

## Biology for Science I (B1001A) Course Outline

### 1. Course Information

#### Course Information

Biology for Sciences I (B1001A), FW25 is offered in-person format. Certain digital platforms used (SimUText and MindTap) will require students to work online. Lectures are synchronous and in-person in the rooms specified above. Students will attend live session with the professor twice per week (Mon-Wed or Tue-Thurs, depending on their Western Timetable) where they will watch the lecture, take notes and participate in some active learning. Skill Development (Labs) sessions are delivered synchronously in person. Office hours will be delivered in-person (date, time and room locations are all posted on the OWL course site).

#### List of Prerequisites

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 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 special permission the biology department. See this URL for procedures:

[https://www.uwo.ca/sci/advising/procedures/special\\_permissions/missing\\_prerequisite.html](https://www.uwo.ca/sci/advising/procedures/special_permissions/missing_prerequisite.html)  
to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

### 2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
Dr. Niki Sharan (Course Coordinator and Instructor)	nsharan@uwo.ca	Check OWL	519-661-2111 X86502	Check OWL
Dr. Beth MacDougall-Shackleton (Instructor)	emacdoug@uwo.ca	Check OWL	519-661-2111 X81206	Check OWL
Ms. Winona Gadapati (Lab Coordinator)	wgadapa2@uwo.ca	Check OWL	519-661-2111 X81141	Check OWL

Students must use their Western (@uwo.ca) email addresses when contacting their instructors.

The first point of contact for all administrative questions in this course is the Discussion Forum on Brightspace. You must post your question under the correct heading, otherwise it will not be answered. If your question is personal or complicated, please contact the First Year Biology course coordinator, Dr. Niki Sharan and the Skill Development coordinator Ms. Winona Gadapati (nsharan@uwo.ca or wgadapa2@uwo.ca). Do not contact Dr. MacDougall-Shackleton for any questions other than her lecture content (which should be posted to Discussion Forum on Brightspace and not emailed to her directly). She is not responsible for any administrative component of the course. When you email Niki Sharan or Winona Gadapati, be sure to put in your e-mail 1001A, your full name as it appears at the registrar's office, student number and lab section number, and a clear description of your issue. We can only respond to e-mails that come from your official Western e-mail account. We do not respond to emails received from non-uwo accounts (eg, gmail, hotmail, yahoo etc).

### 3. Course Syllabus, Schedule, Delivery Mode

Biology 1001A is designed to help students in the Faculty of Science and Faculty of Health Science build on the knowledge and skills acquired in Secondary School Biology as preparation for success in second year programs in the Biological Sciences.

By engaging in this learning environment, students can expect to enhance their ability to:

1. Build productive academic relationships with diverse members of the FYB community.
2. Collaborate with peers and/or instructors to create consensus around diverse ideas (e.g. during classes, studying, preparing team assignments).
3. Apply effective learning strategies to academic work.
4. Demonstrate a broad understanding, application, and analysis, of evolutionary principles pertaining to the origin and inheritance of genetic variation.
5. Communicate scientific ideas to an audience of peers and/or instructors in written, oral and graphic formats.
6. Apply scientific experimental design, equipment, skills and analyses to test hypotheses.
7. Locate, evaluate, and extract scientific ideas from academic and non-academic literature; ethically incorporate such ideas into academic work.

Both the lectures and the lab components of the course are offered in-person. Please see your Western Timetable and Brightspace course site for details on day, time and location.

## Class Schedule:

Week of	Cycle #	Lecture #	Biology 1001A Class Schedule - Fall 2025	
1-Sep		1	Welcome Lecture (online) and Q&A Session (Sept 4th in NCB 101)	Instructional Team
8-Sep	1	2	Evolution is Happening	MacDougall-Shackleton
		3	A big idea in Biology: descent with modification from a common ancestor.	
15-Sep	2	4	Cell Cycle and Cell Division	
		5	How are progeny cells produced and how can diversity be generated during cell division?	Sharan
23-Sep	3	6	Inheritance of Sameness	
		7	How can we quantify the genetic material of an organism?	
		8	DNA Mutations and Repair	
29-Sep	4	9	What different mechanisms create mutations?	
National Day for Truth and Reconciliation - No classes Mon, Sept 29th & Tues, Sept 30th. No Skill Development all week.				
6-Oct	5	10	Genetics and Inheritance	
		11	How is genetic information passed on and how do genes interact?	
13-Oct	6	12A	Families to Populations	
		12B	How do selection, genetic drift, and other forces affect genetic variation?	
20-Oct	6 (con't)	13A	Families to Populations (continued)	
		13B	How do selection, genetic drift, and other forces affect genetic variation?	
Midterm Exam - Saturday, Oct 18th, 2-4 PM EST in-person, on campus (Rooms TBA on Brightspace) Covers Cycles 1-5				
27-Oct	7	14	All about sex	
		15	Why reproduce sexually?	
Reading Week: Nov 3-7; no lectures or skill development sessions - Enjoy the Break!				
10-Nov	8	16	Species and Speciation	MacDougall-Shackleton
		17	Where do new species come from?	
17-Nov	9	18	Evolutionary Relationships & Diversity of Life	
		19	How are different groups of organisms related? How did humans and other species evolve?	
24-Nov	10	20	Cooperation and Conflict	
		21	How can we explain helpful, apparently non-selfish behaviour?	
1-Dec	11	22	Ecology in the Anthropocene	
		23	What are the limits to population growth? How do humans affect other life?	
8-Dec			Final Exam Review/Q&A Sessions	
Final Exam date and time to be announced by registrar's office - See Western Exam Schedule in December				

## Lab Schedule:

### Laboratory Dates Fall 2025

Module #	Week 1 sections	Week 2 sections
Module 1	Sept 15-19	Sept 22-26*
Module 2	Oct 6-10**	Oct 20-24
Module 3	Oct 27-Oct 31***	Nov 10-14
Module 4	Nov 17-21	Nov 24-Nov 28

\* National Reconciliation day - no labs the week of Sept. 29th - Oct. 3rd

\*\*Thanksgiving holiday - no labs the week of Oct 13th - Oct 17th

\*\*\*and Fall Break - no labs the week of Nov 3rd - Nov 7th

***The following Laboratory sections begin during the week of September 15th (week 1) with their first skills session (in person):***

007, 010, 012, 014, 016, 018, 020, 021

026, 027, 029, 031, 033, 035, 037, 039, 040, 046,

047, 049, 051, 053, 055, 057, 058, 063, 064, 066, 068

***The following Laboratory sections begin during the week of Sept. 22nd (week 2) with their first skills session (in person):***

006, 009, 011, 013, 015, 017, 019, 022, 025, 028, 030,

032, 034, 036, 038, 041, 044, 045, 048, 050, 052,

054, 056, 059, 060, 061, 062, 065, 067, 069, 070

### **Key Sessional Dates**

Classes begin: Sept 4, 2025

Midterm Exam – Oct 18, 2025 from 2-4 PM (Rooms to be posted on Brightspace closer to midterm)

Make-Up Midterm Exam – TBA on Brightspace.

Fall Reading Week: November 3-9, 2025

Classes end: Dec 9, 2025

Exam period: Dec 11-22, 2025

## **4. Course Materials**

The following course materials are a requirement for this course:

1. Textbook (5<sup>th</sup> edition). Other editions (eg, 4<sup>th</sup>) etc will not suffice. You must use the 5<sup>th</sup> edition as many revisions have been made to this new edition. The electronic version of the textbook is called MindTap and is sold for \$95 CAD at the Western bookstore. If you prefer the print version, you can purchase that at the bookstore too for a higher price. For information on how to register for and use MindTap, please go to this URL:

[https://www.cengage.com/coursepages/WU\\_F25\\_BIO1001A](https://www.cengage.com/coursepages/WU_F25_BIO1001A)

You don't need both electronic and print copies of the textbook.. But if you wish to purchase both you may do so. You have the option to use a second-hand version of the 5<sup>th</sup> edition print copy if you wish.

All materials are available for purchase at the uwo bookstore (online or in-person). If you are taking B1002B next term you don't need to purchase another textbook. The same textbook is used for both B1001A and B1002B.

A Personal Response System called "iClickers" will be used during lectures. This resource is free. They are for class participation only and do not count for grades. Participation is encouraged but not mandatory.

All course material will be posted to OWL Brightspace: <https://westernu.brightspace.com/d2l/home>

Students are responsible for checking the course OWL Brightspace site 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.

If students need assistance with the course OWL Brightspace site, they can seek support on the Brightspace Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

## Technical Requirements

Your weekly OWL quizzes and lab assignments and other digital tools will require you to have a working computer with a very stable internet connection. A computer is camera is helpful in case you need to go on a Zoom call.

## 5. Methods of Evaluation

The overall course grade will be calculated as listed below:

OWL Quizzes	12%
Skill Development	20%
Midterm Exam	33%
Final Exam	35%

The Midterm Exam will cover material from Cycles 1-5, inclusive. The midterm will take place Saturday, October 18, 2025 from 2:00 – 4:00 PM (Room numbers will be posted on OWL Brightspace closer to the midterm date). There will be a midterm make-up exam (exact date, time and room will be posted on OWL Brightspace closer to October). The make-up exam is not a rewrite. It is only for those students who did not write the originally scheduled midterm. In order to miss the midterm, you **MUST** submit your Academic Consideration request using the Student Absence Portal. This is mandatory. Here is the URL for the student absence portal:

[https://registrar.uwo.ca/academics/academic\\_considerations/index.html](https://registrar.uwo.ca/academics/academic_considerations/index.html)

Failure to do so will lead to a grade of zero on the midterm. Once your request is approved, you will receive permission to write the make-up midterm. Undocumented absences are not accepted for this assessment. You must provide documentation for your reason of absence

**IMPORTANT:** In order to pass the course, you must write the final exam, pass the skill development portion of the course (a pass grade in skills is 60% and not missing more than 1 skills session) and receive an overall course grade of 50% or above. You **CANNOT** pass the course if you haven't written the final exam. If you do not pass skill development but receive an overall course grade of 50% (with final exam) or above, you will receive an incomplete grade (called INC) and you must repeat **only** the skill development portion of the course (not the entire course) within the next 2 future offerings of the course (summer 2026 or fall 2026). Exceptions may be made if you need to complete it after fall 2026. If you failed the course (or choose to repeat the course to improve your grade) and have passed skill development (60% or over), then you can transfer your skill development grade to your next course attempt. Your passing skill development grade from your previous attempt will be applied to your

repeated attempt while calculating your final course grade (in other words, you don't have to repeat skills if you passed it).

**IMPORTANT: If you miss more than 1 skill development session in B1001A, you will not pass the skill development portion of the course. In order to pass skill development, you cannot miss more than 1 session.**

### Alternate grading

Since the Final Exam is cumulative, you can get 2 chances to show your understanding of the course content. For example, if you do better on the final exam, half the weight of the midterm (16.5%) will be transferred to the Final Exam weight. If you miss the Midterm, the weighting of your final grade will change. As shown in the Table below, we will calculate your Final Grade in 2 different ways and whichever distribution works in your favour will be your final grade (ie, the highest grade). Weights below don't include Quizzes (12%) and Skill Development (20%).

### Bonus Grades

The Canadian Consortium of Science Equity Scholars (CCSES) is conducting a pan-Canadian study of first-year science courses at various post-secondary institutions. The study explores students' perceptions of the classroom climate, sense of belonging, and course outcomes to identify features of inclusive and equitable STEM courses. We highly encourage you to participate and receive your bonus marks. There will be a total of 2 surveys (one in the beginning of the term and the other at the end of the term). You will earn 0.25 marks for each survey for a total of 0.5 marks. There may be additional surveys that you can complete for bonus marks (details will be announced during the course). Please note the maximum final course grade (with bonus) that you can receive in the course is 100%.

	Standard	Midterm Low	Midterm Miss
Midterm	33	16.5	0
Final Exam	35	51.5	68
Total	68	68	68

### iClickers

Clickers are a classroom response system that we will be using during our in-person lecture sessions. It is not mandatory to participate (doesn't count for grades) but we highly encourage you to use this tool during lecture and participate in class. This will better prepare you for quizzes, midterm and final exam questions.

All you have to do is bring your laptop or smartphone to class, go to the following link (or QR code) and join our classroom. You can also use the QR code below.

<https://join.iclicker.com/WEFF>

Go to

join.iClicker.com  
**WEFF**



Share this join link with students

<https://join.iclicker.com/WEFF>

Copy

## 6. Student Absences

If you need to miss any assessments in this course, with exception of OWL quizzes, you must submit your request through the **student absence portal**. See URL link below:

[https://registrar.uwo.ca/academics/academic\\_considerations/index.html](https://registrar.uwo.ca/academics/academic_considerations/index.html)

Missed OWL Quizzes:

The OWL Quizzes are assessment with a **built-in flexibility** (10% bonus will be added to everyone's overall quiz grade to compensate for loss due to missed quizzes). Whether you missed a quiz or not, all students will receive the 10% bonus. The quizzes are due one every Sunday at 11:00 PM EST (with the exception of midterm weekend and reading week). Since there is build-in flexibility for these quizzes, you CANNOT request Academic Consideration in form of deadline extension or reweighing of grades.. There are no make-up quizzes. If you miss a quiz, you will receive a grade of zero for that particular missed quiz. The quiz is delivered asynchronously on OWL (testing window is Thurs - Sun). Choose the day that is convenient for you to complete and submit the quiz. If you are not able to complete a quiz and miss it, we will compensate for your missed quizzes by adding 10% bonus to your overall quiz grade at the end of the term (to a maximum of 100%; you cannot receive a grade beyond 100%). There are various reasons for which you may miss a quiz (medical absence, technical difficulties, forgetting to submit, error in submitting, religious holidays, varsity event, other commitments). The 10% bonus will make-up for any quiz that you missed for whichever reason applies to you.

Missed Skill Development Sessions (Labs)

Labs in this course are called "Skill Development" (or Skills for short). If you need to miss a skills session, you must **submit your request through the student absence portal**. This is mandatory otherwise you will receive a grade of zero for the missed session. **Undocumented absence CANNOT be applied to request academic consideration for skills. You must provide documentation for your reason of absence.**



See URL link below for the student absence portal:

[https://registrar.uwo.ca/academics/academic\\_considerations/index.html](https://registrar.uwo.ca/academics/academic_considerations/index.html)

Once you have submitted your request, you will receive an automated confirmation email to let you know if it has been approved or denied. If approved, the confirmation email will provide you with information about a possible make-up date. If you are concerned or worried for any reason, please contact the skill development coordinator, Ms. Winona Gadapati, at [wgadapa2@uwo.ca](mailto:wgadapa2@uwo.ca) no more than **48 hours** after your scheduled lab session that you missed or will be missing.

If you miss any skill development session during the term, you will not qualify for bonus skill development grades that **may or may not be given** at the end of the term. The only way to receive the **potential** bonus grade is to attend all skill development sessions without missing a single one.

**IMPORTANT: If you miss more than 1 skill development session in B1002B, you will NOT pass the skill development portion of the course. In order to pass skill development you cannot miss more than 1 session.**

#### Missed Midterm

There is one midterm exam in this course worth 33% of the overall course grade. It will take place in October. If you miss the midterm without academic consideration, you will receive a grade of zero. If you miss the Midterm WITH academic consideration, then you will be qualified to write the make-up midterm.

There is a Make-up for the Midterm Exam. Make-up midterm is only available to students who have been granted academic consideration to miss the midterm.

It is important to note that Make-up midterm is not a rewrite. In other words, if you wrote the originally scheduled Midterm, you are not permitted to write the make-up midterm. Therefore, if you think you cannot write the midterm for any reason, you **MUST** submit your request to miss the midterm via the student absence portal. Once you write the originally scheduled midterm, it is too late to get exemption and reweighing of your final grade! If you miss the midterm without academic consideration, you will receive a grade of zero. If you miss the midterm WITH academic consideration you will have permission to write the Make-up midterm. If you cannot write the make-up midterm you need to obtain **ANOTHER** academic consideration via the student absence portal in order to be excused from writing the make-up midterm. If you miss **BOTH** the regular midterm and the Make-up midterm with academic consideration, the weight of the midterm will be transferred to your Final Exam.

If you need to miss the midterm, you must **submit your request through the student absence portal.** This is mandatory otherwise you will receive a grade of zero on the midterm. **Undocumented absence CANNOT be applied to request academic consideration for midterm. You must provide documentation for your reason of absence.**

See URL link below for the student absence portal:

[https://registrar.uwo.ca/academics/academic\\_considerations/index.html](https://registrar.uwo.ca/academics/academic_considerations/index.html)



Once you have submitted your request, you will receive an automated confirmation email to let you know if it has been approved or denied. If approved, you can write the make-up. If you are concerned or worried for any reason, please contact the course coordinator, Dr. Niki Sharan at [nsharan@uwo.ca](mailto:nsharan@uwo.ca).

## **Absences from Final Examinations**

There is one final exam in this course worth 35% of the overall course grade. It will take place in December. If you miss the final exam without academic consideration, you will receive a grade of zero. If you miss the final exam WITH academic consideration, then you will be qualified to write the make-up final.

There is a Make-up for the Final Exam. Make-up final is only available to students who have been granted academic consideration to miss the final exam in the original scheduled date.

It is important to note that Make-up final is not a rewrite. In other words, if you wrote the originally scheduled final, you are not permitted to write the make-up final. Therefore, if you think you cannot write the final for any reason, you **MUST** submit your request to miss the final via the student absence portal. Once you write the originally scheduled final, it is too late to get exemption and reweighing of your final grade! If you miss the final without academic consideration, you will receive a grade of zero. If you miss the final WITH academic consideration you will have permission to write the Make-up final. If you cannot write the make-up final you need to obtain ANOTHER academic consideration via the student absence portal in order to be excused from writing the make-up final. If you miss BOTH the regular final and the Make-up final with academic consideration, your grade will be entered as “SPC”. You will have the opportunity to write the final exam during the next offering of the course after which your SPC grade will be changed to your numerical grade.

If you need to miss the final exam, you must **submit your request through the student absence portal**. This is mandatory otherwise you will receive a grade of zero on the final exam.

**Undocumented absence CANNOT be applied to request academic consideration for the final exam. You must provide documentation for your reason of absence.**

See URL link below for the student absence portal:

[https://registrar.uwo.ca/academics/academic\\_considerations/index.html](https://registrar.uwo.ca/academics/academic_considerations/index.html)

Once you have submitted your request, you will receive an automated confirmation email to let you know if it has been approved or denied. If approved, you can write the make-up final. If you are concerned or worried for any reason, please contact the course coordinator, Dr. Niki Sharan at [nsharan@uwo.ca](mailto:nsharan@uwo.ca).

## **6. Accommodation and Accessibility**

### **Religious Accommodation**

Please see diversity calendar posted on the Office of Equity, Diversity and Inclusion Office:

<https://www.edi.uwo.ca>

### **Accommodation Policies**

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/Academic\\_Accommodation\\_disabilities.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf).

## **7. Academic Policies**

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

In accordance with policy,

[https://www.uwo.ca/univsec/pdf/policies\\_procedures/section1/mapp113.pdf](https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf),

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 their official university address is attended to in a timely manner.

Pencils, erasers and a non-programmable basic calculator are permitted during the midterm exam and final exam. No other items are permitted.

**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](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf).

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.

### **Academic Integrity Tutorial for Undergraduate Students.**

The updated Academic Integrity Tutorial for Undergraduate Students is now live for students to access. To access the tutorial, click on the following link and select "Enroll in Course" to begin.

<https://westernu.brightspace.com/d2l/le/discovery/view/course/124464>

The tutorial is designed to help students understand the meaning of academic integrity and develop the skills necessary to avoiding academic offences. We suggest it be used in combination with discipline-specific academic integrity learning opportunities. Students who successfully complete this tutorial will earn a certificate.

The tutorial covers the following topics:

- What academic integrity means and why it matters
- Strategies to avoid misconduct (e.g., citation, collaboration, time management)
- Common scholastic offences (e.g., plagiarism, cheating, falsification)
- Consequences of violations and how to uphold integrity in your work

Please use the link below to complete the integrity tutorial.

<https://westernu.brightspace.com/d2l/le/discovery/view/course/124464>

The tutorial will take 60-90 minutes to complete. For more information, please visit the Centre for Teaching and Learning's link below:

<https://teaching.uwo.ca/teaching/assessing/academic-integrity.html>

## 8. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/advising/>

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at

[https://www.uwo.ca/health/student\\_support/survivor\\_support/get-help.html](https://www.uwo.ca/health/student_support/survivor_support/get-help.html).

To connect with a case manager or set up an appointment, please contact [support@uwo.ca](mailto:support@uwo.ca).

Please contact [http://academicsupport.uwo.ca/accessible\\_education/index.html](http://academicsupport.uwo.ca/accessible_education/index.html) 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 Accessible Education at if you have any questions regarding accommodations.

Learning-skills counsellors at the Student Development Centre (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.