

Department of Biology
UNIVERSITY OF MASSACHUSETTS DARTMOUTH
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BIO 102: GENERAL BIOLOGY II - ONLINE

Summer 3: July 16 – August 13 2019

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Course Overview: This course serves as the second of a two-part sequence to introduce biology at a general education/university studies level, but can also work as a stand-alone course in organism-centered biology. This course will cover evolution, diversity of life (including invertebrates, vertebrates and plants), and ecology. Throughout the course we will refer to the methods and scientific logic that are used to explore these concepts. This is a relatively short duration online course; therefore students will be expected to be able to work independently. The course will include discussions and other assignments and resources meant to supplement the text, but the mainstay of the course is the digital textbook, rather than presentations delivered by the instructor as would be the case in a face-to-face course. The course is designed such that the entire class is working on the same topics each week of the semester, so that communication and discussion can occur.

Course Goals: This course is designated as a university studies 2b course. Therefore, by the end of the course you should be able to analyze and evaluate the use of scientific information in the context of social, economic, environmental or political issues. You should also be able to apply scientific theories and knowledge to real-world problems. You will also be expected to effectively communicate scientific information in writing. These goals will be assessed using exams, learning module activity assignments, discussion boards, and through a term paper/essay.

Course Materials: This course will use the Pearson Mastering Biology website that accompanies the digital textbook. **IMPORTANT:** You must register with the Mastering Biology website (instructions on our course website in the “course welcome” section). You will need a course ID and an access code (available from the UMD bookstore, or directly from the Pearson website). This resource allows me to post notes, links, and other resources directly to the textbook to share with the class. These edits will serve to supplement the text.

- **Text** – “*Biology Concepts and Connections, 8th ed*”. Reece, Taylor, Simon, Dickey. Pearson publishing, digital copy.

Course Website: A myCourses website will be established for this course. You can access this course by logging into your myUMassD portal from the Umass Dartmouth website (www.umassd.edu). The course website will become available shortly before the beginning of class. If you have not done so, you will need to take a myCourses tutorial and run a browser check. The myCourses website will be the main interface of this course. All assignments will be conducted through this website (of course you are encouraged to contact me through email if needed).

Outline of Course Topics and required reading

Module 1 [Weeks 1 and 2, July 16 - 28]

- Chapter 15: Tracing Evolutionary history (an overview of evolution and how we trace the genetic relatedness of living things)
- Chapter 16: Microbial life: Prokaryotes and Protists (an overview of single celled organisms, focusing on bacteria)
- Chapter 17: The Evolution of Plant and Fungal Diversity (how plants moved from water onto land, and a brief intro to fungus)
- Chapter 31: Plant structure, growth and reproduction (focusing on structure)
- Chapter 32: Plant nutrition and transport (uptake and moving around of nutrients for plant growth)

Exam 1: Chapters 15, 16, 17, 31, 32

Module 2 [Week 3, July 29 – Aug 4]

- Chapter 18: The evolution of Invertebrate diversity (focusing on a few evolutionary advances in the invert body form)
- Chapter 19: The evolution of Vertebrate diversity (focusing on the lead-up to human evolution)
- Chapter 20: Unifying concepts of Animal Structure/Function

Exam 2: Chapters 18, 19, 20

Module 3 [Weeks 4 and 5, August 5 - 13]

- Chapter 34: The Biosphere (intro to ecology)
- Chapter 35: Behavioral adaptations to the environment (intro to behavioral ecology)
- Chapter 36: Population ecology (intro to populations)
- Chapter 37: Communities and Ecosystems
- Chapter 38: Conservation Biology

Exam 3: Chapters 34 - 38

Exam 4: Final exam (comprehensive)

Schedule

WEEK	DATE	CHAPTERS	Note:	EXAM
1*	July 15 – 21	15, 16	short week	
2	July 22 – 28	17, 31, 32		1
3	July 29 – Aug 4	18, 19, 20		2
4	Aug 5 – 11	34, 35, 36	essay due	3
5*	Aug 12 - 14	37, 38	short week	4

Exams are worth 60% of the total grade:

- 4 exams will be administered throughout the semester, including a “final” exam.
- Each exam will be weighted equally, and is worth 20% of your total grade. **Your lowest exam grade will be dropped from the total grade calculation.** Therefore, only your top 3 exams will be used to calculate (60%) of your course grade at the end of the semester.

- Exams are considered “open book”, and will be posted as assignments on the class website.
- **Exams will be open for the final 3 days (Friday, Saturday, Sunday) of weeks 2, 3 and 4 and all of the short week 5. The exams will open and close at midnight.**
 - You must take your exam during the 3-day window. **Please note** that the final week (week 5) of the course is short.

Class participation in discussion boards is worth 10% of the total grade

Each week we will discuss a topic in science on the discussion boards. Discussion topics will be focused around either that week’s topics, or around interesting current scientific events. Discussion boards will open at the beginning of each week, and remain open throughout the week. In order to get full credit for the discussion part of your course grade, you must contribute at least two full posts to the discussion board.

- 1) You must start a discussion thread with ~2 paragraph contribution of your thoughts on the subject
- 2) You must leave a ~1 paragraph comment on another student’s thread.
- 3) Check back on your own discussion thread periodically throughout the week to respond to any comments or questions left for you by other students.

Learning Module Assignments/Activities are worth 20% of your grade

Each week will have additional assignments related to the class material. These assignments will vary in format from simple quizzes to essays to additional discussion topics, and there may be more than one assignment each week. Specific instructions will be provided for each assignment, and each assignment will be open for the entire week.

A term paper is worth 10% of your grade

A written analysis of a topic of current scientific interest will be due on or before **August 11th** (the end of the 4th week). The goal of this assignment is for you to study, think about and evaluate one of three potential topics of interest that we’ll talk more about during Week 1. To complete this assignment you’ll have to participate in an activity (which will be dependent on the subject you’ve chosen), do some background research into the topic, and write an essay that incorporates the background, your experiences and your opinions, and a strong conclusion relating to some facet of the biology.

I’ll address this further in a module contained within the online course on the mycourses website!

You can find all learning module assignments, exams, links to discussion boards, and general instructions for each week by clicking on the side bar tab for that week, found on the left hand side of the course website. You will only be able to access the side bar tab for a specific week during that week. It is your responsibility to complete all of the assignments during that week.

Grading: Grading will follow the rubric in the chart below. Please note that your course grade is final and non-negotiable.

A+	97 - 100	A	93 - 96	A-	90 - 92
B+	87 - 89	B	83 - 86	B-	80 - 82
C+	77 - 79	C	73 - 76	C-	70 - 72
D+	67 - 69	D	63 - 66	D-	60 - 62
F	<60				

→ *All grades are final and non-negotiable.*

Communication policy:

I will communicate with you primarily through the myCourses website. There will be a discussion thread dedicated to general course questions and comments, and questions about personal subjects (grades, etc) can be addressed through email. Please include your full name and the course name and number in your email!

Policies/Other:

- For technical issues with the website, go to <http://www.umassd.edu/cits/id/student/> or contact the student IT service center: 508-999-8884 Email: mycourseshelp@umassd.edu. More information is available in the UmassD portal mycourses page.
- I am not responsible for insuring that your posts/exams/other assignments go through. However, there is an intro/practice discussion board for you to use in the first week of class to make sure everything is working correctly. I will also do my best to return grades as soon as possible, and will notify students when new grades are posted. Use this information to address any problems as they arise.
- Because of the brevity of this course, I will not offer make up exams.
- Unless there is a miscalculation of the grades posted in the gradebook or an error in my report of your calculated grade, the grade you receive for this course is final.

Course Withdrawal

If you choose to withdraw from the course, you must withdraw officially with the University through COIN or with the registrar. If you do not officially withdraw from the course, you will receive a letter grade on your transcript even if you've stopped logging in and/or participating.

Academic Regulations and Procedures

UMass Dartmouth Student Academic Integrity Policy*

I Academic Integrity

All UMass Dartmouth students are expected to maintain high standards of academic integrity and scholarly practice. The University does not tolerate academic dishonesty of any variety, whether as a result of a failure to understand required academic and scholarly procedure or as an act of intentional dishonesty.

A student found responsible of academic dishonesty is subject to severe disciplinary action which may include dismissal from the University. The procedure for responding to incidents of academic dishonesty may be found in Section III of this document. You may also refer to the Student Handbook for information about the judicial process.

A high standard of academic integrity promotes the pursuit of truth and learning and respect for the intellectual accomplishments of others. These are values that are fundamental to the mission of this University. Such values are undermined by academic dishonesty.

Academic freedom is a fundamental right in any institution of higher learning. Honesty and integrity are necessary preconditions of this freedom. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are legitimate only when the assistance of others is explicitly acknowledged and deemed appropriate by the instructor of the course. Ethical conduct is the obligation of every member of the University community, and breaches of academic integrity constitute serious offenses.

Maintenance of the standards of academic integrity and the successful administration of this policy depend on the mutual cooperation of faculty and students.

Faculty cooperation is essential for successful application of the procedures defined by this Academic Integrity Policy. Faculty members promote academic integrity by making clear on their syllabi their expectations concerning homework assignments, collaborative student efforts, research papers, examinations, computer-based infractions, and the like. Efforts should be made to detect

and to prevent cheating and plagiarism in all academic assignments. If faculty members have evidence of academic dishonesty, they are expected to report such evidence promptly.

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Students are also expected to report incidents of academic dishonesty to the instructor or dean of the instructional unit.

The intent of this policy is to make clear the standards of academic integrity at UMass Dartmouth.

II Violations of Academic Integrity

The various ways in which academic integrity can be violated are discussed below. The comments and examples within each section provide explanations and illustrative material, but do not necessarily exhaust the scope of these violations.

A. Cheating

Cheating is the use of unacknowledged materials, information, or study aids in any academic exercise. The use of books, notes, calculators, phones and conversation with others is restricted or forbidden in certain academic exercises. Their use in these cases constitutes cheating. Similarly, students must not request others (including commercial term paper companies) to conduct research or prepare any work for them, nor may they submit identical work or portions thereof for credit or honors more than once without prior approval of the instructor.

B. Fabrication

Fabrication is the falsification or invention of any information or citation in an academic exercise. "Invented" information may not be used in any laboratory experiment or other academic exercise without authorization from the instructor. It is improper, for example, to analyze one sample in an experiment and covertly "invent" data based on that single experiment for several more required analyses. The student must also acknowledge reliance upon the actual source from which cited information was obtained. A writer should not, for example, reproduce a quotation from a book review or other secondary source and indicate that the quotation was obtained from the book itself.

C. Facilitating Academic Dishonesty

Students who knowingly or negligently allow their work to be used by other students or who otherwise aid others in academic dishonesty are violating academic integrity. Such students are as guilty of intellectual dishonesty as the student who receives the material even though they may not themselves benefit academically from that dishonesty.

D. Plagiarism

Plagiarism is the representation of the words or ideas of another as one's own in any academic exercise. To avoid plagiarism, every direct quotation must be identified by quotation marks or by appropriate indentation and must be properly cited in the text or in a footnote. Acknowledgment is required when material from another source stored in print, electronic or other medium is paraphrased or summarized in whole or in part in one's own words. To acknowledge a paraphrase properly, one might state: "to paraphrase Plato's comment..." and conclude with a footnote identifying the exact reference. A footnote acknowledging only a directly quoted statement does not suffice to notify the reader of any preceding or succeeding paraphrased material. Information which is common knowledge such as names of leaders of prominent nations, basic scientific laws, etc. need not be footnoted; however, all facts or information obtained in reading or research that are not common knowledge among students in the course must be acknowledged.

In addition to materials specifically cited in the text, only materials that contribute to one's general understanding of the subject may be acknowledged in the bibliography. Plagiarism can, in some cases, be a subtle issue. Any questions about what constitutes plagiarism should be discussed with the faculty member.

E. Denying others access to information or material

It is a violation of academic integrity to deny others access to scholarly resources, or to deliberately impede the progress of another student or scholar. Examples of offenses of this type include: giving other students false or misleading information; making library material unavailable to others by stealing or defacing books or journals, or by deliberately misplacing or destroying reserve materials; or altering computer files that belong to another.

F. Proprietary/Confidential Information

Related to academic integrity is the unauthorized use without written permission of proprietary and/or confidential information in any school assignment.

G. Human and Animal Subjects

Research involving human beings requires review and approval of the Institutional Review Board (IRB) for the Protection of Human Subjects and informed written consent. Research involving the use of animals requires review and approval by the Institutional Animal Care and Use Committee (IACUC).

III Academic Integrity Infractions and Consequences

Any violation of academic honesty is a serious offense and is therefore subject to an appropriate penalty. Faculty may address instances of student academic dishonesty in their classes under their authority to evaluate and assign grades, even if the consequences exceed those written below. They may also refer the incident for further action, utilizing university procedures that can document repeat offenders and adjust consequences accordingly. Those who refer instances of academic dishonesty for further action can do so through Student Judicial process, initiating action by completing an Academic Integrity Policy Report Form found at:

<http://www.umassd.edu/studentaffairs/judicialaffairs/forms/academicintegrityform.pdf>.

Violations at UMass Dartmouth are classified into three levels according to the nature of the infraction. For each level of violation a corresponding set of sanctions is recommended. Faculty, Deans, staff in Judicial Affairs, or others involved in adjudicating incidents are not bound by these illustrations, which are intended as general guidelines for the academic community. Since adherence to a code of conduct can be seen as a function of socialization into the group whose norms are reflected in such a code, culpability may be assessed differentially for those with more and less experience as members of the academic community; thus, violations of academic integrity by graduate students will presumably be penalized more severely than violations by first semester first year students. Examples are cited below for each level of violation. These examples, too, are illustrations and should not be considered all-inclusive.

Example of Level One Infraction

Infraction:

Plagiarism: The student represents the work of another as his/her own in a limited academic exercise, or in a limited or minor portion (1-2 instances) of a larger exercise, and the faculty member believes this is not an accidental act by the student.

Cheating: Working with another student on a laboratory or other homework assignment when such work is prohibited.

Consequences:

- Letter to student in lieu of hearing*

And

the faculty member's choice of the following consequences:

- redo the work to be graded without prejudice
- redo the work with a lowered grade for the work
- failing grade for the work

*student may request a hearing

Example of Level Two Infraction

Infraction:

Plagiarism: The student represents the work of another as his/her own in any academic exercise for a major portion (consistently throughout the assignment, > 50%); a Level 1 violation by a student who already has committed one or more Level 1 infractions.

Cheating: Copying on exams; using prohibited materials such as calculators or notes during exams; and/or collaborating before an exam to develop methods of exchanging information during an exam.

Consequences:

- Letter to student in lieu of hearing*

And

the faculty member's choice of the following additional consequences:

- redo the work while still receiving a failing grade for the work
- failing grade for course

*student may request a hearing

Example of Level Three Infraction

Infraction:

Plagiarism: The student represents the work of another in its entirety (whether purchased or obtained by other means) as his/her own in any academic work; a Level 2 violation by a student who already has committed one or more Level 2 infractions.

Cheating: Infractions of academic honesty in ways similar to criminal activity such as forging a grade form, stealing an examination from a professor or from a university office, or buying an examination.

Consequences:

- Referral for a Judicial Hearing, with recommendation for a minimum of a one semester suspension up to and including dismissal from the university.

Appropriate Evidence

Faculty who apply penalties for academic dishonesty, or refer the matter to Student Judicial Affairs, should maintain copies of documents or other evidence that led to the charge of academic dishonesty and have this material available for inspection if required in an appeal. Examples: material printed from the internet (or derived from other sources) that is substantially the same as work submitted by the student or written work in which the voice, usage, diction, and/or sentence structure are significantly different from the rest of the student's work (especially an observed writing sample). Records should also be kept of contacts with the student regarding the matter.

Process of Adjudication

1. Level 1 and Level 2 offenses may be handled between the student and the faculty member, utilizing the Academic Integrity Policy Report Form. The student has the option to avoid a Judicial Hearing in favor of accepting the letter sent by the Coordinator for Student Judicial Affairs.

2. Level 3 offenses will include the submission of the Academic Integrity Policy Report Form and will also require a judicial hearing since the recommendation for being found responsible of a level 3 offense is a minimum of a 1 semester suspension from the University.

3. Actions at any Level may be appealed. Information about the appeal procedures may be found at: <http://www.umassd.edu/studenthandbook/studentjud/section11.cfm>

IV Additional Consequences of Violating the Academic Integrity Policy

Students committing acts of academic dishonesty not only face university discipline and possible criminal action but run a serious risk of harming their future educational and employment opportunities. Prospective employers and other educational institutions frequently use recommendation forms that ask for judgment and comment on an individual's moral or ethical behavior. In all cases in which a grade of "F" is assigned for disciplinary reasons, the "F" will remain on the student's transcript, even if the course is retaken and a passing grade is achieved.

* This policy is substantively derived from the "Policy on Academic Integrity for Undergraduate and Graduate Students" of Rutgers University, available online through the Teaching Excellence Center of Rutgers University (<http://teachx.rutgers.edu>).