

Undergraduate Research Task Force

Enhancing the undergraduate experience
through research and creative endeavors

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Chair, UGRTF
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Membership

- David Andrus, Professor, Marketing
- Itzik Ben-Itzhak, Professor, Physics
- Lora Boyer, Associate Director for McNair Scholars Program, Student Life
- Barry Bradford, Associate Professor, Animal Sciences and Industry
- Fred Burrack, Director/Associate Professor, Music and Assessment Office
- Stephen Chapes, Professor, Biology
- Anita Cortez, Director of Developing Scholars
- Greg Eiselein, Professor, English
- Jane Garcia, Professor, Family Studies & Human Services
- Keith Hohn, Professor, Chemical Engineering
- Vibhavari Jani, Associate Professor, Interior Architecture and Product Design
- Sara Kearns, Associate Professor/Department Head, Libraries
- Paul Lowe, Assistant Vice President for Research
- Bonnie Lynn-Sherow, Associate Professor, History
- Eric Maatta, Department Head/Professor, Chemistry
- Marian Mersmann, UG student Biology, Psychology
- Annelise Nguyen, Associate Professor, Diagnostic Medicine & Pathobiology
- Graciela Orozco, UG student, Biology/Animal Science
- Bob Peterman, Professor, Civil Engineering
- Gail Shroyer, Professor/Department Chair, Curriculum & Instruction
- Alysia Starkey, Asst. Dean of Academics, K-State Salina
- Janice Taggart, Staff, Grain Science and Industry
- Farrell Webb, Associate Professor, Family Studies and Human Services

Photos – Bruce Snyder, REU director, and KSU Photo Services

Committee Charge

- Provide a definition of undergraduate research and creative endeavors (UGRCE)
- Provide an environmental scan of comparable institutions (benchmark peers, aspirational peers, others)
- Propose mechanisms for assessment
- Propose methods to promote and celebrate UGRCE
- Propose resources needed to enhance UGRCE



Key Assumptions – Vision 2025

- In order to become a top 50 public research university in today's world, Vision 2025 expects that there will be an increased participation by undergraduates in RSCAD through expanded opportunities.
- Under RSCAD in Vision 2025, we will be competitive among our peers in the percentage of undergraduates involved in research.
- Successful integration of undergraduate education and meaningful research will be standard practice.
- Participation in undergraduate research will be a factor in improving retention and time to graduation.
- Creation of scholarship by undergraduates will increase as the result of their participation in research and creative endeavors at Kansas State University

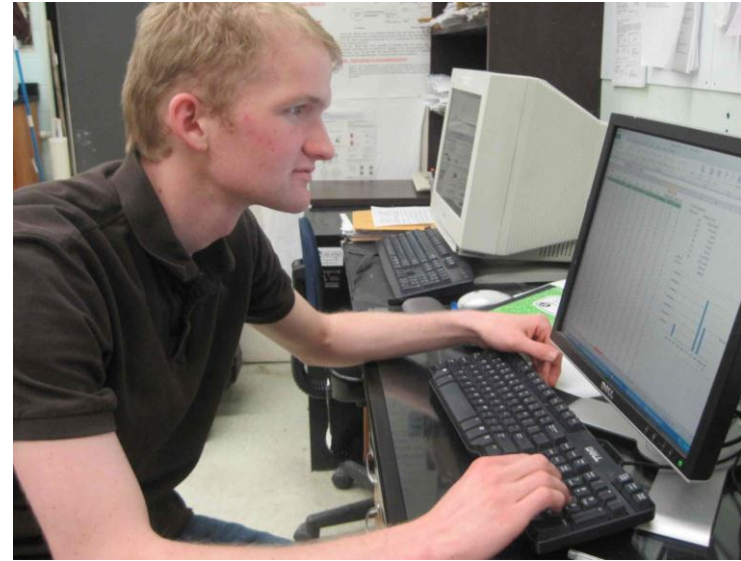


Process

- Task Force meetings March 8 – May 3
- Three subcommittees – Environmental Scan, Assessment, Celebrate and Promote
- Committee Chairs led the final report discussions, written report (Garcia, Burrack, Hohn)
- Final report shared back with Task Force
- Report finalized in August – ready for campus comment

Define UGRCE

- An authentic research project
- Setting the bar high – not just bean counting or credit counting
- Interpolating from the faculty, postdoc, PhD student, Master's student....undergraduate
- Public dissemination
- A project with evidence-based design
- New knowledge creation - adding to the body of knowledge
- A mentored experience
- Utilizing skills, not just learning skills
- Leading to unique creative solutions or discovery
- A project that is Individual or collaborative
- An activity that enhances professional self-awareness





Defining Undergraduate Research and Creative Endeavors

Undergraduate research and creative endeavors are defined as scholarly, collaborative, authentic, original work or an assessment from a new point of view conducted by a student or group of students within a mentored environment for the purpose of publicly disseminating the information through a university seminar, poster/oral conference presentation, performance, exhibition, and/or publication. The projects shall involve inquiry, design, investigation, research, scholarship, discovery, application, writing and/or performance to a greater or lesser degree depending on the discipline.

Environmental Scans

Infrastructure of Programs:

- 10 of 15 institutions have some sort of “centralized” approach to undergraduate research (including 6 of 7 benchmark institutions). Coordination or organization of programs range from an administrator with a desk to both administrative and student work space to support activities.
- Institutions convey a heavy reliance on grants and endowments; institutional support for funded positions varies. Some programs also include graduate assistant positions to help manage central programs.
- In a number of instances, offices for UG research also oversee programs for national scholar development, which may represent a consolidation of resources for some.





Program Components:

- Almost all offer a dedicated web site for undergraduate research highlighting program components and providing links to department specific activities
- Workshops and/or classes for UGs on topics such as research ethics, presenting research, and writing proposals
- Mentoring workshops
- Summer research programs
- Programs that target freshman
- Support of research conducted at external locations/private sector or through international/study abroad initiatives
- Funding of undergraduate research projects
- Travel awards for student presentations
- Graduate students who serve as mentors
- Online mechanism to connect students to faculty in areas of interest or as a specific program

Promotion, Recognition & Dissemination:

- Annual symposia of some type appear quite common
- Use of “blogs” to promote communications between current participants or web site to highlight student activity
- Research or “Scholar” designation on transcript or recognition at graduation
- Presentation to State Legislature often in conjunction with other state institutions
- At least 9 of 15 have an Undergraduate Research Journal (quite varied in purpose and function)
- University awards for students and faculty mentors
- Poster awardees at annual undergraduate exhibition become part of libraries’ digital collections



Characteristics of Excellence in
Undergraduate Research (COEUR)



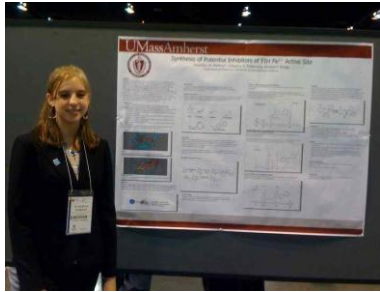
- Best practices in UGRCE reported in 2012 by the Council on Undergraduate Research

http://www.cur.org/assets/1/23/COEUR_final.pdf

Assessment of UGRCE

- **Develop a comprehensive Assessment plan for KSU Undergraduate Research.**
 - Tactic: Identify in relation to undergraduate research/creative endeavors, demographics of students and mentors
- **Create an online database and interface for students, faculty, and staff.**
 - Tactic: Connect survey data (below), through which students will self-report additional information pertaining to their research/creative endeavor in the format of a resumé.
- **Survey graduating seniors and recent alumni about their experiences.**
 - Tactic: Include questions on the Senior Survey and 1st year, 4th year Alumni Surveys that identify student perception of the contribution of undergraduate research/creative experiences and possible ties to future achievement
- **Substantiate qualities of impact**

Promotion & Celebration



- Create a Center for Undergraduate Research and Creative Endeavors (UGRCE)
- Recognize UGRCE on the transcript, at graduation, at different levels, and through awards for students and faculty
- Celebrate UGRCE at a university or college-wide convocation for students at the start of each year.
- Host a research and creativity symposium (campus wide, >1 days) in the spring that celebrates accomplishments with presentations, displays, shows, performances. (See NCUR example) Invite legislators to campus.
- Create/host an online UGRCE journal
- Coordinate with Communications and Marketing to generate news stories and releases about UGRCE.
- Hold a UGRCE display at the Capitol in Topeka with legislators.
- K-State should be the destination school for UGRCE.

Impact on Students

- Match students with mentors and projects using a web database of opportunities and talents.
- Web based e-portfolio/resumé linked with Career & Employment Services for each student.
- Provide financial support for students with fellowships/scholarships.
- Provide travel funds for students to attend conferences to present their work.
- Provide resources to support their research.
- Provide training for students – ethical conduct of research, how to generate problems, how to do research, effective/appropriate use of source material – Research Methodology.
- Create a 0-N credit hour course option to track or give credit for student research.



Impact on Faculty



- Recognize undergraduate research mentoring as a key component to time-and-effort distribution and towards promotion & tenure.
- Provide faculty with professional development around undergraduate research (mentor-the-mentor) and how to incorporate research into teaching/classroom experiences.
- Provide financial support to facilitate projects with undergraduates

Resources Needed



Photo - Katie Weilbacher

- Director – Center for UGRCE (1/2-time) **\$50,000**
- Assistant to the Director, event coordinator **\$20,000-40,000**
- Annual Celebration Activities **\$20,000**
- Financial Support for Students (\$1500 scholarships x 3000) **\$4.5M**
- Financial Support for Faculty (materials/supplies) **\$500,000**
- Travel support for students (meetings/presentations) **\$50,000**
- Council on Undergraduate Research Annual Membership **\$825**