

Welcome to 0011A!
(section number: 530 lectures/531 labs)

COURSE SCHEDULE AND DELIVERY MODE

The course material is taught through lectures and labs scheduled to run in-person with following schedule:

Lectures	Tuesdays	5:00 pm to 7:00 pm	room 19 St James building
Labs	Tuesdays	7:00 pm to 10:00 pm	room 19 St James building

Labs are mandatory. There are no make-up, in-person labs, and it is not possible to reschedule them. If academic consideration has been granted for the missed lab, the lab will be given a mark of EXCU (excused), which shifts the weight of the missed lab onto all of the other labs.

INSTRUCTOR INFORMATION

Name: Anica Bjelica

e-mail: abjelic@uwo.ca

Office hours for students held weekly, times to 'drop in' to chat about the course material, ask questions, etc. Schedule: TBD mode of having office hour (in-person or online) and schedule.

E-mail is the best way to contact me (your course instructor). I will strive to respond to your email within 24 hours on weekdays, but please allow up to 48 hours for a response. To ensure that your e-mail reaches me, send it from your @uwo.ca account and use "Bio 0011A" in the subject line.

COURSE DESCRIPTION

This course explores basic chemistry and the molecules of life, membrane and cell structure and function, enzymes and reactions, photosynthesis, DNA, protein synthesis, and mitosis and meiosis. Biology 0011A/B and Biology 0012A/B in combination are equivalent to Ontario Grade 12U Biology.

Antirequisite(s): Ontario High School SBI4U or equivalent, Biology 0010, any university-level Biology course.

Prerequisite(s): Registration in a Preliminary Year program at Brescia University College.

COURSE MATERIAL

- Open access book has been chosen for the course. Book URL <https://openstax.org/books/biology-2e> you can access book through our OWL sit, course readings
Authors: Mary Ann Clark, Matthew Douglas, Jung Choi. Publisher/website: OpenStax.
Book title: Biology 2e. Publication date: Mar 28, 2018. Location: Houston, Texas. You can find the link as well, through *course readings tool* on our OWL site. We are going to cover first ten chapters during the fall term.
- Optional: *Biology Today and Tomorrow*. Cecie Starr, Christine A. Evers, Lisa Starr. 2015. 5th edition. *The book can be obtained at the UWO bookstore*, ISBN is 978-1-305-11735-8, or 4th edition can be borrowed from the Brescia library, see *course reading tool* on our OWL site. During the fall term we will cover first eight chapters of this book.
- Lab coat and lab book (safety glasses will be provided)
- OWL course site is primary source for announcements, course updates, lecture notes, activities/assignments, practice examples. This is the primary method by which information will be distributed to all students in the course. You are responsible for checking OWL on a frequent basis to stay informed. If you need assistance with OWL, please seek support on the OWL Help page. Alternatively, contact the Western Technology Services Helpdesk (by phone at 519-661-3800 or ext. 83800). Google Chrome or Mozilla Firefox are the preferred browsers to optimally use OWL and our course materials

LEARNING OUTCOMES

By the end of the course students will be able to:

- L1:** Demonstrate knowledge of basic biological structures and concepts, on the cell level.
- L2:** Demonstrate ability to find relevant and accurate sources for topics related to biology (research writing, presentation assignment).
- L3:** Demonstrate critical analysis of literature and writing skills through a report on provided, selected articles (literacy, writing assignment).
- L4:** Summarize and present findings from research in popular and important contemporary issues (GMO, vaccines, ecology etc) (literacy, presentation assignment)
- L5:** Demonstrate awareness of different approaches and views on current life science related issues (literacy, presentation assignment).

L6: To design hypothesis, and ways to test it, by critically thinking and analyzing the results (labs)

BRESCIA COMPETENCIES

C1 Communication: Level 2 In *class activities* through answering questions and discussions students are practicing their listening and communicating skills. Through *research writing* assignment students are going to find relevant sources, read them and demonstrate their understanding by writing a summary from their findings. In the *lab presentation* it is as well expected from students to demonstrate that they can find relevant resources to answer their question of interest, that they can read research articles and summarize the finding in the form of presentation.

Part of this activity that is being assessed is students' asking and answering questions.

C2 Critical thinking: Level 1 In some of the *activities* students are expected to justify their view on the subject before and after based on the knowledge gained in the class.

C3 Social awareness and engagement: Level 1 Through case-studies and news we would see from biology point of view aspects of the news and the world around us.

C4 Inquiry and analysis: Level 2 This competency would be developed through *research writing* and *presentation* while searching for relevant sources, and as well in the *labs* where experiments conducted would require inquiry on possible methods to solve the problem, and followed by the analysis of the data and conclusion.

C5 Self-awareness and development: Level 1 Students are asked to reflect on their studying strategies, think about weaknesses and are exposed to potentially new methods. Part of the *activities*.

TEACHING METHODOLOGY AND EXPECTATION OF STUDENTS

Vibrant, welcoming classroom with a sense of a community, is what I am striving for. Vibrant, so that students take active part in learning. To engage students, make them active learners I ask questions throughout the lecture or demonstration, either questions like what you think would happen here, that sometime opens short discussion in the class, or specific question where correct answer is what we are looking for, relating to the prior knowledge, where students are asked to each write on the paper their answer.

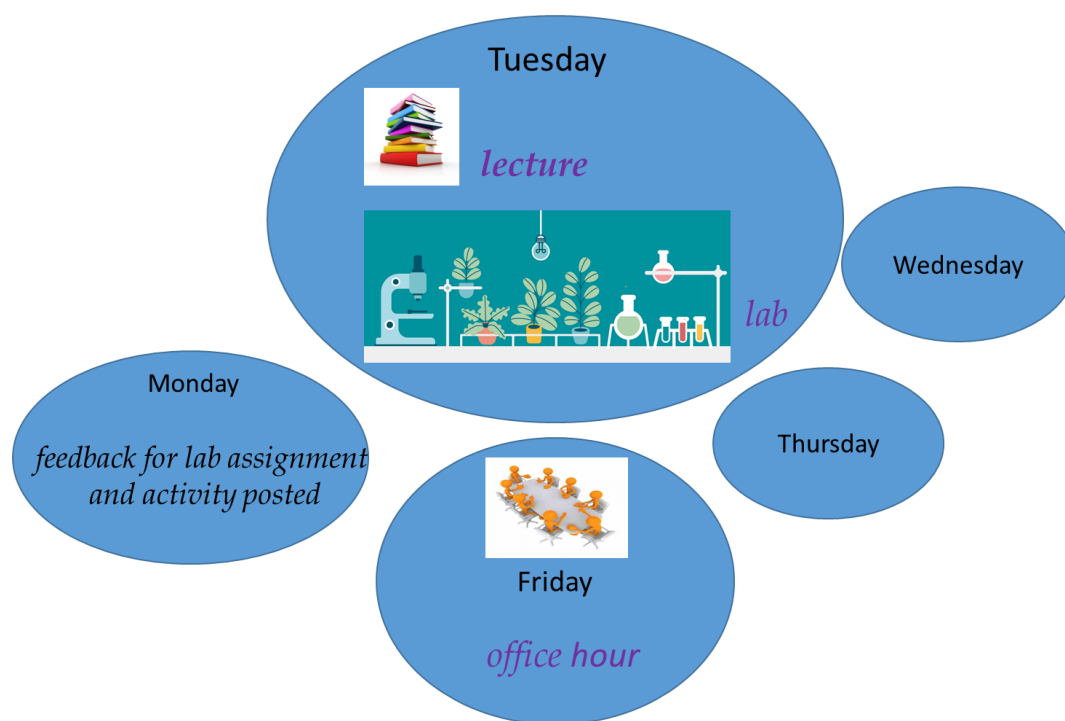
Besides simple questions I ask students to draw concept map (group activity in the lab), or to retrieve material taught, with closed lab books and computers ("Desirable difficulty of retrieval" five-minutes activity) during lecture time, the activities that demonstrate best practices of learning, that students can take on and adopt beyond the class.

I like to make relevant to current issue or everyday life whenever possible what we study, to bring enthusiasm for studying beyond the class and use familiar subjects to promote critical thinking. We will have case studies and biology in the news, relevant to the topics covered, discussed in the class. In the

research writing and lab presentation, students will further explore biology related news of subject of their particular interest from everyday life, ask a question, find relevant accurate resources, and present their finding in written format and short lab presentation respectively.

Below is the scheme of the weekly pace of lectures and labs and with them associated activities and assignments. Activities are relatively low weight marks but are essential for you to monitor own progress of knowledge and potential need for improvement, as feedback will be provided weekly. Activities will have various formats throughout the term. Similar formats of questions will be used in the midterm and final exam. Labs are organized in a way to follow subjects covered in the lectures, so it would be important to view lecture material prior to the labs, as this would help understanding the material and its retention. During each lab assignments will be completed, and marked.

Beside this core regular rhythm, in Biology 0011A we will have, *research writing*, and *presentations*. More details about these projects will be posted on our OWL site.



Suggestions for success in Biology 0011A course:

- seek help when you have questions or concerns. Don't just hold onto your questions. E-mail is the best way to ask questions, share suggestions/concerns. Beside regular office hours we can arrange to meet individually, in-person or via zoom
- follow the weekly pace of Bio0011A, be engaged: listen, ask questions, discuss
- check and read our OWL site. It is important, as resources relevant for the lectures, labs and all the assignments are posted there.
- begin your written/presentation deliverables early! These tasks often take more time than you anticipate – especially if this is the first time you are completing this type of task. Give yourself time to brainstorm, write, edit, and reflect.

COPYRIGHT AND INTELLECTUAL PROPERTY

PowerPoint lecture slides and notes, lists of readings, in-class activities, assignment guidelines, and other components of the course materials are typically the intellectual property of the instructor. Unauthorized reproduction through audio-recording, video- recording, photographing, sharing on social media, or posting on course-sharing websites is an infringement of copyright and is prohibited. Such action may be considered a Code of Conduct violation and lead to sanctions.

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, at the following Web site:

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

This course includes creative and written submissions. Be sure to cite all references and sources and complete your own work.

TurnItIn: 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. (<http://www.turnitin.com>)

EVALUATION

Component	Weight	Date/ Deadline	Learning Outcome	Brescia Competencies
Activities	5%	Due Fridays, posted after every lecture	L1 L2 L5	C1 C2 C5
Lab assignments	15%	Due after every lab. Done during lab time	L1 L4 L6	C1 C4
Research writing	10%	Oct. 4 th , 2022.	L1 L3	C1 C4
Midterm exam	20%	Oct 25 th , 2022.	L1	C1 C2
Presentation	10%	Nov 22 nd , 2022.	L2 L4 L5	C1 C3
Final exam	40%	TBA	L1	C1 C2

Details in regards of the evaluation components will be posted on our OWL website.

ACADEMIC ACCOMMODATION

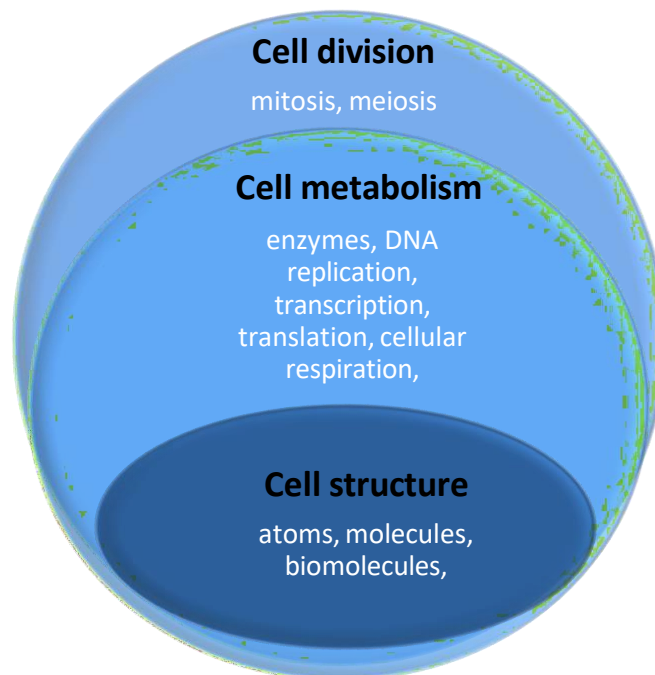
For course components worth 10% or more of the total course grade, please see the Academic Policies and Regulations section at the end of this course outline or consult the Academic Calendar

For course components worth less than 10% of the total course grade, documentation will be required. Medical or other supporting documentation should be submitted to your Academic Advisor.

COURSE CONTENT

We will start our studies from non-living: atoms, continue by building molecules, understanding basic macromolecules that are together forming living, smallest unit of life, cell. How is cell achieving basic functions of life, through which structures? From cell respiration to cell division, will be subject of our course.

Schematic overview of the organization of topics in Bio0011A



In the table is presented a **tentative** schedule for our lectures and labs. As the course progresses, depending on the rate at which we cover the individual topics, adjustments can be made.

Date	Lecture	Lab
Sep 13	Welcome! The Nature of Science	
Sep 13		Lab safety, Scientific literacy, Hypothesis, microscopy
Sep 20	Molecules of life	
Sep 20		Experiment design, pipetting, aseptic techniques, spreading
Sep 27	Cell structure and function	
Sep 27		Experiment bacteria, UV exposure
Oct 4	Membrane structure and function	
Oct 4		Results, discussion
Oct 11	Enzymes and reactions	
Oct 11		Microscopy (various cells); pH
Oct 18	Photosynthesis	
Oct 18		Photosynthesis
Oct 25	Respiration	
Oct 25		Midterm exam; Respiration (concept map)
Nov 1	Fall reading week _ No lecture	
Nov 1		Fall reading week _ No lab
Nov 8	DNA structure	
Nov 8		DNA structure – practice, model
Nov 15	Protein synthesis	
Nov 15		DNA to protein – model building
Nov 22	Gene expression	
Nov 22		Presentations
Nov 29	Mitosis	
Nov 29		Presentations
Dec 6	Meiosis	
Dec 6		Mitosis and meiosis model building; Microscopy Mitosis and Meiosis Overview
<p>Mid-year/Fall term examination period: Friday, December 10th - Tuesday, December 22nd, 2022.</p> <p>final exam exact day and time TBA (Do not book travel during examination period)</p>		

1. POLICY REGARDING ACADEMIC ACCOMMODATION

The complete policy regarding Accommodation for Illness - Undergraduate Students can be found at

https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_135

Students who have long-term or chronic medical conditions which may impede their ability to complete academic responsibilities should seek Academic Accommodation through Student Accessibility Services

(https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_10).

Personal commitments (e.g., vacation flight bookings, work schedule) which conflict with a scheduled test, exam or course requirement are not grounds for academic accommodation.

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

1. For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner;
2. For non-medical absences, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to their Academic Advisor. Students are encouraged to contact their Academic Advisor to clarify what documentation is acceptable.

Request for Academic Consideration for a Medical Absence

When a student requests academic accommodation (e.g., extension of a deadline, a makeup exam) for work representing 10% or more of the student's overall grade in the course, it is the responsibility of the student to provide acceptable documentation to support a medical or compassionate claim. All such requests for academic accommodation must be made through an Academic Advisor and include supporting documentation.

Academic accommodation for illness will be granted only if the documentation indicates that the onset, duration and severity of the illness are such that the student could not

reasonably be expected to complete their academic responsibilities. Minor ailments typically treated by over-the-counter medications will not normally be accommodated.

The following conditions apply for students seeking academic accommodation on medical grounds:

1. Students must submit their Student Medical Certificate (SMC) along with a request for relief specifying the nature of the accommodation being requested no later than two business days after the date specified for resuming responsibilities. An SMC can be downloaded from https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf;
2. In cases where there might be an extended absence or serious issue, students should submit their documentation promptly and consult their Academic Advisor for advice during their recovery period;
3. Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, scheduled tests or examinations, and other academic requirements;
4. Students must communicate with their instructors no later than 24 hours after the end of the period covered by the SMC to clarify how they will fulfil the academic expectations they may have missed during the absence;
5. Appropriate academic accommodation will be determined by the Dean's Office/Academic Advisor in consultation with the course instructor(s). Academic accommodation may include extension of deadlines, waiver of attendance requirements, arranging Special Exams (make-ups), re-weighting course requirements, or granting late withdrawal without academic penalty.

2. ACADEMIC CONCERNS

If you feel that you have a medical or personal challenge that is interfering with your work, contact your instructor and Academic Advisor as soon as possible. Problems may then be documented and possible arrangements to assist you can be discussed at the time of occurrence rather than on a retroactive basis. Retroactive requests for academic accommodation on medical or compassionate grounds are not normally considered.

If you think that you are too far behind to catch up or that your work load is not manageable, you should consult your Academic Advisor (https://brescia.uwo.ca/enrolment_services/academic_advising/book_an_appointment.php). If you consider reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines; please contact your Academic Advisor or see the list of

sessional dates in the Academic Calendar

(<https://www.westerncalendar.uwo.ca/SessionalDates.cfm?SelectedCalendar=Live&ArchiveID=>).

You should consult with the course instructor and the Academic Advisor who can help you consider alternatives to dropping one or more courses. Note that dropping a course may affect OSAP eligibility and/or Entrance Scholarship eligibility.

3. ABSENCES

Short Absences: If you miss a class due to a minor illness or other problems, check your course outline for information regarding attendance requirements and make sure you are not missing a test or assignment. Cover any readings and arrange to borrow notes from a classmate. Contact the course instructor if you have any questions.

Please note that for asynchronous online courses, attendance or participation requirements may be different than for synchronous or in-person courses.

Extended Absences: If you have an extended absence, you should contact the course instructor and an Academic Advisor. Your course instructor and Academic Advisor can discuss ways for you to catch up on missed work, and arrange academic accommodations if appropriate and warranted.

It is important to note that the Academic Dean may refuse permission to write the final examination in a course if the student has failed to maintain satisfactory academic standing throughout the year or for too frequent absence from the class or laboratory

(https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=5&SelectedCalendar=Live&ArchiveID=#Page_64).

4. SCHOLASTIC OFFENCES

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

https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_20.

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offences. Note that such offences include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course in the University or

elsewhere. Students are advised to consult the section on Scholastic Discipline for Undergraduate Students in the Academic Calendar.

If you are in doubt about whether what you are doing is inappropriate or not, consult your instructor, the Academic Dean's Office, or the Registrar. A claim that "you didn't know it was wrong" is not accepted as an excuse.

The penalties for a student guilty of a scholastic offence (including plagiarism) include refusal of a passing grade in the assignment, refusal of a passing grade in the course, suspension from the University, and expulsion from the University.

Plagiarism:

Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence.

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.

Computer-marked Tests/exams:

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating. Software currently in use to score computer-marked multiple-choice tests and exams performs a similarity review as part of standard exam analysis.

5. PROCEDURES FOR APPEALING ACADEMIC EVALUATIONS

All appeals of a grade must be directed first to the course instructor. If the student is not satisfied with the decision of the course instructor, a written appeal is to be sent to the School Chair. If the response of the Chair is considered unsatisfactory to the student, they may then submit a written appeal to the Office of the Dean. If the student is not satisfied with the decision of the Dean, they may appeal to the Senate Review Board Academic (SRBA), if there are sufficient grounds for the appeal and if the matter falls within the jurisdiction of the SRBA. For information on academic appeals consult your Academic Advisor or see the Student Academic Appeals – Undergraduate in the Academic Calendar

https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_14.

Note that final course marks are not official until the Academic Dean has reviewed and signed the final grade report for the course. If course marks deviate from acceptable and appropriate standards, the Academic Dean may require grades to be adjusted to align them with accepted grading practices.

6. PREREQUISITES

Unless you have either the prerequisites for a course or written Special Permission from the Dean to enroll in it, you will be removed from the 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 prerequisite(s).

7. SUPPORT

Support Services

The Brescia University College Registrar's website, with a link to Academic Advisors, is at <http://brescia.uwo.ca/academics/registrar-services/>. Students can access supports through Brescia's Student Life Centre (<http://brescia.uwo.ca/life/student-life/>) and Learning Development & Success at Western (<https://www.uwo.ca/sdc/learning/>).

Mental Health and Wellness

Students may experience a range of issues that can cause barriers to your learning, such as increased anxiety, feeling overwhelmed, feeling down or lost, difficulty concentrating and/or lack of motivation. Services are available to assist you with addressing these and other concerns you may be experiencing. You can obtain information about how to obtain help for yourself or others through Health & Wellness at Brescia, https://brescia.uwo.ca/student_life/health_and_wellness/index.php and Health and Wellness at Western, http://uwo.ca/health/mental_wellbeing/index.html.

Sexual Violence

All members of the Brescia University College community have a right to work and study in an environment that is free from any form of sexual violence. Brescia University College recognizes that the prevention of, and response to, Sexual Violence is of particular importance in the university environment. Sexual Violence is strictly prohibited and unacceptable and will not be tolerated. Brescia is committed to preventing Sexual Violence

and creating a safe space for anyone in the Brescia community who has experienced Sexual Violence.

If you or someone you know has experienced any form of Sexual Violence, you may access resources at https://brescia.uwo.ca/safe_campus/sexual_violence/index.php.

Portions of this document were taken from the Academic Calendar, the Handbook of Academic and Scholarship Policy, and the Academic Handbook of Senate Regulations. This document is a summary of relevant regulations and does not supersede the academic policies and regulations of

