

BIOSC 0150

Foundations of Biology I



instructor

Dr. Linda O'Reilly

e-mail

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address

A354 Langley HallMon, Wed & Fri @ 9 am
L9 Clapp HallClass TopHat - search for:
Foundations of Biology I (Fall 21)

Frequently Asked Questions

How is my grade determined?

**60%**

Mid-term Quizzes

21%

Final Exam

5%**8%****6%**

Homework

Recitation Worksheets

Lecture Worksheets



When are the Quizzes?

Quiz 1: Monday, Sept. 20th**Quiz 2: Monday, Oct. 11th****Quiz 3: Monday, Nov. 1st****Quiz 4: Friday, Nov. 19th****Final exam & Quiz 5:
During final exam period**

What will I learn in this course?

In this introductory course we will explore the basic foundational concepts of biology, as we journey from the simple atom to complex multi-cellular organisms. The semester will be subdivided into 4 content modules: Biochemistry, Cell Biology, Metabolism and Genetics. Assignments and group activities will help you build proficiency in developing hypothesis, data interpretation, and presenting conclusions. This challenging course will prepare you for success in your future science classes.

Where do I find information on.....

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When are office hours ?

The schedule is linked on
Canvas

How do I succeed in this class?

- Complete all assignments on time. Assignments and deadlines are announced on Canvas.
- Come to class prepared. Have a copy of the lecture material (paper or electronic), and the pre-reading/ homework assignment completed.
- Study effectively. Focus on how the class material/recitation and homework assignments relate to the learning objectives.
- Study consistently throughout the semester: do not wait until just before the quiz!

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Grade Breakdown



Required Materials



Grade Component:	Points (200 Total):	% of final grade
<u>Quizzes</u> 5 Quizzes worth 40 points each. Drop 2 lowest.	120	60
<u>Recitation</u> 14 Recitations worth 1 point each. Drop 2 lowest.	12	6
<u>Lecture</u> 37 Lectures worth 0.5 point each. Drop 5 lowest.	16	8
<u>Homework</u> 9 Peer Review Assignments worth 1 point each. Drop 1 lowest. 1 Peer Teach Assignment worth 2 points.	10	5
<u>Final exam</u>	42	21

1. A wifi enabled device (smartphone, tablet or laptop) to be brought to each class and recitation.
2. Access to Canvas (Canvas.pitt.edu)
3. Access to TopHat (TopHat.com; use Pitt SSO to login)
4. Access to Text book via the Macmillian Learning Link in Canvas.

How to navigate your textbook from the Macmillian Learning Link (Achieve):

VIEWING BY: Course Content Select Course Content to view the required weekly reading

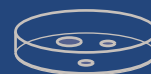
E-reader Or select the E-reader to view the entire textbook

- ☐ Module 1: Biochemistry
- ☐ Module 2: Cell Biology
- ☐ Module 3: Metabolism
- ☐ Module 4: Genetics
- ☐ Reflection surveys

Note: All Achieve Quizzes and Questions are for practice only and do not count towards your final grade

Information on your textbook's inclusive access can be found here:
<https://www.pittuniversitystore.com/SiteText?id=83012>

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Recitation



Recitation Times and Location:

You must be enrolled in one of the following recitations (all Tuesday):

Recitation 1: 9:00 am - 9:50 am (169 Crawford Hall)

Recitation 2: 10:00 am - 10:50 am (169 Crawford Hall)

Recitation 3: 12:00 pm - 12:50 pm (A224 Langley Hall)

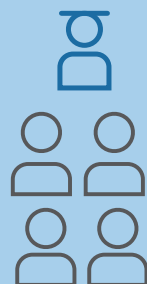
Recitation 4: 1:00 pm - 1:50 pm (A224 Langley Hall)

Recitation for this class is required. Please only attend the recitation for which you are enrolled.

Recitation Worksheets:

Each recitation session will consist of an active-learning activity that you will work on in a group with your fellow students; attendance is highly recommended for maximal learning benefit. Each group will consist of 4-5 students and will remain the same throughout the semester. Although you will work in groups on the assignments, each individual is responsible for entering their own answers into the online recitation assignment worksheet (Top Hat), so consensus of your answers does not need to be reached. The recitation worksheet will be opened each Tuesday @8:00 am and remain opened until Wednesday @ 10am, so can be completed asynchronously if you cannot attend. Each worksheet is worth one participation point (completion not correctness). Each student's lowest two recitation worksheet scores for the semester will be dropped, all drops must be utilized before a make-up will be assigned. Technical issues are accommodated with the drops.

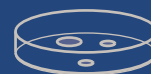
Lecture



Lecture Worksheets:

This class relies heavily on active learning. You will be completing problems, analyzing data, using scientific literature, etc. each day in lecture. These activities are designed to supplement the lecture and will be completed through TopHat. For maximal learning benefit it is recommended that the pre-reading assignments be completed prior to attending lecture. Questions are for completeness not correctness, and attempts are unlimited before the deadline (Saturday @10 am). The purpose of these activities is to help you learn and apply the class material, not to penalize you for making mistakes. Students should bring a laptop, tablet, or smart phone to lecture for TopHat access. Each student's lowest five lecture worksheet scores for the semester will be dropped, all drops must be utilized before a make-up will be assigned. Technical issues are accommodated with the drops.

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Quizzes & Exams



Quizzes

Quizzes 1-4 given synchronously during class time (days and times are noted on page 1 and in the course schedule on page 9) and quiz 5 given during the final exam period. Although the quizzes are not cumulative, later material does tend to build on concepts taught earlier in the semester. Quizzes will be delivered via TopHat. It is your responsibility to ensure you have access to a fully-charged wifi enabled device (laptop or tablet) during the quiz. Access to a back-up smartphone device is also highly recommended. If you do not have a personal device you may borrow one from the Hillman Library.

Three of the five quiz scores count towards your final grade. Missing a quiz for any reason (technical issue; illness; family issues) is accommodated with the two dropped exam scores.

When Quizzes 1-4 are returned for review the answer key and grading rubric will be made available for discussion, please hold all queries until then. The review period will be noted at the week-at-a-glance link on Canvas.

Final exam

A final cumulative exam covering material from quiz 1-4 will also be given during the final exam period. There will be no make-up exam for the final. The final exam cannot be dropped from your final grade. No early finals will be given for any reason. If you have three or more finals scheduled for the same day and wish to reschedule one or more of the exams you **MUST** follow the university procedure:

Students having more than two finals in a calendar day who wish to request an accommodation for a make-up exam must obtain

a Final Examination Conflict Accommodation Request form from the Registrar's Office. The Registrar's Office will document on this form that the student has multiple final exams in a single calendar day. Students must approach each instructor noted on the form and request a change in their final exam time. The instructor must sign indicating whether or not they are able to accommodate the student and provide an alternative time to take the final exam. If none of the professors is able to schedule an alternative exam time, the instructor of the course in the middle time slot of the conflict must schedule an alternative exam time

unless the course requires a departmental exam in which case the instructor whose course has the lowest enrollment will schedule the alternative exam time.

http://www.registrar.pitt.edu/final_examination_schedules.html

The deadline to submit your exam conflict form is **Friday 29th October**. Requests submitted after this deadline will not be considered. The registrar's office will determine which of your final exams will be rescheduled.

Students are not permitted to record/image/transcribe the quiz exam content (prohibited from taking photos or screenshots etc.) at any point (during the exam or in the review period for Quizzes 1-4), or to share/distribute/upload the exam content elsewhere. Students are further prohibited from contact with any person/ external website during the exam. Academic integrity policies are outlined in the next section.

TopHat proctoring and quiz/exam requirements are explained here:

<https://success.tophat.com/s/article/Student-Starting-a-Test>

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Academic Integrity



Cheating/plagiarism will not be tolerated. Students in this course are expected to comply with the University of Pittsburgh's Policy on Academic Integrity: (<http://www.as.pitt.edu/faculty/policy/integrity.html>). Student obligations are listed below:

A student has an obligation to exhibit honesty and to respect the ethical standards of the academy in carrying out his or her academic assignments. Without limiting the application of this principle, a student may be found to have violated this obligation if they:

1. Refers during an academic evaluation to materials or sources, or employs devices, not authorized by the instructor.
2. Provides assistance during an academic evaluation to another person in a manner not authorized by the instructor.
3. Receives assistance during an academic evaluation from another person in a manner not authorized by the instructor.
4. Engages in unauthorized possession, buying, selling, obtaining, or using of any materials intended to be used as an instrument of academic evaluation in advance of its administration.
5. Acts as a substitute for another person in any academic evaluation process.
6. Utilizes a substitute in any academic evaluation procedure.
7. Practices any form of deceit in an academic evaluation proceeding.
8. Depends on the aid of others in a manner expressly prohibited by the instructor, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation.
9. Provides aid to another person, knowing such aid is expressly prohibited by the instructor, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation.
10. Presents as one's own, for academic evaluation, the ideas, representations, or words of another person or persons without customary and proper acknowledgment of sources.
11. Submits the work of another person in a manner that represents the work to be one's own.
12. Knowingly permits one's work to be submitted by another person without the instructor's authorization.
13. Attempts to influence or change one's academic evaluation or record for reasons other than achievement or merit.
14. Indulges, during a class, examination session, or any other academic setting, in conduct that is so disruptive or disrespectful as to infringe upon the rights of the instructor or fellow students.
15. Fails to cooperate, if called upon, in the investigation or disposition of any allegation of dishonesty pertaining to another student, or any other breach of a student's obligation to exhibit honesty.

Students suspected of violating the University of Pittsburgh Policy on Academic Integrity will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz or assignment will be imposed, and cannot be dropped from the final grade.

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Grading



The following is a minimum grading scale. The instructor will round to the nearest whole number. The instructor reserves the right to curve the scale upward (so that the average class grade is C) but will not curve down if the average class grade is above a C. Typically, a curve is not applied. The grade brackets are listed in the table below.

Final %	Grade	Final %	Grade	Final %	Grade	Final %	Grade
99-100	A+	88-89	B+	78-79	C+	68-69	D+
92-98	A	82-87	B	72-77	C	62-67	D
90-91	A-	80-81	B-	70-71	C-	60-61	D-
						0-59	F

You have the right to advocate for yourself and have one week after the posting of a lecture or recitation score to discuss any issues with the instructor. For quizzes, please wait until the quiz is in review and the answer key available to ask for clarification. While students are encouraged to advocate for themselves, please note the instructor will not participate in practices amounting to grade inflation, such as the discussion of previously graded materials past the 1-week deadline, or requests for a grade bump or additional extra credit assignments at the time of final grade posting. If you wish to discuss your class standing please schedule a time before the last day of classes. Remember the earlier in the semester you reach out for help the more effective that help will be in improving your grades.

Class Procedures



Attendance

Class attendance is extremely important, as large amounts of material will be presented during each class. Lecture time will consist of active learning activities to supplement the textbook material. Recitations will expand further on lecture material. The course outline lists the background reading that pertain to each class. It is expected that students come to lecture prepared, having read the relevant sections of the textbook, watched any assigned animations, and answered the pre-lecture questions in the readings. Lecture and recitation attendance is highly recommended. You will have the opportunity to work with your peers, and have your questions answered in real-time. Students who miss lecture or recitation assignments may still complete the worksheets for credit before the noted deadline, and post questions to the discussion board. Instructor-delivered lecture content will also be recorded and linked to the lecture worksheet should you be unable to attend.

Lecture Handouts

Handouts containing outlines of the lecture, a reading guide and any supplemental information will be posted on Canvas. These handouts are not complete, it is recommended that you annotate the handouts with your own notes as you take the lecture. Practice problems aligned with the exam material are built into the TopHat lecture and recitation worksheets. Supplemental practice problems are available at the Macmillian learning link (Achieve) on Canvas.



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Canvas

You can access the course website on Canvas. Canvas will contain the slides from class announcements, calendar, and useful links (Textbook and TopHat). It is your responsibility to keep up-to-date with the posted Canvas content, and check announcements every day during the school week. A discussion board will be available in Canvas for you to post content questions. It is expected that all posts be respectful in tone and manner. You are encouraged to reply to other posts. To streamline the discussion please check that your question has not been previously addressed on the board before posting.

Class Decorum

Out of respect for the instructor and your peers please arrive on time so that disruptions are kept to a minimum. If on Zoom remember to mute your microphone when not speaking, and try find quiet distraction-free area to work in. To facilitate better class discussion please turn on your video in the break-out rooms. It is expected that all students conduct themselves in a respectful manner in all peer/instructor and TA interactions. The recording of fellow students (audio or zoom images) without their express consent is a violation of their privacy and strictly prohibited.

Recording Lectures

The recorded lecture material will be made available via links in your TopHat lecture worksheets. These recordings are provided for your individual use only for this semester, and may not be otherwise shared or distributed. To promote the free and open exchange of ideas the synchronous student discussion component will not be recorded.

Students with Disabilities

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 140 William Pitt Union, 412-648-7890/412-624-3346 (Fax), as early as possible in the term. Disability Resources and Services will verify your disability and determine reasonable accommodations for this course.

For more information, visit www.studentaffairs.pitt.edu/drsabout.

Students are reminded that they must schedule testing center services 72 business hours prior to the exam. Students who miss the deadline will not receive any additional time accommodations.

Religious Observances

Unfortunately, it is impossible for the University to design a calendar that respects all calendars of all faiths. However, the instructor is willing to work with you on an individual basis if a significant course event (such as an exam) presents a conflict for you. Please contact me privately at least two weeks ahead of the date, to discuss an accommodation.

Withdrawal from Class

You are expected to do all assigned work and stay current with your studies. If circumstances arise that prevent you from staying current with the material, please speak with your academic advisor regarding withdrawing from the course. Please note the following dates:

Friday, 10th September – Add/Drop period ends

Friday, 29th October – Deadline to submit Monitored Withdrawal forms

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Health and Wellness

Diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal academic performance. The source of symptoms might be strictly related to your course work; if so, please speak with me. However, problems with relationships, family worries, loss, or a personal struggle or crisis can also contribute to decreased academic performance. The University of Pittsburgh provides mental health services to support the academic success of students. The university counseling center (<https://www.studentaffairs.pitt.edu/cc/>) offers free, confidential services to help you manage personal challenges. In the event I suspect you need additional support, I will express my concerns and remind you of campus resources that might be helpful to you. It is not my intention to invade your privacy, but simply to let you know I am concerned and that help, if needed, is available. Getting help is a smart and courageous thing to do, for yourself and for those who care about you.



Email Procedures

When emailing the instructor or TA, you should send email from your pitt.edu account. Email addressed from other sources (for example: gmail) may not make it through junk mail filters. When emailing the instructor, be sure to sign the email and put the course name or number in the subject line. The instructor will answer all emails within 24 hours during the week. Emails received after 4 PM on Friday will not be answered until Monday morning. It is expected that all e-mail communication should be respectful in tone and wording.

The Pitt E-mail Communications Policy states:

Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an e-mail forwarding service that allows students to read their e-mail via other service providers (eg. gmail). Students that choose to forward their e-mail from their pitt.edu address 'to another address do so at their own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University e-mail address. For the full E-mail Communication Policy, go to www.bc.pitt.edu/policies/policy/09/09-i-0-01.html.



Study Groups

You are encouraged to form a study group with your classmates to help each other learn the material and work through problems. To be effective, study groups should have 3-5 students and meet weekly and have an agenda (e.g. tackle the supplemental textbook material or practice problems available at the Macmillan learning link on Canvas, take turns presenting lecture topics to each other). The more you talk about the material the quicker you identify your knowledge gaps.



Assistance

Feel free to ask questions during lecture. Ask questions of your TA during recitation. Take advantage your TA and instructor's office hours. Post questions to the Canvas discussion board. The Academic Resource Center, G-1 Gardner Steel Conference (412-648-7920) can help you improve your basic study and test-taking skills. This service is free for University students, faculty & staff. More information can be found here: <https://www.asundergrad.pitt.edu/study-lab>.

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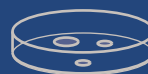
Week	Date	Topic	Preview
1	Lecture-1 (27 th Aug)	How we learn	None
	Lecture-2 (30 th Aug)	The Scientific Method	Section 1.3
	Lecture-3 (1 st Sept)	What is Life?	Section 1.1
	Lecture-4 (3 rd Sept)	Atoms and Molecules	Section 2.1-2.2
	Recitation 1	Getting to know our teams!	
2	No Lecture (6 th Sept)	No Meeting (Labor Day)	
	Lecture-5 (8 th Sept)	CH2	Section 2.3
	Lecture-6 (10 th Sept)	CH2	Section 2.4
	Recitation 2	Isotopes: Dire wolves and Elephants	
	Add/drop period ends	Friday 10 th Sept	
3	Lecture-7 (13 th Sept)	CH3: proteins carbohydrates & lipids	Section 3.1
	Lecture-8 (15 th Sept)	CH3	Section 3.2
	Lecture-9 (17 th Sept)	CH3	Section 3.3-4
	Recitation 3	Water, water everywhere!	
	Homework	Peer Teach (Group 1)	
4	Quiz 1 (20 th Sept)	Lectures 1 to 9 Recitation 2 & 3	
	Lecture-10 (22 nd Sept)	CH 4: Nucleic acids	Section 4.1 & 4.2
	Lecture-11 (24 th Sept)	CH 14: Transcription	Section 14.2-14.3
	Recitation 4	Protein Puzzles	
	Homework	Peer Teach (Group 2) Peer Review 1 (all)	
5	Lecture-12 (27 th Sept)	CH 14: Translation	Section 14.5-14.6
	Lecture-13 (29 th Sept)	CH4: origin of life	Section 4.3-4.4
	Lecture-14 (1 st Oct)	CH6: Cell membranes	Section 6.1-6.2
	Recitation 5	Nucleic Acids	
	Homework	Peer Teach (Group 3) Peer Review 2 (all)	
6	Lecture-15 (4 th Oct)	CH6: Cell membranes	Section 6.3 & 6.4
	Lecture-16 (6 th Oct)	CH6: Cell membranes	Section 6.5 & 14.7
	Lecture-17 (8 th Oct)	CH5: Cells	Section 5.1-5.2
	Recitation 6	CFTR transporter	
		Peer Teach (Group 4) Peer Review 3 (all)	
7	Quiz 2 (11 th Oct)	Lecture 10 to 17 Recitation 4 to 6	
	Lecture-18 (13 th Oct)	CH5: cell membranes	Section 5.3

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	Fall break (15 th Oct)	No class	
	Recitation 7	Amazing Cells	
	Homework	Peer Teach (Group 5) Peer Review 4 (all)	
8	Lecture-19 (18 th Oct)	CH5: Cells	Section 5.4.1-5.5
	Lecture-20 (20 th Oct)	CH7: Signal transduction	Section 7.1-7.3
	Lecture-21 (22 nd Oct)	CH7: Signal transduction	Section 7.4-7.5
	Recitation 8	The perception of taste	
		Peer Teach (Group 6) Peer Review 5 (all)	
9	Lecture-22 (25 th Oct)	CH8: Energy and enzymes	Section 8.1-8.2
	Lecture-23 (27 th Oct)	CH8: Energy and enzymes	Section 8.3-8.4
	Lecture-24 (29 th Oct)	CH8	Section 8.5
	Monitored withdrawal Final Exam conflict	Friday 29 th Oct	
	Recitation 9	Kinases and cancer	
	Homework	Peer Teach (Group 7) Peer Review 6 (all)	
10	Quiz 3 (1 st Nov)	Lectures 18 to 24 Recitation 7 to 9	
	Lecture-25 (3 rd Nov)	CH49: Digestion	Section 49.1& 49.3
	Lecture-26 (5 th Nov)	CH9: metabolic pathways	Section 9.1-9.2
	Recitation 10	Appetite regulation	
	Homework	Peer Teach (Group 8) Peer Review 7 (all)	
11	Lecture-27 (8 th Nov)	CH9: metabolic pathways	Section 9.4
	Lecture-28 (10 th Nov)	CH9: metabolic pathways	Section 9.5
	Lecture-29 (12 th Nov)	CH9: Oxidative Phosphorylation	Section 9.3
	Recitation 11	Tales from the Metabolic ward	
	Homework	Peer Teach (Group 9) Peer Review 8 (all)	
12	Lecture-30 (15 th Nov)	CH10: photosynthesis	Section 10.1-10.2
	Lecture-31 (17 th Nov)	CH10: photosynthesis	Section 10.3 & 10.5

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	Quiz 4 (19 th Nov)	Lectures 25 to 31 Recitations 10 to 12	
	Recitation 12	Plant metabolism	
		Peer Teach (Group 10) Peer Review 9 (all)	
13	No Lecture (22 nd Nov)	Thanksgiving Break	
	No Lecture (24 th Nov)		
	No Lecture (26 th Nov)		
14	Lecture-32 (29 th Nov)	CH 11: cell cycle	Section 11.1-11.2
	Lecture-33 (1 st Dec)	CH11: mitosis	Section 11.3 & 11.5
	Lecture-34 (3 rd Dec)	CH11: meiosis	Section 11.6-11.7
	Recitation 13	Cell cycle & cancer	
	Homework	Peer Review 10 (all)	
15	Lecture-35 (6 th Dec)	CH12: inheritance	Section 12.1 – 12.2
	Lecture-36 (8 th Dec)	CH12: inheritance genes and chromosomes	Section 12.3-12.4
	Lecture-37 (10 th Dec)	CH12: pedigrees	Section 12.5-12.6
	Recitation 14	inheritance	
	FINAL TBD	Part A: Quiz 5 Lectures 32 to 37 Recitations 13 to 14	Part B: Cumulative Materials from Quiz 1 to 4

*The schedule is subject to change at the instructor's discretion