

Biology 5440-001 & 002 Bacterial Pathogenesis Laboratory Course

Instructor: Dr. Julian Hurdle

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Office hours: Wednesday and Thursdays 9:00-10:30AM

Course Number, Section Number, and Course Title: Biology 44400-001-Selected Topics in Biology; Bacterial Pathogenesis Laboratory Course

Course location and times: LS 334, Wednesday 1.00PM-4:50PM

Course Description: This course is intended enable students in 'research-oriented' studies in bacterial pathogenesis and medical microbiology. It provides students with a practical understanding of immunological, microbiological and molecular techniques to identify pathogens, detect virulence, and mechanisms of antibiotic resistance genes.

Student course outcomes:

The course is designed to allow students to become familiar with basic molecular techniques applied to bacterial pathogenesis and medical microbiology. At the end of this course you should understand how to design experiments to answer research questions, develop written and oral communication skills and enhance analytical skills.

Course requirements: BIOL-4317.

Required Textbooks: None.

Exams: None.

Laboratory Requirements Students will be evaluated through a combination of quizzes, lab reports, a lab notebook, oral presentation, and participation.

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 during lectures.

Drop Policy: See university guidelines.

Website: Grades, final lab grades, and final course grades will be available on blackboard or myMAV.

Grading Policy: Final grade will be composed of the following:

Oral presentation: 10%
Lab Report 1: 35%
Lab Report 2: 25%
Lab Notebook: 25%
Participation: 5%

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: You are required to be present for announced examinations. Absences will be excused only with written request by a physician, other responsible professional, or with written proof of jury duty. No exceptions. If you miss an exam, you will be given an exam score of zero. You will have **ONLY** two options for make up exams: (1) your final exam grade will be issued as a make up exam for the lost exam or (2) take the make up exam after the final exam. In the later case, an exam will be provided after 5 min of the expiration time of the final exam. Either case, it is **YOUR RESPONSIBILITY** to let me know.

Attendance Policy: With the exceptions of exam dates, you are not required to attend lectures; however, you are responsible for all material covered in lecture including changes to the syllabus. Be aware that, historically, students who attend lectures consistently get better grades.

Important University Policies:

Americans With Disabilities Act: The University of Texas at Arlington is 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)*. It is your responsibility to inform me of your disability at the beginning of the semester and to provide authorized documentation through designated administrative channels. If you require accommodation based on disability, I would like to meet with you in my office the first week of class to discuss your special needs.

Academic Dishonesty: 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. According to the UT System Regents' Rule 50101, §2.2, "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."

Mandatory Online Lab 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

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.

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.

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.

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. 817-272-3381

Other Policies

Electronic Communication Policy: The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. ***Students are responsible for checking their MavMail regularly.*** Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.

Smoking, Food, and Drink in the Lecture Hall: University regulations prohibit smoking, eating, and drinking in lecture halls.

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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. *You must provide me with the ARC exam test 10 days in advance to the test.* 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)

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Tentative schedule of experiments

Date	Topic	Report due date/Quiz date
January 16	Introduction	
January 23	Spontaneous mutant selection	
January 30	Phenotypic characterization	
February 6	Gene sequencing	
February 13	Reporter gene assay	
February 20	Reporter gene assay	
February 27	Biofilm experiment	
March 6	Graduate presentations	Class quiz; Report 1
March 13	Spring break	

March 20	Bioinformatic analysis	
March 27	Case study- Isolation of organism	
April 3	Purification of isolate	
April 10	Immunological/biochemical tests	
April 17	Immunological/biochemical tests	
April 24	Genotypic analysis	
May 1	Genotypic analysis	Class quiz
May 8		Report 2; Laboratory book submitted with Report 2