

Welcome to Biology 0011A!



Biology 0011A – Introductory Biology

Fall 2019 COURSE OUTLINE

GENERAL COURSE INFORMATION

Course 0011A, with section number 530 lectures and 531 labs during fall term of year 2019, will run with the following schedule:

Lectures	Mondays	14:30 to 16:30	in BR-19 (Brescia campus)
Labs/Tutorials	Tuesdays	18:00 to 21:00	in NCB 336 (Western campus)

Instructor Information

Name: Anica Bjelica

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Office hours for students: TBD

Office location: Brescia, Ursuline hall 216/Western campus, NCB 450

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.

Required Course Materials

- Recommended textbook for this course is: *Biology Today and Tomorrow*. Cecie Starr, Christine A. Evers, Lisa Starr. 2015. 5th edition. The book can be obtained at the UWO bookstore, and ISBN is 978-1-305-11735-8, or 4th edition can be borrowed from the library, see *course reading tool* on our OWL site. During the fall term we will cover first eight chapters of the book (note that chapters 9 to 17, 21, 23, and 25 will be covered in 0012B Biology – winter term).
- Lab coat (safety goggles when necessary will be provided)

Learning Outcomes

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

L1: Demonstrate knowledge of basic biological structures and concepts, on the cell level.

L2: Demonstrate ability to find relevant accurate sources for topics related to biology (lab. and literacy, 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) and summarize and present findings from own lab conducted experiments

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 1 to 3, but in all other as well).

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* (1-3) where practical experiments 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 Expectations 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 do 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. Participation is marked as part of the “activities” in the evaluation.

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, in order 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.

Suggestions for success in Biology 0011A course

- 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.
- Communicate academic concerns and/or suggestions to your instructor via e-mail.

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.

Evaluation

Component	Weight	Date/ Deadline	Learning Outcome	Brescia Competencies
Activities	5%	Over the term, in class/online	L1 L2 L5	C1 C2 C5
Lab assignments	15%	End of every lab	L1 L4 L6	C1 C4
Research writing	10%	Oct. 15 th , 2019.	L1 L3	C1 C4
Midterm exam	20%	Oct 29 th , 2019.	L1	C1 C2
Presentation	10%	Nov 12 th /19 th , 2019.	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

<http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&command=showCategory&SelectedCalendar=Live&ArchiveID=>.

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

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

Date	Lecture (Mondays 14:30 – 16:30)	Lab (Tuesdays 18:00-21:00)
Sep 9	Welcome! The Nature of Science	
Sep 10		Hypothesis, exp. design
Sep 16	Molecules of life	
Sep 17		Experiment
Sep 23	Cell structure and function	
Sep 24		Results, discussion
Sep 30	Membrane structure and function	
Oct 1		Diffusion, osmosis
Oct 7	Enzymes and reactions	
Oct 8		Microscopy
Oct 14	No Lecture _ Thanksgiving	
Oct 15		Microscopy cont'd
Oct 21	Photosynthesis	
Oct 22		Photosynthesis
Oct 28	Respiration	
Oct 29		Cellular respiration
Nov 4	Fall reading week _ No lecture	
Nov 5		Fall reading week _ No lab
Nov 11	DNA structure and replication	
Nov 12		Literacy: presentations
Nov 18	Protein synthesis	
Nov 19		Literacy: presentations
Nov 25	Mitosis	
Nov 26		DNA to protein - practice
Dec 2	Meiosis	
Dec 3		Microscopy Mitosis and Meiosis
Mid-year/Fall term examination period: Monday, December 8 - Thursday, December 19, 2019. final exam exact day and time TBA (Do not book travel during examination period)		

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.

2019-20 BRESCIA UNIVERSITY COLLEGE ACADEMIC POLICIES AND REGULATIONS

Academic calendar for 2019 can be found on the following

link <http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID>

1. POLICY REGARDING MAKEUP EXAMS AND EXTENSIONS OF DEADLINES

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 form provided that the conditions for submission are met;
- (ii) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner in order to be eligible for Academic Consideration; or
- (iii) For non-medical absences, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to Academic Counselling in their Faculty of registration in order to be eligible for academic consideration. Students are encouraged to contact their Academic Counselling unit to clarify what documentation is appropriate.

Students seeking academic consideration:

- are advised to consider carefully the implications of postponing tests or midterm exams or delaying handing in work;
- are encouraged to make appropriate decisions based on their specific circumstances, recognizing that minor ailments (upset stomach) or upsets (argument with a friend) are not normally an appropriate basis for a self-reported absence;
- **must communicate with their instructors no later than 24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence.

Academic consideration is not normally intended for the following circumstances:

- **Students who require academic accommodation based on an ongoing physical or mental illness (recurring or chronic) or an existing disability.** Students with an ongoing physical illness or mental disorder (recurring or chronic) or an existing disability are responsible, in consultation with their doctors or other health professionals, to determine if they are capable of pursuing their studies and, if so, with what accommodations. Students are expected to seek and arrange reasonable accommodations with Student Accessibility Services (SAS) as soon as possible in accordance with the Policy on [Academic Accommodation for Students with Disability](#). Students with pre-existing accessibility plans arranged through SAS may not need to provide additional documentation when seeking academic consideration where such request for consideration relates to their disability and where their accessibility plans allow for coursework deferral or deadline extensions.
- **Students who experience high levels of stress related to academic performance** (including completing assignments, taking part in presentations, or writing tests or examinations). Students with

academic or exam stress should access supports through [Student Health and Wellness](#) and [Learning Skills Services](#) in order to deal with this stress in a proactive and constructive manner.

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12

2 ACADEMIC CONCERNS

Academic concerns should be discussed with the instructor and Academic advisor as soon as possible. Many of the possible challenges can be resolved if reported timely to the instructor and/or Academic advisor. If it comes to decision of reducing courses by dropping, than you should be aware that it must be done by defined deadlines that can be found on <http://brescia.uwo.ca/academics/academic-advising/adddrop-courses/> to avoid the course being recorded as failure.

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.

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

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=%205&SelectedCalendar=Live&ArchiveID=#SubHeading_68

4. SCHOLASTIC OFFENCES

Any form of academic dishonesty that undermines the evaluation process, also undermines the integrity of the University's degrees. The University will take all appropriate measures to promote academic integrity and deal appropriately with scholastic offences. Some forms of dishonesty are plagiarism, cheating on an examination or falsifying material subject to academic evaluation, submitting false or fraudulent assignments or credentials; or falsifying records, transcripts or other academic documents, submitting a false medical or other such certificate under false pretences. Please see the link below for more extensive list of acts that are considered dishonest

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=%201&SelectedCalendar=Live&ArchiveID=#Page_20.

5. PROCEDURES FOR APPEALING ACADEMIC EVALUATIONS

All information on what student might appeal on, in which order of instances, and in what timeframe can be found on

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=%201&SelectedCalendar=Live&ArchiveID=#Page_14

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. SOCIAL CONDUCT: CODE OF STUDENT CONDUCT

<https://www.uwo.ca/univsec/pdf/board/code.pdf>

8. 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 Skills Services 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 Mental Health & Wellness at Brescia <http://brescia.uwo.ca/life/mental-health-wellness/> 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 <http://brescia.uwo.ca/life/sexual-violence/>

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 the Senate of the University of Western Ontario.