



Western
Science

Course Outline: Biology 1001A
Biology for Science I
Summer: Online Course

Instructors: Sarah and Winona
Office location: Online (OWL)
Skill Development Sessions Contact: Winona Gadapati
Email: wgadapa2@uwo.ca

Email Policy

Emails will be responded to within 24 hours Monday-Friday. Emails will not be responded to on weekends.

Course Information

Pre- or co-requisite: Grade 12U (SB14U) Biology or Grade 11U (SB13UA) Biology and permission of the Department. A minimum mark of 80% in Grade 12 U Biology (SB14U) is recommended for students registered in a faculty other than the Faculty of Science.

Note: The combination of Biology 1001A and Biology 1002B (with appropriate marks) are the prerequisites for senior Biology courses and admission to modules offered by the Department of Biology and the Basic Medical Science Departments.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed.

Anti-requisites: Biology 1201A, Biology 1225.

Class Time and Location

Live Instructor Sessions: **Tuesdays & Thursdays, 10:00 am – 12:00
Online**

Skill Development Sessions: **Tuesdays & Thursdays, 1:30 – 4:30 pm
Online**

This course uniquely runs as a “flipped” format, condensed, online-only course. It therefore requires a significant amount of independent study time outside of the traditional lecture hours. There are pre-recorded video lectures for you to watch each day and live online active learning sessions twice per week. Please refer to OWL for further explanation and the Course Schedule at the end of this document for more information.

Course Description

The principles of biology taught using an integrative, question-based approach. Topics include inheritance, evolution and ecology. This course is intended for students registered in the Faculty of Science.

Learning Outcomes

By the end of this course, successful students will be able to:

- Correctly use and apply vocabulary associated with inheritance, evolution, and ecology;
- Use the understanding of evolutionary and ecological processes to interpret biological phenomena;
- Apply and integrate concepts related to variation, inheritance, and evolution to explain diversity;
- Use common biological tools and techniques to collect and analyze data.

Required Materials

Students need access to these materials in order to be successful in the course.

- **Reliable internet connection.** Since this course is run entirely online, a reliable internet connection is essential.
- **A device that meets technical requirements for online learning and test taking.** Midterms and final exams will require the use of a device that can support effective test taking. **A tablet or cell phone cannot support this technology.**
- **OWL Course Site Access.** All course materials (content for independent study including lecture videos, readings, practice questions, communication tools, etc.), virtual lectures, quizzes and exams will be run through OWL.
How to access OWL:
Go to <https://owl.uwo.ca/portal> and log into the system using your UWO username and password (*i.e.* same ones used to access your Western email account).
- **Textbook:** Russel et al. Biology: Exploring the Diversity of Life, 5th Canadian Edition. You will rely on the textbook in this flipped course format with a strong emphasis on independent study time. You can obtain the book in a hardcopy or digital format through the UWO Bookstore.
- **Skills Sessions Materials:** No lab manual, lab coat, or safety glasses are required for the online version of this course.

Evaluation & Grading (Online)

In order to pass this course, you must receive a grade of 50% overall; you must receive at least 50% on at least one of the exams; you must participate in Skills Development Sessions.

Course Structure Quiz (1%)	Online via OWL Tests & Quizzes. Assesses understanding of course policies and structure as described in the syllabus and the OWL course website. <i>No accommodation will be made after the deadline for any reason.</i>
Quizzes (5%)	Online via OWL Tests & Quizzes: multiple choice and/or short answer to motivate continual engagement with course material on a regular basis. Quizzes will test material from Independent Study tasks. Not considered reflective of exam-level difficulty. <i>No accommodation will be made after the deadline for each quiz for any reason.</i>
Online Assessment (4%)	Online via OWL Tests & Quizzes: multiple choice, true/false, short answer. A short (~30 min) assessment testing you on course material from the first week of the course. Questions will be exam-level difficulty. There will be a 2-hour window to begin and complete the online assessment. <i>There is no make-up or extension for the online assessment for any reason.</i>
Skills Development (labs; 20%)	Online. The skills component of this course will help students enhance their literacy, practical, and critical thinking skills in a collaborative online setting with graduate teaching assistants as facilitators. All inquiries regarding Skills Development should be sent to wgadapa2@uwo.ca .
Midterm (26%**)	Online test via OWL Test & Quizzes: multiple choice. Assesses understanding, application, and integration of course material (including material from Skills sessions). <i>Students who fail to write the midterm must receive academic accommodations for their absence or a grade of zero will be awarded.</i>
Final Exam (44%**)	Cumulative online test via OWL Test & Quizzes: multiple choice and/or short answer. Assesses understanding, application, and integration of course material (including material from Skills sessions). <i>Students who fail to write the final exam for any reason must receive academic accommodation for their absence, otherwise a grade of zero will be awarded.</i>

**** Flexible Grading:**

The Midterm and Final Exam have flexible weightings, dependent on your individual success for each component. Each of these assessments is initially worth a set amount of your final grade (see Scenario 1 below). However, your final course grade will be

automatically calculated under each of the scenarios (S1-S5) in the table below, depending on which scenario yields you with the highest final course grade.

The purpose of Flexible Grading is to provide you with multiple opportunities during the course for feedback on your understanding of course material under exam-style conditions. Allowing the weight of the assessments to be reduced means (see scenarios) that you still have other opportunities to improve your course grade. Because all assessments in this course are cumulative, the relative weighting of 'early' versus 'late' course material will be approximately equivalent under each scenario. This is achieved by always shifting the weight of early assessments onto later assessments. **In order to take advantage of Flexible Grading, you must complete each of the assessments.**

Item	Scenario 1	Scenario 2
Midterm	26%	13%
Final	44%	57%

Course Policies & Other Information

Use of OWL:

- Lecture notes, announcements, links and resources of interest will be posted on OWL.
- Regularly (at least once/day) log on to the course website for class announcements or postings.
- You are responsible for adding information presented in class. Please take **DETAILED** notes as you are expected to know the details.
- Discussion and questions regarding course material and relevant topics in class and on OWL are encouraged between students.

Completing Exams in an Online Format

Tests and examinations in this course will be conducted using the Tests & Quizzes tab in OWL. By taking this course, you are consenting that you have a reliable internet connection with sufficient capacity to support online testing. Exams may be checked for plagiarism using software that analyzes cheating between students and also among websites. If you are caught opening browsers during the exam, you will receive a zero on the exam.

Plagiarism Rules and Academic Integrity

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

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

The following guide will help you avoid committing an academic offence:

<http://www.uwo.ca/ombuds/student/cheating.html>

Computer-marked, multiple choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Late Policy

If you are late completing a Quiz or Online Assessment, there will be no opportunity for a makeup.

Accommodation for Medical Illness or Other Serious Circumstances

If you are unable to meet any course requirement due to illness or other serious circumstance, you must provide valid medical documentation or other supporting documentation to your academic counsellor as soon as possible and contact the instructor immediately. It is your responsibility to make alternative arrangements with the instructor once the accommodation has been approved by academic counselling. If you miss a midterm exam, you must schedule a makeup exam prior to the final exam. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office and a make-up final exam will be given in August.

999 Students Repeating the Course

Students who are repeating Biology 1001A (or are taking this course as a repeat of Biology 1201A) should be registered in lab section 999 and are referred to as '999 students'. Students who are repeating the course have the option of using the Skills (lab) marks from the previous term they took the course as their mark for the Skills component of the Summer 2020 course. Choosing to use previous marks is referred to as a Skills 'exemption'.

If you are repeating the course, you must read the information on OWL under Course Content → Welcome! Administration → Skills exemption form for 999 students. This information describes steps each 999 student must complete (including the exemption form) by the **first Wednesday of the course**.

999 students who choose to be exempt from the Skills sessions are responsible for ensuring that they understand the Skills material/techniques, as they will be held accountable for this material in class and/or on exams. Exemption from Skills sessions will not be accepted as an excuse for poor performance on, and/or failure to answer course components that relate to that component of the course.

Available Support Services

If you feel at any point you need additional support throughout the course, please contact your instructor or use the following support services at UWO:

- The Writing Support Centre
- The Student Development Centre
- Registrarial Services
- Mental Health Services
- Western's commitment to accessibility

Biology 1001A Condensed 3-week Schedule:

Date	Independent Study Topic(s)	Online Instructor Session (Tues & Thurs 10:30-12:30pm)	Assessments
Week 1			
	Welcome! Introductory video		
	Genomic variation	Live session (10:00am-12:00pm)	
	Genomic replication		
	Inheritance of sameness	Live session (10:00am-12:00pm)	Quiz due by 10 am: Genomic variation Quiz due by 10 am: Genomic replication Course Structure Quiz due by 10am
	Origin of variation I Origin of variation II		Quiz due by 10 am: Inheritance of sameness
Week 2			
	Inheritance of variation		Online Assessment starts at 12:00 noon
	Inheritance in populations Selection and fitness	Live session (10:00am-12:00pm)	Quiz due by 10 am: Origin of variation I Quiz due by 10 am: Origin of variation II
	Evolutionary forces Why evolution is true		
	Midterm review day!	Live session (10:00am-12:00pm)	Quiz due by 10 am: Meiosis Quiz due by 10 am: Inheritance of variation
	Midterm starts at 12:00 noon (online)		
Week 3			
	Why sex? Sexual selection		
	Cooperation and conflict Speciation	Live session (10:00am-12:00pm)	Quiz due by 10 am: Inheritance in populations Quiz due by 10 am: Evolutionary forces
	Phylogeny & Evolutionary ecology		
	Final exam review day!	Live session (10:00am-12:00pm)	Quiz due by 10 am: Speciation Quiz due by 10 am: Phylogeny
	Final Exam starts at 12:00 noon (online)		