants' ability to succeed in all stages of their careers. All participants will be immersed in 9 days of training, followed by a series of virtual meetings for a year. The participants will have access to travel awards and workshop interactions over the next several years. Selected participants will receive a stipends and meals. On-campus lodging will be provided for participants having to travel more than hour.

Teaching:
Sessions include: refining and receiving feedback on a teaching philosophy, developing a mini-course syllabus, expanding lesson outline to deliver 20-25 minutes of instruction, developing learning assessment tool(s) for the information taught, learning different classroom management techniques, learning outcomes and academic integrity, strategies for embracing diversity in the classroom, and developing an evaluation plan.

Building a Tenure Track Application:
Activities will include: developing and receiving feedback on research statement for job applications, preparing (and resubmitting) proposals or journal papers, defining a viable start up package, learning negotiation strategies, recognizing differences between proposals submitted to different agencies or educational and “traditional technical” based research proposals, and developing a research team.

Interested senior level graduate students and post-doctoral fellows should complete a survey for interest at: http://www.uakron.edu/interest-survey/ by January 1, 2018