

University of Guelph  
College of Biological Science  
**COURSE OUTLINE**  
Internship in Biological Science  
BIOL\*3660  
Winter 2019 - Draft

**Course Description**

The Internship in Biological Science provides an opportunity for independent learning in the biological sciences in a work-related environment (volunteer or paid). Students will develop a project plan directly related to the work experience, in consultation with an external organization. Using this experience, students will: 1) apply knowledge of scientific methodologies to develop a project that benefits the organization, and society at large 2) apply disciplinary knowledge and project management skills to complete the project and 3) reflect on their own development and future career plans. Students interested in this course must submit a completed registration form for approval by the Course Coordinator, as part of the registration process.

Semesters Offered: F, W, S

Credit Value: 0.50

Pre-requisites: 7.50 credits, 60% minimum cumulative average

Restrictions: Instructor (Course Coordinator) Consent

Required

Department: Associate Dean Academic Office, College of Biological Science

**Teaching Team**

*Course Coordinator* – Dr. Brian Husband

*Faculty/Permanent Teaching Staff Advisor* – students are required to find an advisor prior to submitting the Internship Application Form

**Course Schedule**

The first class meeting is mandatory and will take place on-campus, or through a Google Hangout/Skype meeting, at which time the requirements of the course will be reviewed. Following this initial meeting, students will be required to submit a Project Outline and Timeline through CourseLink. There will be no further class meetings until later in the semester and students will be notified well in advance of any meetings. As each student's experience may vary in duration (minimum 100 hrs), from three to 14 weeks (maximum), students must present their proposed schedule to the Course Coordinator by an identified deadline. If the proposal is not submitted by the identified deadline, the student will be removed from the course. At the end of the semester/work experience, students will meet, in person, to present their projects and discuss their experiences. *Depending on the duration of the student's experience, this may occur within the same semester or within the first three weeks of the subsequent semester.*

An example of an approximate semester timeline is listed below for a 12 weeks experience.

Week	Contact Hours/week	Assignments and due date	Resources to Review	Notes
1	10 hours	Project Proposal and Outline Jan. X, 2019	Complete Employability Skills module, and Professionalism in the Workplace module	Start a journal of weekly activities in preparation for Progress Reports
2	10 hours	Project Management Outline	Reflection – start to prepare first Progress Report  Review Project Management module	Continue to journal
3	10 hours	First Progress Report due	Reflection module	Continue to journal; start thinking about Overall Project Report
4	10 hours	Performance Review with supervisor		Continue to journal  Start to look at the Overall Project Report requirements
5	10 hours		Reflection – start to prepare second Progress Report	Continue to journal
6	10 hours	Second Progress Report due		Continue to journal
7	10 hours	Performance Review with supervisor		Continue to journal
8	10 hours			Continue to journal
9	10 hours			Continue to journal
10	10 hours – position ends this week			Continue to journal
11		Overall Presentation due		
12		Final Self-Reflection and Overall Project Report due		

## Learning Outcomes

By the end of this course, students will:

1. Assess their own strengths and areas for improvement related to employability skills\*
2. Identify at least 4 employability skills\* that were strengthened during their experience within a workplace environment
3. Apply scientific knowledge, skills and methodologies gained in the classroom to identify problems, evaluate ideas, interpret quantitative information and propose solutions in the work-place environment
4. Accurately and effectively communicate ideas, arguments and analyses through written work, oral presentations and other media
5. Describe, evaluate and articulate personal and professional growth that occurred within the workplace setting
6. Reflect on the ethical, economic, commercial and social implications of applying scientific knowledge in the workplace
7. Apply knowledge of one's own personal and professional growth, gained through the experience, to plan for further personal and professional development within and beyond the undergraduate degree

\*see the course website for more on employability skills

## Course Resources

CourseLink:

- BIOL\*3660 website including the following modules:  
Professionalism in the Workplace  
Employability Skills  
Project Management  
Reflection
- Code of Conduct, Academic Integrity and Learning Outcomes website

Other Resources:

- Employability Skills – The Conference Board of Canada  
<http://www.conferenceboard.ca/spse/employability-skills.aspx?AspxAutoDetectCookieSupport=1>
- Ministry of Advanced Education and Skill Development – College Essential Employability Skills <http://www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/essential.html>
- The Balance - <https://www.thebalance.com/employability-skills-list-and-examples-4143571>
- Project Management – Open Source Textbook by Adrienne Watt  
<https://opentextbc.ca/projectmanagement/>
- [University of Guelph Learning Outcome rubric](#)

## Course Content

The following topics will be highlighted throughout the course:

- Employability Skills
- Project Management
- Reflection
- Problem Solving

## **Course Policies**

For the 'work' experience to qualify for this credit, the following criteria must be met:

1. The activity must comprise no less than 100 h and span from 3 to 14 weeks in duration
2. The experience must involve a sustained activity in a workplace (volunteer or paid) with clear responsibilities and be related to an application of biological science knowledge or methods and development of select employability skills.
3. A workplace supervisor has been identified, who is a qualified staff member with expertise in the field to which the experience relates.
4. The workplace supervisor is committed to provide regular feedback to the student.
5. The workplace activity /project must be outlined on the workplace agreement form.
6. The workplace supervisor has signed the workplace agreement form indicating they are committed to provide the necessary resources, facilities and training to complete the experience and to meet the defined goals/project.
7. The student has signed the workplace agreement form indicating they are committed to performing the outlined activities as scheduled to the best of their abilities and in a professional manner.

Students may not use the following experiences as an internship: co-op work placement, peer helper program, Undergraduate Student Research Awards (USRAs), work-study positions that have been converted to experiential learning opportunities.

Students in a major offered by the College of Biological Science may complete only one internship in biological science toward their B.Sc. degree.

Submission of assignments late - 10% reduction for every day the assignment is late. The submission deadline is 11:59pm on the day that the student indicated in their timeline for each assessment.

## **Methods of Assessment**

Regardless of the duration of the workplace experience, each student will be assessed on the following seven components:

- A. Project Proposal and Timeline
- B. Project Management Outline
- C. Progress Reports (2)
- D. Overall Project Report
- E. Overall Presentation
- F. Final Reflection
- G. Performance Evaluation

Form of Assessment	Weight of Assessment	Due Date of Assessment	Course Content /Activity	Learning Outcome Addressed
A. Project Proposal and Timeline	15%	Beginning of Week 2		1, 2, 3
B. Project Management Outline	5%	End of week 2		4
C. Progress Reports (2)	20% (10% each)	Week 6 and 9		1, 2, 3, 4, 5, 6
D. Overall Project Report	15%	Week 12		2, 3, 4, 5
E. Overall Presentation	10%	Week 11 or 12*		2, 3, 4, 5
F. Final Reflection	15%	Week 11 or 12*		1, 5, 6
G. Performance Evaluation	20%	Immediately after the end of the placement		

#### A. Project Proposal and Timeline – 3 components – 15%

- a) Organization Background
- b) Employability Skills Development
- c) Position Timeline

#### B. Project Management Outline – 5%

The student will work closely with their supervisor to brainstorm and clearly articulate the goals of the position. The assignment should include a project management outline in the form of a Gantt chart.

#### C. Progress Reports (2 submissions) – 2 x 10% each = 20%

Project Reports will be two to three pages in length (3 p. max.) and will be reflections on the experience to date. There will be guiding questions to help the student compose a critical reflection of the experience. These will be due at approximately the completion of 25 and 60 hours of work with the organization. The exact due dates will be determined by the student and will be stated within the Position Timeline.

#### D. Overall Project Report – 15%

Based on a deeper understanding of the organization, the overall project should centre around a subsequent project generated from the completed project. The student is expected to clearly state a problem that could be undertaken in a subsequent project.

#### E. Overall Presentation - 10%

The final presentation will be a comprehensive look at what the student has learned through the experience and where the organization could go next. Students will describe the experience, the

impact their position had on the organization mission, and what could be explored next to help enhance the organization's goals.

#### F. Final Reflection – 15%

Re-read the original Project Proposal and the two Progress Reports prior to writing a Final Reflection (4p.max). This Final Reflection should address achievement of goals: how they were achieved, increases in abilities related to the skills identified before the beginning of the project, other skills unexpectedly enhanced, areas for which there remains room for improvement, and how this experience can be used to enhance future experiences.

G. Performance Evaluation – The supervisor will be responsible for providing an on-the-job Performance Evaluation. A set of criteria will be provided to the supervisor as a guideline to evaluate the student and make comments, accordingly.

Please note that students are required to schedule a minimum of 2 performance reviews with their supervisor during their experience. More details regarding these reviews can be found on the course home page.

### **Students are responsible to review the following University policies**

#### When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, ID#, and e-mail contact. See the undergraduate calendar for information on regulations and procedures for Academic Consideration

#### Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services (SAS; formerly the Centre for Students with Disabilities) as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email [csd@uoguelph.ca](mailto:csd@uoguelph.ca) or see the website: <http://www.csd.uoguelph.ca/csd/>

#### Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment

that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

### E-mail Communication

As per university regulations, all students are required to check their @uoguelph.ca e-mail account regularly. E-mail is the official route of communication between the University and its students.

### Drop Date

The last date to drop one-semester courses, without academic penalty, is the 40th class day. To confirm the actual date, please see the Schedule of Dates in the Undergraduate Calendar. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar: <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

### Copies of out-of-class assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

### Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course, unless further permission is granted.

### Copyright Notice

The course instructor is the copyright owner of the materials provided in this course, unless otherwise stated. Any third party copyrighted materials provided (such as book chapters and articles) have either been licensed for educational use, or are made available to students under an exception in the Canadian Copyright Act.

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For more information about students' rights and obligations with respect to copyrighted works, see [Fair Dealing Guidance for Students](#) or view this [short video](#).

### Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs:

<http://www.uoguelph.ca/registrar/calendars/index.cfm?index>