Course: Introductory to Microbiology Laboratory - BIOL 2231
Semester: Spring 2012
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Required Textbooks:
*Microbiology Laboratory Exercises*, Pamela Fouche’, Ph.D. and Donald W. Lindsey, Ph.D.
*A&P and Microbiology Laboratory Study Disc*, 9th edition

THE LABORATORY EXERCISES CAN BE FOUND IN THE CONTENT AREA OF ELEARN FOR THIS COURSE. You must print the lab activity and bring this to the lab with you so you will have the instructions on how perform the scheduled lab. The schedule of lab exercises can be found in the Content area of eLearn. You will want to obtain a 3-ring binder to keep you lab exercises in for the semester. A 3-hole punch is available in the office area or lab for you use.

Catalog Description:
Laboratory exercises designed to demonstrate the distribution, isolation, cultivation, identification, and control of microorganisms. The use of microorganisms in biotechnology will be examined.
3 hour laboratory...........................................................................................................1 hour credit

Competencies and Objectives:
The student will be expected to:
1. Use proper sterile technique for handling microorganisms.
2. Learn the parts and correct method for usage of a standard laboratory compound light microscope equipped with an oil immersion objective.
3. Use proper techniques for preparing and heat fixing a smear and staining bacteria.
4. Carry out and interpret simple, differential and special stains.
5. Compare and contrast the cell walls of gram-positive and gram negative bacteria.
6. Understand and interpret various biochemical tests for identifying bacteria.
7. Identify various protozoa, fungi, and extracellular parasites and list the diseases which they cause.
8. Define the key terms related to the destruction or suppression of microbial growth: sterilization, disinfection, antisepsis, germicide, bacteriostasis, asepsis, degerming.
9. Describe and demonstrate the various methods used for control of microbial growth and evaluation of disinfectants and antibiotics.
10. Understand the theory behind and carry out the basic techniques used in immunology.
11. Know growth characteristics and tests for identifying various bacterial groups.
12. Carry out basic procedures used to determine water purity.

**Instructional and Evaluation Methods:**
Two laboratory exams, 6 quizzes and the identification of two unknown bacteria will be used in the assessment of progress in this lab. The exams and quizzes will focus on activities and results obtained from the laboratory exercises and assess the achievement of the learning outcomes prescribed for this course. Your attendance is essential to your success. **You are required to attend each laboratory session in its entirety. Each failure to do so without an acceptable excuse will result in 5 points being subtracted from the overall total points for each laboratory class missed.** If you cannot attend your normal laboratory section you may avoid the penalty by arranging in advance to attend a different section that week; however, this requires the advance consent of both lab instructors. It is your responsibility to make sure your regular lab instructor is aware that you attended a different section.

All lab exams are to be taken as scheduled by the instructor and all must be taken in order to receive a passing grade for the course. If you miss an exam with acceptable justification (e.g. A signed physician’s note explaining why you could not attend.) you must contact your lab instructor within 48 hours to determine if other arrangements to take the exam can be made, otherwise a grade of zero will be given for that exam. No makeups will be given for quizzes. However, you will drop the lowest quiz grade.

There will be no extra credit assignments.

**Grading Scale:**
- 2 Laboratory Exams 100 points each = 200 pts.
- 6 Quizzes (will drop one) 20 points each = 100 pts.
- 2 Unknown bacterial identification 25 point each = 50 pts.

Total 350 pts.

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\begin{align*}
A &= 90\% \text{ of } 350 = 315-350 \\
B &= 80\% \text{ of } 350 = 280-314 \\
C &= 70\% \text{ of } 350 = 245-279 \\
D &= 60\% \text{ of } 350 = 210-244 \\
F &= \text{ Less than } 210
\end{align*}
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**Course Ground Rules:**
Students should attend the first day of class or contact the instructor prior to the first class. Failure to do this may result in being dropped from the class.
Plagiarism, cheating, and other forms of academic dishonesty are prohibited.

Students with disabilities must register with Student Support Services (SSB), Room U130 (phone 423-585-6892) if they need any special facilities, services, or consideration.

Students in need of tutoring assistance are encouraged to contact the Office of Student Tutoring located in the Student Services Building (SSB), Room L107. The phone number is 423-585-6920.

Students receiving any type of financial aid or scholarship should contact the Financial Aid Office before making any changes to their schedule. Schedule changes without prior approval may result in loss of award for the current term and future terms.

Students who have not paid fees on time and/or are not correctly registered for this class and whose names do not appear on official class rolls generated by the Admissions and Records Office will not be allowed to remain in class or receive credit for this course.

Electronic devices must not disrupt the instructional process of college-sponsored academic activity. Use of electronic devices is prohibited unless use of the device is relevant to the activity and use is sanctioned by the faculty member in charge. Electronic devices that are not relevant to the activity or sanctioned by the faculty member in charge should be set so that they will not produce an audible sound during classroom instruction or other college-sponsored academic activity. (See the Walters State Catalog/Handbook)

For information related to the cancellation of classes due to inclement weather, please check the college’s Web site at www.ws.edu or call the college’s student information line, 1-800-225-4770, option 1; InfoConnect, (423) 581-1233, option 1045; the Sevier County Campus, (865) 774-5800, option 7; or the Greeneville/Greene County Center for Higher Education, (423) 798-7940, option 4. Also, please monitor local TV and radio stations for weather-related announcements. For additional information on this policy see the college catalog.

In the event of a pandemic or other college declared critical event that impacts the college’s ability to proceed with academic course activities as planned, the college reserves the right to alter this course plan. In the event of a pandemic or other event, please refer to the college’s home web page, www.ws.edu or call InfoConnect, (423) 581-1233 for further information.

Regular class attendance is a student’s obligation. (See the Walters State Catalog/Student Handbook) If for some reason a student misses class, it is his or her responsibility to see the instructor regarding missed assignments and/or activities and to be prepared for the next class. Excessive absences may substantially lower the semester grade. The college requires the instructor to keep accurate records and to report when students are not attending class.

Students are required to supply a #2 pencil for each lecture exam.
The wearing of hats and caps in class is not allowed! Students will be asked to remove their hats and caps.

Safety: SEE LAB PAGE VI FOR DETAILED GUIDELINES!
1. There will be NO food, drink or tobacco products in the laboratory.
2. Wear opened-toe shoes during lab with caution! You may not be allowed to stay in the laboratory if the lab exercise uses any sort of glassware or chemicals.
3. NO purses, bags or coats on top of the student tables.
4. NO visitors in the laboratory without prior approval of the instructor.
5. Restrain long hair due to possible contamination and fire concerns.

Your Right to Know:
Tennessee Law requires that you are provided notice that some of the laboratory exercises involve contact with chemicals which have been identified with potential health hazards. These chemicals include, but are not limited to: acetone, chloroform, formalin, acids and bases. While every effort has been made to make the materials as safe as possible these chemicals are toxic and you must be responsible for their safe handling. If you feel you may be at a higher risk then normal, if pregnant for example, we recommend you consult your physician.

WSCC Catalog Notification Statement:
All students attending Walters State Community College, regardless of the time and location of the class, must abide by the rules and regulations outlined in the current Walters State Catalog/Student Handbook and the current “Walters State Timetable of Classes.” A copy of the Catalog/Handbook and the “Timetable of Classes” may be obtained from the Admissions Office on the Main campus or at any of our off-campus sites. You may also access the Catalog/Handbook on-line at the following web address: http://www.ws.edu/catalog.

Alternative Teaching Plan
In the event of a pandemic or other college declared critical event, the lead faculty member for this course will use eLearn to communicate with the students. If the lead faculty member is affected by this event, another member from the teaching team will assume instruction for the course. The course will continue utilizing an online format of instruction and testing.

ATTENTION: The Natural Science faculty members are concerned with proper academic advising of students in ALL Pre-Professional programs. It is our explicit desire to help you with any advising problems you may encounter.