

# STEM FACULTY DEVELOPMENT

ENGINEERING & SCIENCE EDUCATION



## ENVIRONMENTAL SCAN

**Purpose:** To identify the opportunities and threats related to STEM faculty development in the areas of research, teaching, leadership, and service

**Target Population:** Returning/Recommended Faculty and Department Chairs

**Responses:** 4 out of 42 (9%), 2 Associate Professors and 2 Professors

## RESEARCH

4/4 participants referred to grants when talking about the needs of STEM Faculty Development related to research

- Mentorship (circles and individual)
- How to receive money to support larger labs
- "Deal with industry"
- "Increasing research profile"
- Purchasing and maintaining instruments
- "Manage funded research"
- "Getting out of a research rut"
- Mentorship/institutional support related to grantsmanship
- Funding for Conferences (to further develop research competencies)
- Administrative practices related to managing grants and lab workers

## TEACHING

2/4 participants indicated that STEM Faculty Development related teaching needs to be incentivized

- Inclusive practices
- "Handling large classes"
- Develop design project
- Lack of reward/incentive
- Independent evaluators to critique teaching methods
- Not focused on in performance reviews
- Improving skills & techniques
- Manage TAs/graders
- "Any kind of initiative focused on cross-department curricula"

## LEADERSHIP

2/4 participants defined leadership as a collection of behaviors and actions that move a project or organization forward

4/4 participants referred to Department Chairs and Administrators when discussing leadership

- "Not regarded in department evaluations"
- Need "understanding of university structure"
- Lack of department leadership opportunities
- Collaboration with other faculty
- "Job shadowing administrators"
- Ph.D. Leadership certificate
- "Intentional training on how behaviors influence how faculty interact with others"
- "Administrative training for department chairs"

## SERVICE

4/4 participants indicated that there is a lack of "care" or "buy-in" related to service as it's not counted in performance evaluations

- "Takes time away from research"
- "Sacrificing precious time"
- Need help with determining "when it's okay to say no"