



RANGER COLLEGE

COURSE SYLLABUS

Microbiology for Non-science majors

BIOL 2420

4 credit hours

Erath, Brown, and Ranger Campus

INSTRUCTOR:

James Francis

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EMAIL: jfrancis@rangercollege.edu (Best Contact Method)
OFFICE: Ranger (M & W): Academic 9; Erath (T & R): Faculty Office 2
HOURS: Ranger: 11:00-11:30 AM(M&W), 3:30 (M); 1:00 – 1:40 PM (TR).
I am available Monday - Sunday from 9AM until 7PM, by email.

Course Description

2420 - Microbiology for Non-Science Majors (lecture + lab) (3-3) 2605035103 Study of the morphology, physiology, and taxonomy of representative groups of pathogenic and nonpathogenic microorganisms. Pure cultures of microorganisms grown on selected media are used in learning laboratory techniques. Includes a brief preview of food microbes, public health, and immunology. Credit 4 semester hours.

Required Textbook and Course Materials

FOUNDATIONS IN MICROBIOLOGY 10th edition. Kathleen Park Talaro. McGraw Hill. 2015. (Highly recommended).

ISBN-10: 0077731050

ISBN-13: 978-0077731052

Students should bring paper, a pen, and a sharpened #2 pencil to every class.

Laboratory Notebook – Details will be given in during the first lab.

Course Purpose

Life Science courses focus on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Learning Outcomes

Biology 2420 is designed to instruct students in methods that will result in a student obtaining a working knowledge in the following areas:

1. Main themes of microbiology
2. Chemistry of microbiology
3. Study methods and tools used in microbiology laboratories

4. Vital characteristics and diversity of viral, prokaryotic, and eukaryotic microbes
5. Microbial nutrition, ecology, growth
6. Microbial metabolism and genetics
7. Physical and chemical agents for microbial control
8. The effects of drugs on microbes and hosts
9. Microbe-Human interactions
10. Host defenses and immunity
11. Cocci and Bacilli of Medical Importance

Methods of Instruction

1. Lecture. Instruction may include videos, active learning & group/peer activities.
2. Lecture notes may be provided through Blackboard or the Ranger College website. You are welcome to use the printing facilities at Ranger College, **but all students are required to embrace the paper-saving policy or else lose printing privileges, i.e., you are required to print 6 slides per page for powerpoints, and to print pages both front and back if given the option. Ask for help if you need further instructions or assistance.**
3. Labs in which fundamental techniques in culturing and identifying of microorganisms will be emphasized. **You MUST pay close attention to due dates as I do not accept late work.**

NOTE: Please be aware that a science course is approached and successfully completed quite differently from many other types of courses. One of the keys of success in this course is: “learn as you go”. In this course, you will receive a considerable amount of information that cannot normally be absorbed right before a test. You have to learn and build upon the knowledge day by day.

Methods of Assessment

Lecture: The lecture portion of the course comprises 75% of your final grade in BIOL 2420. Exams will cover all material discussed since the last exam and may consist of one or more of the following: 1) fill-in-the-blank questions, 2) short answer questions or short essay, 3) matching, 4) multiple choice

Each question will be graded as correct or incorrect in accordance with information in the text and lectures. Exam grades will be taken as the number of points correct. Each exam will carry equal weight in the average, including the Final Exam. You MAY be exempt from the Final Exam with a 90+ overall average (Lab + Lecture)

Laboratory grades: The lab portion of the course comprises 25% of your final grade in BIOL 2420.

Letter grades will be assigned as follows:

90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, below 60 = F

Course/Classroom Policies

Students are expected to be seated by the beginning of the lecture period. Excessive unexcused absences may result in a grade of I (incomplete) and may result in dismissal from the course with a grade of F. Missing a large portion of the class will count as an absence. It is your responsibility to inform the instructor of an excused absence. An absence is excused if you are excused by the Dean to participate in an authorized College activity. Any student who is disruptive to the class or who does not abide by the classroom policies and rules as set forth by the instructor (whether verbally or in writing) will be dismissed from the class and may be dismissed from the course. Any student found with unauthorized notes (cheat sheets, electronic devices, etc.) during an exam or copying from another student's exam will be subject to disciplinary action. Any student misconduct will be reported to the Dean of Student Services.

All cell phones, pagers or similar devices should be turned off and placed out of sight during exams. No smoking or tobacco use is permitted in the building. If you smoke, please do not smoke near the entrance of the building.

Assignments and Extra Credit: On occasion, you may be given the opportunity to earn extra credit points, but this is not guaranteed. The instructor reserves the right to give extra credit in the form of pop quizzes, rewards for attendance, assignments, bonus questions, or any other method deemed appropriate by the instructor.

As a human, I can make mistakes with questions or assignments. Please reach out if you have any questions about the grades or if you notice an error.

Lecture and Exam Absences Policy: The course catalog states: "Regular and punctual attendance in all classes and labs is considered essential for optimum academic success. If the student has the equivalence of three weeks of unofficial absences in a course in which he/she is currently enrolled, the instructor may drop the student from the course with a grade of —F."

Unofficial absences are counted from the first day of class as listed in the College Calendar, regardless of the date of the student's registration. The only official absence is an authorized College activity, or an approved Leave of Absence. All work and/or assignments missed because of an official absence must be completed within two weeks or the official absence may count as unofficial. An official absence during the two-week period does not extend the deadline for the completion of assignments. Ranger College will excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day and travel for that purpose. A student whose absence is excused may not be penalized for that absence and will be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence."

A student who misses any lecture is responsible for obtaining any missed material, notes, assignments, announcements, etc. Exams are obviously very important and should be taken seriously. Students should arrive early on the scheduled exam dates and times to avoid being tardy. Students who are tardy on exam dates will not be allowed to take the regular exam and will be allowed to schedule a make-up exam only if the tardy is excused. Make-up lecture exams are given only for exams missed due to an excused absence or excused tardy. Any absence or tardy may be excused solely at the discretion of the instructor. Conflicts with work/job schedules are not considered a valid excuse for missing an exam. Speak to your job supervisor about the importance of class attendance and exam dates. You will not be allowed to make up any exams due to an unexcused absence or unexcused tardy, and you will receive a grade of Zero for the missed exam. You may be required to provide written documentation or evidence to substantiate the reason for any absence or tardy. Evidence to substantiate an excused absence or tardy may be required and authenticated prior to my scheduling a make-up lecture exam. It is the sole responsibility of the student to notify me of the intent to take a make-up and provide substantiating evidence within one week of missing an exam. **IN ORDER TO BE ELIGIBLE FOR A MAKEUP EXAM YOU MUST CONTACT ME PRIOR TO MISSING THE EXAM!!!** Failure to schedule a make-up exam within one week of missing an exam may result in the loss of make-up privilege. Make sure that you do not miss a scheduled make-up exam appointment, as it CANNOT be rescheduled. Make-up exams are normally more difficult than regular exams and may be in essay format to accommodate fairness to the students who took the regularly scheduled exam. Students are strongly urged to not miss any scheduled exams, as this could negatively impact your grade. You are required to take the Final Exam and there is **NO MAKEUP** for the Final Exam. However, you **MAY** be exempt from the Final Exam with a 90 or above average.

Non-Discrimination Statement

Admissions, employment, and program policies of Ranger College are nondiscriminatory regarding race, creed, color, sex, age, disability, and national origin.

ADA Statement

Ranger College provides a variety of services for students with learning and/or physical disabilities. Students are responsible for making initial contact with the Ranger College Counselor, Gabe Lewis (glewis@rangercollege.edu). It is advisable to make this contact before or immediately after the semester begins.

COVID-19 Policy

Ranger College is committed to providing a safe environment for students and employees. If you feel sick or have COVID-19 symptoms, or have been around people confirmed to have COVID, please follow the protocols of Ranger College and don't risk infecting others. I will do whatever I can to make sure you stay on top of the course if you do have to stay home.