

*Welcome to Biology 0012B!*



**Biology 0012B- Introductory Biology II  
COURSE OUTLINE Winter 2019**

**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](mailto: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:                    Wednesdays                    8:30 to 10:30 in Ursuline hall room 27, Brescia

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.

Labs:    Fridays    9:00 to 10:30 location: TBA

The Labs are mandatory. In case you have to miss the lab, make sure that you provide acceptable documentation (see below regulations), to avoid penalties for absence from a given lab. Labs are essential component of this course for developing practical and literacy skills.

## COURSE MATERIALS

1. Website: <https://owl.uwo.ca/>. Log in with your username and password. Find more detailed course information and policies, get help, post questions, find syllabus, assigned readings, exam details, announcements, etc.
2. Suggested textbook: *Biology Today and Tomorrow*. Cecie Starr, Christine A. Evers, Lisa Starr. 2013. 4th edition.
3. Required Lab Materials: lab coat (available for purchase at the campus bookstore).

## COURSE ASSESSMENT

Assessment	Date	Weight
Activities <sup>1</sup>	Ongoing through the term, in class & online	5%
Learning progress*	Two questionnaires during term	2%
Lab assignments <sup>2</sup>	Completed during labs (5 in total)	8%
Test #1**	In class Jan. 25 <sup>th</sup>	5%
Test #2**	In class Mar. 15 <sup>th</sup>	5%
Research writing <sup>3</sup>	Online due Feb. 15 <sup>th</sup>	10%
Presentation <sup>4</sup>	In class Mar. 29 <sup>th</sup> or Apr. 25 <sup>th</sup>	10%
Mid-term test**	In class Mar. 1 <sup>st</sup>	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

on the OWL course website, more detailed description of the activities will be available at the start of the term

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.

## Activities<sup>1</sup>

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 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 below.

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

## 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 assignments<sup>2</sup>

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, microscopy - measuring field of view. More details for each lab and assignment will be provided on our OWL website during the course.

### Research writing<sup>3</sup>

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 gems<sup>4</sup>

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<sup>1&2</sup> ([Brescia Competencies: critical thinking, problem solving](#)).
4. Demonstrate critical analysis of literature and writing skills through an essay on provided, selected articles<sup>3</sup> ([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 issues<sup>4</sup> ([Brescia Competencies: communication skills](#)).
6. To be aware of different approaches and views on current life sciences related issues (case studies)<sup>2</sup> ([Brescia Competencies: social awareness and engagement](#)).

<sup>1 2 \* 3 4</sup> 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 (Wed 8:30 – 10:30) UH 27	Laboratories (Fri 9:00 – 10:30)
Jan 09	Mendelian genetics	
Jan 11		Genetics problems
Jan 16	The chromosomal basis of inheritance	
Jan 18		Case study: Pedigree
Jan 23	Darwinian view of life-microevolution	
Jan 25		Selection; <b>Test #1</b>
Jan 30	Speciation and phylogeny	
Feb 01		Natural selection and adaptation
Feb 06	Diversity of life: Prokaryotes	
Feb 08		Case study: skin pigmentation
Feb 13	Diversity of life: Protists, Fungi	
Feb 15		Diversity of Protists
<b>Feb 20</b>	<b>Reading week - no lecture</b>	
<b>Feb 22</b>		<b>Reading week - no lab.</b>
Feb 27	Diversity of life: Plants	
Mar 01		<b>Mid-term exam</b>
Mar 06	Diversity of life: Animals	
Mar 08		Diversity of plant and fungal forms
Mar 13	Structure and function: Plants	
Mar 15		Plants tissues and organization; <b>Test #2</b>
Mar 20	Structure and function: respiratory system	
Mar 22		Animal systems dissection
Mar 27	Structure and function: digestive system	
Mar 29		<b>Presentation: Evolutionary gems</b>
Apr 03	Structure and function: circulatory system	
Apr 05		<b>Presentation: Evolutionary gems</b>
April, 11 <sup>th</sup> – April, 30 <sup>th</sup> – Final examination period***		

\*\*\* Do NOT schedule travel during this period

## **2018-19 BRESCIA UNIVERSITY COLLEGE ACADEMIC POLICIES AND REGULATIONS**

### **1. POLICY REGARDING MAKEUP EXAMS AND EXTENSIONS OF DEADLINES**

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 her academic responsibilities. Minor ailments typically treated by over-the-counter medications will not normally be accommodated.

Students must submit their documentation 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. 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. Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. Appropriate academic accommodation will be determined by the Dean's Office/Academic Advisor in consultation with the student's instructor(s). Academic accommodation may include extension of deadlines, waiver of attendance requirements for classes/labs/tutorials, arranging Special Exams or Incompletes, re-weighting course requirements, or granting late withdrawals without academic penalty

Please note that 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.

A UWO Student Medical Certificate (SMC) is required if a student is seeking academic accommodation on medical grounds. This documentation should be obtained at the time of the initial consultation with the physician/nurse practitioner or walk-in clinic. A SMC can be downloaded from: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf) . The student must request documentation sufficient to demonstrate that her ability to meet academic responsibilities was seriously affected. Please note that under University Senate regulations documentation stating simply that the student "was seen for a medical reason" or "was ill" is not adequate to support a request for academic accommodation.

The full policy on requesting accommodation due to illness can be viewed at:  
[http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_12](http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12)

### **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. If you consider reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines (refer to the Registrar's website, <http://brescia.uwo.ca/academics/registrar-services/> or the list of official sessional dates in the Academic Calendar, see the Sessional Dates tab at <http://www.westerncalendar.uwo.ca/index.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.

**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=5&SelectedCalendar=Live&ArchiveID=#SubHeading\\_68](http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=5&SelectedCalendar=Live&ArchiveID=#SubHeading_68) ).

### 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: [http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_20](http://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 (<http://www.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, she may then submit a written appeal to the Office of the Dean. If the student is not satisfied with the decision of the Dean, she may appeal to the Senate Review Board Academic (SRBA), if there are sufficient grounds for the appeal. For information on academic appeals you can consult your Academic Advisor or see the Student Academic Appeals – Undergraduate in the

Academic Calendar

[http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_14](http://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/> . The website for the Student Development Centre at Western is <http://www.sdc.uwo.ca/> .

### 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 learn more about mental health and wellness at Brescia at <http://brescia.uwo.ca/life/mental-health-wellness/>. Students who are in emotional/mental distress should refer to Health and Wellness at Western, [http://uwo.ca/health/mental\\_wellbeing/index.html](http://uwo.ca/health/mental_wellbeing/index.html), for information about how to obtain help for yourself or others.

### 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.