General Microbiology (BIOL3401.01)
Course Syllabus
Summer 2017

INSTRUCTOR

Luis A. Materon, Ph.D., Professor
Office at SCIE 1.344; phone 956-665-7140; fax 956-665-3657
E-mail: luis.materon@utrgv.edu (anonymous messages will not be replied)
Office hours: 8:00 to 9:15 am MWF.
Appointments scheduled at any available time after class or lab activity
Class meets MTWRF at 9:40-11:10 a.m. at SCIE 1.288

OBJECTIVES

To provide a comprehensive survey of microbiology with basic information on bacteria, fungi, protozoa, algae and viruses. Topics include macromolecules, structure, ecology, reproduction, enumeration, physiology, metabolism, genetics, DNA manipulation, and chemical and physical control of microorganisms. A comprehensive review of the interactions of microorganisms with humans, plants, and animals is presented following the guidelines of the textbook.

TEXTBOOK

Foundations in Microbiology" K. & A. Talaro, 9th edition (ISBN 0077532163), a customized version, will be the required textbook for this course. Its accompanying "Microbes in Action" CD-ROM is recommended. You may find it helpful to bring the textbook to class each day (except on exam days), although you are not required to do so. Reading assignments on special topics to complement class lectures will be posted on the internet. You are expected to read and be familiar with all material presented to you in class (lecture notes, reading assignments, journal articles, and textbook).

TEACHING METHODS

The cooperative learning technique will be regularly used for this course as well as feedback questioning and discussion. Emphasis is given to concepts and critical reasoning. Questions and discussions are stressed during the lecture time. Memorization is discouraged except for technical names of organisms and other related scientific vocabulary. No website notes or powerpoint slides will be used for this course. The instructor will teach along with the textbook. So it is imperative that the student attend class to listen to the lecture, take notes, and ask questions if needed.

ROLE OF THE INSTRUCTOR

The Instructor is responsible for all material presented in the lectures, and is committed to providing you with an excellent and challenging course. If you have a problem understanding the lectures or getting difficulties in preparing for exams, contact the Instructor right away and NOT at the end of the semester. The instructor expects that the students will respond to his effort and that the students will dedicate enough time and effort to succeed in the course, particularly, to those who are going to graduate.
ROLE OF STUDENTS IN CLASS

Class will start and finish on time each day, so make every effort to be here at the start of the class. Please do not leave early unless you become ill or have other unavoidable circumstances. If you have an appointment such that you need to leave early, tell the Instructor before class and sit in a seat near the back of the classroom that day. If you arrive after class has begun, please try to minimize distracting others while finding your seat. MAKE SURE TO ARRIVE ON TIME TO EVERY LECTURE. The Instructor will try to facilitate the learning process to maintain your interest. Your questions and comments during the class lectures are welcome and the Instructor will make every effort to address them as they are raised.

The large number of students in this class creates the condition for a major noise problem. Please be considerate of your fellow students and of the Instructor by making every personal effort not to cause unnecessary noise. LEAVING THE ROOM DURING THE LECTURE IS NOT ALLOWED UNLESS IT IS STRICTLY NECESSARY. Please note that audio and recording devices are not allowed to be used during class. Switch cellular phones and beepers off while you are in class. NO TEXTING WHILE IN CLASS PLEASE. No weapons should be displayed in the room or in my office. There will be no eating, drinking or smoking during lecture. Avoid social or distracting conversations in class and lab sessions.

CLASS ATTENDANCE (THREE OR MORE UNEXCUSED ABSENCES ARE ENOUGH TO CAUSE WITHDRAWAL FROM THE COURSE AS PER UNIVERSITY REGULATIONS)

Attendance at lecture is imperative if one is to understand the material covered in this course. Any absences are unwise. The instructor expects that students attending the lectures focus their ENTIRE attention upon the lecture. Disruptive students will be asked to leave. Class regular attendance will increase the probability that you will (1) develop a better understanding of the material, (2) be able to demonstrate that understanding on exams, and (3) earn a higher grade in the class. You will be tested on material covered in lecture that is not in the textbook or class notes. The Instructor will not respond to questions outside of class from students who have not obtained the information because of skipping classes. Low grades in most cases correlate to number of class absences.

Make an effort to attend to class particularly if you get low grades!! Instructor will drop students that have a record of THREE OR MORE unexcused absences.

Attendance, motivation and a good preparation for exams are the key factors to succeed in this course.

Be aware that students with 4 or more absences to lecture or lab will not be entitled to any extra points added as a curve for the final exam or to the total points of the course.

Similarly, do not come to my office at the end of the course asking for higher grades because you will lose a scholarship or miss graduation. The instructor will not grant any "extra work or assignment or drop the lowest grade" to remedy those situations. Read this syllabus carefully, prepare well and plan accordingly.
STUDENT LEARNING OUTCOMES

(1) The biology graduate knows the role of the cell in life and living systems, and understands the inter-relationships between sub-cellular structures that contribute to its functioning as a unit.

(2) The biology graduate understands the role of DNA in inheritance and can explain how environmental conditions influence natural selection processes and contribute to adaptation.

(3) The biology graduate is aware of the diversity of life, and understands inter-relationships among organs and organ systems within an organism, and inter-relationships between an organism and its environment.

(4) The biology graduate is familiar with the tremendous diversity in structure (organellar, cellular, organismal) and how that relates to the organismal niche or habitat.

(5) The biology graduate understands how the organization of a specific structure within an organism is related to a specific function, and how this function contributes to survival of the organism.

(6) The biology graduate understands the Scientific Method, is able to analyze and interpret data, and communicate research findings in both oral and written form.

(7) The biology graduate is prepared to accept employment in a variety of environmental and health related professions, enter medical and dental schools, pursue graduate degrees in the biological sciences, or teach in public or private schools.

ELIGIBILITY FOR ENROLLING IN BIOL3401

You must have cleared with Administration to attend this course along with its corresponding laboratory session. As per UTPA regulations the pre-requisites for this course are: BIOL 1401, CHEM 1301, CHEM 1302. Basic biological and chemical knowledge are essential to understand concepts presented in this course. The instructor will drop the students who have not taken the prerequisite courses. Consult with your Instructor immediately within the first two days of classes should you have any questions on this requirement. Instructor may ask for a copy of your official transcript during the course. Please note that no exceptions will be made to allow a student to remain in class without having taken and passed the basic pre-requisite courses.

GRADE DETERMINATION

Your grade in this course will be determined by four lecture exams. Exams I, II and III will be administered during regular class time and consist of short essay-type questions, multiple-choice questions, fill-in the blank, figure identification, or any combinations of these. You will be tested on material is based on whatever the instructor presents during the lecture, the internet notes, and the textbook. The final exam is comprehensive and written in multiple-choice format. If the instructor feels that the whole class has been responsive, get good grades, generate discussions and ask many questions, show interest and motivation, then the instructor may consider reducing the number of chapters to study for the final exam.

For your information, the instructor writes new exam questionnaires every semester. All matters regarding exams will be announced in class and in the ‘message section’ of the web site. So, please consult the message section regularly for all matters regarding the course and information on exams. Exams grades will be posted on BlackBoard. Instructor will not return scantron forms in class or discuss exams grades in class or post grades on doors or walls. You are requested to visit my office to examine and discuss your exam grades and quizzes within 10 days after their administration of each exam.
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<thead>
<tr>
<th>Activity</th>
<th>Value (%)</th>
<th>Day</th>
<th>Date</th>
<th>Tentative Coverage</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>20</td>
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<td>tba</td>
<td>Chapters 1-2-3-4</td>
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<td>8-9-10</td>
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<td>Final exam</td>
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Due to the intensity of the course, students have to be prepared to take one of the above exams on a weekly basis. As soon as the tentative coverage of chapters are finished then the respective exam will be administered as per the table above. Students are requested to study on a daily basis.

**SUMMARY OF IMPORTANT NOTES TO REMEMBER**

1) YOU MUST STUDY TO PASS THIS COURSE. THERE WILL NOT BE ANY EASY TOP GRADES UNLESS YOU PREPARE WELL IN ADVANCE FOR EXAMS.

2) ATTENDANCE TO CLASS IS ESSENTIAL.

3) THE INSTRUCTOR WILL NOT GRANT ANY DR'S AFTER THE OFFICIAL LAST DAY TO DROP PASS (DP) OR WITHDRAW (W) THE COURSE. AFTER THIS DATE, THE INSTRUCTOR WILL CALCULATE AND REPORT WHATSOEVER GRADE YOU HAVE MADE IN THE COURSE.

4) NO SPECIAL ASSIGNMENTS, DROPPING LOWER GRADES RESEARCH WORK OR PROJECTS TO REMEDY FINAL GRADES AT THE END OF THE COURSE.

**GRADE CALCULATION**

The class final grade is worth 80% and the lab is 80%. The class overall grade is calculated as:

\[
\text{class overall grade} = \left\{ \frac{(\text{exam 1}) \times 0.20 + (\text{exam 2}) \times 0.25 + (\text{exam 3}) \times 0.25 + (\text{final exam}) \times 0.30}{0.8} \right\} \times 0.8
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**GRADE RANGES**

A (90-100), B (89-80), C (79-70), D (69-60), and F (59 or less)

**EXAMINATION PROCEDURES**

Given the large number of students, it is critical that examination procedures be clearly understood and followed. If the exam administration procedures seem restrictive or confining in any way, please understand that our procedural goals are (1) to minimize confusion and distractions during the exam, and (2) to give you the maximum amount of time possible for completing the examination.
If you choose to wear a cap during exams, please turn it backwards. No electronic or digital equipment whatsoever will be allowed in class during examinations. Benches must be clear of books, papers, bags, bottles, calculators, electronic devices, cell phones, or any other communication items including watches.

=> Ten (10) points will be deducted from your exam grade if you arrive late just after questionnaires have been distributed to all students who arrived on time. Instructor reserves the right to lock the door 10 minutes after exam has started. In addition, you will not be allowed to take an exam if you arrive after a first student has already finished the exam and has left the room. No exceptions will be made. Plan well your time and arrive on time for exams.

SCHOLASTIC HONESTY

Cases of apparent scholastic dishonesty will be pursued to the fullest extent allowed by University regulations. The student will get a zero for that exam. The instructor will report the case to the Chair and to the Dean of Students to request further disciplinary action.

MISSED EXAMINATIONS

Absences from an exam will be excused for these reasons ONLY:

1) Participation in an authorized University activity
2) Confinement due to illness (a valid medical certification is required); an evidence of a prescribed medicine may be requested, too.
3) Death in your immediate family
4) Participation in legal proceedings that requires your presence
5) Car accidents (proof required)

No excuses regarding traffic or car problems during exam days will be accepted. Anyone who does not have a valid reason for missing an exam will receive a zero for that exam. If you have a valid excuse, please make sure to contact your Instructor personally or by phone, fax or by e-mail 24 hours before or 24 hours after missing your exam. Failure to do this will translate into a minimum grade (0). This policy will be strictly enforced (no exceptions).

POST EXAMINATION PROCEDURES

Students need to discuss all quizzes and exam grades in the instructor’s office. Students will have a period of 10 working days after the exam administration to see, discuss your grades. The Instructor will not discuss exams past the 10-day consultation period.

Please note that due to the Family Privacy Act (1974), the Instructor will NOT give or discuss any grades over the telephone or via e-mail. Students are not allowed to read their grades from the computer screen of the instructor. To get the final course grade, students are requested to use the kiosk machines on campus or via the internet through a code number for this purpose.
MAKE-UP EXAMS

If you miss an exam AND have a valid excuse for your absence, contact your Instructor for mutual arrangements to take the exam at a further date. Remember the rule of informing your instructor 24 hours before or after the exam either personally or by phone or by email. A make-up exam can be administered in any format as decided by the instructor and will not be the same exam administered to the other students. No bonus points are granted to any student taking any make-up exam regardless the reason.

STUDENTS WITH DISABILITIES

Students with disabilities are encouraged to contact the Disability Services Office for a confidential discussion of their individual needs for academic accommodations. It is the policy of the University of Texas Rio Grande Valley (UTRGV) to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Disability Services Office (DS), University Center #108, tel. 665-7005, e-mail: disabilityservices@utrgv.edu