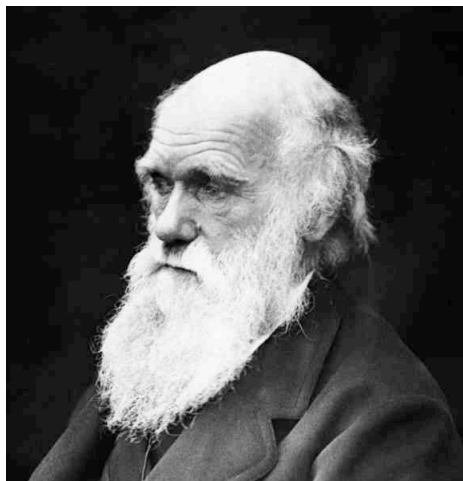


# MICRO 22

Tim Revell, Ph.D.  
 Fall 2023  
 T 5:15-8:25 (Lecture)  
 Th 5:15-8:25 (Lab)



## Contact Information:

Email: [trevell@mtsac.edu](mailto:trevell@mtsac.edu)  
 Phone: 909-274-4231  
 Webpage: [instruction.mtsac.edu/trevell](http://instruction.mtsac.edu/trevell)  
 Office location: building 60-2102  
 Office Hours: T 12:15-1:15, 2:40-3:40  
 Wed 6-7 and 8:10-9:10 (online via zoom)  
**Text:**  
 Biology – Campbell 11<sup>th</sup> edition

Important Dates:  
**Campus closed: March 10, May 25**  
**Last week to drop – Week 10**

### Points Possible

Lecture Exams 3@150	450
Quizzes 5@25 (1 dropped).	100
Lecture Final	150
LAB (30%) points.....	300

**TOTAL 1000**

### Grading Scale

≥90%	A
80-89%	B
70-79%	C
60-69%	D
<60%	F

Course Description: Second semester Majors Biology Course that covers taxonomy, history, ecology, physiology, and the conservation of life.

Week	Date	Lecture	Tenative Quiz and Exams
1	29-Aug	Intro, Types of Microbes, Diseases, Epidemiology	
2	5-Sep	Prokaryotic cells. Structure, Physio Eukaryotic Cells	Quiz #1
3	12-Sep	"Ayptical" Microbes, Fungi	
4	19-Sep	Eukaryotic cells/Struc/Classification; Aypical	Lecture Exam #1
5	26-Sep	Aytpical Bacteria, Fungi, and Protozoa 1	
6	3-Oct	Protozoa 2, "Algae", Worms	Quiz #2
7	10-Oct	Worms, Viruses, Viroids, Prions	
8	17-Oct	Control Method Terminology, Methods, Considerations	Lecture Exam #2
9	24-Oct	Control Methods (Heat/Cold/Radiation), Chemical	
10	31-Oct	Control Methods, Antibiotics and Susceptibility Testing	Quiz #3
11	7-Nov	Drug Resistance, Intro to Microbial Genetics	
12	14-Nov	Genetics: Gene to Protein, Gene control/regulation	Lecture Exam #3
13	21-Nov	Conjugation./Transformation/Transduction/Biotech	
14	28-Nov	Intro to immunology (Innate/Aquired Immunity)	Quiz #4
15	5-Dec	Immunology and immune disorders	Quiz #5
16	12-Dec	FINAL EXAM	FINAL EXAM

Check your Mt. SAC email!!!

Keep Track of your Grade!

The fine print...

**Exams**-There will be three lecture exams. Each will be worth 150 points and will consist of Multiple choice, True/False, fill in the blank, and essays, matching, and whatever else I can come up with. Information covered on these exams will come from my lectures, reading assignments, and homework assignments. It is to your advantage to take every exam and do as well as possible on each! **There are no make-up exams under any circumstances. Bring a scantron 886 for the lecture exams (1-3), an 882 will be needed for most quizzes and an 884 will be needed for the lecture final.**

**Active learning, group work, and participation will be important learning methods in this class.**

Exams will take place during the first hour, 15 minutes of class only. If you are late to class, you will only be given the remaining time to finish the exam.

**Final Exam**-The Final exam will be in the same format as the regular class exams (although there will be no essay questions on the final). It will be cumulative and will therefore cover information from the entire semester. The final exam will be worth 150 points and there will be no make up exams for the final! Do not miss the final exam!

Check the Final Exam Schedule in the current Schedule of Classes for the day and time of your final exam.

**Quizzes** – There are five quizzes that will be taken throughout the semester. There are no make-up quizzes and quizzes only take place during the first 15 minutes of class so be on time or you will miss the quiz!

*Other information you need to know:*

- 1)The attached lecture schedule is intended to assist you in planning your readings for this course. I will expect you to have read the appropriate text sections prior to class. I will make every effort to maintain this schedule. Modifications, however, may be necessary. It is your responsibility to attend all classes and be aware of any changes that I may announce.
- 2) Check your Mt. SAC email OFTEN!!!! I will not send email to any other account!
- 3)**Note:** It is the student's responsibility to drop a course officially if the student wishes to avoid an "F". The instructor MAY drop students for non-attendance, but this is discretionary. Students who do not drop but do not complete the work will receive an "F".
- 4)**YOU need to show up to lab and lecture on time and pay attention;** I am not at all pleased when students show up late and demand that I repeat (over and over again) the same instructions, rules, or information. It is not my job to accommodate your basic educational needs whenever YOU decide.

Assignments:

- 5) **Academic Honesty:** Mt San Antonio College regulations and guidelines regarding academic honesty will be followed and enforced. Cheating or plagiarism will result in an F for the entire course. I will also write a letter stating that you have cheated and it will become part of permanent Mt. SAC record. Do not cheat or plagiarize in any form! The possession of any cheating items (ie, notecards, cell phones, ect.) during an exam will be interpreted as a cheating incident regardless of whether or not you actually "used" the item(s). All students must sign and return the Mt. SAC Biology Department Cheating Policy. All cheating incidents will be treated the same; it does not matter whether the cheating incident involves a quiz, exam or assignment.
- 6) The instructor reserves the right to make any necessary changes to this syllabus or to any part of the class without prior warning.
- 7) Fieldtrips are required for success in the class. Please inform your other instructors or employers of these regularly scheduled class fieldtrips AT LEAST three weeks before the trip so that we can clear up any conflicts if possible. **50 points will be deducted for each missed field trip unless a make-up assignment is completed** (students must complete the make-up assignment and are still responsible for the information given on the fieldtrips). The make-up assignment and due date will be assigned by the instructor. All Field trip material is "fair game" on lecture exams and practicums (including finals)
- 8) **Attitude:** This course is extremely difficult and very demanding. Most people cannot do well in this course if they take on too many other responsibilities. Most (if not all) students that take this class have dreams of becoming some type of professional (medical doctor, dentist, veterinarian, researcher, pharmacist, clinical psychologist, etc.). This course is made to challenge the very best of you! Obviously, behaviors such as complaining about how hard or unfair the class is, showing up late, missing class, etc., are not acceptable. Remember, you will need letters of recommendations some day from your professors....
- 9) **To succeed in this course:** Your study of biology will be an exciting and rewarding experience. We will cover a variety of topics that can be both interesting and useful in improving your life. However, do not make the mistake of taking your study of this course too lightly. To succeed in this course you MUST attend class regularly, study often AND effectively, and live a life that is conducive to learning (for example, you need to sleep, eat, work, etc. within your means!). Failure to meet these basic requirements will make success difficult for most.
- 10) **Incomplete policy:** It is the students responsibility to drop the class if that is their intention. An incomplete may be given if **all three** of the following conditions are met 1) The student has completed ALL course material (other than the final exam) 2) the student is passing with at least a "C" 3) the student can demonstrate they are unable to complete the remainder of the semester. The instructor reserves the right to accept or reject a students request for an incomplete.
- 11) **Grades on Quizzes, Exams, etc.** - Students will be given all assignments and exams back in a timely manner. If there is a grading error of any sort, the student has one week to notify the instructor and solve the problem from the date in which the exam/quiz/assignment was handed back to the class. If you do not meet with the instructor within that one week period, the original grade is final. The one week period begins when I hand the exam/quiz/assignment back to the class; not necessarily when you receive it (i.e., if you are absent and do not pick up the exam for three weeks, you have missed you opportunity to negotiate your score.
- 12) **Again, Biology is an exciting but challenging class. DO NOT just memorize your notes. I expect you to UNDERSTAND biology. To understand biology you need to ask questions, think, and analyze the material I give you. Forming study groups is often a beneficial method of attack.**
- 13) **No cell phones or any other devices** that create distractions are allowed in class. Special considerations may be given by the instructor on an individual basis. No talking on your cell phone in the classroom or on any portion of a fieldtrip. Absolutely no cell phones are allowed out during a test or practicum. Any cell phone that is used, looked at, or even visible by the instructor during a quiz, exam or practicum will result in a zero on that assignment and a possible "F" in the entire course.
- 14) I keep ALL exam and quiz questions. YOU MAY NOT, under any circumstances, take one my exams or quizzes home with you. YOU MAY NOT zerox, copy, or photograph any of my exams or quizzes. Failure to follow these rules WILL result in an "F" in the course.
- 15) **Attendance and attitude.** I cannot stress enough the importance of attendance. I will be in class everyday and I expect you to be in class everyday. Missing class will almost certainly result in a lower grade. Also, I expect you to be on time to class EVERYDAY! You are expected to act as a mature, respectful, adult student in my course at all times. If you are behaving in a non-collegiate manner, I will ask you to leave the class.
- 16) **Competition.** If your career goal is to become a pharmacist, medical doctor, dentist, veterinarian or other professional, you have a chosen a very competitive field to study. You need to be thinking about grades AND things like letters of recommendation, scholarships, externships, internships and so forth. Start looking now. Good grades will probably not be enough.
- 17) Please notify me immediately if you have require special accommodations (for example, due to disabilities or health issues of any sort).
- 18) Please visit my website (elearn.mtsac.edu/trevell/bio1) and read the section on "How to be an excellent student".
- 19) I DO NOT have office hours during the weeks of finals. If you need to see me or look over an old exam or quiz, you must do so BEFORE finals week. You may also look over your final exam the semester AFTER you have had the course (excluding summers and winters)
- 20) "It's real simple, you can either do it or don't do it" – Dr. Todd Newberry, UCSC professor emeritus and world famous invertebrate zoologist!

- 1) **Again, Biology is an exciting but challenging class. DO NOT just memorize your notes. I expect you to UNDERSTAND biology. To understand biology you need to ask questions, think, and analyze the material I give you. Forming study groups is often a beneficial method of attack.**
- 2) **No cell phones or any other devices** that create distractions are allowed in class. Special considerations may be given by the instructor on an individual basis. No talking on your cell phone in the classroom or on any portion of a fieldtrip. Absolutely no cell phones are allowed out during a test or quiz. Any cell phone that is used, looked at, or even visible by the instructor during a quiz or exam will result in a zero on that assignment and a possible "F" in the entire course.
- 3) **Attendance and attitude.** I cannot stress enough the importance of attendance. I will be in class everyday and I expect you to be in class everyday. Missing class will almost certainly result in a lower grade. Also, I expect you to be on time to class EVERYDAY! You are expected to act as a mature, respectful, adult student in my course at all times. If you are behaving in a non-collegiate manner, I will ask you to leave the class.
- 4) **Competition.** If your career goal is to become a pharmacist, medical doctor, dentist, nurse, veterinarian or other professional, you have chosen a very competitive field to study. You need to be thinking about grades AND things like letters of recommendation, scholarships, externships, internships and so forth. Start looking now. Good grades will probably not be enough.
- 5) Please notify me immediately if you have require accommodations (for example, due to disabilities or health issues of any sort). Our Accessibility Resource Center for Students (also called ACCESS) is also available to assist any needs you might have.
- 6) Please visit my website (instruction.mtsac.edu/trevell) and read the section on "How to be an excellent student".
- 7) I DO NOT have office hours during the weeks of finals. If you need to see me or look over an old exam or quiz, you must do so BEFORE finals week. You may also look over your final exam the semester AFTER you have had the course (excluding summers and winters)
- 8) "It's real simple, you can either do it or don't do it" – Dr. Todd Newberry, UCSC professor emeritus and world famous invertebrate zoologist!

**Course Name:** Microbiology

**Course Number:** MICR 22

**Course Objectives:**

- Students are able to demonstrate aseptic techniques that are appropriate for the allied health fields.
- Demonstrate how to properly use the compound light microscope, as well as know its parts, their functions, how to safely transport and clean it.
- Perform aseptic transfer techniques and interpretations of laboratory results.
- Explain the dynamics of host-parasite interaction.
- Diagnose specific diseases on the basis of symptoms and laboratory test results.
- Perform basic microbiology lab procedures using appropriate PPE required for this laboratory course.
- Demonstrate safe handling and proper hazardous waste disposal procedures for microorganisms and chemicals used.
- Analyze, using student's own experimental design, effective hand washing.
- Explain the basic features of every group of microorganisms.
- Describe the physiology and genetic processes of microorganisms.
- Apply physical and chemical methods of controlling microorganisms.