

Biology for Sciences II (B1002B) Course Outline

1. Course Information

Course Information

Biology for Sciences II (B1002B), FW21 is offered in a blended format. However, the month of January, the course is offered fully online. In the blended format, certain components of the course are online and other components in-person. Lectures are asynchronous (slides and videos posted on OWL for students to watch at their leisure) which account for 2 hours/week. Students will attend live session with the professor 1 hour/per week (Wed or Thurs, depending on their Western Timetable) where they can receive answers to any course related questions they have and participate in some active learning. Skill Development (Labs) sessions are delivered synchronously in-person (3 hours/week). Mode of delivery is subject to change depending on potential announcements by upper administration at Western University.

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 written special permission from your Dean 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)	nsharan@uwo.ca	NCB 301G	X86502	TBA
Dr. Denis Maxwell	dmaxwell@uwo.ca	NCB 240	X86151	W/F 12:30-1:30PM
Ms. Winona Gadapati (Skill Dev Coordinator)	Wgadapa2@uwo.ca	NCB 301K	X81141	Upon Request

Questions should be addressed to the Forum under the correct heading and a member of the instructional team will respond. Any emergency questions can be addressed to the course coordinator. If the emergency question is related to labs, it must be addressed to the Skill Development (Lab) Coordinator. Students must use their Western (@uwo.ca) email addresses when contacting their instructors. During the online offering of the course, all office hours and help sessions will be offered via Zoom.

3. Course Syllabus, Schedule, Delivery Mode

Course Description

Biology 1002B 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.

Educational Outcomes

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.

Class Schedule for Winter 2022.

Week of	Cycle #	Lecture #	Biology 1002B Class Schedule Winter 2022	Professor	
10-Jan	0	0	Welcome Videos - Course Structure	Sharan/Maxwell	
10-Jan	1	1	Cycle 1: Chlamydomonas and the Origin of Life		
		2			
17-Jan	2	3	Cycle 2: Trapping Light for Energy and Information	Maxwell	
		4			
24-Jan	3	5	Cycle 3: Thermodynamics and Membrane		
		6			
31-Jan	4	7	Cycle 4: Primary Metabolism		
		8			
7-Feb	5	9	Cycle 5: Integrated Metabolism		
		10			
14-Feb	6	11	Cycle 6: Endosymbiosis and Multicellularity		
		12			
Reading Week: Feb 19-27th; No lectures or skill development sessions					
28-Feb	7	13	Cycle 7: Transcription and Translation		Sharan
		14			
7-Mar	8	15	Cycle 8 : Control of Gene Expression		
		16			
Midterm Exam : Sat, March 12th, 10:00 AM -12:00 PM (Room numbers TBA) - Covers Cycles 1-7, inclusive					
14-Mar	9	17	Cycle 9: Genetics of Cancer and Other Diseases		
		18			
21-Mar	10	19	Cycle 10: DNA Technologies		
		20			
28-Mar	11	21	Cycle 11: Epigenetics		
		22			
Apr 10-30	N/A	N/A	Final Examination Period		
Final Exam date and time to be announced by registrar's office - See Western Exam Schedule in April					

Key Dates

Classes begin: January 10th, 2022.

Reading Week: February 19–27, 2022

Midterm Exam: March 12, 2022 from 10:00 AM – 12:00 PM EST – Cycles 1-7, inclusive.

Classes end: April 5, 2022

Final Exam : Scheduled by Registrar sometime in April (See Western Timetable in April)

Contingency plan for our online class pivoting to in-person.

For the month of January, the course will be delivered fully online. If the course shifts to in-person, it will be blended which means that some components will be delivered in-person and other components online. Lectures will be asynchronously online along with weekly in-person Q&A sessions with the instructors. Session B component of the lab will be in-person. All biology mentorship workshops and review sessions will be in-person.

4. Course Materials

Computer, Camera, Microphone, Stable internet, Textbook (*Biology: Exploring the Diversity of Life by Russell et al. 4th Canadian Edition*), Labster, , MindTap (optional). Note that SimuText will NOT be used in this course.

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 so they don't miss any important announcement. Missing such announcements can have an impact on their grades.

All course material will be posted to OWL: <http://owl.uwo.ca>.

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.

Technical Requirements

Stable internet connection, computer with working microphone and webcam, Labster and MindTap (optional).

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

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

Alternate Grading

Since the Final Exam is cumulative, you can get 2 chances to show your understanding of the course content. For example, if Midterm Test goes poorly for you, half of its weight (16.5%) will be transferred to Final Exam where you will have another chance. In order to miss the midterm or final exam, you must gain permission from your academic counselor in your Faculty's Dean's office. If you miss the midterm exam, the weight of the midterm will be transferred to the final exam weight. 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. Weights below don't include Quizzes (12%) and Skill Development (20%). If you add these 2 components, it will lead to a total of 100.

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

Midterm will cover Cycles 1-7, inclusive and Modules 1 and 2 from Skill Development. Final Exam will include Cycles 1-11, inclusive and all 4 Modules for Skill Development.

There will be a make-up midterm exam. Students cannot file an SRA to miss the midterm since it is worth more than 30% of their overall course grade. However, if they have academic consideration from their counselor, they will be given the opportunity to write the make-up midterm exam. If they cannot write the make-up, they will have to again receive consideration from their academic counselor to miss the make-up in which case the weight of the midterm will be transferred to the weight of the final exam to be worth 68%.

- All OWL Quizzes are due Sundays at 11:00 PM online, unless otherwise specified
- Students will have 1 submission for all assessments. Students cannot file SRA or academic consideration for missed labs. Instead, 10% bonus will be added to the overall quiz grade at the end of the term to make-up for any missed quizzes.
- 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.

The midterm and final exam will either be delivered in-person or online. This will depend on instructions we receive from Western University as the course progresses. All information relating to the midterm and final exam will be posted on OWL in the "Midterm and Final Exam" tab.

- Midterm exam will consist of MC questions only and will cover Cycles 1, 2, 3, 4, 5, 6 and 7 and Skills Modules 1 and 2.
- Details of the Final Exam structure will be posted on OWL. The final exam will be cumulative and will cover material from Cycles 1 to 11 and ALL Skills Modules. Most of the questions will come from cycles that were not previously tested.

In order to pass the course, you MUST write the final exam and pass the skill development portion of the course.

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

Skill Development

Labs in this course are called "Skill Development". This is a mandatory component of the course. Failure to complete this component will lead to failure of Skills and having to repeat it in a future year. You MUST have documentation to miss a skills session (consideration from counselor or self-report). Note: You can only miss 2 skill development sessions (with official documentation). In other words, you cannot use more than 2 SRA OR 2 academic considerations OR 1SRA 1 academic consideration towards skills component. Anything that you miss after the 2 sessions, will lead to a grade of zero for that session and/or assessment.

Accommodated Evaluations

There are no Make-ups for quizzes. Instead you will receive a 10% bonus on your overall quiz grade at the end of the term to compensate for the missed quizzes. If you miss the midterm, the weight of the midterm will be transferred to the weight of the final exam.

Information about late or missed evaluations:

- Late assessments without self-reported absences (SRA) will be subject to a grade of zero.
- Late assessments with self-reported absences should be submitted within 24 hours of the end of the 48-hour period.
- An assessment cannot be submitted after it has been returned to the class [the weight will be transferred to another assessment]
- A make-up midterm will be offered OR the weight of the missed make-up midterm will be transferred to the final exam.
- If a make-up final exam is missed, the student will receive an INC and complete the task the next time the course is offered

6. Student Absences

Academic Consideration for Student Absences

Students who experience an extenuating circumstance (illness, injury or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) Submitting a Self-Reported Absence (SRA) form provided that the conditions for submission are met. To be eligible for a Self-Reported Absence:
 - an absence must be no more than 48 hours
 - the assessments must be worth no more than 30% of the student's final grade
 - no more than two SRAs may be submitted during the Fall/Winter term
- (ii) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to the Academic Counselling office of their Faculty of Registration.
- (iii) Submitting appropriate documentation for non-medical absences to the Academic Counselling office in their Faculty of Registration.

Note that in all cases, students are required to contact their instructors within 24 hours of the end of the period covered, unless otherwise instructed in the course outline.

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

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

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

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

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

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

Absences from Final Examinations

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a “Multiple Exam Situation” (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under [Special Examinations](#)).

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 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,

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,

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.

Items permitted on midterm and final exam are: No 2 pencil, eraser and a basic non-programmable calculator.

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.

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.

Tests and examinations in this course may be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

<https://remoteproctoring.uwo.ca>.

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/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 Accessible Education at (519) 661-2147 if you have any questions regarding accommodations.

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/>.

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.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.

Students who are in emotional/mental distress should refer to Mental Health@Western (<http://www.health.uwo.ca/mentalhealth>) 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>.