

Biology 5310-002 – Selected Topics in Biology (Methods in Molecular Microbiology)

Instructor: Dr. Jorge Rodrigues

Office number: B17A Life Sciences Building

E-mail: Jorge@uta.edu (use e-mail option before calling)

Office Telephone Number: 817-272-1124

Office hours: Tuesdays, Thursdays, and Fridays 8:00AM-9:00AM

Course Number, Section Number, and Course Title: Biology 5310-002, Selected Topics in Biology.

Course location and times: LS 334, Mondays 1:00PM – 4:50PM

Description of Course Description: This course is intended to provide students with an overview of different techniques used during manipulation of microorganisms. It will allow students to gain a historical perspective of techniques used in microbiology (Winogradsky column, Koch solid agar plating) as well as learn state of the art molecular characterization of microorganisms and their genetic manipulation.

Student course outcomes: This course is designed to provide you with the basic information about molecular methods currently used in modern microbiology. At the end of the course, you must be able to isolate and characterize microorganisms, to design an experiment, to report its findings. You are expected to know about DNA isolation, polymerase chain reaction, sequence analysis.

Description of major assignments and examinations with due dates: Reading of assigned paper is mandatory. Two reports are expected: Report 1 (March 22) and Report 2 (May 10).

Course requirements: None

Textbook and Materials: None

Exams: None

MavMail Requirement: UTA has adopted MavMail as an official means of communication with students. Please, check your e-mail regularly. If you have any questions regarding your e-mail, go to: <http://www.uta.edu/oit.email/>

Cell Phone Policy: *Cell phones must be turned off (or placed on vibrate mode) at all times.* If your cell phone rings during class, you will be invited to leave the room. If you leave class to attend a phone call, you will not be allowed to return. Messaging is not permitted.

Mandatory Online Safety Training: This is a laboratory course and as such, you are required to take the UTA mandatory safety training.

Drop Policy: April 2nd is the last date to drop with a W. Students may drop or swap (adding or dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. Contact the Financial Aid Office for more information.

Website: Grades, final lab grades, and final course grades will be available on <http://webct.uta.edu>

Grades: Your final grade will be composed of the following:
40% from Report 1
40% from Report 2
20 % from Participation in class.

No extra credit will be allowed!

Final Grade: The following grade scale will be used to determine your final grade:

- A) 100 – 90%**
- B) 89 – 80%**
- C) 79 – 70%**
- D) 69 – 60%**
- F) below 59%**

Make Up Exam Policy: Absences will be excused only with a written proof of your physician or jury duty responsibility. If you miss one report, you should present a proof for your absence or a grade of 0% will be issued for that exam. 10% will be deducted from you grade if reports are not on the due dates.

Attendance Policy: Attendance is not taken. It is your responsibility to learn as it is my responsibility to teach you.

Important University Policies:

Final review week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. Classes are held as scheduled during this week and lectures and presentations may be given.

Drop for non-payment of tuition: Payment must be received by the term due date of January 13, 2010 or your registration will be cancelled. If your registration is cancelled for non-payment, you may reregister for classes but only if seats are available.

Bomb Threats: If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email.

After Hours Safety Escort: The Sam Mav Escort service provides a service to assist students, faculty, staff and campus visitors to reach their destinations after regular business hours. The hours of service are 7:00 p.m. to 1:00 a.m., Sunday through Saturday. Call 817-272-3381.

Americans With Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 - The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Series 50101, Section 2.2)

Student Support Services Available: The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve

academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Mandatory Online Safety Training:

1. Go to <http://www.uta.edu/training>.
2. Log on using your network log-on ID and password (what you use to access email). If you do not know your NetID or need to reset your password, visit <https://webapps.uta.edu/oit/selfservice/>.
3. The available courses for completion will be listed under “Training I’m Enrolled In”. Complete the course entitled ‘Student Lab Safety Training – General.’ ***NOTE: If you completed Wet, Dry or Biology Lab Safety Training course last semester for another class, that training is still applicable until the end of this academic year. Please follow instructions in #4 to print the certification page for your TA.
4. Go to ‘Training I’ve Completed’ and print the displayed page for your TA. Verify that it shows clearly your name, and that ‘General, Wet, Dry or Biology’ training is completed/passed and the date when the training was completed. If you have just completed the training but it is not updated on the ‘Training I’ve Completed’ page, please log out of the system and log back in. If the training still does not show up on this page, call the Helpline at 817-272-5100.
5. If you were enrolled in a course with a lab last semester and did not complete the training or if you do not see training for this academic year listed, email compliance@uta.edu providing your name, a contact phone number, NetID and course (e.g. BIOL 1441-005) and request the appropriate training for your course.
6. Students who have not completed the training by census date may be dropped from the lab (and consequently the lecture).
7. Lab Safety Training is required to be completed once every academic year. Training completed in the Fall semester is valid for the Fall, Spring and Summer sessions. It is your responsibility to print your training certification page and turn it in each semester to your TA for each course with a lab you are enrolled in.

For training specific questions, contact the Environmental Health and Safety office at 817-272-2185.

For technical assistance with the training, please contact the Office of Institutional Compliance at 817-272-5100 or email compliance@uta.edu

Tentative Schedule of Lectures*

* This is **ONLY** an outline of lectures. It might change according to our progress. You **MUST** attend lectures to know when changes in schedule will take place.

Date	Subject	Required Readings**
Jan 25	Introduction, Making Media	
Feb 1	Winogradsky column, Inoculation	
Feb 8	Isolating Microorganisms	
Feb 15	Description (Microscopy)	
Feb 22	Cell Growth	
Mar 1	DNA extraction	
Mar 8	PCR	
Mar 15	Spring Brake (Enjoy!)	
Mar 22	Report 1 Due Date	
Mar 29	Gels, Plasmid Extraction	
Apr 5	Sequencing	
Apr 12	BLAST analysis and Phylogenetic trees	
Apr 19	Transformation	
Apr 26	Transduction	
May 3	Closing statements and Review	
May 10	Report 2 Due Date	

** Reading assignments will be provided according to class development.