



**CLBT 1010 INTRODUCTION TO CLINICAL LABORATORY TECHNOLOGY  
COURSE SYLLABUS  
SUMMER SEMESTER 2018**

**INSTRUCTOR CONTACT INFORMATION**

Cynthia Williams, MS, MT (AMT) (HHS)

Office Hours: 7:30-8 am; 3:30-5 pm

Office Location: 716 Gillis Building

Email Address: [Cynthia Williams \(cwilliams@southeasterntech.edu\)](mailto:Cynthia.Williams@southeasterntech.edu)

Phone: 912-538-3183

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**COURSE INFORMATION**

Credit Hours/Minutes: 2/ 3000

Class Location: Room 739 Gillis Building

Class Meets: MTW 9:15-11:30

Course Reference Number (CRN): 60183

**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**

Linne and Ringsrud's Clinical Laboratory Science: Concepts, Procedures, and Clinical Applications 7th ed., Turgeon; Elsevier

**REQUIRED SUPPLIES & SOFTWARE**

Ink pens, pencil, highlighter, permanent marker, paper and any other supplies deemed necessary by instructor. Calculator is provided.

**COURSE DESCRIPTION**

CLBT 1010 introduces students to the terms, concepts, procedures, and equipment used in a professional medical laboratory. Topics include: professional ethics and regulatory agencies; basic laboratory safety, equipment, and techniques; phlebotomy/specimen processing; related lab math; quality control concepts; process improvement; documentation and computer usage; point of care testing. Practical experience in phlebotomy will be provided in the institution laboratory and/or the clinical setting.

**MAJOR COURSE COMPETENCIES**

1. Professional Ethics and Regulatory Agencies and Laws
2. Laboratory Safety, Equipment, and Techniques
3. Phlebotomy/Specimen Processing/Point of care testing
4. Related Lab Math

5. Quality Control Concepts
6. Process Improvement
7. Documentation and computer usage

## PREREQUISITE(S)

Math 1111, BIOL 2113, BIOL 2113L, ENGL1101

## COURSE OUTLINE

### Learning Outcomes

#### Professional ethics and regulatory agencies and laws

Order	Description	Learning Domain	Level of Learning
1	Demonstrate professional and regulatory laws.	Affective	Characterization
2	Distinguish between certification, accreditation, and licensure.	Cognitive	Analysis
3	Differentiate between state and federal laboratory licensure laws.	Cognitive	Analysis
4	Illustrate a typical hospital laboratory organizational chart.	Cognitive	Comprehension
5	Discuss career ladders and continuing education opportunities.	Cognitive	Comprehension
6	Summarize legal and ethical implications of the profession.	Cognitive	Comprehension

#### Laboratory safety, equipment, and techniques

Order	Description	Learning Domain	Level of Learning
1	Demonstrate the basic use and maintenance of the following instruments: centrifuge, microscope, spectrophotometer, and balances.	Psychomotor	Guided Response
2	Measure volume using appropriate glassware and pipettes.	Psychomotor	Mechanism
3	Demonstrate safety techniques in the storage and use of chemicals and related hazardous materials.	Psychomotor	Guided Response
4	Differentiate the roles, standards and guidelines for the following agencies: Center for Disease Control and Prevention (CDC); Occupational Health and Safety Administration (OSHA); and Federal Drug Administration (FDA).	Cognitive	Analysis
5	Describe the characteristics of each link of the infection chain.	Cognitive	Comprehension
6	Define blood/air-borne pathogens.	Cognitive	Knowledge
7	Identify exposure risks related to health occupations.	Cognitive	Knowledge
8	Demonstrate pre and post exposure precautions to include handwashing, gloving (sterile/nonsterile, Personal Protective Equipment (PPE),	Cognitive	Application
9	Discuss blood borne/air borne pathogens, causative agents, modes of transmission & communicability and methods of prevention in the healthcare setting	Cognitive	Comprehension
10	Differentiate forms of immunity.	Cognitive	Analysis

#### Phlebotomy/specimen processing

Order	Description	Learning Domain	Level of Learning
1	Demonstrate proper patient identification techniques.	Cognitive	Application
2	List the anticoagulants for each color-coded evacuated tube.	Cognitive	Knowledge

3	List types and sizes of needles.	Cognitive	Knowledge
4	Assemble materials for blood collection.	Cognitive	Application
5	Identify appropriate venipuncture sites.	Cognitive	Knowledge
6	Perform appropriate venipuncture with both syringe and evacuator tube using universal precautions.	Psychomotor	Guided Response
7	List common problems related to venipuncture and the solutions.	Cognitive	Knowledge
8	Describe finger and heel stick procedures and related safety precautions.	Cognitive	Comprehension
9	Perform finger stick procedures using aseptic technique and universal precautions.	Psychomotor	Guided Response
10	Describe specimen handling and processing including variables affected by improper technique.	Cognitive	Comprehension
11	Demonstrate selected processing procedures.	Psychomotor	Guided Response

### Related lab math

Order	Description	Learning Domain	Level of Learning
1	Perform related math calculations for metric system conversion, temperature conversion, simple dilutions, total magnification and Beer's Law.	Cognitive	Synthesis

### Quality control concepts

Order	Description	Learning Domain	Level of Learning
1	Define standards and controls.	Cognitive	Knowledge
2	Identify the functions of a quality assurance program.	Cognitive	Comprehension
3	Define selected statistical terms.	Cognitive	Knowledge
4	Prepare quality control charts.	Cognitive	Application

### Process improvement

Order	Description	Learning Domain	Level of Learning
1	Describe the methods used by clinical laboratories to improve performance.	Cognitive	Comprehension

### Documentation and computer usage

Order	Description	Learning Domain	Level of Learning
1	Demonstrate ability to complete documentation in a legible manner.	Psychomotor	Guided Response
2	Explain the importance of maintaining documentation.	Cognitive	Comprehension

## 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 expected to complete all tests, assignments, and Laboratory Reports by the due dates. A ten point penalty will be assessed for each day an assignment or Laboratory Report is late. Students are required to pass all laboratory skills in three attempts. A student may not progress until skills are mastered. Students are responsible for policies, procedures, and requirements (drug screen, background check, immunizations, Fit test, CPR...) included in the STC Catalog/Clinical Laboratory Technology (CLT) handbook. Students are required to read the chapter prior to class. Tests will be timed. Points will be deducted for spelling due to Medical Liability in the work place. Laboratory results are legal documents.

## **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.

CLT 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. All 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 as noted on each syllabus will receive a "W" for the course if removed from the course on or before the 65% portion of the semester (see STC's calendar on our website for the actual date of the 65% point). After the 65% portion of the semester, the student has earned the right to a letter grade and will receive a grade for the course. 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 involved. If you are 30 minutes late to class, you are considered absent for the day.

## **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 assessed 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.

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

Exams or labs missed for any reason will be made up at the discretion of the instructor. A maximum of one exam can be made up. If more than one exam is missed the student will only be allowed to make up the first exam missed and a grade of "0" will be awarded for any other missed exams including the final. If you are 30 minutes late for class, you are considered absent and missed the test. Remember, the first test can be made up and the second will be a zero, to include the final.

## **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:

<b>American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer</b>	<b>Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer</b>
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 108 Phone: 912-538-3126 Email: <a href="mailto:hthomas@southeasterntech.edu">Helen Thomas</a> <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3147 Email: <a href="mailto:bwilcox@southeasterntech.edu">Blythe Wilcox</a> <a href="mailto:bwilcox@southeasterntech.edu">bwilcox@southeasterntech.edu</a>

### 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 \(www.southeasterntech.edu\)](http://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

Chapter test average of 70 or higher is required to sit for the comprehensive final (grades of 69.9 will not be rounded up). You MUST pass all skills in this course to pass this course. Test and labs will be timed. Points will be deducted for spelling due to Medical Liability in the work place. Laboratory results are legal documents. NO GRADES WILL BE DROPPED!!! You must receive a "C" or higher in all CLBT, core, and clinical courses to progress in the CLT program.

Assessment/Assignment	Percentage
Chapter tests	65%
Lab Reports	5%
Comprehensive Final	30%

## GRADING SCALE

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

**CLBT 1010 INTRO TO CLINICAL LABORATORY TECHNOLOGY  
SUMMER SEMESTER 2018 LESSON PLAN**

<b>WEEK</b>	<b>CHAPTER</b>	<b>CONTENT-SUBJECT TO CHANGE</b>	<b>ASSIGNMENTS &amp; TESTS DUE</b>	<b>COMP AREA</b>
1 May 15-17	1	1-Fundamentals of the clinical lab Syllabus review	Bloodborne/airborne pathogens power point HIPAA power point Intro to lab videos	Course 1,2,4,5,6 Core A,B,C
2 May 21-24	2	1 –Fundamentals of the clinical lab, cont. 2-Safety in the lab	Safety in the lab Lab - safety MSDS bleach Tubes, anticoagulants, order of draw	Course 2,5 Core A,B,C
3 May 28 Holiday! -31	4	4-Phlebotomy:Collecting and processing patient blood specimens	TEST 1 & 2 Lab -Venipuncture Dummy arms Tube ID HO Venipuncture videos Handwashing/Deglove What tube? order of draw	Course 1-8 Core A,B,C
4 June 4-7	6	6- Systems of measurement, Laboratory Equipment, and Reagents	Venipuncture continued Venipuncture practice Dummy arms Live draws (student-student) Tube ID Venipuncture skills lab grade Manual and automated pipettes Dilution lab/ 1:10 bleach solution	Course 2,3,4,5,6,8 Core A,B,C
5 June 11-14	5	5-Microscope	TEST 4 & 6 Lab -Microscope ID parts/clean/focusing View hematology cells, bacteria, parasites, pond water, urine	Course 2,4,8 Core A,B,C
6 June 18-21	7,8	7-Lab math and solution preparation Linearity 8-Basic and Contemporary techniques	Lab- Serial dilutions/ Syringe draw Beer's Law calculation Western Blot, Flow Cytometry, ELISA, PCR, FISH Beckman-Coulter DXC Electrophoresis- protein and Hgb	Course 2,4,5,6,8 Core A,B,C
7 June 25-	3	3- Quality Assessment and Quality Control in the Clinical Laboratory	Test 5, 7,8 Lab 6	Course 1,4,5,6,8



WEEK	CHAPTER	CONTENT-SUBJECT TO CHANGE	ASSIGNMENTS & TESTS DUE	COMP AREA
27 OFF JULY 2-5			Patient Normal ranges SD/CV/shift/trend Linearity/ correlation Westgard rules Peer review Correlations Proficiency surveys 6 steps: troubleshooting QC Polanski cards pg. 46-57 & 59-60	Core A,B,C
8 July 9-12	3,9	3- Quality Assessment and Quality Control in the Clinical Laboratory – continue chapter 9 – Delivery of Laboratory Testing: From Point of Care to Total Automation	SD/CV practice Review QC What do I do? HO Flow of lab	Course 1-8 Core A,B,C
9 July 16-19	All	Review	TEST 3 & 9 Lab 7 Pregnancy test Finger stick lab Review lab reports Videos on automation Review for test Polanski cards 41-45	Course 2,4,5,6,8 Core A,B,C
10 Finals July 24 & 25	Final	Review for final	Final	Course 1-8 Core A,B,C

#### MAJOR COURSE COMPETENCIES:

- 1 Professional Ethics and Regulatory Agencies and Laws
2. Laboratory Safety, Equipment, and Techniques
3. Phlebotomy/Specimen Processing/Point of care testing
4. Related Lab Math
5. Quality Control Concepts
6. Process Improvement
7. Documentation and computer usage

#### 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