

Mt. San Antonio College
Plant and Animal Biology: BIOL 2
Spring 2018

Lecture: Mon-Wed 4:45 – 6:10pm, Bldg.11, Rm.2312

Lab: Wed 6:30 – 9:40pm, Bldg.7, Rm.1121

Instructor: Tyler Flisik

Contact info

Email: tflisik@mtsac.edu

Voicemail: 909.278.3782

Office and office hours

Mon-Wed 1:00 - 2:00pm

Tue -Thurs 9:45 - 10:45am

Building 60, Rm 2407

Office phone # 909 274-4554

Required Text

Campbell biology, 10th Ed. Reece et al.

Lab handouts provided

Required Supplies

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

Website

www.Tylerdiscoverslife.com



Course Description: A course for science majors that explores the diversity and evolution of life on earth, including concepts in systematics, evolution, plant and animal physiology, ecology, and biotic relationships. Students will be required to identify organisms by name and answer questions concerning their distinguishing features, adaptations, life cycle, feeding methods, and biogeography, among other characteristics.

Points Possible

Lecture portion

Exams (4 @ 100 pts) = 400 pts

Lecture quizzes (5 @ 10pts) = 50 pts

Final exam = 100 pts

550 pts

Lab portion

Lab practicums (5 @ 100pts) = 500 pts

Lab Final = 100 pts

600 pts

Total course points = 1150 pts

- The lowest exam score can be replaced by the percent score of the lecture final.
- Lowest practicum score will be dropped
- Final exams are cumulative and must be taken
- More than 5 lecture quizzes will be given, however, only the five highest score will be counted. Missed quizzes will be dropped.
- The lecture final will be given on June 11th from 4:30 to 7:00pm and Practicum 5 and the lab final will be on June 13th from 7:30 to 10:00pm

Grading

A = 1150 – 1035 pts (100% - 90%)

B = 1034 – 920 pts (89% - 80%)

C = 919 – 805 pts (79% - 70%)

D = 804 – 690 pts (69% - 60%)

F = 689 and below (59% - 0%)

- Semester grade will be a combination of both lecture and lab scores
- Grades will be determined as a straight percentage of your final score
- **There will be no make-up exams or quizzes!** Missed exams will be replaced with the percent score of the final exam. Students who miss two exams will be dropped from the course.

“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)

	Lecture topic	Chapter(s) and pages	Lab topic
Feb 26th	Bacteria, Archaea	27	
Feb 28th	Protista	28	Bacteria, Viruses, Protista I
Mar 5th	Fungi, Viruses	31, 19	
Mar 7th	Introduction to Evolution	21, 22, 23, 24	Protista II, Fungi
Mar 12th	Taxonomy and Phylogeny	21, 22, 23, 24	
Mar 14th	Plants colonizing land	29	Practicum 1
Mar 19th	Exam 1		
Mar 21st	Evolution of seed plants	30, 38	Plant phylogeny, Campus plants
Mar 26th	Plant structure	35	
Mar 28th	Plant transport	36	Plant Structure, Campus Plants
Apr 2nd	Plant nutrients	37	
Apr 4th	Plant response to signals	39	Practicum 2
Apr 9th	Exam 2		
Apr 11th	Animal diversity, physiology, nutrition and thermoregulation	32,40,41	Sponges to Worms
Apr 16th	Invertebrates I	33, pp. 932-934	
Apr 18th	Invertebrates II	33, pp. 934-935, 979	Mollusks to Echinoderms
Apr 21st	Intertidal Field Trip (7:00am - 2:00pm)		
Apr 23rd	Animal structure, muscle function	40, 41	
Apr 25th	Deuterostomes/ Intro to Chordates/ Circulatory system	33, 34, 42	Practicum 3
Apr 30th	Exam 3		
May 2nd	Fishes	34, pp. 935, 973,1110	Chordates to Fish
May 7th	Nervous system and senses	48, 49, 50	
May 9th	Tetrapods/ Amphibians and Reptiles	34	Amphibians and Reptiles
May 14th	Immune System	43	
May 16th	Birds	34, 938	Practicum 4
May 21st	Mammals	34	
May 23rd	Mammals, Digestion and Excretion	34. pp. 900-911, 980-985	Birds
May 26th	Living Desert Field Trip (8:00am - 7:00pm)		
May 28th	Memorial Day - Campus Closed		
May 30th	Exam 4		Mammals
Jun 4th	Ecosystems, Ecology, and Conservation	52, 54, 55, 56	
Jun 6th	Biogeography/ History of life	25	Mammals
Jun 11th	Lecture Final (4:30-7:00pm)		
Jun 13th			Practicum 5, Lab Final (7:30 -10:00pm)

Field Trips - There are two required field trips in this course. Missed field trips require a special written make-up report. Please see me for details before the trip. Failure to attend a field trip and turn in the make-up report will result in a lowering of your grade by **one full letter grade**. Information shared during field trips will be included on lecture exams. The Desert trip will have a \$10 fee for the zoo, which will be collected that day. (Bring an extra \$5 if you want to feed a giraffe!).

Dates and times:

Beach Trip: April 21st (7:00am – 2:00pm)

Desert Trip: May 28th (8:00am – 7:00pm)

Academic Integrity - Any act of cheating will not be tolerated, and will result in a zero on the practicum or final. You are fully capable of learning the material yourself 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 to those policies.

Academic Success - Biology 2 is one of the most demanding courses within the biology department and will require self-discipline and hard work in order to succeed. Each week you will be exposed to a new set of diverse taxa, which you will only see once before the practicum. It is recommended that you use your time in lab to complete your laboratory handout, and familiarize yourself with the specimens while you continuously test your understanding. Students that come to class, devote hours to studying the material at home and ask good questions when in class often do well in the course.

Cell Phones - Many students choose to use their cell phones to take pictures of lab slides and specimens for aid with studying, which is permitted, however, using your cell phone in a way that is distracting to your fellow students or disrespectful to your instructor is not permitted. If you need to use your phone please step out of the class.

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.

Accommodations – Please notify your instructor immediately if you require special health or disability accommodations in order for you to succeed in this class. More information can be found at the DSP&S office located in the Student Services Building (9B) or at www.mtsac.edu/dsps/

Student Learning Objectives and General Education Outcomes

- **Alteration of Generation.** Students will be able to define the concept of alteration of generation, and analyze the modifications that have occurred in different organismal groups.
- **Animal Form & Function.** Students will be able to describe animal form and function emphasizing evolutionary trends throughout the animal kingdom (including structure, function, nutrition, circulation, gas exchange, immune response, internal controls, chemical signals, reproduction)
- **Biomes.** Students will be able to complete an analysis of plant and animal interactions in relationship to their biomes.
- **Classify Plants.** Students will be able to classify plants to Family. Students will be able to correctly analyze plant characteristics and be able to place unfamiliar plants into their correct plant families.
- **Compare & Contrast Taxonomic Groups.** Students will be able to compare and contrast the different taxonomic groups (bacteria, protists, plants, animals and fungi) and discuss evolutionary changes that led to their adaptive radiation throughout geological time.
- **Construct Cladogram.** Students will be able to construct cladogram. Students will be able to correctly analyze and construct a cladogram using shared and derived characteristics placing species and their characteristics in the proper positions.
- **Daily Impact of Science GEO.** Students will be able to evaluate the impact of science on their daily lives
- **Evolutionary Changes.** Students will be able to discuss evolutionary changes throughout the geological time scale including topics on systematics, taxonomy, and biological diversity.
- **Life Cycles.** Students will be able to describe the life cycles of the important phyla in detail emphasizing evolutionary trends through geological time.
- **Plant Form & Function.** Students will be able to describe plant form and function emphasizing evolutionary trends throughout the plant kingdom (including structure, function, growth, transport, nutrition, control systems, reproduction and development.)
- **Prokaryotic vs Eukaryotic Organisms.** Students will be able to compare and contrast prokaryotic and eukaryotic organisms and describe how they are arranged in a classification hierarchy.
- **Taxonomic Classifications.** Students will be able to analyze the current taxonomic classification schemes and discuss how taxonomy is a work in progress.

For clarity on the SLO's and GEO's for this course please visit www.mtsac.edu/instruction/outcomes/sloinfo.ht



“I learned very early the difference between knowing the name of something and knowing something.”
— Richard P. Feynman

Mt. 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