

Gertrude Flora Ribble Research Scholar Application

FULL
NAME

Student ID # without the 9

MAILING ADDRESS

PERMANENT ADDRESS

CITY

CITY

STATE

STATE

ZIP

ZIP

UKY E-MAIL

COUNTY

CURRENT PHONE

PERMANENT PHONE

By signing here,

- a. I certify that I am a Kentucky resident and therefore eligible for a Ribble Scholarship.
- b. I give the Department of Biology permission to post my name, picture, and a description of my project on the department website.

Student's signature:

Date:

FOR FACULTY RESEARCH MENTOR

Faculty mentor (must be a faculty member in the Department of Biology):

Faculty Mentor's E-mail Address:

By signing here, I certify that...

- a. I approve of this student's research as described in the proposal.
- b. I believe that the student and their project are promising and have the potential to continue in my laboratory next semester.

Faculty Mentor's Signature:

Date:

AWARD DETAILS

The Ribble Research Scholarship, administered by the Biology Department, will support 4 students each semester for two consecutive semesters with awards of \$1000 per semester each. Applicants must be Kentucky residents entering their junior or senior year of study as *Biology majors* at UK (at least 60 credits earned toward the degree). The award is to encourage high achievement in biological research.

Criteria for this award are:

- **Kentucky residency** (required by Mrs. Ribble's bequest)
- **Biology major**, junior or senior status when research project begins
- Faculty mentor in the **Biology department**
- Cumulative GPA of **3.0** or above
- Current enrollment in independent research course (**BIO 395/397/398**) for **3 credits**
- Potential to continue research in the same lab for another 3 credits in the following semester
- Potential for a productive research experience as determined by the research plan

Ribble Scholars must engage in research for TWO consecutive semesters—the current semester and the next semester—for a total of 6 credit hours in BIO 395, BIO 397, or BIO 398. \$1000 will be disbursed to each Scholar during each of the two academic semesters, the second payment being contingent upon satisfactory progress. Scholars are expected to publicly present their work.

Application Deadlines: Check <https://bio.as.uky.edu/scholarships-2> for updated deadlines.

Completed proposals should be submitted to biology@uky.edu.



ACADEMIC INFORMATION

Credit Hours earned, including the current semester:

Current Overall GPA:

Expected Graduation Date:

Indicate how this award will help you (financially, career-wide, educationally, etc.). You are not expected to spend the award on laboratory supplies.

RESEARCH PROPOSAL

Organize your writing in sections with subheadings as listed below. Brevity and clarity are essential features of good scientific writing. The entire write-up must not exceed two single-spaced pages. Review of the proposal will analyze the student's grasp of the research project, the study design in relation to the hypotheses, its rationales, and implications. **The student, in consultation with the research mentor, must author this proposal.**

1. **Background:** Provide a brief background that (1) explains the study system, and (2) explains why the central research question of your study is important. You will need to support statements with references.
2. **Specific objectives:** What is the specific research question or hypothesis you are testing?
3. **Methods:** Describe the experiments that you have performed until now, and will be continuing, and the purpose of these methods in relation to your aims. Make sure to spell out any abbreviations or acronyms.
4. **Progress:** What is the expected research for next semester? Explain whether you will be continuing data collection or developing a new but related research project next semester. Briefly describe your activities in the lab for next semester. You do not need to know these activities in detail, but you must provide a rough idea of what could be expected next semester.
5. **Overarching Goals** (to be included ONLY if your project is part of a bigger project in the lab): What are the overall goals of the bigger project that you are a part of? What is your specific role in the project and how will your research contribute to this larger goal?
6. **Presentation:** Explain where this research will be presented
7. **Literature cited:** List all cited references including author names, year, title, journal, volume, and page numbers. You should cite at least two peer-reviewed references.

REFERENCE CITING FORMAT

Within text: Use only last names of authors.

The sky is blue (Shenoy, 2012). Researchers (Osterhage and Mirabito, 2020) have shown that the sky appears blue under certain conditions. It is known that the scattering of light causes the sky to appear blue (Mirabito et al, 2017).

Reference list:

Authors. Year. Title. Journal, volume: start page-end page.

Examples (completely made up!):

Shenoy K. 2012. The color of the sky. Journal of Sky Colors, 22: 17-23.

Osterhage JL, Mirabito PM. 2020. What color do you see? Journal of Sky Colors, 22: 17-23.

Mirabito PM, Osterhage JL, Shenoy K. 2017. Effect of light on the color of the sky. Journal of Sky Colors, 22: 17-23.

(See Scoring Rubric on next page)

SCORING RUBRIC

Proposals will be scored according to the following points, on a scale of 0-3, where:

0 = absent/ incorrect/ not understandable

1 = vague/ poor attempt/ poor understanding

2 = decent understanding/ explanation

3 = good to excellent understanding/ well explained

N/A = not applicable to this proposal

1. Background = 2.5 pts

- 1.1. Background explains the science behind the research question and study system (1 pt)
- 1.2. Background laid out in the context of scientific literature (0.5 pt)
- 1.3. Background clearly leads to the research questions and hypothesis (1 pt)

2. Specific objectives = 1 pt

- 2.1. Research is based on a research question and not data collection for a bigger project in the lab (1 pt)

3. Methods = 2 pts

- 3.1. Variables in the experiment relate to the research question/ hypothesis (0.5 pt)
- 3.2. Explanation of methods/ techniques to measure variables is understandable (0.5 pt)
- 3.3. Methods show an understanding of why certain techniques are being used (1 pt)

4. Progress = 1 pt

- 4.1. There is potential to continue the research in the next semester (0.5 pt)
- 4.2. Description of next semester's activities is reasonable (as expected now) (0.5 pt)

5. Overarching Goals (to be included ONLY if your project is part of a bigger project in the lab) = 1 pt

- 5.1. There is an understanding of the project in the context of the lab's larger work (0.5 pt)
- 5.2. Clear explanation of what part of the bigger picture is covered by this project (0.5 pt)

6. Presentation = 1 pt

- 6.1. There is a plan to present the research somewhere with specific name of a conference/ research showcase (1 pt)

7. Literature cited = 1 pt

- 7.1. At least two peer-reviewed literature sources are provided (0.5 pt)
- 7.2. References are relevant and provide context for the research (0.5 pt)

8. Overall writing quality and organization = 0.5 pt

- 8.1. Proposal is easy to understand, organized clearly, and written well (0.5 pt)

**Total = 10 points (if your project is part of a bigger project in the lab)
or 9 points (if you are conducting an independent project)**

Points earned will be standardized to a percentage to account for differences due to presence/ absence of point #5.