



**CLBT 1050 Serology/Immunology  
Course syllabus  
Summer Semester 2016**

**Semester:** Summer 2016  
**Course Title:** Serology/Immunology  
**Course Number:** CLBT 1050  
**Credit Hours/ Minutes:** 3/3750  
**Class Location:** Room #739 Gillis Building  
**Class Meets:** MTW 12:30pm-3:30pm  
**CRN:** 60120

**Instructor:** Cynthia Williams, MS, MT(AMT)(HHS)  
**Office Hours:** 7:30-8am;3:30-5pm  
**Office Location:**716 Gillis Building  
**Email Address:** cwilliams@southeasterntech.edu  
**Phone:** 912-538-3183  
**Fax Number:** 912-538-3106

**REQUIRED TEXT:** *Immunology and Serology in the Laboratory Medicine, Turgeon 5th Edition*

**REQUIRED SUPPLIES & SOFTWARE:** Ink pens, pencil, highlighter, permanent marker, paper and any other supplies deemed necessary by instructor.

**METHODS OF INSTRUCTION:**

May include, but not limited to, lectures, discussions, videos, laboratory skills, and handouts.

**COURSE DESCRIPTION:**

Introduces the fundamental theory and techniques applicable to serology and immunology practice in the medical laboratory. Topics include: immune system, antigen and antibody reactions, immunological diseases, related lab math, common serological techniques, safety and quality control, and process improvement.

**MAJOR COURSE COMPETENCIES:**

- 1-Immune System
- 2-Antigen and Antibody Reactions
- 3-Immunological Diseases
- 4-Related Lab Math
- 5-Common Serological Techniques
- 6-Safety and Quality Control
- 7-Process Improvement

**General Core Educational Competencies:** STC has identified the following general education core competencies that graduates will attain:

- 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.

**PREREQUISITE(S):** MATH 1111, BIOL 2113, BIOL 2113L, ENGL1101, CLBT 1010

**Learning Outcomes**

### Immune system

Order	Description	Learning Domain	Level of Learning
1	Describe immune system characteristics.	Cognitive	Knowledge
2	Discuss the immune defense system roles and functions.	Cognitive	Comprehension

### Antigen and antibody reactions

Order	Description	Learning Domain	Level of Learning
1	Define selected terms.	Cognitive	Knowledge
2	Interpret immunoglobulin structures and functions.	Cognitive	Comprehension
3	Discuss the characteristics and functions of the complement system.	Cognitive	Knowledge
4	Distinguish the basic concept and reactions of the serologic tests.	Cognitive	Analysis

### Immunological diseases

Order	Description	Learning Domain	Level of Learning
1	Correlate clinical symptoms and test results with immunological/serological diseases	Cognitive	Analysis
2	Recognize normal and abnormal test results.	Cognitive	Analysis

### Related lab math

Order	Description	Learning Domain	Level of Learning
1	Apply and perform dilutions, serial dilutions, and calculation of titers to serological test procedures.	Psychomotor	Mechanism

### Common serological techniques

Order	Description	Learning Domain	Level of Learning
1	Describe serological tests for syphilis, viruses, bacteria, and miscellaneous microorganisms.	Cognitive	Knowledge
2	Perform selected serological tests.	Psychomotor	Guided Response
3	Evaluate serological result and normal value recording and reporting.	Cognitive	Evaluation

4	Identify proper specimen collection and handling techniques.	Cognitive	Knowledge
5	Define and describe the principles of common Molecular Diagnostic Techniques.	Cognitive	Knowledge

### Safety and quality control

Order	Description	Learning Domain	Level of Learning
2	Identify sources of error in serologic testing.	Cognitive	Knowledge
3	Perform and set-up selected quality control and safety procedures.	Psychomotor	Guided Response
4	Comply with safe work habits in the performance of serological testing.	Affective	Receiving
5	Demonstrate ability to document quality control and patient results in a legible manner.	Psychomotor	Guided Response

### Process improvement

Order	Description	Learning Domain	Level of Learning
1	Identify methods used to improve performance in the immunology department.	Cognitive	Knowledge
2	Consider the ethical issues associated with communicable immune system diseases.	Affective	Valuing

**STUDENT REQUIREMENTS: Students are required to wear name badges.** 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/CLT handbook*. Students are required to read the chapter prior to class. Test will be timed. Points will be deducted for spelling due to Medical Liability in the work place. Laboratory results are legal documents.

**No cell phones allowed. If you are caught using the cell phone, you will be asked to leave class and receive an “early departure” for the class.** (Note: Three (3) tardies or early departures equal one (1) absence for the course involved.) **If you are 30 minutes late to class, you will receive an absence for the day.**

**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 also 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 and face financial aid repercussions in upcoming semesters.

### **ADDITIONAL ATTENDANCE PROVISIONS**

#### ***Health Sciences***

Requirements for instructional hours within Health Science 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. If you are 30 minutes late to class, you are considered absent for the day.

**For this class, which meets 3 days a week for 10 weeks, the maximum number of days a student may miss is 3 days during the semester.**

Withdrawing from Learning Support and/or College Success and Survival Skills courses are not permitted unless the student intends to withdraw totally from the College.

**TRADITIONAL ATTENDANCE ADDENDUM:** For this class, which meets 3 days a week for 10 weeks, the maximum number of days a student may miss is 3 days during the semester.

**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.

**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 Jan Brantley, Room 2105 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.

#### **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 the Special Needs Office. Swainsboro Campus: Jan Brantley, Room 1208, (478) 289-2274 -- Vidalia Campus: Helen Thomas, Room 108, (912) 538-3126.

**MAKEUP GUIDELINES:** 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.**

**ACADEMIC DISHONESTY POLICY:** The STC Academic Dishonesty Policy states *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 *STC Catalog and Student Handbook.*

#### **Procedure for Academic Misconduct**

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

##### **--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.

##### **--Second Offense--**

Student is given a grade of **"WF" 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.

##### **--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 second 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:** Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era 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).

**GRIEVANCE PROCEDURES:** Grievance procedures can be found in the Catalog and Handbook located on STC'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 STC website at [www.southeasterntech.edu](http://www.southeasterntech.edu).

**GRADING: Chapter test average of 70 or higher is required to sit for the final exam (grades of 69.9 will not be rounded up: Chapter tests will determine this grade (no lab grades will be included).**

**Only one makeup exam will be given for chapter test. If you miss a second exam you will receive a zero for the second exam missed. 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.**

**GRADING POLICY**

**Chapter test =65%**

**Lab Reports = 5%**

**Comprehensive final =30%**

**GRADING SCALE**

A: 90-100

B: 80-89

C: 70-79

D: 60-69

F: 0-59

**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.*

**CLBT 1050 Serology/Immunology  
Summer Semester Lesson Plan 2016**

**Lesson Plan is subject to change at the discretion of the instructor.**

<b>Week</b>	<b>Chap / Less</b>	<b>Content</b>	<b>Tests Labs</b>	<b>Comp Area</b>
<b>Week 1 May 18</b>				
1	6	Syllabi review Hematopoiesis chart Cell function chart	TCSG standards assigned Graft vs. host article assignment Cell lineage chart and CBC normal values Electrophoresis research	Course 1,2,3,4,5,6 Core A,C
<b>Week 2 May 23-25</b>				
2	1,7	Overview of Immunology Safety, QA, QC		Course 1,4,5,6 Core A,C
<b>Monday Holiday! Week 3 May 31-June 1</b>				
3	2,3	Antigen/ Antibody Cells and cellular activity of the immune system; grans and monos	<b>Test 1,6,7</b> Research segmented neutrophils and macrophages. Lab- draw blood Blood type-forward Khan videos Electrophoresis video Microscope- ID: seg, lymph, mono, RBC's	Course 1,2,3 Core A,C
<b>Week 4 June 6-8</b>				
4	4	Cells and cellular activity of the immune system: plasma cells and lymphs	Research Lymphocytes Graft vs. host article discussion Khan videos Serum protein electrophoresis HO	Course 1,2,3,4,5,6 Core A,C
<b>Week 5 June 13-15</b>				
5	5,10	Soluble mediators of the immune system Agglutination methods	<b>Test 2,3,4</b> Power point PCR, ELISA... UNK HO techniques Pregnancy test	Course 1,2,3,4,5,6 Core A,C
<b>Week 6 June 20-22</b>				
6	11,14	Electrophoresis techniques Molecular techniques	Lab - RSV, CRP, RPR Electrophoresis video Research electrophoresis.	Course 1,2,3,4,5,6 Core A,C

<b>Week 7 June 27-29</b>				
7	15,17 18,19	Immune response to Infectious disease Streptococcal infection Syphilis Vector-borne diseases	<b>Test 5,10,11,14</b> Lab 4 ASO, Strep kit, RPR Research Lupus.	Course 1,2,3,4,5,6 Core A,B,C
<b>Holiday week July 4-7</b>				
<b>Week 8 July 11-13</b>				
8	20,21, 22	Toxoplasmosis Cytomegalovirus Infectious mono	<b>Test 15,17,18,19</b>  Lab 5- Mono kit	Course 1,2,3 Core A,B,C
<b>Week 9 July 18-20</b>				
9	23,24, 25	Viral Hepatitis Rubella HIV	Lab 6- Rubella kit Discuss performance improvement Troubleshooting/ Possible errors in testing Case studies	Course 1-7 Core A,B,C
<b>Week 10 July 25-27</b>				
10		Review	TCSG standards due AAB practice test <b>Final Wednesday</b>	Course 1-7 Core A,B,C

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