

Course Syllabus: MICR 2330-005 Microorganisms and Diseases (CRN#17387)

Classroom: College of Business Admin #313

Instructor: Jianying Zhang, MD, Ph.D., Professor, Department of Biological Sciences, UTEP

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Class Hours: TR 3:00-4:20 pm; **Office Hours:** TR 01:30-02:30 pm

Class Email Account: micr2330_class@yahoo.com

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 quizzes and two projects will be given for this course. The final examination will be comprehensive, covering all reading and lectures, and will be given during the last week of this semester. 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%. Quizzes: 180 points; Projects: 60 points; Final Exam: 130 points; Class Participation & Attendance: 30 points; Course Total: 400 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. **October 28** is the last day students may drop with an automatic "W".

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.

Revised Course Schedule (MICR2330, Fall 2016)

1st week:

Introduction
Ch 01: Human and the Microbial World

2nd week:

Ch 02: The Molecules of Life
Ch 03: Microscopy and Cell Structure

3rd week:

Ch 04: Dynamics of Prokaryotic Growth
Ch 05: Control of Microbial Growth

4th week:

Ch 06: Metabolism: Fueling Cell Growth
Ch 07: The Blueprint of life, from DNA to Protein

5th week:

Ch 08: Bacterial Genetics
Ch 09: Biotechnology and Recombinant DNA

6th week:

Quiz 1 (Chapters 1-8) & 1st Project Due
Ch 10: Classification and Identification of Prokaryotes

7th week:

Ch 12: The Eukaryotic Members of the Microbial World
Ch 13: Viruses, Viroids, and Prions

8th week:

Ch 14: The Innate Immune Response
Ch 15: The Adaptive Immune Response

9th week:

Ch 16: Host-Microbe Interactions
Ch 17: Immunologic Disorder

10th week:

Ch 18: Applications of Immune Responses
Ch 19: Epidemiology

11th week:

Quiz 2 (Chapters 9-18) & 2nd Project Due
Ch 20: Antimicrobial Medications

12th week:

Ch 21: Respiratory System Infections
Ch 22: Skin Infections

13th week:

Ch 24: Digestive System Infections
Ch 27: Blood and Lymphatic Infections

14th week:

Ch 28: HIV Disease and Complications of Immunodeficiency
Thanksgiving Holiday (no class)

15th week:

Quiz 3 (Chapters 19-22, 24, 27, 28)
Final Review

16th week:

Final Examination