

KU Center for Undergraduate Research
ANNUAL REPORT

2013-14



Mission

The Center for Undergraduate Research fosters research opportunities by working with faculty to develop curricula and models for mentoring, advising students in their development as researchers, and providing campuswide programs and events that support and celebrate undergraduate research at KU.

This annual report summarizes the Center's activities from August 1, 2013 to July 31, 2014.

CENTER STAFF



Director
John Augusto, Ph.D.



Faculty Fellow
Holly Storkel, Ph.D.



Assistant Director
Nicole Perry



Program Coordinator
Dyan Morgan, Ph.D.

FACULTY ADVISORY BOARD MEMBERS 2013-14

The Faculty Advisory Board represents the school or unit on issues related to undergraduate research; advises the Center's staff in areas pertaining to student mentoring, faculty participation, and measurements of participation; communicates the importance of undergraduate research to faculty across the campus; and identifies models of "best practices" for undergraduate research across the disciplines.

- Holly Storkel (Chair)** *Faculty Fellow*
- Jennifer Hamer** *International & Interdisciplinary Studies*
- Eugene Rankey** *Natural Sciences*
- Claudia Dozier** *Social Sciences*
- Stephen Goddard** *Humanities*
- Liz Kowalchuk** *Arts*
- Paola Sanguinetti** *Architecture*
- Laura Poppo** *Business*
- Philip Gallagher** *Education*
- Perry Alexander** *Engineering*
- Barbara Barnett** *Journalism*
- Julia Broxholm** *Music*
- Brian Barnes** *Pharmacy*
- Deb Adams** *Social Welfare*
- Estela Gavosto** *Office for Diversity in Science Training*
- Michael Vitevitch** *University Honors Program*

UNDERGRADUATE STUDIES

The Center is a part of Undergraduate Studies, a unit of Academic Affairs within the Provost's Office. For more information about Undergraduate Studies: undergraduestudies.ku.edu

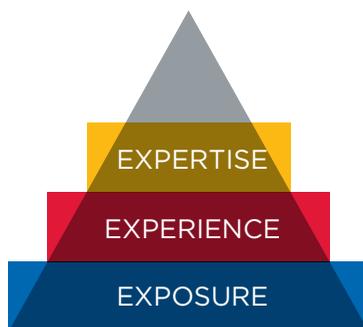
Cover: Paul Fowler discusses his undergraduate research project on the history of the African-American community in Lawrence, Kansas with one of his mentors, Clarence Lang, associate professor of African and African-American studies.

STUDENT PROGRAMS

The Center's student programs are focused on three areas:

- ▲ **Exposure:** expose students to research
- ▲ **Experience:** create opportunities to experience a part of the research process
- ▲ **Expertise:** support students as they gain expertise in a particular area of research

The Center provides programs and events that allow students to gain exposure, experience, and expertise in undergraduate research. Here are some examples:



STUDENT EVENTS AND WORKSHOPS ▲▲

Each semester, the Center hosts activities that introduce students to the idea of research. In addition, we host workshops that teach important research skills, such as proposal writing and presentation preparation.

SUMMER RESEARCH ▲▲

The Center provides a social kickoff event, skill-building workshops, and an end-of-summer poster session for students taking part in summer research at KU.

OFFICE HOURS ▲▲▲

All students can attend the Center's Friday office hours for one-on-one counseling on topics such as getting involved with research, gaining certification of their research experience, and writing successful Undergraduate Research Award applications.

RESEARCH EXPERIENCE PROGRAM CERTIFICATION ▲▲

The Research Experience Program (REP) documents research activity on students' transcripts.

UNDERGRADUATE RESEARCH SYMPOSIUM ▲▲▲

KU's annual Undergraduate Research Symposium is a hallmark event in which students present and review research results and work from research-intensive classes. This local venue gives students experience in presenting to a multidisciplinary audience.



Student Bryce Tappan and Misha Barybin, associate professor of chemistry, share a fun photo at the 2014 Undergraduate Research Symposium.

Photo courtesy of MoonFire Images.

TRAVEL AWARDS ▲

Travel awards provide \$500 for students presenting their research at academic conferences. This program is funded by the KU Student Senate Equal Opportunity Fund.

JOURNAL OF UNDERGRADUATE RESEARCH ▲

The 2014 Journal of Undergraduate Research, listed through KU ScholarWorks, provides a venue for students in all disciplines to publish research.

UNDERGRADUATE RESEARCH AWARDS ▲

Undergraduate Research Awards (UGRA) provide \$1,000 scholarships to students on the Lawrence campus for original, independent research, scholarship, or creative work performed under the guidance of a faculty mentor. The scholarships are awarded each fall, spring, and summer.

BY THE NUMBERS

100+

Office visits

16,000+

Unique website visitors

411

Student REP certifications

108

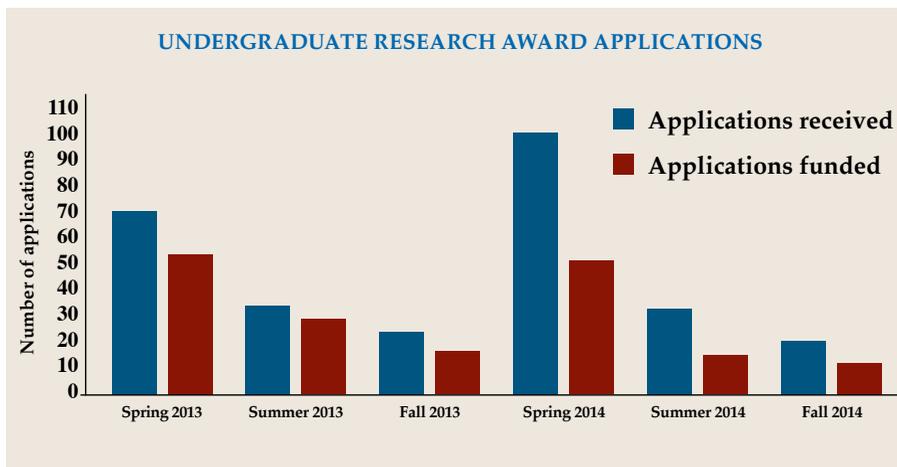
Student presenters at Undergraduate Research Symposium

919

Unique downloads and views for Journal of Undergraduate Research



Natalie Sabillón uses a clay model to show second-graders how they will help create “A Day in the Life of Jip the Zebra.” Sabillón received a spring 2014 Undergraduate Research Award to design, write, and illustrate the book with Hillcrest Elementary School students in Lawrence.



There was a 16% increase in the number of UGRA applications from 2013 (141 applications) to 2014 (163 applications).



Rachel Bowes, graduate student in ecology and evolutionary biology, works with student Holly Lafferty on an Undergraduate Research Award project. Bowes won the 2014 Outstanding Mentor Award.

MENTOR PROGRAMS

MENTORING WORKSHOPS

The Center staff gave two workshops on best practices of undergraduate student mentoring. The first was in collaboration with the KU Postdoctoral Association; the second was for the National Postdoctoral Association Annual Conference.

MENTOR AWARDS

The K. Barbara Schowen Undergraduate Research Mentor Award honors undergraduate research mentors for outstanding contributions to their students' development and their own disciplines. This year's winner was Kostas Kokkinakis, assistant professor of speech-language-hearing, and the honorable mention went to Renee Perelmutter, associate professor of Slavic languages and literatures.

In response to student requests, this year the Center established an award to honor the mentoring work done by graduate students, postdoctoral researchers, and research staff at KU. The 2014 Outstanding Mentor Award was presented to Rachel Bowes, a graduate student in ecology and evolutionary biology. Honorable mention went to Jacob Carter, a graduate student in ecology and evolutionary biology.



RESEARCH BYTES

Research Bytes are short videos that teach specific skills (for example, reading a journal article or presenting a poster) as well as general guidelines for getting involved with research (how to identify a mentor). The videos are intended as a resource for students, mentors, and instructors. Mentors and instructors can request a Research Byte about a particular topic by emailing cur@ku.edu. Current videos can be viewed at ugresearch.ku.edu/researchbytes

INSTRUCTOR PROGRAMS

RESEARCH IN THE CLASSROOM WORKSHOPS

The Center facilitated several workshops about incorporating research into undergraduate classes. Center staff organized three presentations at the Center for Teaching Excellence's annual Teaching Summit, which featured KU faculty speaking on such topics as creating a departmental curriculum for undergraduate research skills, introducing research in flipped classroom settings, and mentoring students in diverse disciplines. In addition, we co-sponsored a February workshop about community-based research with the Center for Civic and Social Responsibility, which allowed KU instructors the opportunity to meet with community partners.

BY THE NUMBERS

1,535

Views of the Research Bytes videos

74

Mentors had students present at the Undergraduate Research Symposium

107

Mentors sponsored UGRA applications

9

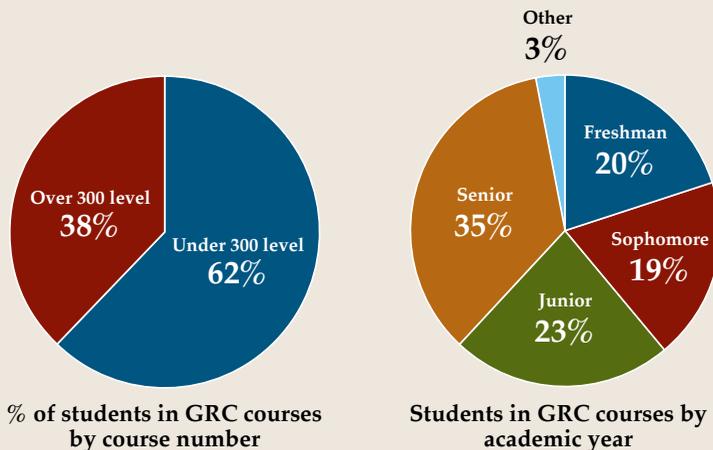
Classes supported by GRCs

GRADUATE RESEARCH CONSULTANTS

The GRC program supports instructors interested in incorporating research into their undergraduate classes by providing financial support (\$500) to a graduate student or postdoctoral researcher who designs a research project, mentors students, or evaluates student learning in a particular course.

WHO ENROLLED IN GRADUATE RESEARCH CONSULTANT CLASSES?

In the spring 2014 semester, the Center launched a Graduate Research Consultant program based on a successful model at the University of North Carolina. Designed to expose a larger number of students to the research process, KU's GRC program included nine participating classes in its first semester. Two-hundred-ninety-one students enrolled in these classes, which included engineering, humanities, and social science courses.





GEOG 210 students work with GRC Meghan Kelly to mount cameras on kites. Later, they will stitch together the photos to gain experience in creating maps in the class taught by Margaret Pearce, associate professor of geography.

INITIATIVES FOR 2014-15

For the upcoming year, the Center is focusing its efforts on these goals:

STUDENTS

Implement an outcomes-based approach for the Research Experience Program that engages students early in their KU careers.

MENTORS

Implement two faculty working groups — one in the arts and one in the humanities — that will examine undergraduate research activities to inform future programs.

INSTRUCTORS

Develop Research Bytes to support instructors incorporating research skills into their courses.

DEPARTMENTS

Document departmental practices and publicize the practices that best support students, instructors, and mentors involved in undergraduate research.

KU

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