

# STUDENT APPLICATION MATERIALS FOR THE BIOLOGICAL SCIENCES UNDERGRADUATE RESEARCH FELLOWSHIP (BSURF)

## Description

The Biological Sciences Undergraduate Research Fellowship (BSURF) has been established to support undergraduate research opportunities in the Division of Biological Sciences within the Franklin College of Arts and Sciences. The fellowship provides financial assistance to a student who has not had an opportunity to participate in a mentored research experience (paid, volunteer, or for credit) since matriculating to the University of Georgia. An award of \$3,000.00 will be provided to the recipient of the Fellowship and paid in two installments in the Summer of 2020. The research is to be completed during the Summer Thru session term of 2020.

## Eligibility

Applicants must be current Biochemistry and Molecular Biology, Biology, Cellular Biology, Genetics, Marine Sciences, Microbiology, or Plant Biology majors in their 1<sup>st</sup> through 3<sup>rd</sup> year and have not had the opportunity to engage in mentored, scientific research.

### Award requirements

- 1. The student applicant must obtain a signed agreement form from a Faculty member who is willing to mentor the student through a research experience.
- 2. A complete BSURF Application Packet must be submitted to Room 411 in the Biological Sciences building by 5:00 pm on March 27th, 2020. Only completed Packets will receive consideration. See below for Application Packet requirements.
- 3. The awardee must complete at least 20 hours of work per week for 8 weeks during the months of June and July (Summer Thru session).
- 4. The field of research must be biological in focus. Areas which may qualify include, but are not limited to: Cellular Biology, Molecular Biology, Biochemistry, Ecology, Entomology, Organismal Biology, Plant Biology, Microbiology, Marine Biology, Biopsychology, Genetics, Bioinformatics, Biomedical and Bioengineering. The awardee and faculty member must agree on a suitable research project or activities. A committee consisting of members from Division faculty, post-doctoral associates, undergraduate coordinators, advisors, or graduate students will serve as the Award Committee and will evaluate all submitted proposals.
- 5. The awardee must complete mandatory lab safety training.

- 6. The degree of the awardee's involvement in laboratory activities is at the discretion of the Faculty member and should closely follow the Faculty-submitted research statement detailing what the student will be undertaking in the Faculty's lab. However, in addition to the awardee's primary research, it is strongly encouraged for the student to participate in multiple activities (e.g. participating in group meetings and/ or journal clubs) in order to learn as much as possible about scientific research.
- 7. The awardee must provide hand-written thank-you notes/letters to the donors of the Fellowship award funds as well as possibly attend a thank-you lunch or dinner event to meet the donors.
- 8. The student is required to submit two original, written papers via electronic submission on the first day of finals in Summer Thru session. These papers include one reflection paper and one research paper. The papers must be emailed to <u>biology@uga.edu</u>. Hand-delivered, hard copies will not be accepted. See below for guidelines and requirements on the two papers.

### **Application Process**

#### Submission

An Application Packet must be submitted to Room 411 in the Biological Sciences building on or before March 27th, 2020 by 5:00 pm.

The Application Packet consists of:

- 1) Faculty/Student agreement form signed and initialed by both the applicant and the faculty sponsor (page 3 of this document).
- 2) A one-page personal statement that addresses why the applicant wishes to participate in research and what his or her interests and goals are, both for the Fellowship and potential post-secondary education and professional plans.
- 3) A printed version of the applicant's transcript or degree audit (from DegreeWorks) showing overall GPA, successful completion of CHEM 1211+L, BIOL 1107+L, and either completion of, or enrollment in, BIOL 1108+L.

After Application Packet submission, a subset of applicants will be selected for in-person interviews with the Fellowship Award committee in order to become more familiar with the applicant. After all interviews have been conducted, the Award Committee will undergo a review and selection process.

#### **Review and Selection**

The Fellowship is merit-based, taking into account the student's personal statement, interview, and overall GPA. The greatest weight will be given to the personal statement. The selected applicant will be notified the first week of April, 2020.



# FACULTY/STUDENT AGREEMENT FOR THE BIOLOGICAL SCIENCES UNDERGRADUATE RESEARCH FELLOWSHIP

# **STUDENT INFORMATION**

Student Name: \_\_\_\_\_\_ 81#: \_\_\_\_\_

Semester of Application: \_\_\_\_\_ Major: \_\_\_\_\_

Telephone No:\_\_\_\_\_UGA Email Address: \_\_\_\_\_

I have read and understand the requirements for this fellowship and acknowledge that I will be required to 1) spend at least 20 hours per week in the lab, and 2) submit two papers, one reflection paper and one research paper, by the first day of Summer Thru Session final exams. The papers are to be submitted electronically to *biology@uga.edu* and follow the guidelines detailed in this agreement. I understand that the stipulations of this award require the final papers to be submitted to *biology@uga.edu*, even if my faculty sponsor does not require one.

(Student Initial)

# FACULTY SPONSOR INFORMATION

Faculty Sponsor Name: \_\_\_\_\_ Department: Title:

Telephone No:\_\_\_\_\_\_UGA Email Address: \_\_\_\_\_

As faculty sponsor, I understand that I must provide a research statement detailing what the above student will be doing in my lab in order for the student to be eligible for the BSURF award. I also understand the student is required by the terms of the fellowship to 1) spend at least 20 hours per week working in my lab, and 2) submit two papers, one reflection paper and one research paper, by the first day of Summer Thru Session final exams. These papers are required to be submitted to *biology@uga.edu* even if not required by me. I understand that students who do not receive the award may not be able to participate in summer research.

(Faculty Initial)

Student Signature

Faculty Sponsor Signature

Dr. Kristen Miller (Director) Telephone 706-583-0496 • Room 411 Biological Sciences Building • Athens, GA 30602-2601

Date

Date

Date

## **Reflective Paper requirements**

Because the student is new to research, the Award Committee is keenly interested in learning about the awardee's experiences and perceptions of conducting scientific research. The purpose of this paper is to give the student an opportunity to reflect on his/her experiences and provide the Award Committee with this feedback. Completed papers should be emailed to *biology@uga.edu* on or before Mar. 27th, 2020 by 5 pm.

- □ 2 pages double-spaced (not including Name, Title, Date, etc.)
- □ Typed in 12-point font, Times New Roman with 1-inch margins.
- $\Box$  The document should be a .docx or a .pdf.
- □ Address the following questions
  - How have your perceptions of, or ideas about, scientific research changed from the beginning of this 8-week period to the end?
  - Did this experience make you more or less interested in engaging in scientific research? Please briefly explain your thoughts.
  - Would you like to continue performing scientific research, perhaps continuing in the same lab?

### **Research Paper requirements**

The purpose of this paper is to create an opportunity for the student to engage in scientific writing. Scientific writing is a powerful learning activity because it requires higher level skills such as performing a literature review of peer-reviewed scientific literature (collecting background information), critically analyzing data, and explaining collected data in a clear and easy-to-understand manner. Completed papers should be emailed to *biology@uga.edu* on or before March 27th, 2020 by 5:00 pm.

- □ Minimum of four pages double-spaced (not including Title, reference pages, tables, figures)
- □ Typed in 12-point font, Times New Roman with 1-inch margins.
- □ In-text citations should be formatted as follows (Author Last name, Year)

*Example*: The immune system plays an essential role in protection as one of its main functions is the clearance of viral antigens (Thibodeau, 2005).

- □ The document should be a .docx or a .pdf. with all figures incorporated within the document.
- □ The paper must contain the following sections:
  - 1. **Title Page**: Must include the following information
    - + Research Title
    - + Faculty mentor Information: Name, Department, Email, and Phone number
    - + Student Information: Name, Address, Email, and Phone Number
    - + Semester and year research was completed
  - 2. Abstract: Write a concise summary of the project in 200 words or less

- 3. **Introduction:** Discuss the background and rationale behind the project using peer-reviewed literature to support your project justification and hypothesis.
- 4. **Materials & Methods**: State your materials & methods (in paragraph form, *not* as an ordered list) with enough detail that others could repeat them exactly.
- 5. **Results**: Concisely describe the data that you collected or helped someone collect. Include figures and tables where appropriate.
- 6. **Discussion**: Discuss your results, conclusions, study limitations, and possible future directions using peer-reviewed literature to support your ideas.
- 7. **References**: List of references to the scientific literature that supported your research. References should be ordered alphabetically and in the following format:

Last-name, First initial. Title of paper. Journal Name. Year of Publication; Volume (Issue); page-numbers

### Example

Cox J, Engstrom RT. Influence of the spatial pattern of conserved lands on the persistence of a large population of red-cockaded woodpeckers. Biological Conservation. 2001; 100 (1): 137-150