Course: Introductory Microbiology - BIOL 2230
Semester: Fall 2014/Spring 2015/Summer 2015
Instructors:
Mr. Jackie Denson, Office WSSC 201, Phone 865-774-5840
Email: Jackie_Denson@ws.edu
Dr. Lisa Eccles, Office NSCI 120, Phone 423-318-2768
E-Mail: Lisa.Eccles@ws.edu
Dr. Pam Fouche', Office NSCI 122, Phone 423-585-6874
E-Mail: Pamela_Fouche’@ws.edu
Dr. Ashley Frazier, Office NSCI 126A, Phone 423-585-6887
Email: Ashley_Frazier@ws.edu
Dr. Donald Lindsey, Office NSCI 127, Phone 423-585-6862
E-Mail: Donald.Lindsey@ws.edu
Mrs. Jaime Parman-Ryans, Office WSGC 257, Phone 423-798-7974
E-Mail: Jaime.Parman@ws.edu
Mr. Carl Robinson, Office WSCE 105, Phone 423-851-4771
E-Mail: Carl.Robinson@ws.edu

Course Supervisor
Dr. Jeff T. Horner, Dean of Natural Science, Office 126 NSCI,
Contact:
Phone: 423-585-6954, E-Mail: Jeff.Horner@ws.edu
Office Hours:
Instructors’ office hours are posted on their office doors
FAX:
423-318-2762
Secretary:
423-585-6865 (Department Assistants)

Required Textbook:

Catalog Description:
This course is a survey of microorganisms with emphasis on morphology, growth and pathogenesis of bacteria, fungi, viruses and other disease causing microorganism. Human defense mechanisms against disease are also emphasized in this course. Principles of disease and the cause, symptoms, transmissions, progressions, and treatments of infectious disease of each body system are emphasized. It is recommended that Introductory Microbiology Lab, BIOL 2231, be taken in conjunction with this course.
3 hours lecture..........................................................3 credit hours

Learning Outcomes:
At completion of the course the student will be able to:
1. Bacteria
   a. Identify the activities and persons contributing to the development of microbiology
   b. Identify classification criteria and cell structure associated with prokaryotes
2. Metabolism
   a. Define metabolism and compare anabolic, catabolic, fermentative and enzymatic activities in microorganism
3. Fungi
   a. Identify classification criteria and cell structure associated with eukaryotes
4. Viruses
   a. Describe viral replication, classification and laboratory culture methods.
5. Controls
   a. Identify the physical and chemical requirements for microbial growth and control.
6. Diseases
   a. Identify the causative agent, symptoms, transmission and treatment of various infectious diseases involving human body systems
7. Immunity
   a. Compare and contrast innate and adaptive immunities and their abilities to defend against pathogenic microorganisms.
8. DNA Technology
   a. Compare and contrast methods and benefits of biotechnology, genetic modification and recombinant DNA.

**Instructional and Evaluation Methods:**
Lecture with accompanying laboratory exercises, most material presented with overhead projections, slides, films, and computer generated presentations. Lecture examinations may include multiple choice and discussion questions. Exams and quizzes may be given electronically on ipads.

**Grading Scale:**
5 Lecture Exams @ 100 points each = 500 pts
Comprehensive Final = 200 pts
Chapter Quizzes = 150 pts
Elearn Activities = 50 pts

Total points possible = 900 pts

A= 90% of 900 (810-900 pts)
B= 80% of 900 (720-809 pts)
C= 70% of 900 (630-719 pts)
D= 60% of 900 (540-629 pts)
F= less than 60% of 900 (less than 540 pts)

**Extra Credit:**
Each professor has the option to offer the opportunity to earn up to **20** additional points through the semester. Examples include, but are not limited to, bonus questions on exams, in class quizzes, etc. The instructor’s policy will be explained in detail on the first day of class. In no instance will credit be provided for any activity not related to the scope of the course. The aim of the class is to get a solid understanding of Microbiology so that grades reflect our abilities to communicate the material and not a supplementary assignment or task. All students, especially those that feel they are struggling with the material, are strongly encouraged to use office hours, send emails, make appointments for extra help, etc. throughout the semester.
### Tentative Course Outline:

1. The Microbial World and You  
2. Functional Anatomy  
3. Microbial Metabolism  
4. Growth  
5. Control of Growth  
6. Genetics  
7. Biotechnology  
8. Classification  
9. The Prokaryotes  
10. Fungi, Protozoans, and Multicellular Parasites  
11. Viruses  
12. Principles of Disease  
13. Pathogenicity  
15. Adaptive Immunity: Specific  
16. Disorders  
17. Antimicrobial Drugs  
18. Diseases of Skin and Eyes  
19. Diseases of Nervous System  
20. Disease of Cardiovascular and Lymphatic Systems  
21. Diseases of Respiratory System  
22. Diseases of Digestive System  
23. Diseases of Urinary and Reproductive

### Exam Policy:

1. **ALL** exams are to be taken at times scheduled by the instructor.
2. **ALL** exams scheduled in the course by the instructor must be taken in order for the student to receive a passing grade.
3. Make-up exams will be given for excused absences only (excused absences include illness, death in family, and military or jury duty).
4. Make-up exams must be taken before the next scheduled exam.
5. All eLearn assignments must be submitted as scheduled.

### Course Ground Rules:

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](http://www.ws.edu/catalog)

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 in the Student Services Building, Room U134 (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, Room L107 at phone number 423-585-6920 or 423-798-7982 for the Greeneville Campus, 865-286-2787 for the Sevierville Campus, 423-851-4762 for the Claiborne Campus.

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 or 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.

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.

STAY AWAKE IN CLASS. Your mere presence in class is not sufficient—you must be able to actively process the information presented! Sleeping in class is disruptive in two ways: the student who is snoozing is not interested and not participating in the classroom discussion; secondly, sleeping in class is considered to be disrespectful to the teacher and other students. The penalty for sleeping in class may range from the student being requested to leave the class with a following conference with the instructor, to notification of the Vice-President of Academic Affairs (in the cases of habitual sleepers). If you have a medical condition that prevents you from staying awake in class, please discuss this with the instructor.

WSCC Catalog Notification Statement:
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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.

Drop Dates
The last day to drop a course or withdraw from the college-full term for Fall 2014 term is November 5, 2014.

The last day to drop a course or withdraw from the college-full term for Spring 2015 term is April 2, 2015.

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.