

BL 101.1 BIOLOGY, Sec. A
DONNELLY COLLEGE
Spring 2018
Lab: Thursday, 1:00 to 2:30 PM
Room: 408
1.0 Credit

INSTRUCTOR INFORMATION:

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TUTORING (ACE): *is available upon request.*

COURSE DESCRIPTION:

This introductory lab examines basic biological concepts by focusing on the structures and function of plants and animals. The laboratory includes microscope work, field trips, dissections and the scientific method.

PREREQUISITES:

Placement into College Level Course; Corequisite: BL 101 Lecture

REQUIRED TEXTBOOK & SUPPLIES:

Hans Wachtmeister & Larry Scott, Encounters with Life, 7th Ed., Englewood, Co.; Morton Publishing, 2006.

Lab Fee: \$30

PHILOSOPHY OF GENERAL EDUCATION:

Donnelly College has consistently maintained a strong commitment to the liberal arts and sciences as a foundation for a complete education. The faculty strongly believes that the liberal arts and sciences provide the context through which students can engage with the larger questions about students' place in the world and their pursuit of truth. Therefore, the College's general education requirements are designed to ensure that liberal arts and sciences graduates develop a breadth of content knowledge and the skills and abilities which will enable them to become educated participants in a diverse global community.

DONNELLY COLLEGE LEARNING OUTCOMES:

The Donnelly College faculty has articulated seven student-learning outcomes that constitute the foundation of the College's general education.

1. Communication Skills: Students will communicate effectively in writing and speaking.
2. Technology and Information Literacy Skills: Students will demonstrate proficiency in information literacy skills.
3. Symbolic Problem Solving: Students will demonstrate competency in qualitative and quantitative problem solving.
4. Analytical Thinking: Students will employ reflective thinking to evaluate diverse ideas in the search for truth.
5. Personal and Interpersonal Skills: Students will develop an understanding across cultural differences locally, nationally, and internationally.
6. Academic Inquiry: Students will engage independently and effectively in lifelong learning.
7. Values: Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.

PROGRAM LEARNING OUTCOMES

In addition to the general education learning outcomes – communication skills, technology and information literacy skills, symbolic problem solving, analytical thinking, personal and interpersonal skills, academic inquiry, and values – upon successful completion of the Associate of Science in Liberal Arts degree, students will demonstrate:

1. Proficiency and creativity in written and verbal communication.
2. Effective use of current technology in support of academic work.
3. Proficient use of qualitative and quantitative methods in problem solving.
4. Critical and Analytic thinking across a range of disciplines.
5. A commitment to ethics and integrity in academic and professional relationships, within the community and the environment.
6. Use of the scientific method.

STUDENT LEARNING OUTCOMES:

1. Students will have the ability to use the scientific method in laboratory experiments.
2. Student will have the ability to recognize biological structure and function at all levels: molecular, cellular, and organism.
3. Students will have the ability to explain major biological concepts in the laboratory experiments.
4. Students will have the ability to effectively communicate using the vocabulary in laboratory experiments.
5. Students will have the ability to analyze tables, charts and graphic data in laboratory experiments.
6. Students will have the ability to analyze water quality at a local watershed environment.

Donnelly College Learning Outcomes	Program Learning Outcomes	Student Learning Outcomes	Application and Assessment
Students will communicate effectively in writing and speaking.	Students will demonstrate proficiency and creativity in written and verbal communication.	Students will have the ability to effectively communicate using the vocabulary in laboratory experiments. Students will have the ability to explain major biological concepts in the laboratory experiments.	Students will demonstrate vocabulary comprehension with 75% accuracy.
Students will demonstrate proficiency in information literacy skills.	Students will demonstrate effective use of current technology in support of academic work.		
Students will demonstrate competency in qualitative and	Students will demonstrate proficient use of qualitative and quantitative methods in problem solving.	Student will have the ability to recognize biological structure and function at all	

quantitative problem solving.	Students will demonstrate critical and analytic thinking across a range of disciplines.	levels: molecular, cellular, and organism. Students will have the ability to analyze tables, charts and graphic data in laboratory experiments.	
Students will employ reflective thinking to evaluate diverse ideas in the search for truth.			
Students will develop an understanding across cultural differences locally, nationally, and internationally.	Students will demonstrate a commitment to ethics and integrity in academic and professional relationships, within the community and the environment.		
Students will engage independently and effectively in lifelong learning.	Students will demonstrate the ability to use the scientific method	Students will have the ability to use the scientific method in laboratory experiments.	
Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.	Students will demonstrate a commitment to ethics and integrity in academic and professional relationships, within the community and the environment.	Students will have the ability to analyze water quality at a local watershed environment.	Students will demonstrate water analysis comprehension with 75% accuracy.

COURSE REQUIREMENTS:

		Total Points
4 Unit Exam	4 x (100 pts each)	400

1 Comprehensive Final Exam	100	100
Attendance	100	100
Vocabulary Quizzes	15 x (10 pts each)	150
Laboratory Assignments	15 x (10 pts each)	150
Water Analysis Reflection Paper	100	100
		1000

GRADING SCALE:

Course Points

900 to 1000	-----	90 – 100%	A
800 to 899	-----	80 – 89%	B
700 to 799	-----	70 – 79%	C
600 to 699	-----	60 – 69%	D
< 600	-----	< 60%	F

4 Unit Exams	40% of grade
1 Final Exam	10% of grade
15 Lab Assignments	15% of grade
15 Vocabulary quizzes	15% of grade
1 Attendance	10% of grade
1 Water Analysis Reflection Paper	10% of grade

Lab Report Checklist

In order for students to get full credit, the following criteria must be completed for lab assignments.

Lab on time (due the next lab period and one week after lab is initially done in class)	Lab is complete (all required topic questions are done correctly and completely with no questions left blank)	Lab review questions and quizzes are done correctly and completely with no questions left blank	Name on lab, which is neatly done, and words are spelled correctly.	Total 10 points
3 points	3 points	3 points	1 point	_____

In order for students to get full credit, the following criteria must be completed for the water analysis reflection paper. Students will demonstrate knowledge about the impact of water quality on the local environment and community by completing a reflection paper.

Water Analysis Reflection Paper Checklist

Reflection paper is handed in on time and	Reflection paper discusses water analysis process, including the test performed by the	Students included a data or test results about	Students discuss water quality (pollution) and its effect on the environment, and	Students reflect on what safe water quality means to themselves	Total Points 100
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three pages in length.	student. (pH, nitrates, turbidity etc.)	the water quality.	its impact on the local community.	and their families.	
20 points	20 points	20 points	20 points	20 points	_____

1. The student is to come to class prepared. Students are responsible for bringing everything he/she will need during the class period, i.e. paper, pen or pencil, lab book, textbooks, and assignments.
2. Attendance is required.
3. Quizzes may be given in class over the previous lab material. No make-up quizzes will be given.
4. There is no opportunity to make up missed lab exams unless students have an excused absence.
5. No eating is allowed in lecture or lab classes.
6. A final comprehensive exam is required.
7. **All cell phones must be turned off** unless the instructor gives permission.

ACADEMIC INTEGRITY:

“...Academic integrity is to be maintained at all times to insure genuine educational growth. Cheating and plagiarism in all forms, therefore, will be subject to disciplinary action. An ad hoc committee, appointed by the appropriate dean, will review serious infractions. Appropriate sanctions will be imposed.”

PLAGIARISM:

Plagiarism-the appropriation or imitation of the language or ideas of another person and presenting them as one’s original work-sometimes occurs through carelessness or ignorance. Students who are uncertain about proper documentation of sources should consult their instructors.

ACCOMMODATIONS:

In compliance with the Americans with Disabilities Act, Donnelly College will make every attempt to provide equal access for persons with disabilities. Students in need of accommodations must request them in writing from the Vice President of Academic Affairs.

CIVILITY & DECORUM:

As noted in its Code of Conduct, Donnelly College is committed to maintaining an overall atmosphere of civility and respect. Civility and decorum both inside and outside the classroom are fundamental foundations of the values at Donnelly College. Classroom discussions and interactions outside the classroom will at all times be focused on the learning process and should always be respectful of both students and faculty. In open discussions of ideas and issues, disagreements should focus on ideas and facts. Name-calling and assaults (either in person or on-line) will not be tolerated. Should any problems occur, the instructor should be notified immediately? Those who do not comply with civility and decorum requirements may be subject to a grade reduction and/or other sanctions up to and including dismissal from Donnelly College.

ELECTRONIC DEVICES:

With the exception of watches, electronic devices such as cell phones, smart phones, iPads, iPods and other MP3 players are to be turned completely off and put out of sight and out of easy reach. “Out of Sight” extends to paraphernalia as ear buds, headphones, and Bluetooth earpieces. Students will be contacted through the Donnelly “Moodle” email system, in the appropriate amount of time, when it’s required by the instructor to convey necessary information to the students.

ATTENDANCE POLICY:

The student is expected to attend class and participate in their own education. Students are responsible for all materials and information presented in class and it is the responsibility of each student to acquire, complete and return any missed assignments due to absences. If the student has more than 5 unexcused absences or tardys faculty may initiate an administrative withdrawal on the basis of nonattendance. **Daily attendance at all classes and labs is expected of each student. Tardiness is not acceptable.** Students will be requiring showing doctors excuse for any absence to gain an excused absence. Students are responsible for all materials and information presented in class. It is the responsibility of each student to obtain these materials and information if absent from class.

1. Except in cases of rare emergency, tests are to be taken on the announced date. Make-up tests must be taken before the normal class day following the scheduled time of the missed examination.
2. Work must be neat and orderly or it will not be accepted.
3. Absolutely no late assignments will be accepted

WITHDRAWAL FROM COURSES OR FROM SCHOOL:

It is the responsibility of the student to withdraw from class. If a student decides to withdraw from a class, ideally, they should see an advisor and the financial aid staff before taking the withdrawal form to the Registrar's office for processing. However, any verifiable contact (e-mail, fax, phone, mail, etc.) with authorized college personnel expressing the student's intent to withdraw from a class will be honored. If students withdraw before they have earned their financial aid, they will owe Donnelly College a debt for the unearned portion of the financial aid as well as for any unpaid balances (subject to the College's refund policy). Not attending class is not a withdrawal from class.

Donnelly College reserves the right to withdraw a student from class (es) if the student does not meet their financial obligations, including two missing or incomplete payments, or loss of financial aid.

Faculty may initiate an administrative withdrawal on the basis of non-attendance. In extreme circumstances (i.e. a disciplinary problem), the Vice President of Academic Affairs may initiate an administrative withdrawal. The student remains responsible for the tuition owed in this instance.

The deadlines for withdrawing from classes are as follows:

14 to 16 weeks	3 weeks before the end of the class
6 to 8 weeks	7 weekdays before the end of class
4 to 5 weeks	4 weekdays before the end of class
Less than 4 weeks	Withdrawals are not allowed

Withdrawal deadline dates will be published in the academic calendar.

BIOLOGY TENTATIVE LAB COURSE CALENDAR

<i>Class Meeting/</i>	<i>Classroom/Laboratory Protocol</i>	<i>Assignments</i>
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Week		
1	Measurement	Chapter 1, Vocabulary Pre-test 1
2	Microscope	Chapter 2, Vocabulary quiz 2
3	Chemical Aspects of Life	Chapter 3 Exam 1 , Vocabulary quiz 3
4	Cell Structure	Chapter 4, Vocabulary quiz 4
5	Exchange between Cell and Environment	Chapter 5, Vocabulary quiz 5
6	Mitosis and Meiosis	Chapter 6 Exam 2 , Vocabulary quiz 6
7	Mendelian Genetics	Chapter 10, Vocabulary quiz 7
8	Molecular Biology DNA & Protein Synthesis ABO Blood Typing	Chapter 11 Chapter 10, Vocabulary quiz 8
9	Bacteria Staining	Chapter 13 Exam 3 , Vocabulary quiz 9
10	Tissue, Organs and Systems	Chapter 27, Vocabulary quiz 10
11	Skeletal System	Chapter 32 Exam 4 , Vocabulary quiz 11
12	Frog Dissection (Digestive System)	Chapter 25, Vocabulary quiz 12
13	Circulation Blood Pressure, Respiratory Function	Chapter 29, Vocabulary quiz 13
14	Squid Dissection Fetal Pig Dissection	Chapter 28, Vocabulary quiz 14
15	Reproduction Film	Chapter 34, Vocabulary quiz 15
16	Final Lab Exam	Final Lab Exam , Vocabulary Post-test