

**Mt. San Antonio College**  
**Plant and Animal Biology: BIOL 2**  
**Spring 2019**

**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 3:00 - 4:00pm

Tue -Thurs 10:00 – 11:30am

Building 60, Rm 2407

Office phone # 909 274-4554

**Required Text**

Campbell biology, 10<sup>th</sup> 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

**500 pts**

**Total course points**

**= 1050 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 10<sup>th</sup> from 4:30 to 7:00pm and Practicum 5 and the lab final will be on June 12<sup>th</sup> from 7:30 to 10:00pm

**Grading**

A = 1050 – 945 pts (100% - 90%)

B = 944 – 840 pts (89% - 80%)

C = 839 – 735 pts (79% - 70%)

D = 734 – 630 pts (69% - 60%)

F = 629 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)

## Spring 2019 Bio 2 Tentative Schedule

|                 | Lecture topic  | Chapter(s) and pages     | Lab topic                      |
|-----------------|--|--------------------------|--------------------------------|
| Feb 25th        | Bacteria, Archaea  | 27                       |                                |
| Feb 27th        | Protista   | 28                       | Bacteria, Viruses, Protista I  |
| Mar 4th         | Fungi, Viruses   | 31, 19                   |                                |
| Mar 6th         | Introduction to Evolution                                    | 21, 22, 23, 24           | Protista II, Fungi             |
| Mar 11th        | Taxonomy and Phylogeny                                       | 21, 22, 23, 24           |                                |
| Mar 13th        | Plants colonizing land                                       | 29                       | <b>Practicum 1</b>             |
| Mar 18th        | <b>Exam 1</b>  |                          |                                |
| Mar 20th        | Evolution of seed plants                                     | 30, 38                   | Plant phylogeny, Campus plants |
| Mar 25th        | Plant structure  | 35                       |                                |
| Mar 27th        | Plant transport  | 36                       | Plant Structure, Campus Plants |
| Apr 1st         | César Chávez Day – Campus Closed                             |                          |                                |
| Apr 3rd         | Plant response to signals                                    | 39                       | <b>Practicum 2</b>             |
| Apr 8th         | <b>Exam 2</b>  |                          |                                |
| Apr 10th        | Animal diversity, physiology, nutrition and thermoregulation | 32,40,41                 | Sponges to Worms               |
| Apr 15th        | Invertebrates I  | 33, pp. 932-934          |                                |
| Apr 17th        | Invertebrates II   | 33, pp. 934-935, 979     | Mollusks to Echinoderms        |
| <b>Apr 19th</b> | <b>Intertidal Field Trip (11:00 – 6:30 pm)</b>               |                          |                                |
| Apr 22nd        | Animal structure, muscle function                            | 40, 41                   |                                |
| Apr 24th        | Deuterostomes/ Intro to Chordates/ Circulatory system        | 33, 34, 42               | <b>Practicum 3</b>             |
| Apr 29th        | <b>Exam 3</b>  |                          |                                |
| May 1st         | Fishes   | 34, pp. 935, 973,1110    | Chordates to Fish              |
| May 6th         | Tetrapods/ Amphibians and Reptiles                           | 48, 49, 50               |                                |
| May 8th         | Nervous system and senses                                    |                          | Amphibians and Reptiles        |
| May 13th        | Immune System  | 34                       |                                |
| May 15th        | Birds  | 43                       | <b>Practicum 4</b>             |
| May 20th        | Mammals  | 34, 938                  |                                |
| May 22nd        | Mammals  | 34                       | Birds                          |
| <b>May 25th</b> | <b>Living Desert Field Trip (8:00am - 7:00 pm)</b>           |                          |                                |
| May 27th        | Memorial Day - Campus Closed                                 |                          |                                |
| May 29th        | Digestion and Excretion                                      | 34. pp. 900-911, 980-985 | Mammals                        |
| Jun 3rd         | <b>Exam 4</b>  |                          |                                |
| Jun 5th         | Ecosystems, Ecology, and Conservation                        | 52, 54, 55, 56           | Mammals                        |
| Jun 10th        | <b>Lecture Final (4:30-7:00pm)</b>                           |                          |                                |
| Jun 12th        |  |                          | <b>Practicum 5</b>             |

**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 \$6 if you want to feed a giraffe!).

**Dates and times:**

Beach Trip: April 19st (11:00 am – 6:30 pm)

Desert Trip: May 25th (8:00 am – 7:00 pm)

**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 you 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 ACCESS office located in the Student Services Building (9B) or at [www.mtsac.edu/access/](http://www.mtsac.edu/access/)

**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](http://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