

Mt. San Antonio College
Ecology and Field Biology: BIOL 3 Fall 2018

Lecture: Wed 9:45 am-12:55pm, Bldg.11, Rm.2312

Lab: Mon 9:45 am-12:55pm, Bldg.7, Rm.1121

Instructor: Tyler Flisik

Required Text

Contact info

Lecture: *Elements of Ecology* 9th Ed. by Smith and Smith

Email: tflisik@mtsac.edu

Lab: National Audubon Society Field Guide to California, by Alden and Heath

Office and office hours

Required Supplies

Mon-Wed 4:30 – 5:30 PM

Scantrons: (5)-Form #882, (10)-Form #815-E

Tue -Thurs 9:45 - 10:45 AM

Website

Building 60, Rm 2407

www.Tylerdiscoverslife.com

Office phone # 909 274-4554



Course Description: A non-majors course that explores the diversity of local ecosystems and the relationships among the organisms living in those environments. Students survey local habitat and learn many of the local plants and animals found in the different areas. The class will focus on the evolutionary adaptations of organisms and their role within their ecosystem, as well as the ecological topics of zonation, succession, and population and community dynamics. In the laboratory students will learn how to collect and preserve different specimens. Many laboratory meetings are conducted off campus, and most trips require walking/hiking with some field trips taking all day.

Keys for Success: The study of biology, even at a general level, can be very complex. Your success in this class is dependent on the effort that you put into this class. I teach this class at a college level and I expect that you will study and prepare at a college level. I will not lower my standards just to make the class easy for you. I believe if you show up for every class, spend time studying at home, and come to my office hours if you need help, that you will pass this class without much of a problem.

Don't hesitate to ask for help, that's why I'm here!

Points Possible

There is a combined total of 820 pts possible

Lecture			Lab		Grading Scale	
Homework Assign.	4 x 5 pts	20	Final Practicum	80	≥90%	≥738 pts = A
Biology Articles	4 x 5 pts	20	Field Notebook	50	≥80%	≥656 pts = B
Quizzes (Best 6 of 10)	6 x 5 pts	30	Survey Report	50	≥70%	≥574 pts = C
Exams	4 x 80 pts	320	Insect Collection	20	≥60%	≥492 pts = D
Final Exam		100	Plant Collection	20	<60%	≤491 pts = F
			Lab Worksheets	4x10		
			Practice Practicum	30		
			Field Trip Participation	40		
Total points		490 pts			330 pts	

- The lowest exam score can be replaced by the percent score of the lecture final if it is higher
- More than six lecture quizzes will be given, however, only the six highest score will be counted. Missed quizzes will be dropped
- 20% of the total points will be deducted from late assignments

“Seen in the light of evolution, biology is, perhaps, intellectually the most satisfying and inspiring science. Without that light it becomes a pile of sundry facts—some of them interesting or curious but making no meaningful picture as a whole”

– Theodosius Dobzhansky (1973)

Bio 3 Fall 2018 Tentative Lab Schedule

Date	Topic
27-Aug	Wildlife Sanctuary/ Intro to Plants
3-Sep	Memorial Day - Campus Closed
10-Sep	Evey Canyon Field Trip
<u>19-Sep</u>	Rancho Santa Ana Botanical Gardens
24-Sep	Plants - collection, keys, and preservation
1-Oct	Line Transects in Coastal Sage Scrub
5-Oct	Friday - All Day Beach Trip
6-Oct	Saturday - All Day Beach Trip
8-Oct	Bolsa Chica Ecological Reserve Field Trip
15-Oct	Data Analysis and Graphing *Notebook Check
22-Oct	Insects - collection, keys and preservation
29-Oct	Identification of Amphibians, Reptiles, and Mammals
5-Nov	Identification of Birds Bones, Feathers, Fur, and Scales (Comparative Anatomy)
9-Nov	Friday - All Day Desert Trip
10-Nov	Saturday - All Day Desert Trip
12-Nov	Veteran's Day - Campus Closed
19-Nov	Carrying Capacity of the Wildlife Sanctuary
26-Nov	Practice Practicum, Insects and Plant Specimens *Notebook Check
3-Dec	Review for Final Practicum
10-Dec	Final Practicum, 10:30 am - 1:00 pm *Notebooks Due

Bio 3 Fall 2018 Tentative Lecture Schedule

Date	Topic	Chapters
29-Aug	Intro to Biology, Scientific Method, Ecology and Field Biology	1
5-Sep	Basics of Geology, Formation of Ecosystems, Biomes	2,22,23
12-Sep	Biochemical Cycles, Soils, Properties of Water, Aquatic Ecosystems	22,3,4,25
17-Sep	Exam #1 , Intro to DNA and Genetics	5
26-Sep	Intro to Evolution, Means of Microevolution	5
3-Oct	Macroevolution, Intro to Domains of Life, Geologic Time Scale	5
10-Oct	Exam #2 , Intro to Protists and Fungi	-
17-Oct	Intro to Plants, Photosynthesis	6
24-Oct	Intro to Animals	7
31-Oct	Thermoregulation and Comparative Anatomy of Vertebrates	7
7-Nov	Exam #3 , Population and Community Ecology	8-15
14-Nov	Ecosystem Dynamics and Biogeography	16-21,26
21-Nov	Human Impacts and Conservation Biology	27
28-Nov	Exam #4 , Ecological Applications	-
5-Dec	Final Exam Review	
12-Dec	Lecture Final 10:30 am - 1:00 pm	

“We learn . . . 10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we see and hear,
70% of what we discuss, 80% of what we experience, 95% of what we teach others.”

~ William Glass

"Education is when you read the fine print. Experience is what you get if you don't."

- Pete Seeger

The Fine Print

Lecture exams and quizzes - You will have four lecture exams and a comprehensive final exam. I will replace your lowest exam score with the percentage of your final if it's higher. There are no make-up exams or quizzes. If you miss an exam or lecture quiz, then that will be the exam or quiz I drop.

A typical day in lab – In this course designed for both science majors and those not majoring in science, we will either conduct lab in the lab room and adjoining museum, in the wildlife sanctuary or on off campus field trips. In the laboratory room and adjoining teaching museum, we will investigate areas of ecology such as mammalogy, herpetology, ornithology and comparative anatomy by a 30-40 minute overview of the main ideas to focus on in lab by your instructor. Students will then fill in laboratory worksheets, with the assistance of the instructor and the use of biology museum study specimens to investigate identification and ecological adaptation characteristics following this overview. For labs conducted in the wildlife sanctuary, various field techniques will be demonstrated by the instructor and performed by the students such as plant transect measures, insect and plant sampling, collecting and preserving. For labs that are conducted off campus, the class will meet on campus to ride the Mt. SAC transportation provided. On the way, students will record directions to the location for the field notebooks each student makes for the course. At the field trip location, students will keep notes as the instructor and/or an employee at the location explains identification and ecological relationships of the organisms and characteristics of the ecosystems that are observed. The directions, temperature and general narration of the field trip information goes in the journal part of the field notebook, while the species seen and discussed are described in the species account section. The instructor will provide lists of all plants, mammals, birds, amphibians, reptiles and miscellaneous organisms seen on each trip to the students to help with this. In addition, the Audubon field guide should be brought to every field trip (off campus or wildlife sanctuary) for help in learning identification techniques. A 30 point mini-practicum and a 100 point lab final practicum will be administered by the instructor to test comprehension of these concepts. Students will also submit a report on the results from the plant surveys, including the use of statistical techniques to analyze data and graphs to represent their findings.

Food or Drink – Absolutely **NO** food or drink in the laboratory. **This will be strictly enforced.** You can leave your food or drink outside of the lab door and enjoy your refreshments on your break.

Academic Integrity - Any act of cheating will not be tolerated, and will result in a zero on that quiz, exam or assignment. You are fully capable of completing all assignments on your own and are expected to do so. If you have questions, ask your instructor!! I want to help you achieve a complete understanding of the material and will help you accomplish that. All students are to abide by the expectations outlined in the department cheating policy form and will be held accountable for any violations of those policies.

Disabled Student Programs & Services (DSP&S): 909-274-4290. Offers eligible students a variety of disability related services, such as priority registration, counseling, note takers, sign language interpreters, enlargement of materials, and other reasonable accommodations based on the student's educational limitations and needs. Please notify your instructor immediately if you require special health or disability accommodations.

Cell phones – I know it's tempting to look at your phone every 3 seconds and check your Facebook or whatever but please save that for you breaks. If you use our cell phone during an exam or quiz, I will assume you're cheating and will confiscate your test and give you a 0 on the assignment. If you **need** to use your phone then please step outside of the lecture or laboratory.

Student Learning Outcomes and Course Measurable Objectives -

1. Integrate principles of ecology to explain relationships within the biosphere and man's impact on the planet.
2. Use dichotomous keys in identification of plant and animal species.
3. Examine current ecological applications (i.e. sharing of neighborhoods by people and predatory species, effectiveness of the endangered species act, fragmentation of wildlife habitat, etc.)
4. Diagram biogeochemical cycles and their relationship to environmental problems such as acid rain and global warming.
5. Apply scientific theories and concerns (e.g. human population growth.)
6. Compare and contrast environmental topics such as ozone depletion vs. global warming, various animal mating systems, various foraging strategies, etc.
7. Demonstrate various field techniques such as insect collection/ mounting, plant pressing, vegetation line transects, etc.
8. Identify various local habitat types and their associated organisms, including amphibians, reptiles, birds, mammals and plants.

For clarity on the CMO's for this course please visit www.mtsac.edu/instruction/outcomes/sloinfo.html

Mount San Antonio College
Biological Sciences Department Policy on Student Cheating

POLICY

1. No dictionaries, reference materials, notes, or programmable calculators may be used during any exam or quiz unless authorized by the professor.
2. No electronic devices, of any type, may be used during any exam or quiz unless authorized by the professor. a. Electronic devices include, but are not limited to: cell phones, PDAs (personal digital assistants, earphones, cameras, MP3 players, translation devices, and electronic dictionaries.
3. No talking, signaling, sharing of note cards, calculators or other materials is allowed during any exam or quiz, unless authorized by the professor.
4. Only the materials required or authorized for an exam or quiz should be taken out of your notebook, backpack, pocket, or purse. All other materials should be put away as instructed, including electronic devices.
5. Students may not leave the classroom during an exam or quiz unless authorized by the professor. If a student leaves the room without permission, the test or quiz will be forfeited at that time.
6. This policy will be strictly enforced by all professors in all classes taught in the Department.

CONSEQUENCES:

7. A single act of cheating or academic dishonesty in any form may result in as much as receiving an "F" in the course.
8. Action taken by the professor will be consistent with the college policy on cheating and academic dishonesty. In addition, a report regarding the violation will be submitted to the Director of Student Life for further action, which may also result in further disciplinary action, including, but not limited to suspension or expulsion from the college.

WHAT IS CHEATING?

Some examples of cheating include, but are not limited to:

- a. Plagiarism, which is the use of materials authored by another person or obtained from a commercial source or the use of passages without proper acknowledgment.
- b. Having or using unauthorized materials during any exam or quiz
- c. Notes concealed in or written on clothing, hats, or skin (as examples).
- d. Looking at another student's work during any exam or quiz.
- e. Changing answers on a returned exam in order to claim there had been a grading error.
- f. Sharing any content of exams or quizzes with individuals who have not yet taken it.
- g. Removing an exam or quiz from the classroom without the professor's approval.
- h. Taking photos of exams, quizzes, completed ScanTrons®, or exam keys.
- i. Turning in work that was generated by other individuals or by the same individual but in a prior semester, including but not limited to: lab report data, lab report or homework questions, homework assignments, and extra credit assignments.
- j. Working together on a lab experiment when told to work individually.
- k. Falsifying lab data.
- l. Allowing another student to look at your exam or quiz, or allowing another student to copy your homework, lab reports, or other assignments. (If that work is duplicated you may also receive the same penalties listed above for violation of the Biology Department Policy on Cheating, and the college policy on cheating and academic dishonesty.)
- m. Falsifying documents, including signatures. If you are unclear about what constitutes cheating in your class or for a particular assignment, please contact your instructor for clarification before the assignment is due