Internships (BIOL 3939)

What Are Internships in the Department of Integrative Biology at CU Denver?

Internships offer opportunities to obtain hands-on experience and link coursework studies with the world of work. Whether preparing for a job search or applying to a professional school after graduation, internships offer a means to increase marketability. They can increase clinical experience hours, enhance a resume, and add substance to future interviews or applications. Students who are interested may earn up to three credits per semester, (up to six credits total) of upper division credit by enrolling in BIOL 3939 Internship or Independent Study or Directed Study credits.

Types of internships: Students have done internships at a variety of institutions in the community, ranging from working in the collections at the Denver Botanic Gardens or Denver Museum of Natural History, to working at the coroner’s office, to working as emergency room scribes at a local hospital and many other positions. Students may also work in a research lab at the Anschutz Medical Campus or an affiliated institution. Note that if you are planning on working in a research lab in the Department of Integrative Biology, rather than at the Anschutz medical campus another institution in the community, you would register for independent or directed study directly with your supervisor faculty. The internship course BIOL 3939 is for experiences outside of the Department of Integrative Biology

Finding a position in a Research Lab: Students often inquire about “internship” opportunities working through a research laboratory in the Department of Integrative Biology or the Anschutz Medical Campus and there are a number of options. First reflect on what type of research would be most interesting to you (ecology and environmental, cell and molecular biology, biomedical, etc.) and what you hope to gain from the experience. Health and biomedical related research experiences (both clinical and bench type opportunities) might be available through laboratories at the Anschutz Medical Campus or through affiliated institutions in the community.

Finding an undergraduate research position in Integrative Biology (for Independent Study credit): A good way to approach finding a research lab to work in is to first look at the departmental website for our tenure track faculty in Integrative Biology and learn about the research interests of individual faculty. Once you have narrowed your interests down, reach out to individual faculty via email, explain your interest and give them some information about yourself (year in program, classes taken, current GPA, number of hours you would be willing to work, etc.). Let them know what aspect of their research is interesting to you. Offer to meet with them in person and skim over some of their publications (usually available on their website) so you are familiar with the type of studies being done. Be aware that many undergraduate research positions in labs are done on a volunteer basis, so you may want to offer to volunteer for free (at least at first). Alternatively, if you are eligible for work-study, you may be able to use your work-study award for the work (note that the EURECa fellowships program also makes use work-study awards and is another avenue for being involved in research in the department. The Experiential Learning Center also advertises and administers opportunities for the EURECa program). Many faculty are interested in having undergrads who can commit to working in their labs for multiple semesters, because it takes significant investment in time to train students, and it takes a long time to obtain results, especially if you are only working a few hours per week. Be aware that it is a privilege to work in a research lab, as faculty are promoted and retained at the university in part based on their research productivity and results. Student researchers should be highly conscientious, motivated, mature, and ideally, be genuinely interested in the research.
questions of the host laboratory. You will work with your faculty sponsor to determine the hours and times for your work and to register for Independent Study course credit.

**BIOL 3939 Internship Credit:** If you wish to have an experience in a research laboratory at the Anschutz campus or another research institution in the community (e.g. Denver Health, etc.), and you wish to register for formal course credit, you may register for the BIOL 3939 course. Other types of internships out of state and abroad (see below) are also eligible for BIOL 3939 upper division course credit. To find a research position in a laboratory at the Anschutz campus, you may follow the guidelines above to reach out to individual principal investigators (PIs) with your inquiry. A list of departments at the Anschutz campus is available [here](#). Additionally, feel free to email Integrative Biology departmental internship advisor, Dr. Molly Nepokroeff and/or appropriate staff at the ELC. Dr. Nepokroeff and Matt Smith (Experiential Learning Center) may be contacted for a list of faculty at the Anschutz who are currently interested in hosting internship students in their research labs.

**Finding an internship for course credit:** Students are expected to find their own internship placement, but the Experiential Learning Center at CU Denver (please contact the current sciences coordinator is Matt Smith) and Integrative Biology departmental internship advisor, Dr. Molly Nepokroeff, can be contacted for additional advice and suggestions. Sign up for a brief workshop (offered weekly) and learn how to navigate Handshake to search available internships. A list of potential opportunities for internships can also be found on this page below (to be updated every semester).

You can help the staff at the ELC and Dr. Nepokroeff by telling them about you and your interests in an email. Some things that would be helpful to know include:

- During what semester could I undertake an internship?
- How many credit hours should I look for?
- How many hours/week would I be available?
- How willing/able am I to commute outside of the Boulder area?
- What types of skills do I have that prepare me for an internship? (knowledge of human anatomy, laboratory skills, GIS, research methods, good writing ability, etc.)?
- What would I like to learn in your internship?

To receive BIOL credit an internship experience, the position must relate to the study and/or practice of biological science (as opposed to some other academic discipline such as psychology, chemistry, public health, etc.) and the activities you undertake at the internship must be scientific, rather than clerical (e.g. answering phones, filing paperwork, cleaning cages, etc.) although some of those activities are expected in any internship.

**Requirements to take BIOL 3939:** Before applying, you'll first have to complete General Biology 1 and 2 (or comparable classes from other science departments) passed with a C or higher and must have a cumulative GPA of 2.75 or higher. You must also have completed at least 15 credits through CU Denver. Please note that some site supervisors maintain additional requirements for GPA or courses taken to be eligible. The application for course credit, which should be completed in consultation with the staff at the ELC and Dr. Nepokroeff, must be wholly completed and requires signatures from the employer and departmental representatives. Make an appointment with the ELC first to complete the agreements between you and the site supervisor for your internship, complete a form on Handshake (which will be sent to Dr. Nepokroeff for approval), and the ELC will also help you get set up for registering for course credit. Once your application is approved, you will be responsible for paying all associated tuition and fees for the credit hours you've requested.
Over the course of an internship, a student may be asked to submit periodic brief reports. In order to receive BIOL 3939 credit, a student is required to write a brief, academically formal paper at the end of the internship experience, in order to describe the work completed and its intellectual merit.

**National/Out of State Summer Research Programs:** Many national science institutions offer prestigious, competitive fellowships for summer opportunities lasting various weeks (typically 8-12 weeks). While you do not need to register for course credit through Integrative Biology in order to participate in these programs, you may do so, if you wish, and these internships may offer paid stipends in addition to high quality, authentic research experiences. These programs may require specific coursework and university standing. The deadlines for these programs are often very early in the spring semester so you will need to plan ahead for these opportunities. These are generally available every summer.

- [NSF's Research Experience for Undergraduates (REU) program](#)
- [Pathways to Science](#)
- [The Student Conservation Association](#)
- [Plantae](#)

In addition, these two institutions maintain a list of current national internship opportunities for college students in a variety of disciplines:

- [The Rochester Institute of Technology](#)
- [Cornell University](#)

**Current national (out-of-state) summer internship opportunities as of January 2020** Please note: many application deadlines occur early in the year):

**Environment and Ecology Focused Internships:**

- [American Museum of Natural History, Systematics and Evolutionary Biology for the 21st century](#)
- [Boise State University Raptor Research (NSF REU)](#)
- [Missouri Botanical Garden: Plant systematics, Conservation Biology & Ethnobotany NSF REU](#)
- [Smithsonian Ecological Research Center, Summer Program, Washington DC](#)
- [REU Disturbance Ecology in Central Appalachia](#)
- [Plant Community Ecology University of Minnesota Cedar Creek Ecosystem Science Reserve](#)
- [US Fish and Wildlife Service](#)
- [World Wildlife Foundation](#)
- [Rocky Mountain Raptor Program](#)
Health Related Internships:

Gates Summer Internship in Regenerative Medicine, CU Anschutz
Note: Local Denver Area!

BIG Summer fellowships UCLA (Big Data undergraduate summer fellowship program in quantitative and computational biosciences)

UCLA Amgen Scholars

Summer Undergraduate Fellowships in Genetics, University of Georgia

ASURE summer program at Dartmouth

MD Anderson Cancer Center University of Texas

Local Internships: Our students have participated in internships for course credit with a host of local Denver area employers during the semester and summer terms. You may also contact a faculty member researcher (principal investigator) at the Anschutz campus about the possibility of doing research in their lab. Please feel free to contact Dr. Nepokroeff, or view postings on Handshake (see also postings for EUReCA opportunities) for a current list of researchers who are actively looking for undergraduate help.

- Alameda Veterinary Clinic
- Bluff Lake Nature Center
- Colorado Wildlife Federation
- Denver Botanic Gardens
- Denver Health Medical Center
- Denver Museum of Nature and Science
- Denver Office of the Medical Examiner
- Denver Police Crime Laboratory Bureau
- Denver Zoo College Internship Program
- Kids in Need of Dentistry (KIND)
- NeuAbility (Adaptive Exercise and Integrated Therapies)
- National Jewish Hospital

Interested in a global internship opportunity?

CU Denver’s Global Education/Study Abroad, administers a variety of internship opportunities for the summer. Please see their website for details on programs. You may take these for BIOL 3939 upper division course credit.
Two new programs of interest to Integrative Biology students for summer 2020 are:

CU Denver Pre-Health Internship Program- Ghana (Cape Coast, Ghana): 6/15/2020-7/24/2020 (deadline to apply is 2/10/20)

CU Denver Pre-Health Internship Program- Mexico (Oaxaca, Mexico): 6/15/2020-7/24/2020 (deadline to apply is 2/10/20)

Additional considerations regarding applying for internships: Students interested in an internship experience should start the process early. Requirements must be met, prior to starting a position. Competitive internships may require 1-2 semesters of preparation in advance of placement. The most important first step is to attend a workshop, offered through the Experiential Learning Center. For detailed information on the process of obtaining an internship and enrolling in BIOL 3939, please refer to the BIOL3939 - Internships handout or contact Dr. Molly Nepokroeff, the department Internship Advisor.

Dr. Molly Nepokroeff
Office: SI 4107
Phone: 303.315.7676
Email: molly.nepokroeff@ucdenver.edu