Undergraduate Research

Introduction

Faculty collaboration with undergraduate students on research, scholarship, and creative activities has proven valuable both for students and the faculty members they work with. The faculty resources listed below provide support, guidance, information, and examples for developing undergraduate research projects and programs in all disciplines. Following this, three websites for students offer an impressive tutorial for engaging in undergraduate research, an undergraduate journal, and funding opportunities. The final section of this webpage offers links to undergraduate research conferences nationally and in Michigan.

For Faculty

**Council on Undergraduate Research (CUR).**
This council is dedicated to promoting undergraduate student-faculty collaborative research, scholarship, and creative activities in the sciences, math, psychology, and social sciences. Members include faculty, directors of undergraduate research, and administrators. Affinity Groups focus on special topics such as Arts/Humanities issues and Environmental Science issues. Provides a listserv, publications, a quarterly journal, and links to relevant resources.
http://www.cur.org/ [1]

**The Reinvention Center at Colorado State University.**
The Reinvention Center is a national organization established in 2000 to work for the improvement of undergraduate education at research universities. Their web site provides a number of resources for those interested in promoting research opportunities for undergraduate students.
http://reinventioncenter.colostate.edu/ [2]

**Peer Review, Vol. 8, No. 1, Winter 2006 (a publication of the Association of American Colleges and Universities).**
http://www.aacu.org/peerreview/pr-wi06/index.cfm [3]
This issue focuses on undergraduate research. A hard copy of the entire issue can be ordered. The following four articles are available online:

"**Undergraduate Research Experiences: Synergies between Scholarship and Teaching,**" Tim Elgren and Nancy Hensel.
Describes the benefits of undergraduate research to both student researcher and faculty member: students’ growth as researchers, contributions to the faculty member’s own scholarly work, and new contributions to the field.
"Community-Based Research as Scientific and Civic Pedagogy," Elizabeth Paul. Of special interest to those in the Social Sciences, this article promotes research projects in partnership with community organizations. [5]

"Creative Activity and Undergraduate Research across the Disciplines," Lori Bettison-Varga. Describes the “transformative experience” of Wooster College’s independent research project for all undergraduates. [6]

"Undergraduate Research as the Next Great Faculty Divide," Mitchell Malachowski. Discusses the new faculty divide as one between faculty who engage students in their research projects and those who don’t. [7]


This issue of Peer Review also focuses on Undergraduate Research, as does the Winter 2006 issue described above. Articles include those from the arts and humanities as well as in STEM disciplines; also describes models for first-year and lower-division students.

Links are provided to full versions of eight articles plus the editor’s introduction.

Arts and Humanities Scholars (Undergraduate Research Program, University of Delaware). Contains samples of undergraduate student research proposals and excerpts from the faculty letter of support. Samples are from art, English, foreign language, history, music, and philosophy. Also links to a student handbook describing the Arts and Humanities Scholars Undergraduate Research Program. [9]

For Students

Web Guide to Research for Undergraduates (WebGURU), funded by the National Science Foundation Division of Undergraduate Education’s Educational Materials Development Program. An extensive and well-organized student guide, with information and links to electronic resources for undergraduate students participating in research in science, technology, engineering, and/or math. Includes a wide array of material ranging from the technical aspects of undergraduate research to such issues as research integrity, intellectual property, mentoring, and scholarships/fellowships. Has case studies, a discussion forum, and much more to enhance student success as undergraduate researchers. [10]

The Journal of Young Investigators: An Undergraduate, Peer-Reviewed Science Journal. Founded in 1997, this online journal edited and run by undergraduates offers a publishing opportunity for undergraduate researchers in the sciences. Articles are organized in three areas: Physical Sciences and Mathematics, Biological and Biomedical Sciences, and Basic Engineering Sciences. [11]

Reinvention: A Journal of Undergraduate Research (Oxford Brookes University and the University of Warwick).
An online, peer-reviewed journal launched with the September 2007 issue, dedicated to publishing undergraduate student research worldwide.
http://www2.warwick.ac.uk/fac/cross_fac/iatl/reinvention [12]

**Research Experiences for Undergraduates, REU Program**, (National Science Foundation).
The REU Program supports undergraduate research in any of the areas of research funded by the National Science Foundation. This site provides access to funding opportunities and deadlines, plus guidelines for preparing a proposal and managing an award.

**Undergraduate Research Conferences:**
**National Conference on Undergraduate Research (NCUR).**
Supports undergraduate research, scholarship, and creative activities in all fields of study. Sponsors an annual conference with published proceedings. NCUR has no homepage but conference proceedings are published by U. of North Carolina at Asheville.
http://www.cur.org/ncur_2015/ [14]

**Council on Undergraduate Research (CUR) Posters on the Hill.**
Sixty competitively selected undergraduate student researchers and their advisors display their research posters at the U.S. Capitol and visit with members of Congress to convey the importance of undergraduate research. An annual event.
http://www.cur.org/conferences_and_events/student_events/posters_on_the_hill/ [15]

**Meeting of Minds (MOM).**
Since 1993, this annual conference in Michigan, a collaborative effort from University of Michigan-Flint, University of Michigan-Dearborn, and Oakland University, permits undergraduate students to present their research and creative activities in presentations, posters, performances, and demonstrations. The meeting site rotates among the three schools on an annual basis.
https://umdearborn.edu/casl/684856/ [16]

**University Undergraduate Research and Arts Forum (UURAF) at Michigan State University.**
A spring conference that provides Michigan State undergraduate students with an opportunity to showcase their scholarship and creative activity.
http://urca.msu.edu/uuraf/ [17]

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**Michigan State University Resources**

**For Students and Faculty**
University Undergraduate Research and Arts Forum
The University Undergraduate Research and Arts Forum provides an opportunity for undergraduate researchers to present their work in the form of a poster or oral presentation, or to showcase their creations. Undergraduates from all MSU colleges who are engaged in original work are encouraged to participate.
http://urca.msu.edu/uuraf/ [17]

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