GENERAL/MOLECULAR VIROLOGY - (BIOL4413/5413)
Course Syllabus
Fall 2016

INSTRUCTOR

Luis A. Materon, Ph.D., Professor
Office at SCIE1.344; Phone (956) 665-7140; Fax (956) 665-3657
E-mail: lmateron@utpa.edu
Office hours: M T W R from 11 to 12 p.m.; or by appointment.
Class meets on TR at 8:00 a.m. to 9:15 a.m. at SCIE 3.212

OBJECTIVES

This is a comprehensive course covering fundamental aspects on the effect of viruses on prokaryotic and eukaryotic organisms. The course will cover the interactions between viruses and populations, and the impact of viral disease on organisms. It includes morphology, taxonomy, mechanisms of replication, strategy of viral gene expression, diseases and biological control. The student will also be exposed to the main sources of information on virology.

COURSE BOOK

"How Pathogenic Viruses Work". Author: Lauren Sompayrac. 2002. Published by Jones and Barlett (ISBN 0-7637-2082-8). Detailed lecture note material will be posted on the course web site. You are expected to read other printed material presented to you in class. Reading assignments from web sites on virology will also be given to you on a regular basis.

COURSE WEB PAGE

A very comprehensive web site has been constructed for this course. It contains most information you need for this course. Lecture notes will be posted BEFORE the corresponding lectures and removed thereafter. The intention is that you come to class with the printed notes. The idea is to, avoid too much note taking and have more time for questions and discussion. The URL of the course web site is https://faculty.utpa.edu/lmateron/4404/index.html

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.

TEACHING STYLE

The traditional lecture style combined with a novel technique called 'cooperative learning' and feedback questioning. Students will contribute substantially to the learning process through active discussions on concepts. Critical reasoning, questions and discussion will be encouraged.

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.

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. MAKE SURE TO ARRIVE ON TIME TO EVERY LECTURE. If you arrive late, try to minimize distracting others while finding your seat. Late comers also distract the concentration of the instructor so please be on time.

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. It is important to ask questions and participate in class discussions.
Food is not allowed to be consumed in class. Audio and recording devices are NOT allowed in class. If you have a difficulty or a disability that requires recording then you must get approval from your instructor. Switch cellular phones and beepers off while you are in class. Avoid social conversations in class and lab sessions.

The instructor expects that students take this course seriously. Do not expect high grades if you do not prepare well for exams. The nature of the subject requires a good background in biology and chemistry, and the adoption of a time strategy to study with dedication.

Attendance, motivation and a good preparation for exams are the key factors to succeed in this course. Similarly, do not come to my office at the end of the course asking for higher grades because either you will lose a scholarship or you will miss your graduation. The instructor will not grant any "extra work or assignment or drop the lowest grade" to remedy these situations.

**ATTENDANCE TO CLASS IS COMPULSORY -- (PLEASE READ CAREFULLY)**

Attendance at lecture is imperative if one is to understand the material covered in this course. A class roll with your signature will be taken during the first minutes of each lecture.

Attendance will be taken twice per session - one at the beginning and the other at the end of the session. If you leave any time after you have signed the first attendance record and do not sign the second attendance record, then an absence to session will be recorded by the instructor.

Please note that 1) if your registered signature does not appear on the attendance records you will get an absence, 2) if you arrive late, the instructor will not allow you to sign the attendance record, 3) if you leave after you sign the attendance record, the instructor will register an absence, 4) if you fake somebody else’s signature, the instructor will request disciplinary action to the Office of the Chair and Dean of Students, 5) if your signature is not the same as the registered one, the instructor will warn you by letter, and 6) once a student gets an unexcused absence recorded the instructor will issue a warning letter, and will also provide a copy of these regulations to the student with a copy to the Department Chair.

The instructor expects that students attending the lectures focus their ENTIRE attention upon the lecture. 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. The Instructor will not respond to questions outside of class from students who have not obtained the information because of skipping classes.

The instructor reserves the right to lock the door after a lecture, quiz or exam has started. Please plan ahead to arrive on time on these special days.
ELIGIBILITY FOR ENROLLING IN BIOL4413/5413

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: BIOL3401 or BIOL3403. Basic microbiological knowledge is essential to understand concepts presented in this course. If you have not taken any basic Biology, Chemistry and Microbiology courses you will not be allowed in BIOL4404. Consult with your Instructor immediately within the first two days of classes should you have any questions on this requirement. Only graduate students can register in BIOL5404 for credit.

GRADE DETERMINATION

Your grade in this course will be determined by four essay-type exams. The exam format will be essay-type, fill-in the blank or other but not multiple-choice. The final exam will be comprehensive. All matters regarding exams will be announced in class and posted on the course web site. If the general performance of the course is satisfactory (based on motivation, questioning, discussion, good average grades, etc.) then the instructor may reduce some material to study for the final exam.

Grade determination is based on:

Quizzes 20% Weekly
Exam1 20% Tue. Sept. 22, 2016
Exam 2 20% Tue. Oct. 25, 2016
Exam 3 20% Thurs. Nov. 17, 2016
Final Exam 20% date to be announced

The class final grade is worth 80% and the lab is 20%. The class overall grade is calculated as:

\[(\text{quizzes}*0.20 + \text{exam1}*0.20 + \text{exam2}*0.20 + \text{exam3}*0.20 + \text{final exam}*0.20) \times 0.80\]

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

EXAMINATION PROCEDURES

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 maximum amount of time possible for completing the examination.

No electronic/audio/computer equipment whatsoever will be allowed in class during examinations. Cellular phones must be switched off. NOTE: You will not be allowed to take an exam if you arrive after a first student has already finished the exam and left the room. No exceptions will be made.
SCHOLASTIC HONESTY

Cases of apparent scholastic dishonesty will be pursued to the fullest extent allowed by University regulations. A zero will be given to that exam and the instructor will report the case to the Chair of the Department and to the Dean of Students for further disciplinary action.

MISSED EXAMINATIONS

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

1) Participation in an authorized University activity (proof required)
2) Confinement due to illness (a medical certification is required)
3) Death in your immediate family (proof required)
4) Participation in legal proceedings that requires your presence (proof required)
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

All exams will be discussed during class once graded. During this time of approximately 30 minutes, students have the opportunity to read, check grade summation, go through the exam and ask questions. If you consider it necessary to discuss the exam in private with your instructor then you will have a period of 10 working days to come to the instructor's office to discuss the exam. Exams will not be discussed further after the 10 working day-period has passed.

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. The instructor reserves the right to administer an oral exam instead of a written make-up exam.

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 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, 665-7005 or disabilityservices@utrgv.edu