Professional Science Master’s (PSM) Programs
Chemistry

PSM in Forensic Chemistry

Market Analysis/Need

- Law enforcement and regulatory agencies require that their STEM workforce are US citizens
- There is a global demand for forensic chemists and forensic toxicologists that has not been unmet
- Salaries for entry level MS positions begin at $80,000

Program Status

- New program (2015)
- Approval was acquired very late in spring semester
- 2015 enrollments fell short of expectation
- Current fall admissions = 11

Highlights

- Partnership with The Center for Forensic Science Research and Education at the Fredric Rieders Family Foundation
- The Center guarantees internship and provides instruction expertise
**Market Analysis/Need**

- The overproduction of baccalaureate and master degrees in the life science has produced a large population of unemployed, high qualified scientists
- The training provided in these three PSMs makes the graduates extremely competitive in the current market
- Typically, 30-50 applicants apply for a single job
- The PSM graduate is regularly on the “short” list in job candidacy.

**Program Status**

- All programs are enrolled
- AY enrollments:
  - 33 Biotechnology
  - 11 Bioinformatics
  - 11 Bioinnovation

**Highlights**

- 90% employment rate! 45 internship assignments
NEW PROGRAMS

COMPUTER SCIENCE

• HIGH-PERFORMANCE COMPUTING FOR SCIENTIFIC APPLICATIONS
• CYBER DEFENSE AND INFORMATION ASSURANCE
PROGRAMS AWAITING APPROVAL

**PHYSICS**
- MEDICAL DOSIMETRY

**COMPUTER SCIENCE**
- COMPUTATIONAL DATA SCIENCE
THE FUTURE

- Partnerships
- New programs
- Changing needs
- Improved workforce/on-site workforce training
UNDERGRADUATE RESEARCH FELLOWSHIPS

TEMPLE UNIVERSITY
College of Science and Technology
Frances Velay Fellowship @ Temple University

• Funded by the Panaphil/Uphill Foundations
• Encourages and supports women’s leadership in the sciences, by offering female undergraduates the opportunity to develop and direct summer research projects that will prepare them for graduate study and professional careers in scientific fields
• 10-week research fellowship
• 10 fellowships - $6,000 Stipend
• Regular meetings to provide graduate study preparation, academic advising, and career mentorship
• Graduate school visits

Dr. Velay earned her M.S. in Chemistry from New York University in 1947, continuing studies toward a Ph.D. at a time when few women pursued graduate work in science. She was a resident of Philadelphia for many years. It is in her spirit and to honor her memory that this program seeks to encourage and advance the careers of young women in the sciences.
Materials Science and Engineering Fellowship @ Temple University

- Supported by the College of Science and Technology, NSF-Louis Stokes Alliance for Minority Participation, and the Office of Naval Research
- Offers opportunities for students to perform research in state-of-the-art facilities while understanding and designing complex materials and interfaces
- This program aims to support students with limited opportunity to work on a research project, participate in a research group, and/or be mentored by senior students and faculty
- 8-week summer research fellowship
- 10 fellowships - $4,500 Stipend
- Regular meetings to provide graduate study preparation, academic advising, and career mentorship

The TMI is the focal point for materials research at Temple University. TMI pursues collaborative interdisciplinary research on advanced materials ranging from complex functional fluids to novel thin film superconductors and new materials for energy-related applications. The TMI associated faculty are targeting research in the design, synthesis, characterization and modeling of advanced materials that will impact the vitally important themes of energy and...