

Welcome to Biology 0012B!



Biology 0012B- Introductory Biology II
COURSE OUTLINE Winter 2020

COURSE DESCRIPTION

Biology 0012B is designed to help students in Brescia preliminary year, achieve detailed knowledge and the refinement of skills needed for further study in various branches of the life sciences and related fields. This course explores concepts and processes of biological systems at the levels of the organism, population and ecosystem. Subjects explored are genetics and inheritance, evolution and ecology, diversity of life, plant and animal structure and systems. Depth level of the course subjects is in accordance with the Grade 12 Biology curriculum as outlined for Ontario Secondary Schools.

INSTRUCTOR INFORMATION

Anica Bjelica

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

e-mail: abjelic@uwo.ca

Office hours: I will be available to help with lecture and lab material as we arrange to best accommodate the schedule.

COURSE SCHEDULE

Lectures: Tuesdays 9:30 to 11:30 in St. James Building, room number 202

Labs: Fridays 15:00 to 17:00 in St. James Building, room number 201

To achieve better retention and understanding of material, we will run active classrooms, so students, please arrive to lectures ready to engage, actively participate in discussions, work

through example questions, etc. The Labs are mandatory as they are essential component of this course for developing practical and literacy skills.

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 winter term we will cover chapters 9 to 17, 21, 23, and 25.*

COURSE ASSESSMENT

Students should expect a variety of question formats for assignments and tests/exams in this course. These include but are not limited to multiple choice, true/false, fill-in-the-blank, matching, calculations, drawing/ labeling diagrams, and short answer questions, as well as in-lab practical skills demonstrations and identifications. Students should expect assignments and tests/exams to include questions derived from content discussed or taught during class, assigned reading/homework, and/or labs. The specific content and format for a given assignment/test will be indicated to students in advance on the course website. Non-programmable calculators are permitted for use during assessments in this course. No other aids will be allowed. No assessment in this course will be re-weighted to accommodate poor performance on any other assessment or for unapproved absences during an assessment. Similarly, additional assignments will not be accepted in lieu of a missed assessment or to account for poor performance on any other graded component of this course.

Assessment	Date	Weight
Activities ¹	Ongoing through the term, in class & online	5%
Learning progress*	Two questionnaires during term	2%
Lab assignments ²	Completed during labs (5 in total)	8%
Test #1**	In class Jan. 24 th	5%
Test #2**	In class Mar. 13 th	5%
Research writing ³	Online due Feb. 11 th	10%
Presentation ⁴	In class Mar. 20 th or Mar. 27 th	10%
Mid-term test**	In class Feb. 28 th	15%
Final exam**	TBA	40%

*Participation, rather than correct answers, are recorded. See OWL for details

**All Term Tests and the Final Exam are cumulative

Activities¹

A variety of activities will be presented throughout the course, both during (in lecture, labs), and outside of class time. These activities may include pre-class reading quizzes, short homework assignments, and in-class assignments/participation. Activities are used to encourage engagement with, reflection on, and assessment of understanding of material, as well as to ensure students are prepared for in-class discussion or exercises. Each activity will be assigned a specific number of points (e.g., a pre-class quiz

Points collected (% of total presented)	Activity grade (/5%)
$0 < \% \text{collected} < 20$	1
$20 \leq \% \text{ collected} < 40$	2
$40 \leq \% \text{ collected} < 60$	3
$60 \leq \% \text{ collected} < 80$	4
$80 \leq \% \text{ collected} < 100$	5

might be worth 3 pts) for students to collect for completing the activity as specified. Some activities will require correct answers; others may only require satisfactory completion of the activity instructions. All activities will have a specified deadline for completion. Students will be given the specific requirements and value of each activity at its onset. At the end of the course, the total number of points a student has accumulated by satisfactory completion of activities will be determined, and expressed as a percentage out of the total number of points 'offered' across all activities presented during the course. This percentage of points collected will be used to calculate the student's "Activity Grade", by the scheme presented above.

Learning progress*

During the term, in the class two short questionnaires will be provided, where students are expected to reflect on their learning methods and experience, concerns and suggestions for improvements. Participation, rather than correct answer will be marked.

Lab assignments²

Lab assignments are provided at the beginning of each lab and students are expected to complete the assignment during the lab and submit it by the end of the lab period. These include, but are not limited to, worksheets of genetics problems, labeling organ systems. More details for each lab and assignment will be provided on our OWL website during the course.

Research writing³

Review article and two research articles will be provided to the students. It is expected that each student writes an essay answering guided questions about the findings in the provided literature. In class discussion will follow.

Presentation: evolutionary gems⁴

Each student will make an presentation on the subject they choose, related to the evolutionary process. Guidance on searching for and referencing the relevant articles will be provided. Each presentation will be followed by an question period and short discussion.

LEARNING OUTCOMES

By engaging in this course students should expect to be able to:

1. Demonstrate knowledge of basic biological concepts in the fields of study: inheritance, evolution, life diversity, ecology.
2. Demonstrate growing self-awareness and critical reflection on learning experiences and course content* ([Brescia Competencies: Self-awareness and development](#))
3. Demonstrate ability of critical thinking and problem solving by answering questions through activities and lab assignments^{1 & 2} ([Brescia Competencies: critical thinking, problem solving](#)).
4. Demonstrate critical analysis of literature and writing skills through an essay on provided, selected articles³ ([Brescia Competencies: critical thinking, communication](#)).
5. Demonstrate ability to find relevant and accurate sources for topics related to biology and to summarize and present (oral and graphical presentation) findings from research in popular and important contemporary issues⁴ ([Brescia Competencies: communication skills](#)).
6. To be aware of different approaches and views on current life sciences related issues (case studies)² ([Brescia Competencies: social awareness and engagement](#)).

^{1 2 * 3 4} Course assessments where specific outcome is evaluated

Please note that this is a tentative schedule. Some adjustments to the timing may be made as the course progresses, depending on the rate at which we cover the individual topics.

Date	Lectures (Tue 9:30 – 11:30) BR	Laboratories (Fri 15:00 – 17:00)
Jan 07	Mendelian genetics	
Jan 10		Genetics problems
Jan 14	The chromosomal basis of inheritance	
Jan 17		Case study: Pedigree
Jan 21	Darwinian view of life-microevolution	
Jan 24		Selection; Test #1
Jan 28	Speciation and phylogeny	
Jan 31		Natural selection and adaptation
Feb 04	Diversity of life: Prokaryotes	
Feb 07		Case study: skin pigmentation
Feb 11	Diversity of life: Protista, Fungi	
Feb 14		Diversity of Protista and Fungi
Feb 18	Reading week - no lecture	
Feb 21		Reading week - no lab.
Feb 25	Diversity of life: Plants	
Feb 28		Mid-term exam
Mar 03	Diversity of life: Animals	
Mar 06		Diversity of plant and animal forms
Mar 10	Structure and function: Plants	
Mar 13		Plants tissues and organization; Test #2
Mar 17	Structure and function: respiratory system	
Mar 20		Presentation: Evolutionary gems
Mar 24	Structure and function: digestive system	
Mar 27		Presentation: Evolutionary gems
Mar 31	Structure and function: circulatory system	
Apr 03		
April, 6 th – April, 26 th – Final examination period***		

*** Do NOT schedule travel during this period

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.