



BIOL*3660 Internship In Biological Science - DRAFT

Winter 2020

Section(s): C01

College of Biological Science

Credit Weight: 0.50

Version 1.00 - November 01, 2019

1 Course Details

1.1 Calendar Description

This course provides an opportunity for independent learning in the biological sciences within 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 apply knowledge of scientific methodologies to develop a project that benefits the organization and society at large, apply disciplinary knowledge and project management skills to complete the project, and 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 for this course.

Pre-Requisites:

7.50 credits, minimum cumulative average of 60%

Restrictions:

Majors offered by CBS. Instructor consent required.

1.2 Course Description

Students are responsible for securing their own work/volunteer position for the course.

1.3 Timetable

First class meeting time and location is subject to change. Please see WebAdvisor for the latest information.

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. There will be no further class meetings until later in the semester and students will be notified in advance of any meetings. 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.

1.4 Final Exam

This course does not have a final exam.

2 Instructional Support

2.1 Instructional Support Team

Instructor:	Brian Husband
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Course Co-ordinator:	Charlene Winchcombe-Forhan
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Course Co-ordinator:	Janie Vu
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Office:	SSC 3482
Office Hours:	Janie is primarily responsible for the module content and external relationship.

2.2 Academic Evaluator

Student must identify and confirm an Academic Evaluator prior to submitting the application form. The Evaluator does not need to be an expert in the field or industry in which the student is working. The Evaluator must be a faculty member or permanent teaching staff at the University of Guelph. The Academic Evaluator will be responsible for evaluating the academic components required within the course.

3 Learning Resources

3.1 Required Resources

CourseLink (Website)

The BIOL*3660 course website is available through CourseLink. The site includes the following modules that will support the course requirements:

- Professionalism in the Workplace
- Employability Skills
- Project Management

- Reflection
- Code of Conduct, Academic Integrity and Learning Outcomes

Professionalism in the workplace (Readings)

This is an on-line module that must be completed prior to the start of your work experience. This module will address professional conduct in the workplace and includes both text and video content. After reviewing the content you must complete a short quiz.

Employability Skills (Readings)

This on-line module will introduce you to common employability skills and how they are defined. This module will help you to identify which employability skills you will focus on throughout the experience.

Project Management (Readings)

This on-line module will help to support you in the development of your project management timeline by introducing you the basics of project management and developing a Gantt Chart.

Reflection (Readings)

Reflection is a fundamental component of this course, however critically reflecting on your learning and experiences can be challenging. This on-line module will introduce you to the D.E.A.L model of reflection that you will use to complete your progress reports and final reflection.

3.2 Additional Resources

Additional Website Resources (Website)

Employability Skills – The Conference Board of Canada

<http://www.conferenceboard.ca/spse/employabilityskills.aspx?AspxAutoDetectCookieSupport=1>

Ministry of Advanced Education and Skill Development – College EssentialEmployability Skills <http://www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/essential.html>

The Balance - <https://www.thebalance.com/employability-skills-list-and-examples4143571>

Project Management – Open Source Textbook by Adrienne Watt

<https://opentextbc.ca/projectmanagement/> •

University of Guelph Learning Outcome rubric -

https://www.uoguelph.ca/vpacademic/avpa/outcomes/2012UniversityofGuelphLearningOutcomes_Sena

4 Learning Outcomes

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Assess and evaluate your strengths and areas for improvement related to employability skills
2. Identify at least 3 employability skills* that were strengthened during your experience and analyze growth of these specific skills.
3. Apply scientific knowledge, skills and methodologies gained in previous classes 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

5 Teaching and Learning Activities

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. There will be no further class meetings until later in the semester and students will be notified in advance of any meetings. The course activities will be completed independently by the student during their experience. Most resources are in module form on the course website and can be reviewed at any time during the experience. It is recommended that students review these modules early on in their experience. The one exception is the professionalism module that must be completed prior to starting the experience.

5.1 Sample Semester Layout

Sample Semester Layout Timing of the assignments may vary depending on the work experience and should be finalized with the workplace supervisor.

Week	Contact Hours	Assignment	Required/Material/Resources	Notes
1	10 hours	Project Proposal and Outline	Complete Professionalism in the workplace module and employability skills module	Start journal of weekly activities in preparation for

Week	Contact Hours	Assignment	Required/Material/Resources	Notes
				progress reports
2	10 hours	Project management Outline	Review project management module Reflection - start to prepare for first progress report	Continue to journal - making note of items relevant to progress report 1
3	10 hours	First Progress report due	Reflection module	Continue to journal making note of activities that used and addressed specific employability skills start thinking about overall project report/topic
4	10 hours	Conduct a performance review with supervisor		Continue to journal, make notes about feedback from supervisor and ways to use the feedback going forward Look over requirements for the overall project report and start to gather feedback from colleagues
5	10		Reflection - start to prepare	Continue to journal

Week	Contact Hours	Assignment	Required/Material/Resources	Notes	
6	hours		second progress report		
	6 10 hours	Second progress report due		Continue to journal	
	7 10 hours	Conduct a second performance review with supervisor		Make notes about feedback from supervisor	
	8 10 hours			Continue to journal - connect with colleagues around specific ideas for final report, test ideas on them to gain feedback and insights	
	9 10 hours			Continue to journal	
	10 10 hours			Review and practice presentation	
	11		Overall Presentation		Writing final reflection and overall report
	12		Final Reflection and Overall Project Report Due		

Assessments

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

1. Project Proposal and Timeline

2. Project Management Outline
3. Progress Reports (2)
4. Overall Project Report
5. Overall Presentation
6. Final Reflection
7. Performance Evaluation

6.1 Marking Schemes & Distributions

Name	Scheme A (%)
Project Proposal and Timeline	15
Project Management Outline	5
Progress Report 1	10
Progress Report 2	10
Overall Project Report	15
Overall Presentation	10
Final Reflection	15
Performance Evaluation	20
Total	100

6.2 Assessment Details

Project Proposal and Timeline (15%)

Date: Mon, Jan 13

Learning Outcome: 1, 2, 3

This assignment will outline information related to the background of the organization, which employability skills the student will be looking to develop through the experience and a layout of the course requirements. Each student will set the deadlines for the remaining components of the course in a chart format. An example of the semester layout can be found in the course activities section.

A course module on employability skills can be found on CourseLink.

Project Management Outline (5%)

Date: Fri, Jan 17

Learning Outcome: 4

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

Resources are available within the course website on project management and Gantt charts.

Progress Report 1 (10%)

Date: Due date is set by the student in their project timeline

Learning Outcome: 1, 2, 3, 4, 5, 6, 7

Project Reports will be reflections on the experience to date. There will be guiding questions found within the assignment instructions to help the student compose a critical reflection of the experience. These will be due at approximately the completion of 25 hours of work with the organization. The exact due dates will be determined by the student and will be stated within the project timeline.

Progress Report 2 (10%)

Date: Due date is set by the student in their project timeline

Learning Outcome: 1, 2, 3, 4, 5, 6, 7

Project Reports will be reflections on the experience to date. There will be guiding questions found within the assignment instructions to help the student compose a critical reflection of the experience. This second report will be due at approximately the completion of 60 hours of work with the organization. The exact due dates will be determined by the student and will be stated within the project timeline.

Overall Project Report (15%)

Date: Due date is set by the student in their project timeline

Learning Outcome: 3, 4, 5, 6

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 that will impact some level of the organization in a positive way.

Overall Presentation (10%)

Date: Specific date will be confirmed by Course Instructor

Learning Outcome: 2, 3, 4, 7

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.

Final Reflection (15%)

Date: Due date is set by the student in their project timeline

Learning Outcome: 1, 2, 4, 5, 6, 7

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.

Performance Evaluation (20%)

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.

6.3 Performance Reviews

Please note that students are required to schedule a minimum of 2 performance reviews with their supervisor during their experience. These reviews are not graded, however are meant to provide feedback on the student's performance during the experience. These may also serve as opportunities for the students to gain insight of their strengths and areas for improvement that may help them completing their required progress reports and final assignments.

6.4 Late Penalty

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.

6.5 Academic Consideration Policy

Students who are not able to meet their stated deadlines, as submitted in the project timeline, will need to apply for academic consideration. Academic consideration is based on medical, psychological, compassionate grounds. Students will need to contact the course instructor and their faculty/professional teaching staff advisor immediately if they have missed or will miss a deadline and supply them with the appropriate documentation.

If the student is not to complete specific tasks, due to an issue arising within the organization they are working with, they will need to contact the course instructor and faculty/professional teaching staff advisor as soon as possible to discuss their options. Failure to contact these individuals in a timely manner may result in limited options for consideration.

The form the consideration takes will be up to the discretion of the course instructor and faculty/professional teaching staff advisor.

7 Course Statements

7.1 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 hours 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,
- 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.

7.2 Failure to Meet the Minimum Requirements

If a situation arises due to no fault of the student, whereby they cannot complete the hours required for the course, or any other requirement, the student is encouraged to speak with the Course Instructor as soon as possible to discuss their options. It is the student's responsibility to contact the coordinator within a reasonable amount of time. Failure to do so could result in very limited options for the student.

If for any reason a student chooses to withdraw from their position/experience with the workplace organization prior to meeting the 100-hour minimum requirement, or any of the other requirements, they may not be eligible to receive credit for the course. It is the student's responsibility to contact the course instructor, as soon as possible, to discuss their options.

8 College of Biological Science Statements

8.1 Wellness

If you are struggling with personal or health issues:

- Counselling Services offers individualized appointments to help students work

through personal struggles that may be impacting their academic performance.

- Student Health Services is located on campus and is available to provide medical attention.
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations.
<http://www.selfregulationskills.ca/>

9 University Statements

9.1 Email Communication

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

9.2 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. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions

<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg->

regchg.shtml

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

9.4 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.

9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

For Guelph students, information can be found on the SAS website
<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website
<https://www.ridgetownc.com/services/accessibilityservices.cfm>

9.6 Academic Integrity

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 encourages academic integrity. 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.

Undergraduate Calendar - Academic Misconduct

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

Graduate Calendar - Academic Misconduct

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

9.7 Recording of Materials

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

9.8 Resources

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

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>
