

## Biology for Science II (B1002B) Course Outline

### 1. Course Information

#### Course Information

Biology for Sciences II (B1002B), FW22 is offered in-person format. Lectures are Mon-Wed 10:30-11:30; Tues-Thurs 9:30-10:30, 10:30-11:30, depending on the section number. Certain digital platforms used (Labster 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 on the 3<sup>rd</sup> floor of the North Campus Building (room numbers posted on OWL course site). 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 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 and Instructor)	nsharan@uwo.ca	Check OWL	519-661-2111 X86502	Check OWL
Dr. Denis Maxwell (Instructor)	dmaxwell@uwo.ca	Check OWL	519-661-2111 X81336	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 issues in this course is the First Year Biology course coordinator, Dr. Niki Sharan (for missed Quizzes, Tests and Exam) and Ms. Winona Gadapati (for missed skill development sessions). Do not contact Dr. Maxwell for any questions other than his lecture content (which should be posted to the OWL forum and not emailed to him directly). He is not responsible for any administrative component of the course. When you email Niki Sharan or Winona Gadapati (nsharan@uwo.ca or wgadapa2@uwo.ca), be sure to put in your e-mail 1002B, 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 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.

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 OWL course site for details on day, time and location.

## Class Schedule:

Week of	Cycle #	Lecture #	Biology 1002B Class Schedule Winter 2024	Professor	
8-Jan	1	1	Cycle 1: Chlamydomonas and the Origin of Life	Maxwell	
		2			
15-Jan	2	3	Cycle 2: Trapping Light for Energy and Information		
		4			
22-Jan	3	5	Cycle 3: Thermodynamics and Membrane		
		6			
29-Jan	4	7	Cycle 4: Primary Metabolism		
		8			
5-Feb	5	9	Cycle 5: Integrated Metabolism		
		10			
12-Feb	6	11	Cycle 6: Endosymbiosis and Multicellularity		
		12			
<b>Reading Week: Feb 17-25th; No lectures or skill development sessions</b>					
26-Feb	7	13	Cycle 7: Transcription and Translation	Sharan	
		14			
4-Mar	8	15	Cycle 8 : Control of Gene Expression		
		16			
<b>Midterm Exam : Sat, March 9th, 2:00 -4:00 PM (Room numbers TBA) - Covers Cycles 1-7, inclusive</b>					
11-Mar	9	17	Cycle 9: Genetics of Cancer and Other Diseases		
		18			
18-Mar	10	19	Cycle 10: DNA Technologies		
		20			
25-Mar	11	21	Cycle 11: Epigenetics		
		22			
1-Apr	N/A	N/A	No Classes - Take this time to review.		
8-Apr	N/A	N/A	Classes End		
<b>Final Exam date and time to be announced by registrar's office - See Western Exam Schedule in April</b>					

### Key Sessional Dates

Classes begin: January 8, 2024

Midterm Exam – March 9, 2024 from 2-4 PM (Rooms to be posted on OWL closer to midterm)

Spring Reading Week: February 17 – 25, 2024

Classes end: April 8, 2024

Exam period: Starting April 11, 2024

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

Although unlikely, in the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, affected course content will be delivered entirely online. Lectures will be delivered asynchronously (e.g., posted on OWL for students to view at their convenience). Labs will be offered synchronously via Zoom. The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructors.

## 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. You can either purchase the electronic version of the textbook (called MindTap) and/or the print copy. MindTap is optional. You don't need both electronic and print copy. But if you wish you purchase both you may do so.

All materials are available for purchase at the uwo bookstore (online or in-person). If you already purchased these resources for B1001A in Fall 2022, you will not need to repurchase them.

A Personal Response System called “iClickers” will be used during lectures. These do not count for grades. They are for class participation only. Participation is encouraged but not mandatory.

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

Students are responsible for checking the course OWL site (<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.

If students need assistance with the course OWL site, 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

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.

## 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 1-7, inclusive. The midterm will take place Saturday, March 9, 2024 from 2:00 – 4:00 PM (Room numbers will be posted on OWL according to student number closer to the midterm date). There will be a midterm make-up exam on Thursday, March 14<sup>th</sup> from 6-8 PM (Room number TBA). 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

get permission from your academic counselor in your Faculty's Dean's office. Failure to do so will lead to a grade of zero on the midterm.

In order to pass the course, you must receive a grade of 50% or above and must pass the skill development portion of the course. A score of 60% or above is considered a passing grade for skill development. If you do not pass the skill development portion of the course but receive a grade of 50% or above in the course, you must repeat the skill development portion of the course during a future offering of the course (summer 2024 or fall 2024 or any subsequent year), in order to pass B1002B.

**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.**

## 6. Student Absences

### Assessments worth less than 10% of the overall course grade:

#### Missed OWL Quizzes:

You cannot receive academic consideration for missing OWL Quizzes. There are no make-up quizzes. If you miss a quiz, you will receive a grade of zero for that particular missed quiz. Unlike the midterm and final exam, you have several days to complete each OWL quiz. Choose the day that is convenient to you. However, 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 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 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.**

If you have a valid reason to miss a skill development session, you must email 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. She will respond to your email and let you know how you will receive consideration to miss the skill session.

As noted in the course outline above, you must receive a minimum grade of 60% to pass the skill development portion of the course. If you fail to do so, you will have to repeat the skill development portion of the course during the next offering of the course to pass B1001A.

### **Assessments worth 10% or more of the overall course grade:**

For work totalling 10% or more of the final course grade, you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible. For further information, please consult the University's medical illness policy at

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

The Student Medical Certificate is available at

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf).

### **Missed Midterm**

There is one midterm exam in this course worth 33% of the overall course grade. It will take place in March. If you miss the midterm without official permission (academic consideration from your Faculty's Dean's office) you will receive a grade of zero. If you miss the Midterm WITH official permission (academic counselor) 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 by an Academic Counselor 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 get official permission to miss the midterm. 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 official permission (academic counselor) you will receive a grade of zero. If you miss the midterm WITH official permission (academic counselor), you will have permission to write the Make-up midterm. If you cannot write the make-up midterm you need to obtain ANOTHER official approval (academic counselor) in order to be excused from writing the make-up midterm. If you miss BOTH the regular midterm and the Make-up midterm with official permission, the weight of the midterm will be transferred to your Final Exam.

### **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](#)).

If you anticipate scheduling conflicts (medical, personal, sport, religious etc) and cannot write the final exam, you **MUST** contact your academic counselor in your Faculty's Dean's office to get academic consideration to miss the originally scheduled final exam.

There is a Make-up for the final exam, called Special Exam as noted above. Make-up final exam is only available to students who have been granted academic consideration by an Academic Counselor

The make-up final exam is not a rewrite. If you wrote the originally scheduled final exam, you are not permitted to write the make-up final. Therefore, if you think you cannot write the final exam for any reason, you **MUST** get official permission to miss the final exam. Once you write the originally scheduled exam, it is too late to get exemption and permission to write the make-up final exam. If you miss the final exam without official permission from your academic counselor, you will receive a grade of zero. If you miss the final exam **WITH** official permission (academic counselor), your grade will temporarily appear as 'SPC' and you will have permission to write the Make-up final exam (also called Special Exam) which will take place in May 2023 (exact date, time room number will be posted on OWL closer to the make-up date). If you cannot write the make-up final exam, you need to get **ANOTHER** official approval (academic counselor) in order to be excused from writing the make-up final exam. If you fail to do so, you will receive a grade of zero on the final exam. If you miss **BOTH** the regular final exam and the make-up final exam with official permission, you will receive an incomplete (INC) grade in the course which means you are qualified to write the final exam during the next offering of the course (Summer 2024 – check Western calendar/timetable for details).

## **6. Accommodation and Accessibility**

### **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>.

### **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.

iClickers will be used during lecture to encourage participation and active learning. iClicker participation doesn't count for grades. Although iclickers may be used for data gathering by the instructor, the student's privacy will always be protected. Students must ensure that their iclicker is not being used by anyone else other than themselves.

## 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/>.

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.