

BIOLOGY 2042 Laboratory Syllabus (TENTATIVE) Summer II -2026

Course Description, Structure, and Objectives:

Laboratory techniques in general microbiology. Survey of microorganisms including bacteria, fungi, protozoa, and algae. Culture, staining and identification of bacteria.

Prerequisite(s): CHEM 1420 (may be taken concurrently). **Co-requisite(s):** BIOL 2041

Required/Recommended Materials:

- Hughes & Hughes, Microorganisms, A Laboratory Manual. 3rd edition, Kendall Hunt Publishing company
- Bring your lab manual to each laboratory session. Filling out lab results and answering questions for each lab are part of your grade
- PowerPoints and supplementary readings will be posted in Canvas

How to Succeed in this Course:

It is students' responsibility (not instructors' responsibility) to check Canvas for class materials and reviews and emails for the announcements every day, Attendance is mandatory. Each student is responsible for reading the lab manual before each lab and perform experiments in class. There will be assessments in the form of practical exams, quizzes and lab manual reports and questions. Students are expected to meet instructors outside the lab during office hours to ask for clarification or find support with understanding class material. Your success is our goal.

ADA accommodation (UNT Policy: 16.001)

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodation at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website (<http://www.unt.edu/oda>). You may also contact ODA by phone at (940) 565-4323.

Supporting Your Success and Creating an Inclusive Learning Environment:

I value the many perspectives students bring to our campus. Please work with supervisor or your instructor to create a classroom culture of open communication, mutual respect, and inclusion. All discussions should be respectful and civil. Although disagreements and debates are encouraged, personal attacks are unacceptable. Together, we can ensure a safe and welcoming classroom for all. If you ever feel like this is not the case, please stop by my office and let the supervisor know. We are all learning together.

Always be respectful of your laboratory instructor and your lab mates. Do not distract or obstruct lab mates when they are carrying out experiments, this can compromise their safety and integrity of their experiments. Disruptive/bad behavior compromises the safety of lab participants and will not be tolerated. If such behavior is incurred, points will be deducted from your participation grade, and it will be reported to the UNT Dean of Students Office. If the student doesn't agree with the instructor, the student should wait till the class is over and talk to the instructor alone and if needed, talk to supervisor.

Assessing Your Work:

Grade Distribution:

A $\geq$ 270

B= 240-269

C= 210-239

D= 180-209

F $\leq$ 179

Composition of lab grade

Quizzes (2)	40 points
Pre-lab quizzes (4)	10 points
Practical Exam 1	100 points
Practical Exam 2	100 points
Lab Manual Report/Questions	20 points
Attendance	20 points
Participation	10 points
Total	300 points

Pre-lab Quizzes, Quizzes and Exams:

Pre-lab quizzes and quizzes are administered usually at the beginning of the class. Arriving after a quiz has been administered will automatically result in a grade of "ZERO" on the quiz. There are **two practical exams**. Exam questions may include short answers, fill-in-the-blank, multiple choice, identification, and practical questions. The duration of the practical exams is 1 hour. Laboratory quizzes, pre-lab quizzes, or exam **make-up** will be given only **with documented medical/university** excuses. **No grades will be dropped**. If you arrive while the quiz/exam is in progress, you will be allowed to take the quiz/exam, but

you will NOT be given extra time to complete it. Laboratory quizzes or exam make-up will be given only with documented medical/university excuses.

Students are responsible for letting the instructor know of the following absences for make-up:

Professional school interviews

Conference attendance

Receiving awards such as scholarships or other academic honors

Missing class due to being waitlisted (only applicable prior to census date)

Personal travel

Short-term illness and doctor appointments (Flu, COVID, Strep, cold etc,) (need doctor's note)

Dean of students will be only notified if the absences are due to

Temporary disability or injury

Extended medical absences or hospitalization

Illness of a dependent family member

Major illness or death of a loved one, which may include immediate family members of the student, spouses/partners, and others as deemed appropriate by the Dean of Students office

Car accident that takes away transportation

Housing emergencies

Significant mental health concerns

Reports and Notebooks:

Students must bring their **lab manuals** to every lab to fill out the reports and questions. The points are allocated and will be a part of grade. No late work will be acceptable.

Cell phones

Cell phones are not allowed in Microbiology 2042 labs. **Cell phones must be turned “off” and stored** in your personal bag at all times while working in Microbiology labs. If you have your cell phone with you or in your cubby, you will be asked to leave the lab and will get a zero in participation for the day. Leaving the lab to take phone calls or text will be considered an absence for the day (Consult TA if it is an emergency). **All Smart watches and earbuds** must be stored in your personal belongings during **laboratory times and exam dates**.

Safety

Students must follow Laboratory Safety Rules (**as always instructed by Lab Instructor**) while working in the Microbiology lab. Failure to do so will result in points deduction from your participation grade. **No closed-toe shoes, no long pair of pants = no lab**, students must leave the lab and will be absent for the day. **Gloves** should not be worn outside the lab at any time. Students will sign a **safety roster**, stating that the students understand and will follow the safety/lab rules given to them.

Course Schedule

Syllabus is tentative and subject to changes: Any changes to the printed schedule, including pre-lab readings or quizzes will be announced in lab or Canvas in case of weather events.

It is mandatory that you attend the first day of class!

Laboratory Supervisor: Dr. Syeda Alam; Office 227, Phone # 940-565-2627, syeda.alam@unt.edu

DATE	DAYS	TOPICS	LAB NUMBER
June 22	Mon	Introduction, Lab Safety rules Microscopes	1
June 23	Tues	Culture media preparation	2
June 24	Wed	Pre-lab quiz 1 , Aseptic technique, Inoculation of media Census day: 6/25/2026	3
June 25	Thurs	Bacteria nomenclature, colony, and cell morphology Smear Preparation, Gram stain	4, 6, 8
June 29	Mon	Pre-lab quiz 2 , Endospore Stain, Acid Fast Stain	9, 10
June 30	Tues	Quiz # 1 , Environmental Influences: Effects of pH Osmolarity Biochemical Tests	15, 16, 27-30
July 1	Wed	Environmental Influences: Lethal Effects of UV Oxygen tolerance	13, 14
July 2	Thurs	Lab Practical #1 exam review	
July 6	Mon	Lab practical #1	
July 7	Tues	Effect of Temperature, lethal effects Effect of Temperature on bacterial growth. Effect on Temperature on enzymes	12
July 8	Wed	Pre-lab quiz 3 , Antiseptic and Disinfectants (alcohol as degerming agent), Catalase, Oxidase	17, 14 (p 98-100 online)
July 9	Thurs	Antibiotic Susceptibility Testing	18
July 13	Mon	Micropipette usage, Bacterial count, Water analysis: Colisure	11, 22
July 14	Tues	Pre-lab quiz 4 , Transformation, conjugation Last day to drop with a W: 7/16/2026	24, 25
July 15	Wed	Epidemiology	19
July 16	Thurs	Quiz 2 , Bacteriophage, Starch hydrolysis test	26, 30.1
July 20	Mon	Fungi, Cyanobacteria, Algae, Protozoa	20, 21
July 21	Tues	Lab practical #2 exam review	
July 22	Wed	Lab practical # 2	

Students will be notified by Eagle Alert if there is a campus closing that will impact a class and you will find information in Emergency Notifications and Procedures Policy (PDF), (https://policy.unt.edu/sites/default/files/06.049_Standard%20Syllabus%20Policy%20Statements_supplement.pdf).

Academic Integrity (UNT Policy 0.6.003)

Please refer Academic Integrity Policy (PDF),

(https://policy.unt.edu/sites/default/files/06.049_Standard%20Syllabus%20Policy%20Statements_supplement.pdf).

Every student can improve by **doing their own work** and trying their hardest with access to appropriate resources. Students who use other people's work without citations will be violating UNT's Academic Integrity Policy. Please read and follow this important set of guidelines for your academic success (<https://policy.unt.edu/policy/06-003>). If you have questions about this, or any UNT policy, please email the supervisor or come to discuss this with supervisor.

All quizzes and practical exams are to be taken independently. Cheating is not permitted, if a student is caught cheating in this laboratory, they will receive a zero for that grade opportunity and a note will be placed in their permanent file. Students can be dropped from the class with a **failing grade for plagiarism and/or cheating**.

Attendance (UNT Policy 06.039)

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the supervisor and instructor prior to being absent, so we can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the supervisor and instructor if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

Research has shown that students who attend class are more likely to be successful. You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the Student Attendance and Authorized Absences Policy (PDF) (https://policy.unt.edu/sites/default/files/06.039_StudAttnandAuthAbsence.Pub2_.19.pdf).

Microbiology lab meets four times a week (as assigned, Monday-Thursday) **in person**. No online lab is offered. **Attendance in the lab is mandatory**. The BIOL 2042 class is a hands-on, lab-based course, and because a successful laboratory experience is dependent upon regular attendance, the instructor/lab supervisor **reserves the right to drop** any student from the course with a W if the student is absent for **more than two (2) absences** during the semester. If, due to circumstances beyond your control, you have to miss a lab, you must contact your lab instructor prior to the absence (Exceptions are absences that are medical or University-sponsored). Your safety and well-being are important to us. If a lab is missed (unexcused), the student will get a zero for attendance.

A student is considered absent if the student comes to the lab **after 15 minutes** into the lab period. They are not allowed to enter the lab. The door will be closed. The lab will meet the entire duration of the scheduled time. Students leaving early will be marked as absent for that day. No student will attend another section without permission from the supervisor. Permission will be given to the students only with an appropriate excuse. Supervisor has the right to say NO, if the excuse is illegit.

Lab Policies

If you miss a lab, you are responsible for the information covered that day. All work is done independently unless explicitly instructed otherwise. Students may leave the lab only after checking with his/her lab instructor. Students are responsible for keeping their benches disinfected, clean and re-stocked with any materials needed. (List posted on each bench)

University of North Texas Policies

- It is the student's responsibility to be aware of all UNT policies and deadlines
- Student Code of Conduct
- Dropping courses or withdrawing.
- All other policies

Participation:

For participation grade, points will be deducted for each safety violation and violation against UNT and lab policies.

Additional Notes

Do not wait until the last minute to ask for help. If you are having trouble with this class, please go to your lab instructor's posted **office hours (3 hours a week)**. If you cannot attend your instructor office's hours, schedule an alternate time to meet. If you still have questions, please email or come to the supervisor (me) to discuss. During busy times, my (supervisor's) inbox becomes rather full, so if you contact supervisor and do not receive a response within **two** business days, please send a follow up email. A gentle nudge is always appreciated. Have a great semester!