



# Undergraduate Research and Future Faculty Development

# Why the focus on undergraduate research?

- Powerful learning pedagogy
- Providing high impact learning opportunities for students is factored into national rankings of colleges and universities across the country and undergraduate research is at the top of list of such practices
- Curricular redesign especially in STEM focuses on creating research rich curricula
- Funding opportunities for instrumentation, etc. can be predicated at certain types of institutions on involving undergrads in one's research



# Growth in Undergraduate Research

- Since the early 1990s and with the publication of the Boyer Commission Report there has been exponential growth in undergraduate research programs and initiatives across the country
- Major funders from the Howard Hughes Medical Institute, National Institutes of Health to the National Science Foundation are looking for proposals that include an undergraduate research component including the creation of research intensive courses in STEM.
- Funding for undergraduate research targets a wide array of institutions from liberal arts and community colleges to Research I universities.



# NSF Funding Opportunities

- The Faculty Early Career Development Program supports the role of teacher-scholars through outstanding research and the integration of education and research.
- Facilitating Research at Primarily Undergraduate Institutions
- Research Opportunity Awards
- Academic Research Infrastructure Program
- Most calls for proposals include the words: integration of education and research





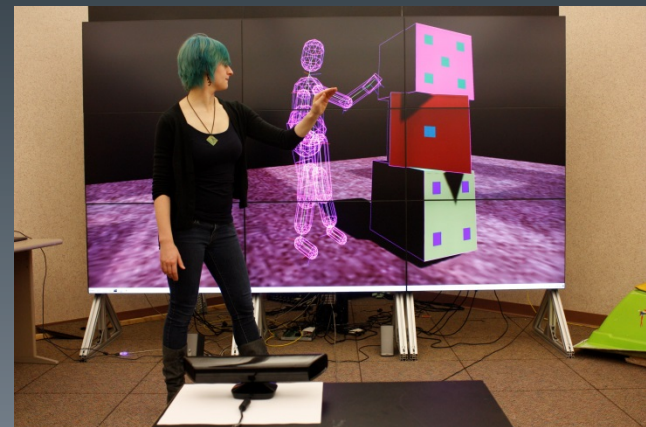
# Mellon Undergraduate Research in the Humanities and Social Sciences

- The goals of the Mellon Undergraduate Research Fellowship program are to provide opportunities for students (1) to gain critically important research skills and training in a faculty-directed research fellowship and (2) to pursue their own research questions and more fully develop their senior theses with a pre-thesis fellowship.



# Mellon Mays Fellowship Program

- The Mellon Mays Undergraduate Fellowship Program (MMUF) aims to increase the number of underrepresented minorities who earn PhDs in certain fields such as linguistics, Art History, Political Theory, Music, Classics etc. Campuses can apply for this funding and there are programs on 42 campuses across country including HBCUs.





# English: 19<sup>th</sup> Century British Literature Faculty Position

- The English Department at Macalester College invites applications for a position at the rank of Full or Advanced Associate Professor in 19th-century British literature, with the sub-field open. We especially welcome applications from candidates who have interest in and qualifications for departmental leadership and those whose scholarship engages theories of race, empire, nation, gender, or sexuality. Candidates should have a strong record of scholarly publication and demonstrated excellence in teaching. Beginning Fall 2015.
- We are especially interested in applicants dedicated to excellence in teaching and research/creative activity within a liberal arts college community engaging undergraduates in these activities.



# Recent Job Posting

The Department of Biological Sciences at Moravian College invites applications for a tenure track **Assistant Professor** position beginning Fall 2015. Applicants must have their Ph.D. in hand at the time of appointment. We are looking for a biologist whose expertise complements that of current members of the department. The successful candidate will have a research interest in the area of microbiology with a specific emphasis on immunology, virology, or medical microbiology. Success as a faculty member at Moravian is evaluated on the basis of teaching, scholarship, and service. Applicants who provide strong evidence demonstrating their ability to flourish in a small liberal arts college environment will be seriously considered. Scholarship at Moravian is evaluated in many ways, but carrying out research with undergraduates is critical. In addition to opportunities for students to participate in independent research projects under faculty supervision as part of their coursework (BIO381 Independent Study), Moravian has two programs for such research: [SOAR](#) and [Honors](#). The candidate's research statement should explicitly address how undergraduates will be able to participate in the applicant's research program.





# Benefits of Participation for Graduate Students and Postdoctoral Scholars

- Develop research mentorship skills for the future when you have your own research group
- Gain insight for future teaching through Interaction with undergraduates in more informal setting
- Participate in a unique undergraduate teaching experience that often is hard to acquire otherwise
- Gain experience working with diverse students including community college students
- Add to your market skills for all types of future positions. Undergraduate research is expanding exponentially at all types of institutions from community colleges to four year liberal arts colleges to major public and private research universities and industry.
- Augment your research portfolio. NSF and NIH increasingly are looking for people who know how to engage undergraduates in research in proposal requests.
- Get help getting projects going that may be tangential to current work




# Timeline for Becoming UROP Mentor

- Submit project on-line by September 1, 2015
- Interview students in September
- Sign student contract in September
- Students begin working no later than October 1, 2015.
- Set-up regular schedule for work.
- Mid-term progress reports collected in November
- Project Abstract Due Early December reviewed by you
- Poster Presentations reviewed by you April 2016 (and yes humanists can do posters!)
- Graduate students need to meet with Katy Downs prior to approval as mentor unless working closely in collaboration with a faculty member who is the listed research mentor



# Short Term Teaching/Mentoring Opportunities through UROP

- Journal Club Facilitators (Summer 2015)
- Teach Research Skill Building Workshops (Fall and Winter)  
Matlab, STATA, SPSS, NVIVO
- Seminar Speakers on following topics (Fall and Winter)
  - Reading the Peer Reviewed Literature
  - Cutting Edge Research in Your Discipline
  - Developing Effective Mentor/Mentee Relationships
  - Research Methods in your Field
  - Research Responsibility and Integrity
  - Multicultural Issues in Research



# Council on Undergraduate Research

## Sample Publications

- A Practical Handbook for Supporting Community-Based Research with Undergraduates
- Creativity Inquiry in the Arts and Humanities: Models of Undergraduate Research
- Faculty Support and Undergraduate Research: Innovations in Faculty Role, Definition, Workload and Reward
- Tapping the Potential for All: Undergraduate Research at Community Colleges
- Developing and Sustaining a Research-Supportive Curriculum: A Compendium of Successful Practices

<http://www.cur.org>