

BIOLOGY 142 SYLLABUS SUMMER 2015
FOUNDATIONS OF BIOLOGY II: ECOLOGY & EVOLUTION

Dr. Tracy Smith

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Office Hrs: 5-6pm Tuesday and Thursday

Dr. Smith's office BS454

Course Objectives: The goal of this course is to present a foundational understanding of organismal biology, including a detailed investigation of how life changes over time (evolution) and interacts with the environment (ecology). An important secondary goal of this class is to promote understanding of science as a process and as an ever-changing body of knowledge that helps us understand the world. Quantitative skills are important in all aspects of evolution and ecology, so the course will also promote overall mathematical and statistical reasoning.

Academic Honesty: All work in this course is covered by UMBC policies on academic misconduct. Any copying, cheating, assisting others, misusing the clicker system (i.e. using an absent classmate's device), etc. will be considered as academic misconduct and strict sanctions will be applied. See the last pages of this course policy to learn more about integrity and consequences for misconduct.

Do not risk an F in this course or disciplinary action by engaging in academic misconduct.

Considering Academic Misconduct or Falling Behind Due to Stress?
Help is available. In addition to making an appointment with your professor, you can contact any of the following for additional support:

University Health Services: <http://www.umbc.edu/uhs/> x52542

Counseling Center: <http://www.umbc.edu/counseling/> x52472

Sexual Assault Relationship Violence Response Team:

<http://www.umbc.edu/saf/staff/savrt.php>

UMBC Police: x55555

*****Please keep all cell phones in your bag. If you need to make a call or text, leave the room.**

*****Use of laptops or tablets is only allowed for taking notes. If there are complaints about the use of laptops or tablets for any other reason, they will be banned.**

Mandatory Text for the course: Biological Science 5th edition, Freeman et al., Pearson Education Inc.

Lecture Participation & Turning Technology Clickers: Class attendance is mandatory, and prompt arrival is crucial. *Students who arrive late should use rear doors and sit near the back.* We will use participation devices ("clickers") to encourage participation, emphasize key concepts, and encourage student

attendance and timeliness. Participation questions could be given at any time of any class, including right at the beginning of lectures, so it is crucial to arrive on time. Lecture participation grading will not be based on the number of questions answered correctly, but on the number of questions in which you participated. You will be allowed two “free” clicker /participation absences (to allow for battery problems, absences, etc.), but after that **you are responsible for making sure your unit is functional**. Participation counts for 5% of the course grade.

Active Learning Sections: Each student is required to attend active learning discussion sections every Tuesday and Thursday where you will work on problem sets, group exercises, learning activities, etc. See below*. You will have a pre-active learning quiz due every Tuesday and Thursday to make sure you have read the module ahead of time and are prepared for discussion.

Blackboard: Essential course materials including this information sheet, syllabus, extra reading materials, relevant notes, prior exams, homework, etc. will be posted on Blackboard. It is crucial that all students become accustomed to using Blackboard regularly to obtain course announcements and information. PowerPoint slides will be posted before most lectures.

Homework: You will have online homework due nearly every class on Blackboard. Homework is always due by 1pm. Check blackboard for due dates. No homework will be accepted late for ANY reason. Homework questions are designed to give you practice with exam style questions and to get you thinking about concepts more deeply. If you have a question about the homework, post to the discussion boards.

Exams: There will be three exams. All exams will consist of multiple-choice questions. Make-up exams will be administered *only in cases of university-approved circumstances (illness/injury, religious holiday, university event or academic conference), and only with advance notice and verified documentation*. All notes will be verified before a make-up exam will be permitted. Students with an approved absence must make-up the exam within 3 days. The lowest exam will be dropped. All students must take exam 3.

Starting Exams On Time: all students must be there to start the exam at the start of class whether in the lecture hall or Student Support Services. No students will be allowed to leave any exam until 30 minutes of the exam period have passed, and students arriving after 30 minutes will not be allowed to take the exam. Students taking exams with Student Support Services must email the professor and the TA 48 hours in advance before the exam to confirm arrangements.

Grading:

3 exams including final exam	(lowest dropped)	75%
Lecture participation points (Clickers)		5%
Homework		5%
Active Learning (Discussion)		<u>15%</u>
		100%

CLICKER INSTRUCTIONS

One of the required materials for this class is an interactive 'clicker' that will allow you to answer questions presented during each class and earn participation points. UMBC uses clickers from Turning Technologies and is available at the UMBC bookstore (check on rebates). Once you purchase the clicker itself for \$40, you don't have to pay any more fees. The same clicker can be used in multiple classes and you don't have to pay additional registration fees per class or per semester.

In order to properly register your clicker, log into the Blackboard website, click on the course link for Bio 142, click "Tools" on the left-side menu, click "TurningPoint Registration Tool", and then enter your 6 digit serial number, which appears below the barcode of your clicker. You are instructed to enter it twice and press submit. The clicker will then be linked to your Blackboard identity, therefore, you can register the clicker once and use it in multiple classes. One more tip, if your serial number contains a "0" please note that it is a "zero" NOT the letter "o."

Bring your clicker to class every day so that you can earn all participation points. When you are in LH2, make sure your clicker is set to the proper channel so that your data is successfully received. The channel for LH2 is 25 and you can re-set to this channel by pressing "Ch" then "2" then "5" then "Ch." Most lecture halls on campus are set to the same channel, but if you are using the clicker in multiple classes, verify with each course instructor that the channels are the same.

Helpful Websites: online store code = UMBC
<https://store.turningtechnologies.com/>

***ACTIVE LEARNING SECTION DETAILS**

Each student must enroll in one of the mandatory Active Learning sections (formerly termed "discussions"), where you will work in groups of three to nine on active learning activities to promote clear understanding of evolutionary processes, phylogeny and ecology. All sections will take place in the CASTLE, a state of the art facility designed to promote student interaction (first floor of the University Center, near Starbucks).

Objectives: The goal of these discussions is to engage more deeply in lecture topics by taking an active, group-based approach to learning. Students will participate in prepared group activities and will be graded on participation and a variety of work, including quizzes, take-home assignments, in-class higher level thinking questions and activities, etc. Generally, you will work on modules that emphasize understanding of the topics covered in lecture in that section of the course, and you will turn in written answers compiled by you and your group members.

TOTAL ACTIVE LEARNING = 15% of overall course grade

STUDYING:

The exams will emphasize material from lecture and the readings. A good strategy for success in the course includes the following.

Careful Notes: Take notes during the lecture, emphasizing material that is written or presented in figures, but also jotting down material presented verbally. Also take careful notes from your readings, writing down key points and terms.

Study Groups: Students that form and participate in serious study groups do best in this course. Check your notes each night for concepts you did not fully understand. Later, compare notes with a few other students in a study group and discuss problem areas.

Understand and Practice: Make sure that you UNDERSTAND and PRACTICE each of the topics discussed in lecture, on your homework, in active learning, or presented in the book. Memorizing everything in the notes is not sufficient to do well in this course. Many exam questions will ask you to apply what you have learned to a new situation, and some will ask you to synthesize several things you have learned to form a conclusion. Practice makes perfect in this course! Do all of your homework by yourself and only ask questions of others (preferably on the discussion boards) if you get stuck. Homework is meant to help you understand your strengths and weaknesses prior to the exam. While copying homework from others is easy, and may earn you a higher grade, your exam grade will suffer. Exams are 75% in this class. Homework 5%. You do the math.

Keep Up Each Week: Each week learn the material presented in lecture and active learning well. Really study the notes and modules thoroughly. See TA or professor during office hours if you have questions. DO NOT FALL BEHIND OR WAIT FOR THE EXAM TO STUDY!

Studying for Exams: First study and memorize your notes alone, then work with your study group.

IF YOU DO POORLY ON AN EXAM: First of all, for each question determine why you got that question wrong.

1) UNDERSTANDING – you failed to understand the concept well. Interpreting a graph, inferring ancestral characteristics on a tree, applying a formula, etc. may only require understanding.

2) MEMORIZING – you failed to memorize an important piece of information. You forgot a definition, could not remember the association taught, or the difference between A and B.

3) QUESTIONS – you really feel that you understood and memorized the material, but you were thrown off by the question or didn't understand how to apply what you know. You need to practice more. And have higher level discussions about the material with your active learning team or study group. Attend exam office hours. Also, make sure you are well rested for exams so able to read difficult questions carefully, and that you are able to think well on your feet. Research suggests that cramming generally does not work very well in any course, especially for long term learning.

Each of the above problems requires a different solution. Reread the study advice

above to address the problem that you had. Often, you may need to put in more time studying.

ACADEMIC INTEGRITY

Information on the UMBC policy on academic integrity, can be found at:
http://www.umbc.edu/undergrad_ed/ai/students.html.

Anyone charged with academic misconduct (as defined below) in any aspect of the course that is graded (exams, problem sets) will, at a minimum, receive a grade of zero for that exam or assignment.

All incidences of academic misconduct in the class will be reported to the Academic Conduct Committee for inclusion in the Academic Misconduct Reporting Database.

Excerpted from the Undergraduate Student Academic Conduct Policy
http://www.umbc.edu/undergrad_ed/ai/documents/ACC2011.pdf (Approved 12/14/2010)

The Undergraduate Student Academic Conduct Policy defines and strives to ensure academic integrity at UMBC. The Policy describes the process for addressing allegations of undergraduate student academic misconduct. The underlying philosophy of this Policy is that members of the university community view academic integrity as a serious institutional value.

Academic Misconduct means Cheating, Fabrication, Facilitating Academic Misconduct, Plagiarism, or Dishonesty by an undergraduate student.

Cheating means using or attempting to use unauthorized material, information, study aids, or another person's work in any academic exercise. For example:

- Working on an assignment with others when the instructor asked for individual work,
- Receiving unauthorized help on an assignment, or
- Getting questions or answers from someone who has already taken a test or exam, or
- Copying from another student during a test or exam with or without that student's knowledge, or
- Using unauthorized material (e.g., an instructor's manual) to fulfill an assignment,
- Using unauthorized crib notes or cheat sheets during a test or exam, or
- Using unauthorized aids (e.g., calculator), or
- Altering a graded test, exam, or paper and submitting it for regrading, or

- Asking someone else to take a test or exam in place of the enrolled student, or
- Cheating on a test or exam in any other way, or
- Any other action defined as cheating in the class syllabus by the Faculty Member.

Fabrication means falsification or invention of any information or citation in an academic exercise. For example:

- Inventing or falsifying lab or research data, or
- Inventing or falsifying a bibliography, or
- Any other action defined as fabrication in the class syllabus by the Faculty Member.

Facilitating academic misconduct means helping or attempting to help another student commit an act of academic misconduct. For example:

- Writing or providing all or part of a paper, essay, problem set, computer program, or other assignment for another student, or
- Helping someone else cheat on a test or exam (e.g., permitting someone to copy from a test or exam, taking a test or exam for someone else), or
- Any other action defined as facilitating academic dishonesty in the class syllabus by the Faculty Member.

Plagiarism means knowingly, or by carelessness or negligence, representing as one's own, in any academic exercise, the intellectual or creative work of someone else. For example:

- Turning in work done in whole or in part by someone else, or
- In a course requiring computer work, copying another person's program, or
- Paraphrasing or copying material from a written source, including the Internet, without footnoting or referencing it in a paper, or
- Copying material from a written source, including the Internet, without using quotation marks, or
- Turning in a paper obtained, at least in part, from a term paper "mill" or website, or
- Turning in a paper copied, at least in part, from another student's paper, whether or not that student is currently taking the same course, or
- Any other action defined as plagiarism in the class syllabus by the Faculty Member.

Dishonesty means lack of truthfulness or sincerity when interacting with the faculty member regarding an academic exercise. For example:

- Lying to the instructor in an attempt to explain an incident of academic misconduct, or
- Lying to the instructor or using a false or forged excuse in order to get an extension on a due date, or

- Submitting a written summary about a required out-of-class event that the student did not attend, or
- Any other action defined as dishonesty in the class syllabus by the Faculty Member.

In response to Academic Misconduct, the Faculty Member may take one or more of the following actions:

- Award a Course Penalty, including, but not limited to, an F in the course, a zero on the assignment, and/or a percentage off the final grade;
- Require the completion of additional assignments;
- Give the student a written warning;
- Provide information about forms of assistance from the Counseling Center, the Writing Center, the Learning Resources Center, or other resources; and/or
- Request consideration of an Institutional Penalty by the ACC.

In all cases, the Faculty Member shall submit a report to the Academic Misconduct Reporting Database.

Academic Misconduct may be reported to the Faculty Member by graders, laboratory assistants, teaching assistants, staff members or other students in the course. Those reporting and those receiving reports of Academic Misconduct shall treat the incidents and their resolutions as confidential matters. The Faculty Member shall notify the student of the alleged Academic Misconduct and invite the student for a meeting to discuss the issue. An email sent to the student at his/her UMBC email address shall be considered sufficient notification. During the meeting the Faculty Member will describe the basis for the allegation, explain the proposed course resolution, and offer the student the opportunity to provide an explanation.

Course Penalties issued by the Faculty Member due to Academic Misconduct are final and not reviewable or appealable, except as provided below.

After the Faculty Member submits the report to the Academic Misconduct Reporting Database, the Chair of the ACC will email the student providing a link to the Policy and explaining the circumstances under which a student is entitled to request a hearing before the ACC (which is made up of four faculty members and four student members). Students have fifteen university working days, after email notification of the Academic Misconduct report by the Chair of the ACC, to request a hearing. The request must be submitted in writing to the Chair of the ACC. The request must state the reasons for the hearing request, substantiate with particularity and specificity the factual basis on which the hearing request is made, and state the

remedy sought. ***Dissatisfaction with a Course Penalty assigned for Academic Misconduct is not grounds for a hearing before the ACC.*** The ACC Chair will schedule a hearing typically within sixty days of receipt of the student's request for a hearing.