

Student Undergraduate Research Fellowship



S. U. R. F.

Program Overview & Submission Basics

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Arkansas Department Of Higher Education

- SURF started in 1992 with an NSF grant to Collis Geren (Dean-Graduate School, UAF)
- After 2 years NSF funding, state took over via SILO (Science Information Liaison Office) – some still refer to program as SURF-SILO – and administered through Henderson State University
- In 2005, administration was transferred to ADHE

The focus of the Student Undergraduate Research Fellowship is the continued development of undergraduate academic research efforts at Arkansas's public and private institutions of higher education and to provide funding to encourage students to conduct in-depth research projects in specific fields of study under the tutelage of tenured or full-time faculty member. The program is designed to assist all students throughout the state.

SURF applications must be received by November 1 at the Arkansas Department of Higher Education, 114 East Capitol, Little Rock AR 72201.

Eligible Projects

All types of undergraduate research are eligible for support, and all academic disciplines are encouraged to apply. In addition to the usual science, engineering and mathematics projects, this program will support, for example, a philosophy major who is preparing a paper in the area of bioethics, or an art major who wants to sculpt a major project. Funds are provided for students to travel to conferences to present their accomplishments.

BIOLOGY - Restricted Fragment Length Polymorphisms of Mitochondria DNA in the Smallmouth Bass, *Micropterus Dolomieu*. Corwin Petty (Professor Ronald Johnson), Arkansas State University.

BUSINESS - An Investigation of Perceptions Regarding Arkansas Usury Law. Tami Burris (Professor Margaret Hoskins), Henderson State University.

CHEMICAL ENGINEERING - Chemical Resistant Polyimides for Coating in Microelectronics. Wesley DeWill Munger (Professor Maria Coleman), University of Arkansas at Fayetteville.

CHEMISTRY - Optical Remote Sensing of the Ozone Precursors Isoprene and Alpha-Pinene: Laboratory Preparation. Neal Yowell (Professor Jeffrey Draves), University of Central Arkansas.

ENGLISH AND FOREIGN LANGUAGES - The Effects of E-Prime on Comprehension and Retention of Text. Ben P. Robertson (Professor Lee Campbell), Henderson State University.

NURSING - International Breast Cancer Screening Project. Ann-Marie Hemphill (Professor Ann Coleman), University of Arkansas for Medical Sciences.

PHYSICS - Proforce Current Bearing Waves. Steven Young (Professor Mostafa Hemmati), Arkansas Tech University.

PSYCHOLOGY - Effects of Trimethyltin-Induced Hippocampal Damage on Serial Learning. **Amy R. Pearce** (Professor Steven J. Haggbloom), Arkansas State University.

SPEECH, THEATRE, AND COMMUNICATION - Interactive Computer Models of Ancient Theatre Architecture. William Meador (Professor Bob Willenbrink), University of Central Arkansas.



Karyna Johnson, one of the students awarded with a SURF fellowship, has titled her project; "The Effects of Structured Musical Activity Sessions on the Development of a Child with Autism: A Case Study." This has given her an opportunity to unite two of her interests that often find themselves at odds: music and helping special needs children. She will be working with a five-year old, high-functioning child with autism, and studying social development. She will focus on developing eye contact (social interaction), verbal communication (social communication) and emotional understanding (imagination) with musical interventions.

I. Eligibility Criteria

An applicant must meet the following requirements to be eligible to receive the Student Undergraduate Research Fellowship:

A. The applicant must be a citizen of the United States or a permanent resident alien.

B. The applicant shall be enrolled in an approved Arkansas institution of higher education as a full-time student, as defined by the Department of Higher Education.

C. The applicant must be enrolled in a program of study that leads to or is creditable towards a baccalaureate degree. These programs include baccalaureate and associate degree programs.

D. The applicant must have completed at least 30 semester credit hours before funds are awarded.

E. The applicant must have a minimum cumulative 3.25 grade point average.

F. The applicant must have a tenured or full-time faculty member to serve as his/her mentor.

II. Continued Eligibility

A student may compete for additional years, but cannot receive more than three years of funding.

Amount of Fellowship

The amount of the fellowship awarded to each recipient shall be as follows:

\$1,250 maximum award Student Stipend*

\$ 750 maximum award Student Travel

\$ 750 maximum award Mentor Award

\$1,250 maximum award Institution Match

\$4,000 Maximum SURF Award

*Student stipend- Spring only \$ 625 maximum award

Spring & Summer \$1,250 maximum award

Spring & Fall \$1,250 maximum award

Spring, Summer & Fall \$1,250 maximum award

Note to Faculty with prior SURF grants: Changes this year, student travel raised to \$750 (from \$400), mentor award reduced to \$750 (from \$1,000)

Award dollars are split 60% STEM, 40% non-STEM

- Mahon Martin Fellowship - Additional \$1000
- Arkansas Science and Technology Authority NSF EPSCoR Grant provides additional Funding

Prior to last year, state allocated \$150,000 to this program which funded 60-70 awards each year. Last year, the allocation was doubled to \$300,000 and 138 awards were made statewide.

APPLICATION MATERIALS

- Cover page (signed by mentor and authorizing institutional official)
- Mentor form and mentor's vita (2 page maximum; if vita longer than 2 pages, only the first 2 pages will be sent to reviewer)
- Student form and student's resume 2 page maximum; if resume longer than 2 pages, only the first 2 pages will be sent to reviewer)
- Current transcript and listing of current semester classes
- One page summary of proposed research
- Description of proposed research (maximum of 5 pages, doubled spaced; if longer than 5 pages, only the first 5 pages will be sent to reviewer)
- Budget and budget justification forms
- Letter of support from mentor
- Two letters of recommendation from faculty members
- Original application and one copy

Faculty mentors, please note:

Inclusion of an extensive publication list is not necessary. New faculty or faculty who has recently become research active should not hesitate to apply.

Students, please note:

Students must provide the student form, a copy of a current transcript as well as a listing of courses in which they are enrolled for the current semester. The transcript must be an official transcript.

One-page summary of the proposed research:

The summary must include student and mentor name, institution, classification, grade point average, area of study, title of project, and summary of project.

Description of the proposed research.

This description should be written by the student (maximum of five pages, double-spaced, if longer than 5 pages, only first 5 pages will be sent to reviewer). Appropriate references should be included, but these do not count as a part of the five pages. The description should specify the student's actual involvement in the project, including a time schedule for the proposed funding period, i.e., the student will devote X hours each week during the academic year, or 10 weeks during the summer, or some combination thereof. Month to month accomplishments should be included. Background for the project should be included, but should constitute no more than 25 percent of the project description.

For some sample past projects, see:

<http://fellowships.uark.edu/index.php/surf>

Grading Criteria**Possible Points****Points Awarded**

Student's performance and accomplishments (G.P.A., activities, community service, etc.).	10	
Appropriateness of courses completed for proposed research.	10	
Mentor's letter of support.	10	
Two letters of reference.	10	
Mentor has prior experience supervising students in the discipline. (New faculty should be considered, as well as faculty recently beginning involvement in research.)	10	
Appropriateness of proposed mentor's previous experience for the proposed project.	10	
Research/scholarly activity/productivity by the mentor.	10	
The proposed research project. *	30	
<u>TOTAL POINTS AWARDED</u>	100	

***Criteria for the awarding of points vary with the area of the endeavor. Criteria may include:**

- Feasibility of the project, i.e., is the project reasonable for the proposed student with the available facilities?
- Is the proposed research/scholarly activity of value to the field of study?
- Is the project of sufficient difficulty to challenge the student?
- Will the project teach the student skills that are transferable to other research endeavors/ scholarly activities?
- Other criteria deemed appropriate by SURF Panel.
- Is there some justifiable reason to give this proposal consideration because the candidate is from a group under-represented in the area of endeavor such as women and minorities in science, technology, engineering, or mathematics (STEM)?

- Fellowship recipient is required to submit a one page abstract on the findings of his/her research upon completion of the project to the Arkansas Department of Higher Education as follows:

May 1 Spring term project completion

August 1 Summer term project completion

December 1 Fall term project completion

- Fellowship recipients are required to present the findings of his/her research at a state or national conference in his/her discipline or attend a meeting of experts in his/her discipline as directed by his/her mentor.

Questions:

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