



Microbiology Lab – BIOLOGY (BIOL) 2117L

COURSE SYLLABUS

Summer Semester 2018

COURSE INFORMATION

Credit Hours/Minutes: 3/2250
Class Location: Health Sciences Annex (HSA)
Class Meets: Monday 8:05 – 12:55
Course Reference Number (CRN): 60143

INSTRUCTOR CONTACT INFORMATION

Instructor Name: Erica M. Harrison
Email Address: Erica.Harrison eharrison@southeasterntech.edu
Campus/Office Location: Vidalia/HSA 901
Office Hours: M-W: 1:30pm-3:30pm; R: 8:00am-Noon
Phone: (912) 538-3188
Fax: (912) 538-3156
Tutoring Hours (if applicable): By appointment only

SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's [Catalog and Handbook](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (<http://www.southeasterntech.edu/student-affairs/catalog-handbook.php>).

REQUIRED TEXT

Burton's Microbiology for the Health Sciences; Tenth Edition; Engelkirk and Burton: Copyright 2011.
Lippincott, Williams, and Wilkins. ISBN#978-1-4511-8632-1

REQUIRED SUPPLIES & SOFTWARE

Ink pens, highlighter, and any other supplies deemed necessary by the instructor.

Students should not share login credentials with others and should change passwords periodically to maintain security.

COURSE DESCRIPTION

Selected laboratory exercises paralleling the topics in BIOL 2117. The laboratory exercises for this course include microbial diversity, microbial cell biology, microbial genetics, interactions and impact of microorganisms and humans, and microorganisms and human disease.

MAJOR COURSE COMPETENCIES

1. Laboratory Safety
2. Microscope Use
3. Aseptic Technique
4. Microbial Growth

5. Microbial Diversity
6. Microbial Cell Biology
7. Microbial Genetics
8. Interactions and Impact of Microorganisms and Humans

PREREQUISITE(S)

BIOL 2113 and BIOL 2113L OR BIOL 1111 and BIOL 1111L

COREQUISITE(S)

BIOL 2117L

COURSE OUTLINE

Laboratory Safety

1. Discuss and apply laboratory exercises encompassing the appropriate practice of laboratory precautions and laboratory safety.

Microscope Use

1. Discuss and use laboratory exercises encompassing proper care and use of the microscope.

Aseptic Technique

1. Discuss and use laboratory exercises encompassing the practice and utilization of aseptic technique.
For example: Evaluate sterility testing procedures.

Microbial Growth

1. Discuss and use laboratory exercises encompassing control of microbial growth. Examples include: estimating the number of microbes in a culture medium by both direct and indirect methods, using appropriate microbiological media and test systems, cultivating specific microorganisms in various media.

Microbial Diversity

2. Perform and apply laboratory exercises encompassing microbial diversity. For example: Use staining techniques to classify specific organisms.

Microbial Cell Biology

1. Perform and apply laboratory exercises encompassing microbial cell biology. Examples include: identifying common gram negative and gram positive bacteria, executing various staining techniques in order to study the morphology of microorganisms.

Microbial Genetics

1. Perform and apply laboratory exercises encompassing microbial genetics.

Interactions and Impact of Microorganisms and Humans

1. Perform and apply laboratory exercises encompassing interactions and impact of microorganisms and humans. Examples include: determining antibiotic sensitivity, determining the impact of various disinfectants and antiseptics on microorganisms, and performing tests for detecting microbial infections.

GENERAL EDUCATION CORE COMPETENCIES

Southeastern Technical College has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

Students are responsible for the policies and procedures in the STC E-Catalog. During an examination, students

are required to place all textbooks and personal property on the floor or counter located in the back or to the side of the classroom. Students are to be seated with an empty seat between each student. No talking is allowed once the test begins. Students found with cell phone or any other personal communication device (including smart watches) during a test will be considered cheating and given a grade zero. This also applies to students who have completed/submitted test to instructor and using cell phone in classroom while testing is still in progress or others are still testing.

NO EATING/DRINKING IS ALLOWED IN LAB OR CLASSROOMS.

Students are expected to exhibit professional behavior at all times. Each student must show respect and concern for fellow students and for the course instructor. Insubordination will not be tolerated, and disciplinary measures will be enacted. No cell phones or pagers are allowed to be turned on in the classroom. Personal phone calls must be handled after class. Watches with alarms should not be programmed to sound during class.

ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of "F" (Failing 0-59) and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an "F" in a course.

ADDITIONAL ATTENDANCE PROVISIONS

Health Sciences

Requirements for instructional hours within Health Science and Cosmetology programs reflect the rules of respective licensure boards and/or accrediting agencies. Therefore, these programs have stringent attendance policies. Each program's attendance policy is published in the program's handbook and/or syllabus which specify the number of allowable absences. All provisions for required make-up work in the classroom or clinical experiences are at the discretion of the instructor.

Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course a student must attend at least 90% of the scheduled instructional time. Time and/or work missed due to tardiness or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time (90%) may be dropped from the course as stated below in the Withdrawal Procedure.

Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course. For this class, which meets 1 day a week for 10 weeks, the maximum number of days a student may miss is 1 day during the semester.

SPECIAL NEEDS

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, to coordinate reasonable accommodations.

SPECIFIC ABSENCES

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" (Withdrawn) is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of "F" being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

Remember - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

EVALUATION PROCEDURES

In order to sit for the final exam, a student must maintain a Lecture Test and Lab Test Average of 70 or above prior to the date of the scheduled final. Grades of 69.9 will not be rounded up. If the student has below a 70 average, the student will be given a letter grade based on tests average.

Final Examination: A comprehensive final examination will be given at the end of the semester. There will be no make-up exam for the final examination. Failure to take the final examination on the specified date will result in a grade of zero.

MAKEUP GUIDELINES (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC.)

Lecture examinations: Students will be allowed to make up one lecture examination (excluding the final exam), due to a documented, excused absence approved by the instructor. Any subsequently missed lecture exam will result in an automatic zero.

Lab exams: There is no make-up opportunity for lab exams.

Lecture assignments: Late assignments will be accepted but not for full credit. Assignments submitted after the due date will incur a 10% deduction per day late.

Lab assignments: Late assignments will be accepted but not for full credit. Assignments submitted after the due date will incur a 10% deduction per day late.

Laboratory activities and experiments: There will be no make-up opportunity for missed lab activities, in-class assignments, experiments, dissections, etc.

ASSIGNMENTS

Students are required to read each chapter and complete Learning Objectives listed at the beginning of each chapter. Learning Objectives should be turned in EACH WEEK in students' files in lecture classroom. Good rule of thumb...if we have covered the chapter in lecture then its learning objectives are due the next week!

Lab Notebook:

A laboratory notebook will be created by each student using a clear front report cover/binder with dividers (see required supplies page 1 of syllabus). This lab notebook will include all completed lab worksheets taken from lab workbook, handouts or assignments completed in lab, and all microscopic slide observations. In a separate section, students are to submit all learning objectives (LOs) from lecture (see lecture syllabus). Lab notebooks are due at the end of each lab session and all completed lab work and LOs should be submitted bound in clear front report cover/binder. Lab notebooks will not be taken home for any reason. All assignments completed in the lab must be turned in on the day assigned. Lab reports will remain in the lab in a locked cabinet until the next lab session.

The first page of the notebook (or in the front sleeve of the binder) will include (in typewritten format): Student's full name, course name, course number, semester and year in the above-mentioned order.

Notebooks are checked weekly and points will be deducted for any missing assignment.

ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Handbook.

PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. First Offense

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

2. Second Offense

Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

3. Third Offense

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION

The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 st Street, Vidalia Office 108 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1 st Street, Vidalia Office 138B Phone: 912-538-3230 Email: Lanie Jonas ljonas@southeasterntech.edu

ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College's website.

ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [Southeastern Technical College \(STC\) Website \(www.southeasterntech.edu\)](#).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

GRADING POLICY

Assessment/Assignment	Percentage
Lecture Exams	50%
Skill Evaluations	10%
Lab Notebook	10%
Final Exam	30%

GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

Microbiology Lab – BIOL 2117L

Summer Semester 2018 Lesson Plan

Subject to change at instructor's discretion. Any updates will be distributed in class.

Date	Chapter (Ch)	Content	Assignments & Tests Due Dates	Competency Area
05/21	Lab 1 Chapter 1-5	Introduction to lab, syllabus review, lab safety, microscope review Lab Workbook Ch 1-5 Cellular/Acellular Microbe Activity Bacterial Shapes Activity Case Study Assignments Aseptic technique introduction Plate inoculation for labs to come Submit all completed work in lab file in the back of classroom. Lab Notebooks do not go home!	Pre-lab Key Terms Chapters 1-5 due at the beginning of class. Sign lab safety handout and place in the beginning of lab notebook Place sheet of group members and member contact info in beginning of lab notebook	CC 1-5 GC 1,3
05/28		Memorial Day Holiday	No class	
06/04	Lecture Ch 11-15	Ch 11: Epidemiology and Public Health Ch 12: Healthcare Epidemiology Ch 13: Diagnosing Infectious Disease Ch 14: Pathogenesis of Infectious Disease Ch 15: Nonspecific Host Defense Mechanisms	Inoculate plates for Control of Microbial Growth Lab and disc diffusion	CC 1,3, 5-8 GC 1-3
06/11	Lecture Ch 16-21	Ch 16: Specific Host Defense Mechanisms Ch 17: Overview of Infectious Disease Ch 18: Viral Infections Ch 19: Bacterial Infections Ch 20: Fungal Infections Ch 21: Parasitic Infections	Lecture Exam 4: 11-13	CC 5-8 GC 1-3
06/18	Lab 5	Antibiotic Resistance Activity and Research Report Assigned	Lecture Exam 5: 14-17 Lab Exam 2: 9-17	CC 7-8 GC 1,3
06/25		Dental Students Report to Dr. Gramiak for Dental Checkoffs Group Assignment for remaining students (please bring laptops or tablets)		CC 1-8 GC 1,3
07/02		Fourth of July Holiday	No class	
07/09		Dental Students Report to Dr. Gramiak for Dental Checkoffs Notebook check off for remaining students		CC 1-5 GC 1-3
07/16		Case Study Presentations Dental Students Report to Dr. Gramiak for Dental Checkoffs		CC 1-8 GC 1-3
07/23		Final Exam Review		CC 1-8 GC 1-3
07/25	Ch 1-21	Finals: Lecture and Lab	Comprehensive Final	CC 1-5 GC 1-3

COMPETENCY AREAS:

1. Laboratory Safety
2. Microscope Use
3. Aseptic Technique
4. Microbial Growth
5. Microbial Diversity
6. Microbial Cell Diversity
7. Microbial Genetics
8. Interactions and Impact of Microorganisms and Humans

GENERAL CORE EDUCATIONAL COMPETENCIES:

- a) The ability to utilize standard written English.
- b) The ability to solve practical mathematical problems.
- c) The ability to read, analyze, and interpret information.

Case Study Presentation Evaluation

PRESENTATION TOPIC:

GROUP MEMBERS:

CASE STUDY PRESENTATION RUBRIC

Students must adhere to rubric to outline presentation

Section/Points Possible	Criteria	Comments	Points Earned
Introduction/Background 20 points possible	The presenter(s) introduced the case by providing: an introduction to the case, past dental history, background and health history of the patient.		
Diagnosis and Treatment 20 points possible	The presenter(s) provided adequate information on their patient's disease or disorder which includes but is not limited to: symptoms, diagnosis, treatment methods/plans, assessment and dental hygiene educational intervention.		
Ongoing Research 20 points possible	The presenter(s) adequately summarized the outcomes that should result from assessment, discussed current efforts to improve treatment (education, prevention, and self-care practices).		
Group Participation 20 points possible	All group members had equal participation which includes but is not limited to: in and out of class meeting attendance, timely correspondence and communication, and provision of pertinent information on assigned portions of project.		
Overall Presentation Quality 20 points possible	The preparation, delivery, use of visual aids and video clips were classroom appropriate, interesting, and informative. The presentation met the time limits for the assignment. Students followed instructions for the organization of the presentation. Multiple choice questions were discussed, answered and conducted as a question-answer session after the presentation.		
Total Points:			