

Division of Biological Sciences

Franklin College of Arts and Sciences **UNIVERSITY OF GEORGIA**

FACULTY/STUDENT AGREEMENT FOR BIOLOGY RESEARCH

 BIOL 4960
 BIOL 4970
 BIOL 4980

 BIOL 4960R
 BIOL 4970R
 BIOL 4980R

(Please indicate above the specific course for which you are requesting credit)

STUDENT INFORMATION

Student Name:	81#:	
Semester/Year of Research:	Major:	Graduation date:
Telephone No:	UGA Email Address:	

I have read and understand the requirements for this research course and acknowledge that a research paper is due by reading day of the registered semester of research. The paper is to be submitted electronically to biology@uga.edu and follow the stated guidelines detailed in this agreement in order for me to receive credit for this course. I understand that the biology program requires a final paper even if my faculty sponsor does not require one. (Student Initial)

I understand that if I am involved with research continued from a past semester, the paper still must be original content produced this semester, i.e. not copied and pasted from the previous paper.

(Student Initial)

FACULTY SPONSOR INFORMATION

Faculty Sponsor Name:

Department: _____ Title: _____

Telephone No: UGA Email Address:

I understand that I (faculty) must provide a research statement detailing what the above student will be doing in my lab in order for the course to be approved. (Faculty Initial)

I also understand that a research paper is due from the above student by reading day or else the student will receive a grade of Incomplete (I). This paper will be due even if not required by me for completion of the _____ (Faculty Initial) course.

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

Course Description

This course is 4 credit hours and affords interested undergraduate students the opportunity to engage in laboratory research and work on a research project under the direction of a faculty member here at the University of Georgia. Students registered for this course may not receive payment for the research unless they have earned a fellowship stipend.

Biology majors may also use this course to satisfy either their Major Laboratory requirement or one of their Major Elective requirements. Please note that only the first semester of the course (BIOL 4960/4960R) will count towards the completion of Biology major requirements and that any additional semesters (i.e., BIOL 4970/4980) will NOT count towards the major but rather as a General Elective. Any of these courses will count towards UGA's experiential learning requirement.

If you perform research for multiple semesters in the same laboratory, you will register for BIOL 4960, 4970, and 4980, respectively. If you perform in DIFFERENT laboratories each semester, you will register for BIOL 4960 each time.

Course Requirements

- Research must be biological in nature for the course to be approved. Areas which may qualify include: cellular biology, molecular biology, biochemistry, organismal biology, plant biology, microbiology, marine biology, entomology, genetics, bioinformatics, biomedical, bioengineering and biology education with specific instructors. Projects that are primarily psychological or anthropological in nature (e.g., surveys or interviews) may not qualify. Dr. Kris Miller, Chair of the Division of Biological Sciences, will determine whether the research qualifies. BIOL 4960 is not a literature review course; the student must be involved in a research project.
- 2. A signed "Faculty/Student Agreement for Biology Research" must be submitted to Room 411 in Biological Sciences by 5:00pm on the last business day before classes begin each semester. A research summary written by the Faculty Sponsor must also be attached before the form can be processed.
- 3. Once the form has been signed and approved, the student will be emailed a section number (CRN) to register for the course (see below for HONORS protocol).
- 4. Students must complete at least 12 hours of work per week (i.e., conducting background research, reading/writing manuscripts and reports, and conducting experiments in the laboratory) for a total of 180 hours per semester.
- 5. Students are required to submit a research paper via electronic submission by reading day. Papers should be emailed to *biology@uga.edu*. A hand-delivered, hard copy is not necessary. The Biology program requires a paper even if the Faculty Research sponsor does not. Students who do not submit a paper will receive a grade of Incomplete (I). See attached guidelines for details on the final paper.

CURO/HONORS Course Requirements

Note: To do CURO research, a student does not need to be in Honors. If a student chooses to complete the Biology Research course for Honors credit (BIOL 4960R), he/she will be notified by Honors about how to count this as one of the required honors courses. The student will also be required to complete and submit a 10-page research paper (excluding title page, references, and figures or tables) at the end of the semester.

BIOL 4960 FINAL PAPER REQUIREMENTS

The final paper is due to the Biology program no later than Reading Day of the semester enrolled (last day of class for summer). Please email your paper to *biology@uga.edu*. A hand-delivered, hard copy will not be accepted.

Example research papers can be found here http://biosciences.uga.edu/forms

Paper Guidelines:

- 5-page minimum (not including the title, reference pages, tables/figures). CURO/Honors, 10-page minimum.
- Typed in 12-font, Times New Roman with 1-inch margins, double-spaced.
- In-text citations should be formatted as follows: (Author Last Name, Year) *Example*: The immune system plays an essential role in protecting the body, as one of its main roles is the clearance of viral antigens (Thibodeau, 2005).
- The paper must consist of a single .pdf or .docx with all figures incorporated into the text of the document, and not grouped at the end. If your paper requires an Appendix, include this section following the References. Papers submitted as multiple documents (e.g., PowerPoint slides) will be returned.
- Figures and tables must include a title, a number, and a brief description. All figures and tables should be referred to in the body of the paper (i.e. "see Figure 1") and need to be numbered in the order they are discussed in the paper. Place figure captions below the figure, and table captions above them. See the sample papers for examples.
- The paper must contain the following sections:
 - \circ 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 done
 - Course Number (i.e., BIOL 4960; BIOL 4970H)
 - Objective(s): State your purpose for doing the project in a succinct manner.
 - Abstract: Write a concise summary of the project in 200 words or less.
 - Introduction: Discuss the background and rationale behind the project. There must be at least two references included in the introduction.
 - Materials/Methods: State your methods (in paragraph form, *not* as an ordered list) in enough detail that others could repeat them exactly. These should not be written as directives.
 - Results: Concisely state your results. Include figures and tables where appropriate.
 - Discussion: Discuss your results and your conclusions. Be sure to include study limitations and possible future directions.
 - o 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.