

Biology department Biology 4971G

This course overview has been created to communicate expectations for 2020/2021 courses offered by the Biology department to help you plan your semesters. Complete and final details will be reflected in the full syllabus associated with each course.

Course Coordinator: Dr. A. Simon, Biology Undergraduate Curriculum Committee (biougcha@uwo.ca)

Course Assistant: Beata Malczewski, Department of Biology, NCB 301D (bmalcze@uwo.ca)

Course description

The official course description can be found in the [Academic Calendar](#). Instructors may or may not adhere to the Extra Information found in the Academic Calendar in terms of the number of lecture/tutorial/lab hours. See below for more information about course delivery mode and time estimates. These time estimates do not include assessments or independent study.

Required:



Stable internet connection



Laptop or computer



Working microphone



Working webcam

Delivery mode:

This course can have in person components (in the research laboratory). Virtual sessions will be a combination of synchronous (live) and asynchronous. Timetabled sessions could be used for office hours, Q&A. Below are details about the sessions.

Mode	Dates	Time <i>EST – Eastern Standard Time</i>	Frequency**	Attendance
In person [If approved by the Dean's office] Or virtual	M/T/W/Th/F Depending on your Supervisor	6-8 hours minimum	weekly	Yes
Virtual synchronous*	Decided based on a doodle poll during 1 st week	Convenient for most people	weekly	Optional
Virtual asynchronous	N/A	as needed	as needed	Yes

[*A schedule will be posted]

Assessments

Examples of assessments that **could** be assigned in this course are **highlighted in yellow**; these examples are based on previous offerings of the course and the learning outcomes that have been set.

Written assignments

Oral presentations

Other: Progress in Research

The following **interfaces** could be used for those assessments:

Zoom – see privacy statement <https://www.uwo.ca/univsec/>

Turnitin

Biology 4971G: Independent Study in Biology 2020

Course Coordinator: Dr. Anne Simon, Biology Undergraduate Curriculum Committee
(biougcha@uwo.ca)

Course Assistant: Beata Malczewski, Department of Biology, NCB 301D (bmalcze@uwo.ca)

1. General Course Information

In 4971, Independent Study projects should be developed to either pursue addressing the original question posed by the student, OR follow new directions, still with the same supervisor. The project may be research based, literature based, or involve analysis of an existing data set. Emphasis is on acquisition of skills in technique, analysis, and communication in the process of generating a scientific report.

The format of this course will follow closely that of the 2nd semester of a 4999E course.

Eligibility

Only students registered in year 4 of an Honors Specialization module offered by the Department of Biology or an Honors Double Major in Biology (which includes a Major in Biology) AND who took Biology 4970F are eligible to enroll in Biology 4971G. It is the responsibility of the student to find an appropriate supervisor. Students enrolled in Biology 4999E are not eligible to take Biology 4971G.

Mode of delivery

This course can have in person components (in the research laboratory). Virtual sessions will be a combination of synchronous (live) and asynchronous. Timetabled sessions could be used for office hours, Q&A. Below are details about the sessions.

Mode	Dates	Time <i>EST – Eastern Standard Time</i>	Frequency*	Attendance mandatory?
In person <i>[If approved by the Dean's office]</i>	<ul style="list-style-type: none"> M/T/W/Th/F Depending on your Supervisor	6-8 hours minimum	weekly	Yes
Or virtual asynchronous	<ul style="list-style-type: none"> N/A 			
Virtual synchronous*	<ul style="list-style-type: none"> Decided based on a doodle poll during 1st week Ontario Biology Day Western biology Day 	<ul style="list-style-type: none"> As convenient for most people March 20 March 27 	<ul style="list-style-type: none"> Weekly once once 	<ul style="list-style-type: none"> Optional Recommended Yes

[*A schedule will be posted]

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

Students should check OWL (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis.

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

[Google Chrome](#) or [Mozilla Firefox](#) are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

2. Course Description/Syllabus

By the end of the course, students should be able to:

1. Create and write a research proposal. The central hypothesis or goal will be developed in collaboration with a research supervisor.
2. Search, read and evaluate the primary scientific literature associated with the project.
3. Conduct the research. Evaluate and analyze the data collected.
4. Write and present a final thesis based on the research conducted.
5. Defend the data, approach and interpretation.

Independent Study Format

Students will work under the supervision of the same faculty member as in Bio 4970F, and the same faculty Advisor.

Students must use their Western (@uwo.ca) email addresses when contacting the course coordinator and assistant, their supervisor, and their advisor.

Course Requirements

The projects in 4971G are a continuation of those in 4970F. As such, they require:

1. an oral proposal to present the continuation of the Fall project
2. conducting the proposed work
3. meeting with the Supervisor on a regular basis
4. presentation of findings at a public presentation session
5. and submission of a final report

Oral Proposal – 15%

It will consist of an oral real-time 15 min long presentation, and 45 min of questions/discussion with your advisor and supervisor, on zoom. You must present this proposal to your supervisor and your advisor in a meeting between 9 am on Monday January 18 and 5 pm on Friday February 5.

The oral proposal is assessed by the supervisor and the advisor to ensure it meets expected departmental standards. Only the advisor assigns a mark to the proposal, which is worth 15% of the grade.

Guidelines for Research-based Proposals

The proposal must be an oral real-time 14 min long presentation and include:

1. whether and how this 4971 project is related to the 4970F's project.
2. a preliminary literature review that frames the hypothesis under study
3. a clear statement of the hypothesis must be presented
4. a complete description of experimental design
5. and a time-line for completion

Guidelines for Literature-based Project Proposals

The proposal must be an oral real-time 15 min long presentation and include:

1. whether and how this 4971 project is related to the 4970F's project.
2. a preliminary literature review that frames the hypothesis under study
3. one or more hypotheses must be presented from which an outline of the project should be developed
4. description of how the project will be accomplished, including what types of literature sources used
5. a time-line for completion

Guidelines for Data Analysis-based Project Proposals

The proposal must be an oral real-time 15 min long presentation and include:

1. whether and how this 4971 project is related to the 4970F's project.
2. a preliminary literature review that frames the hypothesis under study,
3. a complete description of the methodology used to collect the data to be analyzed,
4. a description of how the data will be analyzed,
5. and a time-line for completion

Lab/Library Work – 30% of course grade

Students are expected to commit 6-8 hours per week to their project. The quality of the work will be assessed by the supervisor and is worth 30% of final grade.

Public presentation – 20%

Students will present and defend their major findings in an oral presentation at Biology thesis day, Saturday March 27, 2021.

- Oral presentations will be 12 minutes, allowing three minutes for questions
- Oral presentations will be evaluated by at least two examiners (who may or may not be members of your advisory committee).
- Presentations will be timed to ensure that schedules are kept on time.

We are hoping for on campus presentations. However due to COVID presentations might have to occur through zoom. Details will be announced closer to the actual presentation day.

Final report – same format and grading rubric as 4999E – 35%

A report presenting the major findings of the Fall AND Winter projects is due at the end of the term to your advisory committee, Course Coordinator and Assistant by 5 pm on Monday April 5, 2021.

- Prepare and submit the thesis in a format suitable for submission to an appropriate journal in your discipline (consult with your supervisor to select one).
- Please keep your thesis concise and within 25 pages (12 point font, 2.54 cm margins, Text, Figures, Figure legends and Tables; Bibliography is not included into the page count).
- If the thesis will be longer than 25 pages total, discuss this with your supervisor, and provide justification and seek approval (by email) from your advisors. Inefficient writing is not appropriate justification.
- Take the thesis evaluation rubric (available on OWL) into consideration when preparing your thesis.
- Please submit your thesis electronically (i.e. by email) as a word document, unless your advisory committee members explicitly request a hard copy.
- Ensure that any images are of an appropriate resolution to be readable and to keep the total file size below 5 MB.
- At the same time, please submit a copy of the thesis to Turnitin.com on the OWL site. Ensure that this is the same as the version you email to your advisory committee.
- Late theses will not be accepted without appropriate accommodation.
- The final report will be evaluated by the supervisor and advisor and will be **worth 35%** of the final grade. They will submit a mark and a feedback sheet to the Course Assistant, who will forward the feedback sheet to you.

You do not need to make any changes to the thesis based on the feedback, but it may be helpful either for you to further hone your scientific skills in future, or in preparing your thesis for publication. The evaluators may also provide feedback in the form of comments on a hard or electronic copy.

Roles and Responsibilities – Same as for Bio4970F –Reminder below:

Students

Biology 4971G is not a traditional lecture style course. Students are expected to spend 6-8 hours per week in the lab/library/field for the duration of the thesis. Additional time spent out of lab/field/library for reading, writing and data analysis will also be required.

It is the responsibility of the students to arrange for their Biology 4971G projects and follow the application procedures outlined in this document.

Students are responsible for completing all necessary forms (Project Registration, Project Approval) and submitting them **on time** to the Course Assistant (bmalcze@uwo.ca). Students are ultimately responsible for their own work, including the meeting of deadlines.

Supervisor

Supervisors can be faculty members from various departments. Supervisors from other departments may be required to have a co-supervisor from the Department of Biology.

Supervisors of student projects are expected to:

1. arrange for the appropriate infrastructure and direction for the proposed work
2. ensure that projects provide sufficient challenge to students, and comply with expectations established within the Department of Biology
3. **evaluate the performance of students for whom they are supervisor – 30%**
4. ensure students are aware of course procedures and timetables

Advisor – Same as in 4970F

The Advisor is normally a faculty member of the Department of Biology and assignment of an advisor to a particular project is subject to the approval of the course coordinator.

Advisors are expected to:

1. review, comment on and evaluate all written material, which includes providing the student with a written evaluation of their project,
2. indicating the strengths and weaknesses, provide guidance as necessary,

Course Coordinator/Course Assistant

The Biology 4971G independent study course is coordinated by the Biology Undergraduate Education Committee (BUEC). The responsibilities of the coordinator/course assistant include, but are not limited to,

1. facilitating the matching of students to supervisors and projects, approval of the advisor
2. collection of all submitted materials, assignment of grades (based on input from the Supervisor and Advisor)
3. organizing the presentation session
4. facilitating student access to appropriate university resources

3. Methods of Evaluation

Biology 4971G students are evaluated according to the following criteria:

Proposal:	15% (evaluated by Supervisor & Advisor)
Progress:	30% (evaluated by Supervisor)
Written Report:	35% (evaluated by Supervisor & Advisor)
Presentation Session:	20% (evaluated by at least 2 examiners)

Students are responsible in supplying their supervisor, advisor and course assistant with either a hard copy or an electronic copy of their final report.

- All assignments are due at 11:55 pm EST unless otherwise specified
- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have 2 submissions to Turnitin prior to the final deadline
- Rubrics will be used to evaluate assessments and will be posted with the instructions
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Accommodated Evaluations

Every single component of this course is required to pass.

- Late assessments without self-reported absences (SRA) will be subject to a late penalty of 10% per day
- Late assessments with self-reported absences should be submitted within 24 hours of the end of the 48-hour period.

4. EDI statement

The pronouns used by:

- Dr. Anne Simon are: she / her
- Beata Malczewski are: she / her

5. Land acknowledgment

We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum. This land continues to be home to diverse Indigenous peoples (e.g. First Nations, Métis and Inuit) whom we recognize as contemporary stewards of the land and vital contributors of our society.

More information about Indigenous Services (<https://indigenous.uwo.ca/>) and this Land Acknowledgement (<https://communications.uwo.ca/comms/land-acknowledgement/>) are available.

6. Accommodation and Accessibility

Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar:

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>

7. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

[3000 levels and above:] Review Biology 2290 learning outcomes. You are expected to know what plagiarism is at this stage of your programme.

Turnitin aids in identifying plagiarism. All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

Professionalism & Privacy:

Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared
- Recordings are not permitted (audio or video) without explicit permission

8. Support Services

- Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on add/drop courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>
- Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Student Accessibility Services (SAS) at 661-2147 if you have any questions regarding accommodations.
- The policy on Accommodation for Students with Disabilities can be found here: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic%20Accommodation_disabilities.pdf
- The policy on Accommodation for Religious Holidays can be found here: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf
- Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.
- Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help.
- Additional student-run support services are offered by the USC, <http://westernusc.ca/services>. The following links provide information about additional support services at Western University.

[Appeal Procedures](#)

[Student Development Services](#)

[Student Health Services](#)

Table 1. Schedule of Dates for Biology 4971G in 2021.

All forms and guidelines are found on OWL.

Classes begin: January 11 / Reading Week: February 13-21 / Classes end: April 12

Dates	Task
Between Monday January 25 and Friday February 5	Meeting should be arranged with supervisor and advisor to evaluate the Oral research proposals. Complete evaluation form available on OWL and submit electronically to bmalcze@uwo.ca
March 20 (Saturday)	Ontario Biology Day: attendance strongly encouraged
March 27 (Saturday)	Public presentations at Biology day – same time as 4999E
April 5	THESIS DUE