



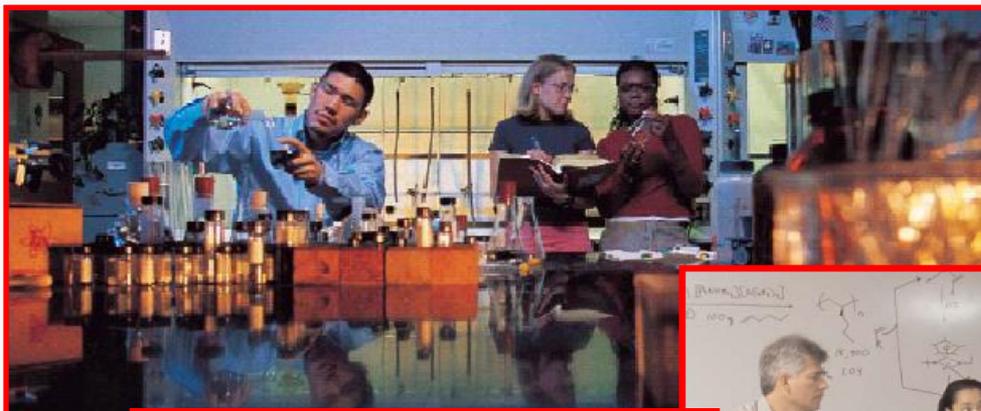
Quality of the Graduate Academic Program

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Dept. of Education – GAANN Program
Technical Assistance Workshop
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Chemistry Phd Program





Review Criteria

- ❖ Academic Requirements and Course Offerings
- ❖ Qualifications of the Faculty
- ❖ Focus and Capacity for Research
- ❖ Additional Demonstrations of Program Quality



Academic Requirements



*Stepping stones
to the PhD*

- 18 Credits of Advanced Coursework
- Chemistry Professionalism Course
- Cumulative Examinations
- Research Proposal & Candidacy Exam
- Research Project & Written Dissertation



Course Offerings

Narrative Description

- Core Courses – Traditional Subfields
- Interdisciplinary Courses
Geochemistry, Atmospheric Chemistry, Biological Mass Spectrometry, ...
- Special Topics Courses
Molecular Recognition, Medicinal Chemistry, Computational Chemistry, Surface Chemistry, ...

Appendix 2:

- Comprehensive Listing of Courses
- Course Descriptions



Qualifications of the Faculty

- Summarize Research Topics
- Research Productivity – 400 journal articles (5-year period)
- Research Funding - \$8M/annual
- 21 Awards – NAS Membership to Sloan
- 9 Editorships; 10 Editorial Adv. Board
- 15 Teaching Awards

(Repeated Faculty CV's)



Faculty-Student Advising

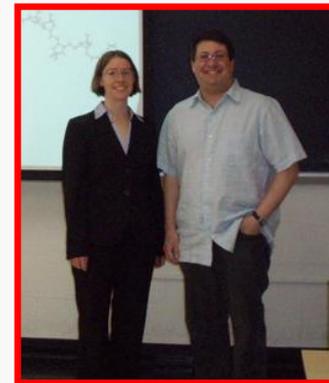
- 1st Year Advising Teams
- Research Advisor Selection
- Research Groups



Informal Faculty-Student Contact

Formal Meetings & Weekly Seminars

- Post-Candidacy Mentoring
- Career Advising





Focus & Capacity for Research

Graduate Student Population

- >80% Students with Prior Research Experience
- High Intellect – Average Entering GPAs
- High Aptitude – Average GRE Scores
- Recognized Excellence - External Fellowships – ACS, DOD Smart, NSERC, ARCS, NOBCCHE
- Candidacy Record - >85% Advanced
- Scholarly Presentations - ACS, APS, Biophysical



Additional Quality Evidence

- Opportunities to Mentor Undergrads

Beckman Scholars Program

Howard Hughes Medical Institute Program

- Research Center Participation

Materials Science & Engineering Research Center

Center for Bioinformatics and Computational Biology

Center for Biomolecular Structure & Function

Earth System Science Interdisciplinary Research Ctr

Maryland Nanocenter