

# Life Sciences 399R

## FOR BYU COLLEGE OF LIFE SCIENCES MAJORS ONLY

Credit Hours: v1-6

**Faculty:** Dr. Don Breakwell, Ph.D.

**Internship Coordinator:** Gale Larson, MPA

**Email:** gale\_larson@byu.edu

**Office:** 2060 LSB

**Office Hours:** 8 a.m. - 5 p.m.

**Office Phone:** 801-422-3042

### ***Required Materials***

- Application
- Syllabus

### ***Course Purposes***

The goals of this course include practical work experiences related to various fields of biology that enhance student learning through hands-on experiences and close collaboration with a qualified off-campus mentor. The experience must contain a research or problem-solving component. This problem can be discussed and formulated by you and your provider. Generally, semester abroad and “job shadowing” are not acceptable experiences. **For every 45 hours of research activities, 1.0 credit hour may be earned.**

### ***Course Learning Outcomes***

1. Demonstrate critical or analytical thinking skills by analyzing and interpreting experimental data
2. Exhibit proficient writing skills by producing a portfolio, research paper, scientific journal article and/or scientific poster
3. Critically read scientific literature and evaluate the ability of an argument or evidence to support a conclusion
4. Function as a collaborative team member by participating in student mentored learning groups or research groups

### ***Course Procedures***

#### **IRB Approval**

If you are planning on conducting research and it involves human subjects then you may need approval from the Institutional Review Board for Human Subjects (IRB). Sometimes approval is needed for such small things as surveys if a group of people is deemed vulnerable by the IRB. We would recommend that you visit the IRB website for additional information and to determine whether you need to fill out the appropriate forms. We will not approve an internship if the proper IRB approval has not been granted. Please see the web site at <http://orca.byu.edu/IRB/>

#### **Grading Procedures**

This is a graded (ABCDE) course based on the following: Grades will be based on an evaluation of your work by Dr. Breakwell and your on-site (off-campus) provider. Final grades will be influenced by the manner and timeliness in which you carried out assignments and interviews, and an assessment of your attitude and eagerness to learn.

Research hours completed	20%
Agency Evaluation completed	10%
Provider Evaluation completed	20%
Internship Exit interview completed	10%
Portfolio	40%

### **Grading Scale**

<b>A</b>	95%
<b>A-</b>	90%
<b>B+</b>	88%
<b>B</b>	85%
<b>B-</b>	80%
<b>C+</b>	78%
<b>C</b>	75%
<b>C-</b>	70%
<b>D+</b>	68%
<b>D</b>	65%
<b>D-</b>	60%
<b>E</b>	0%

Your learning is only as good as the amount of effort you put into this course. Your Portfolio should reflect the science you have done and what you have learned from the research experience. Do your best work; be honest with yourself about how much you have learned from your experience. Only be satisfied with your best effort and learn from any failure.

### **Assignment Descriptions**

**Paperwork:** Students participating in LfSci 399R are expected to find their own experience and get their internship approved by Dr. Breakwell, who will act as their internship faculty advisor. Once the internship experience is solidified between the student and the experience provider, students must:

- 1) Submit the online application, found on the [Life Sciences Internship page](#). Ensure that all information is accurate and complete, including email addresses and website address of Experience Provider.
- 2) Watch for emails from [internship\\_lifesciences@byu.edu](mailto:internship_lifesciences@byu.edu) outlining the next steps of action prior to registration.
- 3) Complete all action steps in approval email. The action steps will include:
  - a) Assure that a Master Agreement is in place (action is only necessary if a student is the first student to intern with a particular organization. This action is not necessary if internship experience is with a BYU professor). Check current Master Agreement list [here](#).
  - b) After approval from Life Sciences Student Services, submit a Grant Application if desired, which is found on [this website](#). If approved, funds will be deposited in your student account at the beginning of the term or semester for which you are registered for LFSCI 399R. (It will pay any outstanding fees first.) If you would like to put the money into your personal bank account, you must set up a Student Refund account from My Financial Services.
  - c) You MUST be enrolled in at least 1 credit hour of LFSCI 399R in order to qualify for a grant.
  - d) Meet with International Study Programs office, 204 HRCB, if you are doing an international internship. Bring appropriate forms to pre-orientation appointment.
  - e) Attend a pre-orientation appointment with the Internship Coordinator, Gale Larson.

NOTE: The internship itself is subject to the rules and guidelines established by the university and the individual provider.

**Portfolio:** The "Portfolio" outlines the research that you did during your internship. The Portfolio must be a minimum of 5-6 pages in report form. This paper should discuss topics including, but not limited to:

- ◆ An abstract of the project
- ◆ A description of methods and materials (include tables, graphs, pictures or other visuals as appropriate)
- ◆ An analysis of the results
- ◆ A summary and significance of the laboratory experience.

**NOTE:** Although the work you have done is likely collaborative, your portfolio is to be prepared by you, alone. Please do not include co-authors. If you would like to acknowledge the work of others with whom you have collaborated in your portfolio, please feel free to add an "Acknowledgments" section.

The due date of the Portfolio will be determined during the pre-orientation appointment. Please upload your paper **by 11:59pm of your due date** to the link found in a reminder email you will receive 7 days prior to your due date. At the top of the paper or on a cover sheet include the following:

- Name
- Student ID #
- Class (ex. LfSci 399R)
- Semester (ex. Winter 2016)

**Agency Evaluation:** Students are required to complete an evaluation of their Experience Provider. The due date of the is the same as the Portfolio due date, which will be determined during the pre-orientation appointment. Please submit your evaluation **by 11:59pm of your due date** to the link found in a reminder email you will receive 7 days prior to your due date.

**Internship Exit Interview:** This meeting is best completed in person; however, a phone appointment can be conducted if you will not be on campus. Completion of this final interview will be a factor in your final grade. **Please Note:** If there is an extenuating circumstance that requires you to request the Portfolio submission and Exit Interview be postponed, both must be completed within 6 months from the original due dates or your **grade will be a D** and you will be asked to **return Grant funds** you may have received.

### Course Schedule

	Date	Procedure	Authorizations
<input type="checkbox"/>	Before the beginning of the semester	Application, approval process	Dr. Breakwell
<input type="checkbox"/>	Before discontinuance date	Be enrolled as an academic internship student; Ensure you can complete the required hours.	Gale Larson
<input type="checkbox"/>	By appointment	Attend an internship pre-orientation with the Internship Coordinator	Gale Larson
<input type="checkbox"/>	Continual	Comply with all Experience Provider rules, policies and procedures	Experience Provider
<input type="checkbox"/>	Continual	Maintain scheduled hours with Experience Provider	Self-monitored/Provider
<input type="checkbox"/>	Continual	Complete all academic assignments	Experience Provider
<input type="checkbox"/>	<b>By 11:59pm of Due Date</b>	<b>Submit an Intern Evaluation of Experience Provider to link found in reminder email.</b>	Gale Larson
<input type="checkbox"/>	<b>By 11:59pm of Due Date</b>	<b>Upload Portfolio paper to link found in reminder email.</b>	Dr. Breakwell
<input type="checkbox"/>	Pre-determined appointment	Attend an internship Exit Interview with the Internship Coordinator	Gale Larson

**\* Please watch for emails from [internship\\_lifesciences@byu.edu](mailto:internship_lifesciences@byu.edu) throughout the semester, as we will be using it to communicate with you for: registration clearance, reminders, questions, evaluation survey, and to exchange any other information**

### Course Policies

#### Academic Honesty

The first injunction of the BYU Honor Code is the call to be honest. Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character. President David O. McKay taught that "character is the highest aim of education" (The Aims of a BYU Education, p. 6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

#### Honor Code

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

### **Plagiarism**

Writing submitted for credit at BYU must consist of the student's own ideas presented in sentences and paragraphs of his or her own construction. The work of other writers or speakers may be included when appropriate (as in a research paper or book review), but such material must support the student's own work (not substitute for it) and must be clearly identified by appropriate introduction and punctuation and by footnoting or other standard referencing.

The substitution of another person's work for the student's own or the inclusion of another person's work without adequate acknowledgment (whether done intentionally or not) is known as plagiarism. It is a violation of academic, ethical, and legal standards and can result in a failing grade not only for the paper but also for the course in which the paper is written. In extreme cases, it can justify expulsion from the University. Because of the seriousness of the possible consequences, students who wonder if their papers are within these guidelines should visit the Writing Lab or consult a faculty member who specializes in the teaching of writing or who specializes in the subject discussed in the paper. Useful books to consult on the topic include the current Harcourt Brace College Handbook, the MLA Handbook, and James D. Lester's Writing Research Papers.

### **Preventing Sexual Harassment**

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU's policy against sexual harassment extends not only to employees of the university, but to students as well. If you encounter unlawful sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 422-5895 or 367-5689 (24-hours); or contact the Honor Code Office at 422-2847.

### **Students with Disabilities**

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the Services for Students with Disabilities Office (422-2767). Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. Services are coordinated with the student and instructor by the SSD Office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.