**BIO 321 MICROBIOLOGY: SPRING 2016**

 I. Purpose: a study of microorganisms, bacteria, fungi, viruses, and

 rickettsia, and their interactions with humans

 II. Textbook: Microbiology: An Introduction, Brief Edition Tortora, Funke

 and Case, Benjamin Cummings/Pearson, 2005, ISBN 0-8053-

 7753-0 will be provided; Lab Notebook: In-house Production

III. Attendance/lectures: Regular and punctual attendance is expected

 of all students. The University Undergraduate Attendance Policy will

 be followed in this course

 IV. Attendance/exams: There is no excuse for missing a scheduled exam

 without contacting the instructor ahead of time. With prior

 notification, arrangements can be made to take the scheduled exam.

 There will be no makeup exams. If an exam is not taken at the

 scheduled time or by arrangement, the value of the comprehensive

 final exam is increased proportionately.

 V. Requirements: 3 hour exams + 1 comprehensive final + laboratory (see

 below for laboratory) + additional assignments as deemed appropriate

 1st exam: ‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑ 100 points

 2nd exam: -----------------‑‑‑‑‑‑‑‑‑‑‑‑‑ 100 points

 3rd exam: ----------------‑‑‑‑‑‑‑‑‑‑‑‑‑‑ 100 points

 Final exam: comprehensive + new material 150 points

 Laboratory: ---------------------------- 150 points

 Additional assignments ----------------- 50 points (optional)

 600/650 total points

 1st Exam: introduction, cell structure and physiology

 2nd Exam: genetics, survey of bacteria, fungi & viruses, topic due

 3rd Exam: disease and immunity

 Final Exam: comprehensive + applied microbiology

 VI. Laboratory: The laboratory component will count approximately 25%

 of the final grade in the course. Requirements will include two

 laboratory exams (written exams), one at mid‑term and another

 at the end of the semester), a report on a disease and a notebook of

 exercises and results. Additionally, we will view a number of

 videos as part of the lab component. Questions about material

 covered in the videos may be on both lecture and lab exams.

 Topics to be covered on laboratory exams:

 1st exam, midterm, exercises thru 7.5 ‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑‑-150 points

 2nd exam, final lab, exercises 8.1 to end, comprehensive ‑150 points

 Notebook ------------------------------------------------- 20 points

 Report on an infectious disease -------------------------- 50 points

 370 points

 The percentage of 370 points earned will be multiplied times 150

 points to determine the laboratory grade.

 The following is IMPORTANT information about the report:

 You are to use sources available in or through the Montgomery Library

 for most of your information; however, you are allowed to use

 selected internet sites, not Wikipedia! Acceptable internet sites

 would include the Centers for Disease Control, Johns Hopkins

 University, Mayo Clinic, and the Cleveland Clinic. Exceptions to

 These guidelines will be made on an individual basis. A hard copy and

 and an electronic copy will be turned in so that references can be

 verified. The report should not be over 6 pages in length with about

 4-6 references. The topic for the report will be assigned by the

 instructor, and some evidence of progress is to be produced by the

 second lecture exam.

 The report is to include information on **MORBIDITY, MORTALITY,**

 **ETIOLOGY, PATHOGENICITY, DIAGNOSIS, IMMUNOCHEMICAL CONTROL, and**

 **PUBLIC HEALTH CONSIDERATIONS.**

VII. Grading Scale: The grading scale will be a 10‑point scale based on

 a total 600 points for the entire course.

VIII. Responsibility: Students are responsible for all material covered

 or assigned in lecture and laboratory. Recording devices are not

 allowed in class or in the laboratory. Because of the nature of the

 laboratory, which uses living material, it may not be possible to

 make up laboratory work.

IX. Disability Statement

 Campbellsville University is committed to reasonable accommodations

 for students who have documented learning and physical disabilities

 as well as medical or emotional conditions. If you have a documented

 disability or condition of this nature, you may be eligible for

 disability services. Documentation must be from a licensed

 professional and current in terms of assessment. Please contact the

 Coordinator of Disability Services at 270-789-5192 to inquire about

 their services.

X. Emergency Numbers – Campus Security

 **270-403-3611 (cell)**

 **270-789-5555**

XI. Miscellaneous

 A. Electronic devices

 **ALL ELECTRONIC DEVICES INCLUDING CELL PHONES ARE TO BE TURNED OFF**

 **DURING CLASS AND DURING LAB. NO RECORDING DEVICES OF ANY TYPE**

 **INCLUDING CELL PHONES ARE ALLOWED TO BE “ON” IN CLASS OR IN LAB.**

 B. There will be a $10 fee to cover the production of the notebook,

 and the textbook will be rented for $5.

XII. Sexual Harassment Statement

 Campbellsville University and its faculty are committed to assuring a

 safe and productive educational environment for all students. In order

 to meet this commitment and to comply with Title IX of the Education

 Amendments of 1972 and guidance from the Office for Civil Rights, the

 University requires all responsible employees, which includes faculty

 members, to report incidents of sexual misconduct shared by students

 to the University’s Title IX Coordinator.

 Title IX Coordinator: Terry VanMeter, 1 University Drive, UPO Box 944

 Administration Building 8A, Phone: 270-789-5016

 Email-twvanmeter@campbellsville.edu

 Information regarding the reporting of sexual violence and the

 resources that are available to victims of sexual violence is set

 forth at: www.campbellsville.edu/titleIX

Report Topics:

1. Tuberculosis

2. Influenza

3. AIDS

4. MRSA/VRE

5. Meningitis

6. Herpes

7. Hepatitis

8. Rabies

9. Chestnut Blight

10. Histoplasmosis

11. Leprosy

12. Mad Cow Disease & variants

13. Typhoid

14. Cholera

Suggested Report Topics:

1. Evaluate the impact of AIDS on Sub-Sahara Africa

2. Analyze the nosocomial problem and hospital responses – MRSA/VRE

3. Investigate the bacterial quality of foods

4. Analyze the reasons for the return of tuberculosis

5. Investigate the threats of bioterrorism plus deterrence

6. Report on the emergence of new diseases: Hanta virus

7. Report on the emergence of new diseases: West Nile Virus

8. Investigate the Ebola Reston incident and the lessons learned

9. Report on recent trends in sexually transmitted diseases

10. Report on the history of the AIDS pandemic with emphasis on the

 situation in sub-Saharan Africa

11. Evaluate the implications of antibiotic resistant bacteria

12. Analyze the threat of meningitis on college campuses

13. Report on the history of influenza pandemics

14. Evaluate the impact of Chestnut Blight to the forest ecosystem

 including the future of the Chestnut tree.

15. Same as #14 with the American Elm tree.

Individual Diseases:

16. Tuberculosis – making a comeback.

17. Prions - Bovine Spongiform Encepahlopathy (Mad Cow Disease) – called

 “slow” viruses in some older books

18. Brucellosis

19. Cholera

20. Typhoid

21. Leprosy

22. Histoplasmosis

23. Rabies

24. Herpes viruses

25. Pox viruses

26. Hepatitis

27. Individual selection: get approval of instructor