

Summer II, 2019 (July 9-August 2, 2019)

Course Syllabus: MICR 2330 Microorganisms and Diseases (CRN#33479)

Classroom: College of Business Admin., Room 323

Instructor: Jianying Zhang, MD, Ph.D.

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Class Hours: MTWRF 1140-0150 pm; **Office Hours:** TR 0230-0330 pm

Class Email Account: micr2330_class@yahoo.com (please “**don’t change the password**”, this email account is very important for our whole class. ☺)

Required Materials:

Eugene W. Nester, et al. Microbiology, A Human Perspective, 7th Ed., 2009 (ISBN: 007337531).

Course Description:

- Survey of microorganisms important to humans with emphasis on pathogens;
- Diagnostic procedures for pathogenicity and immune responses to the more common pathogens.

Course Objectives:

After the completion of this course, students can understand the basic concepts and information in the science of microbiology, and are able to describe and use the general methods learned from this course to study microorganisms important to humans with emphasis on pathogens.

Evaluation:

Four exams and two projects will be given for this course. The exercises (Review Questions) that accompany each chapter will be given. The exercises encourage students to immediately use their newly acquired knowledge and, thus, by practice, improve retention.

Grading:

Your grade in this course is based on a combination of quizzes, exam, and participation in class. Grades are based on a straight percentage scale; there is no curve and no +/- grades are awarded. So, an A=100-90%, a B=89.9-80%, a C=79.9-70%, a D=69.9-60%, and F=<60%. Exams: 200 points; Projects: 60 points; Class Participation & Attendance: 40 points; Course Total: 300 points

Make-up Policy: For any reason, if you are not able to be in classroom for the quizzes/exams, you have to inform instructor before the quizzes/exams. Then the instructor can reschedule your missed quizzes/exams. Otherwise, it will result in a grade of 0% for the quizzes/exams.

Attendance, Absence and Drop Policy: Attendance in this course is critical to your success. Not only attending lecture aid in your understanding of course material, attendance is mandatory. If missing four class hours, you will be dropped from this class. If you have a serious illness or a legitimate excuse (includes military personnel called to active duty or training) for being out-of-town, make arrangements with instructor before you leave.

Academic Integrity Policy: UTEP’s policies regarding academic integrity apply in this course. Information on this policy can be found at <http://academics.utep.edu/Default.aspx?tabid=23785>

Civility Statement: Please be respectful of all students’ right to learn without disruptions. In line with this statement please make an active effort to respect the other students in the classroom. Avoid making excessive amounts of noise and try to remember to turn off your cell phone.

Disability Statement: If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

The following schedule is tentative, and the dates of lectures may be changed.

1st week:

Introduction
Ch 01: Human and the Microbial World
Ch 02: The Molecules of Life
Ch 03: Microscopy and Cell Structure
Ch 04: Dynamics of Prokaryotic Growth
Ch 05: Control of Microbial Growth
Ch 06: Metabolism: Fueling Cell Growth
Chapter Review

2nd week:

Exam 1 (Chs. 1-6)
Ch 07: The Blueprint of life, from DNA to Protein (I)
Ch 07: The Blueprint of life, from DNA to Protein (II)
Ch 08: Bacterial Genetics
Ch 09: Biotechnology and Recombinant DNA (I)
Ch 09: Biotechnology and Recombinant DNA (II)
Ch 10: Classification and Identification of Prokaryotes
Ch 12: The Eukaryotic Members of the Microbial World
Ch 13: Viruses, Viroids, and Prions
Chapter Review

3rd week:

Exam 2 (Chs. 7-13)
Ch 14: The Innate Immune Response
Ch 15: The Adaptive Immune Response
Ch 16: Host-Microbe Interactions
Ch 17: Immunologic Disorder
Ch 18: Applications of Immune Responses
Ch 19: Epidemiology
Ch 20: Antimicrobial Medications
Chapter Review

4th week:

Exam 3 (Chs. 14-20)
Ch 21: Respiratory System Infections
Ch 22: Skin Infections
Ch 24: Digestive System Infections
Ch 27: Blood and Lymphatic Infections
Ch 28: HIV Disease and Complications of Immunodeficiency
Chapter Review
Exam 4 (Chs. 21-28)