Opportunities for Summer Undergraduate Research and Interdisciplinary Research at K-State

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College of Arts & Sciences
Summer Research Experiences

• Main reasons to consider summer undergraduate research experience
  – See if research is for you
  – See if the school is right for you
  – Gain valuable experience and connections

UG Research Programs video
Biology REU

• Ecology and Evolution in Changing Environments: Mechanisms to Responses
  – Features Konza Prairie Biological Station and Ecological Genomics Institute research

• 10 wks/Stipend plus lodging provided

• Apps due March 1, 2016
Chemistry REU

• Projects in areas including biosecurity, medicinal chemistry and drug development, microfluidics, nanomaterials, semiconductors
• 10 wks/$5200 stipend/room & board/travel
• Apps due Feb 15, 2016
Earth, Wind & Fire REU

• Sustainable energy research involving biomass, wind power, and solar power
• 10 wks/$5000 stipend/room & board
• Apps due Feb 19, 2016
Physics REU

• Intersections of Matter, Light, and Learning
  – Emphasis on lasers, attosecond physics, nanomaterials, fiber optics, and more
• 10wks/$5200 stipend/room & bd/travel
• Apps due Feb 1, 2016
Math REU

• Team- and problem-based research in various areas of mathematics
• 10 wks/$4000 stipend/rm & bd/travel
• Open app deadline
Sustainable Bioenergy REU

- Interdisciplinary program covering technical, agricultural, and social issues around sustainable bioenergy
- 10 wks; $4500 stipend/rm & bd/travel
- Apps due Feb 15, 2016
Summer Research Experience (SUROP)

- Interdisciplinary program run by Graduate School
- Projects in many areas possible
- 9-10 wks/$4500 stipend/rm & bd/travel
- Apps due Feb 1, 2016
- **SUROP enrichment seminars and social events open to all REU participants**
Interdisciplinary Programs Open to Graduate Students

• Multiple established programs within and across departments and colleges

• Emerging areas
  – Global Food Systems
    • Wheat genome initiative
    • 4 USAID Feed the Future labs
  – Intersection of Food, Energy, and Water
- Resources and expertise in bioinformatics and functional genomics
- Genomic approaches to solving problems in arthropod biology related to human, animal and plant health
Cutting-edge research in identifying types of lipids

Important in studying diseases such as diabetes and heart disease
Kansas State University

Konza Prairie Biological Station

- Tall grass prairie research
- Ecology
- Evolution
- Animal behavior
- Hydrology
- Plant biology
- Herpetology
- Community outreach
• Classes in sensory analysis, consumer behavior, marketing, psychology

• Work on consumer and descriptive sensory projects for large international companies

• Internships available
One project:

Understanding effect of lead contamination from lead and zinc mining on physiology, genome function, gene expression, in mouse populations from lead-contaminated areas
• Comprehensive interdisciplinary food science program
• Trains undergraduate and graduate students
• Supports basic and applied research initiatives
• Provides technical and scientific information to consumers, food industry, governmental agencies and academia
Basic and applied research with stem cells
Graduate Education Opportunities

- 39 Doctoral Programs
- 71 Master’s Degree Programs
- 39 Post Graduate Certificate Programs
Interdisciplinary Graduate Programs

- Biochemistry
- Food Science
- Genetics
- Public Health
- Security Studies