BSC 398 – UNDERGRADUATE RESEARCH – EARLEY LAB EXPECTATIONS

This is a guide for undergraduate students interested in gaining research experience in the Earley laboratory using the BSC 398 mechanism for obtaining credit towards your degree plan. This guide will help undergraduate students to understand the purpose of BSC 398, laboratory expectations once you join the Earley lab team, and tips for achieving the highest grade possible in this 'course'.

The Basics

- You must fill out a BSC 398 registration form, indicating the number of credit hours, your university information, and the title of your research (talk with Dr. Earley). This form must be signed by Dr. Earley and returned to the Department of Biological Sciences main office. You will then be cleared to register.
- You have the option of enrolling for 1-4 credit hours (make sure when you log on to register that you choose the correct number of hours from the drop-down menu). Keep in mind that only 4 credits will count towards completing your degree plan (all additional credit hours will count towards your GPA but not your degree requirements)
- For each credit hour you sign up for, you are required to put in at the minimum 3 hours per week. 1 credit = 3 hours per week minimum; 2 credits = 6 hours per week minimum; 3 credits = 9 hours per week minimum; 4 credits = 12 hours per week minimum.

Objectives

- To familiarize undergraduate students with the process of scientific inquiry
- To help undergraduate students establish intellectual and professional ties with faculty, graduate students, and undergraduate peers
- To cultivate undergraduate student knowledge of how research experiments are constructed and executed
- To challenge undergraduate students to become proficient in as many techniques as they would like to learn

Expectations

- BSC 398 is not, as myth has it, an easy 'A'. Undergraduate students are expected to go above and beyond the call of duty to obtain an A+. Students should consult with Dr. Earley to discuss what it means to go above and beyond. Showing up regularly but contributing modestly will earn you, at most, a 'B'. Showing up and doing nothing with relevance to research (e.g., surfing Facebook; doing homework) will earn you, at most, a 'C'. Dr. Earley and the graduate students will do everything in their power to foster student learning; ultimately, though, students will gain only as much from this experience as they put in. Your grade in this course is, by nature, subjective. There are no exams, quizzes, or graded papers. Thus, be aware that you will be graded on the basis of what Dr. Earley and the graduate students observe (Dr. Earley regularly discusses the progress of undergraduate assistants with his graduate students).
- We do not punch a clock in the Earley lab but you are expected to contribute at least the minimum number of hours (according to the credit hour commitment). Be aware that Dr. Earley, graduate students, and more advanced undergraduate students pay close attention to individual contributions to the laboratory.

- Initiative and independent motivation are essential! It is the **students' responsibility** to be actively engaged in the research endeavor. In the event that the student has 'down time', it is her/his responsibility to inquire with Dr. Earley, graduate or undergraduate students about potential projects or tasks that they can become involved in. Dr. Earley is looking for team players that are willing to contribute in any way possible, and to learn as much as possible!
- Undergraduate students will likely be involved as an assistant on a graduate student's project. Dr. Earley will make every effort to place students on to a project that fits their interests but, it is the student's responsibility to contact Dr. Earley if they feel they would be more excited to: 1) be involved in a different project, 2) collaborate with a different graduate student mentor, or 3) learn different techniques.
- Undergraduate students are expected to contribute to weekly laboratory maintenance, including cleaning of the fish tanks and fish room, feeding duties, and basic laboratory clean-up. We have a **Weekly Laboratory Checklist** and a **Weekly Fish Room Checklist**. If you find yourself with a small amount of free time, please ask the graduate students or Dr. Earley to show you these checklists.
- Undergraduate students are expected to check in frequently with their graduate student mentor and with Dr. Earley to discuss their progress. If the student is wondering whether they are making sufficient progress towards an 'A' or an 'A+', it is the student's responsibility to set up a meeting with Dr. Earley.

In the event that you are struggling to find something to do

- The Earley laboratory has a notebook entitled **What you can do if you have free time**; please refer to this notebook if you find yourself with nothing to do, and feel free to ask Dr. Earley or the graduate students any questions that you might have.

Bonus Round

- Undergraduates who show remarkable initiative and a passion for learning and executing their own experiments will have the opportunity to lead their own project in the future– usually in collaboration with other highly motivated undergrads (and under Dr. Earley's guidance).
- Undergraduates who demonstrate significant commitment to their project(s), and who contribute invaluably to the project will have the opportunity to be included as a co-author on any peer-reviewed publication that emerges from the work.
- Dr. Earley would be thrilled to provide letters of recommendation to those students who become an integral part of the laboratory over the course of many semesters. A one-semester contribution will not ensure a letter of recommendation. However, several semesters of hard work and positive contribution to the laboratory dynamic will call for a fabulous recommendation!

I have read and understand the expectations for undergraduate research (BSC 398) in the Earley laboratory. I also understand what it will take to earn an excellent grade:

Student name (printed): _____ Date: _____

Signature: _____