

Student Research

at Centre College

“Students benefit tremendously from collaborative research because it allows them to personally experience the thrill of discovering something that no one else knew. In addition, research makes what students learn in class so much more real because they realize what it takes to make those discoveries that show up in textbooks.”

—Peggy Richey, Centre biology professor

Why Do Research?

The talented students who enroll at Centre often are eager for challenges beyond traditional classroom discussion and testing. These students are ready for a new level of discovery, so we provide the opportunity for them to become partners in learning with our faculty, and offer them opportunities off-campus as well.

The Right Opportunity

In some fields, you won't have to go looking for the research opportunities at Centre—they'll come looking for you. Faculty members with long-term research projects regularly seek out students with ability and self-discipline. Dr. David Anderson (economics) often recruits student researchers for his study of the economic burden of crime; Dr. Preston Miles (chemistry) seeks students for his on-going research in trace analysis; and Dr. Beau Weston (sociology) usually needs student assistance with his research on the sociology of religion.

Your research and scholarship experience can be woven into your academic regimen in several ways:

- Faculty-Student Collaboration: Work with a professor on one of their research projects during the summer.
- Off-Campus Research: Choose an internship at a variety of national and local institutions.
- Summer job: If you don't need to obtain course credit for your research, simply list it on your resume as valuable work experience.



Dr. Melissa Burns-Cusato (far left), who recently received a grant for a research project about the aging process, advised student grant winner Emily Gregory '11 on her project involving Japanese quail. Over the years, Burns-Cusato has supervised several students who conducted similar research.

Faculty-Student Collaboration

The nature of the partnership will vary according to the student's area of interest. Regardless of the field, these collaborative efforts become an important bridge to significant work or graduate study beyond the Centre years.

Some recent topics of faculty-student collaborations:

- cerebral cortex development
- creating math software for grade school students
- bacterial resistance to antibiotics
- the impact of microfinance on poverty
- parent-offspring interactions in Japanese quail
- development of fiber-optic lasers
- measuring organic compounds in natural waters
- reproductive traits of wild American ginseng
- factors that influence juror opinions of guilt/innocence
- pairbonding behavior in ring neck dove

John C. Young Scholars Program

The John C. Young Scholars program is designed to serve strong, highly motivated senior students allowing them to engage in independent study, research, or artistic work in their major discipline or in an interdisciplinary area of their choosing. Students will apply for the program in the spring of their junior year by submitting a thesis proposal to a faculty member who will serve as their project director and who will collaborate with them in designing the program.

Every year approximately seven seniors are chosen as John C. Young Scholars. Guided by a Centre professor, these

academically outstanding students, choose any topic of interest, and present their work at a symposium. The program offers students a stipend to cover expenses related to his or her project, and the results of their research are subsequently published.

Examples of recent student work:

- Thomas Jefferson and the church-state separation
- British colonialism and the tribes of Transjordan
- Nashville songwriter culture in film
- The science and economics of nuclear fusion
- The evolution and application of Al-Qaeda's Jihad
- Impact of land-use practices on water quality
- Consumerism and the Soviet Union
- Female protagonists and the journey in early novels

RICE Symposium

Sponsored by the Dean, the annual RICE symposium serves as a venue for Centre students to present the results of their research, creative activity, and internship experiences. The symposium is structured like a typical academic conference—with registration, abstract submission, concurrent paper sessions, a poster session, and a keynote speaker. Students' abstracts are published together in a bound program. For more info, visit: www.centre.edu/experientiallearning/centre_symposium.html.



Off-Campus Research

If you have a passion for a subject and are eager to work outside of Centre, there are many opportunities to find an internship or research position at a well-known company, institution, or organization. Here are some of the internships Centre students have participated in during the summer:

- forestry research at Harvard University
- presidential politics within media publications
- surgery research at University of Louisville Hospital
- Rural Health Project through East Tennessee State University
- laboratory work at Marathon Ashland plant
- physics research at Texas Christian University
- wildlife study at Oak Ridge National Laboratory in Tennessee
- evolutionary genetics at University of South Carolina
- research and analysis at National Capital Parks and Planning Commission
- endocrine surgery at Johns Hopkins University
- environmental chemistry at the University of Montana
- life support design and engineering at N.A.S.A.
- pharmacology research at the University of Kentucky

Grants, Scholarships, and Internships

Research opportunities abound at Centre at no additional cost. Most students complete their research projects as part of an independent study, which is covered by regular tuition. You may even receive academic credit for your research by registering for an independent study or internship. Tuition is the same as for a regular class, and the study is listed on your transcript. Some students also receive funding to present their research at regional conferences.

The Research Advantage

Students who complete advanced research cite many significant benefits. Clearly, independent and collaborative research promotes advanced learning, including extensive hands-on work with professional equipment such as a high field nuclear magnetic resonance imager, cryostat, fluorescing microscope, advanced software, and state-of-the-art glass-blowing facilities. Collaborative work provides the experience and contacts that may lead to jobs or graduate school fellowships. Many students' research at Centre is so advanced that their work is selected for presentation at prestigious professional conferences or even publication.

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