



TENTATIVE—SUBJECT TO CHANGE

CLBT 1060 Immunohematology COURSE SYLLABUS Spring Semester 2022 (202214)

COURSE INFORMATION

Credit Hours/Minutes: 4 credit hours/ 6000 minutes

Campus/Class Location: Vidalia Campus, Gillis Building, Room 739

Class Meets: MTW, 8:15 AM -11:00 AM

Course Reference Number (CRN): 40178

INSTRUCTOR CONTACT INFORMATION

Instructor Name: Rebecca James, B.S., MLS(ASCP)^{CM}

Email Address: rjames@southeasterntech.edu

Preferred method of contact: Email, GroupMe, or Microsoft Teams

Campus/Office Location: Vidalia campus, Gillis Building, Office 716

Office Hours: 7:30-8:00 am; 4:00-5:00 pm

Phone: 912-538-3183

Fax Number: 912-538-3106

Tutoring Hours (if applicable): By appointment

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](https://catalog.southeasterntech.edu/college-catalog/downloads/current.pdf) (<https://catalog.southeasterntech.edu/college-catalog/downloads/current.pdf>).

REQUIRED TEXT

Basic and Applied Concepts of Blood Banking and Transfusion Practices, 5th edition, Paula R. Howard

REQUIRED SUPPLIES & SOFTWARE

Pen, pencil, paper, highlighter, Sharpie marker, notebook, computer and internet access, black scrubs, personal lab coat, closed toe shoes, and any other supplies deemed necessary by instructor.

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

COURSE DESCRIPTION

Course provides an in-depth study of immunohematology principles and practices as applicable to medical laboratory technology. Topics include: genetic theory and clinical applications, immunology, donor unit collection, related lab math, pre-transfusion testing, management of disease states and transfusion reactions, safety and quality control, and process improvement.

MAJOR COURSE COMPETENCIES

1. Genetic Theory and clinical applications
2. Immunology
3. Donor unit collection
4. Related lab math
5. Pre-transfusion testing
6. Management of disease states and transfusion reactions
7. Safety and quality control
8. Process improvement

PREREQUISITE(S)

MATH 1111, BIOL 2113, BIOL 2113L, ENGL1101, CLBT 1050

COURSE OUTLINE

Genetic theory and clinical applications

Order	Description	Learning Domain	Level of Learning
1	Discuss Mendelian genetics and laws of inheritance.	Cognitive	Comprehension
2	Define selected terms.	Cognitive	Knowledge
3	Formulate genotypes and phenotypes.	Cognitive	Synthesis

Immunology

Order	Description	Learning Domain	Level of Learning
1	Relate the role of defense in the body.	Cognitive	Application
2	Differentiate between the types of acquired immunity.	Cognitive	Analysis
3	Describe red blood cell antigens.	Cognitive	Knowledge
4	Describe blood group antibodies.	Cognitive	Knowledge
5	Correlate the role of complement in blood banking.	Cognitive	Analysis
6	Evaluate antigen/antibody reactions.	Cognitive	Evaluation

Donor unit collection

Order	Description	Learning Domain	Level of Learning
1	Identify donor selection criteria.	Cognitive	Knowledge
2	Correlate donor selection techniques.	Cognitive	Analysis
3	Describe the end products of hemapheresis and their uses.	Cognitive	Knowledge
4	Discuss blood component therapy.	Cognitive	Comprehension
5	List accepted blood storage and shipping requirements.	Cognitive	Knowledge

Related lab math

Order	Description	Learning Domain	Level of Learning
1	Demonstrate knowledge and ability to use laboratory math to calculate and resolve problems related to immunohematology.	Cognitive	Application
2	Perform related math calculations for dilutions, preparation of %RBC solutions, and Fetal-dex.	Cognitive	Synthesis

Pre-transfusion testing

Order	Description	Learning Domain	Level of Learning
1	Discuss ABO blood group systems.	Cognitive	Comprehension
2	Perform ABO grouping.	Psychomotor	Guided Response
3	Evaluate ABO discrepancies.	Cognitive	Evaluation
4	Discuss Rh/Hr blood group systems.	Cognitive	Comprehension

Order	Description	Learning Domain	Level of Learning
5	Convert Rh/Hr nomenclatures.	Cognitive	Comprehension
6	List Rh/Hr antigens.	Cognitive	Knowledge
7	List and discuss Rh/Hr antibodies and their clinical significance.	Cognitive	Knowledge
8	Perform Rh testing, Du testing, and titers.	Psychomotor	Guided Response
9	Describe other antigen systems.	Cognitive	Knowledge
10	List antibodies and describe characteristics.	Cognitive	Knowledge
11	Relate antibodies to specified antigens.	Cognitive	Application
12	Discuss the clinical significance of antibody/antigen relationship.	Cognitive	Comprehension
13	Perform selected tests.	Psychomotor	Guided Response
14	Perform selected special techniques, such as elutions and absorptions, prenatal and postnatal transfusions, alloantibody identification, multiple antibodies identification, and enzyme techniques.	Psychomotor	Guided Response
15	Recognize common problems and sources of error.	Cognitive	Analysis
16	Perform compatibility testing.	Psychomotor	Guided Response
17	Interpret and resolve compatibility test results.	Cognitive	Comprehension

Management of disease states and transfusion reactions

Order	Description	Learning Domain	Level of Learning
1	Describe transfusion reaction investigations.	Cognitive	Knowledge
2	Describe selected hemolytic diseases (e.g., autoimmune hemolytic anemia, hemolytic disease of newborn) and supporting test procedures (e.g., cord blood studies).	Cognitive	Knowledge
3	Perform selected tests.	Psychomotor	Guided Response

Safety and quality control

Order	Description	Learning Domain	Level of Learning
1	Set up and perform selected quality control and safety procedures.	Psychomotor	Guided Response

Process improvement

Order	Description	Learning Domain	Level of Learning
1	Discuss methods used to improve performance in the immunohematology lab.	Cognitive	Comprehension
2	Consider the ethical issues associated with transfusions.	Affective	Valuing

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 exams and daily assignments. Students are required to read the chapter prior to class. A 10 point penalty will be assessed for all late assignments.
- Chapter test average (no lab grades) of 70% or above must be obtained in order to take the comprehensive final exam. (Grade of 69.9 will **NOT** be rounded up.) An average grade of 70% between unit exams, labs, and the final must be obtained in order to advance in the program. If the student fails to meet the unit exam/final exam expectations, the student will receive a W for academic deficiency.
- Students are required to pass all laboratory skills in **THREE** attempts. A student may not progress until skills are mastered.
- If a student shows up late for class on an exam date or is not prepared to start the test on time, the student may not be allowed to take the exam once the faculty has shut the door. The student will have to make up the test and this will be counted as their opportunity for a make-up exam. Students may be provided time to look at their exam score in class and a general discussion may occur; however, due to time constraints, students are encouraged to schedule an appointment with their instructor to view and get further explanation on the missed concepts.
- No talking is allowed once the exam begins. Once the exam begins, students will not be allowed to exit the classroom until the exam is completed and/or turned into the instructor. Smart watches, cell phones, or any other electronic devices will not allowed during exams. Students found with electronic/communication devices during the exam will be considered cheating; which will result in a zero for the exam.
- No assignment opportunities will be given for extra credit. No scores will be rounded. This rule applies to every grade issued during the semester. All final averages will be recorded as is (ie a 69.9 is a 69.9). No grades will be dropped.
- Points **WILL BE** deducted for spelling due to medical liability in the work place. Laboratory results are legal documents.
- Students are required to wear name badge. Students must wear black scrubs, closed toe shoes, gloves, and lab coat while in the lab.
- Students are responsible for policies, procedures, and all requirements (drug screen, background check, immunizations, Fit test, CPR...) included in the STC E-Catalog/CLT handbook.
- No cell phones will be allowed while instructor is lecturing or in the lab. 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. If you are 30 minutes late to class, you will receive an absence for the day.)
- Students are expected to exhibit professional behavior at all times. You represent Southeastern Technical College AND the Clinical Laboratory Technology program. 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 enforced.
- The student must utilize all time in the lab. Talking with peers is not permitted in the clinical area unless permission is given by the instructor. Idle time is prohibited. If a student does not utilize lab time for skills development, a minimum of 1 point will be deducted each day from the final course grade for professional development infractions.

COVID-19 MASK REQUIREMENT

Regardless of vaccination status, students are highly encouraged to wear masks or face coverings while in a classroom or lab at Southeastern Technical College. Masking may be implemented in some program areas (i.e. Health Sciences and Cosmetology) where students, faculty, and clients are in close proximity and social distancing cannot be maintained. This measure is being implemented to reduce COVID-19 related health risks for everyone engaged in the educational process. Masks or face coverings must be worn over the nose and mouth, in accordance with the Centers for Disease Control and Prevention (CDC).

COVID-19 SIGNS AND SYMPTOMS

We encourage individuals to monitor for the signs and symptoms of COVID-19 prior to coming on campus.

If you have experienced the symptoms listed below or have a body temperature 100.4°F or higher, we encourage you to self-quarantine at home and contact a primary care physician's office, local urgent care facility, or health department for further direction. Please notify your instructor(s) by email and do not come on campus for any reason.

COVID-19 Key Symptoms
Fever or felt feverish
Chills
Shortness of breath or difficulty breathing (not attributed to any other health condition)
Fatigue
Muscle or body aches
Headache
New loss of taste or smell
Sore throat (not attributed to any other health condition)
Congestion or runny nose (not attributed to any other health condition)
Nausea or vomiting
Diarrhea
In the past 14 days, if you:
Have had close contact with or are caring for an individual diagnosed with COVID-19 at home (not in healthcare setting), please do not come on campus and contact your instructor (s).

COVID-19 SELF-REPORTING REQUIREMENT

Students, regardless of vaccination status, who test positive for COVID-19 or who have been exposed to a COVID-19 positive person, are required to self-report using <https://www.southeasterntech.edu/covid-19/>. Report all positive cases of COVID-19 to your instructor and [Stephannie Waters](mailto:swaters@southeasterntech.edu), Exposure Control Coordinator, swaters@southeasterntech.edu, 912-538-3195.

ATTENDANCE GUIDELINES

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.

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.

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 (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 3 days a week for 15 weeks, the maximum number of days a student may miss is 5 days during the semester.

Procedures of the program may be reviewed on an individual basis related to extenuating circumstances related to COVID.

STUDENTS WITH DISABILITIES

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact the appropriate campus coordinator to request services.

Swainsboro Campus: [Daphne Scott \(dscott@southeasterntech.edu\)](mailto:dscott@southeasterntech.edu) 478-289-2274, Building 1, Room 1210.

Vidalia Campus: [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165.

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 make arrangements with the appropriate campus coordinator.

Swainsboro Campus: [Daphne Scott \(dscott@southeasterntech.edu\)](mailto:dscott@southeasterntech.edu) 478-289-2274, Building 1, Room 1210.

Vidalia Campus: [Helen Thomas \(hthomas@southeasterntech.edu\)](mailto:hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165.

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery MAY NOT be accommodated. The coordinator will contact your instructor to discuss

accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (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 for the course(s) when the student completes the withdrawal form.

Important – Student-initiated withdrawals are not allowed after the 65% point. Only instructors can drop students after the 65% point for violating the attendance procedure of the course. Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above.

Students who are dropped from courses due to attendance after drop/add until the 65% point of the semester will receive a “W” for the course. Students who are dropped from courses due to attendance after the 65% point will receive a WP (Withdrawal Passing) or a WF (Withdrawal Failing). Students will receive a grade of **zero** for all assignments missed beginning with the Last Date of Attendance (LDA) and the date the student exceeds the attendance procedure.

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 also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. A grade 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. You will receive zero’s for all assignments until appropriate steps are taken.

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

- Students are allowed to make up only one missed exam excluding the final examination. This is only if they have an excused absence approved by the instructor. The makeup exam may be given in a different format than the original exam. A doctor’s excuse and/or additional documentation will be requested. **Five points will be deducted** from the test for taking the test late. All other missed exams will result in a grade of zero.
- If you enter the classroom late, you will not be allowed to take the exam, and you will be issued a grade of zero for the exam. PLEASE be on time! If I beat you to class, you are counted tardy.
- Failure to complete any homework assignments will result in one point being deducted from the final course grade for each assignment not completed by the deadline specified. Late or incomplete assignments will still need to be completed and turned in for instructor review and feedback. If you are going to be absent, you should deliver your assignment to your instructor prior to the deadline to ensure credit.
- Extenuating circumstances are determined at the instructor’s discretion. Failure to follow all procedures will result in a grade of zero. Procedures of the program may be reviewed on an individual basis related to extenuating circumstances/COVID.

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

As set forth in the student catalog, Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

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 165 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 \(www.southeasterntech.edu\)](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

Assessment/Assignment	Percentage
Chapter tests	60%
Labs	5%
Laboratory Final (Part 1 & 2 avg.)	15%
Comprehensive Final Test	20%

GRADING SCALE

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

CLBT 1060 Immunohematology Spring Semester 2022 Lesson Plan

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 1 1/10-1/13	Introduction Chapter 1 Chapter 2	Review Syllabi and Course Expectations QA and Regulation of the Blood Industry and Safety Issues in Blood Bank Immunology: Basic Principles and Applications	Chapter 1 PPT Chapter 2 PPT Handouts, Cell suspensions, cell washing, grading reactions	2 A,C
Week 2 1/17-1/20 *MLK Day 17th-OFF	Chapter 2 Chapter 3	Immunology cont. Blood bank reagents	Chapter 2 PPT Chapter 3 PPT Introduction video What Serum/What cell Students draw	1,2,5 A,C
Week 3 1/24-1/27	Chapter 3 Chapter 4	Blood bank reagents cont. Blood Banking Genetics	Chapter 3 PPT Chapter 4 PPT Type and screen/comp xmatch DAT Students Draw	1 A,C
Week 4 1/31-2/3	Chapter 5	ABO	Test 1,2,3,4 Chapter 5 PPT Practice sheet- what serum?/what cell? Type and screen, xmatch Students draw	2,5 A,C
Week 5 2/7-2/10	Chapter 6	Rh	Chapter 6 PPT Du Type and screen(pos screen)/panel ID Rh HO/ Practice DCE	1,2,4,5 A,C
Week 6 2/14-2/17	Chapter 7	Other Blood groups	Chapter 7 PPT Type and screen, xmatch: hospital samples Ag typing and QC HO: Ab chart	1,2,4,5 A,B,C7
Week 7 2/21-2/24	Chapter 8	Antibody ID	Chapter 8 PPT Panels TS, xmatch Pos Ab screen and panel ID	1,2,4,5,6 A,B,C

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
Week 8 2/28-3/3	Chapter 11	Adverse Complications of Transfusions	Test 5,6,7,8 Chapter 11 PPT Type, screen and x match 100% skills test Compatible types	
Week 9 3/7-3/10	Chapter 12	Hemolytic Disease of the Fetus and Newborn	Chapter 12 PPT QC BB reagents Gel xmatch/Ab screen DAT, Du	3,5,6 A-C
Week 10 3/14-3/17	Chapter 16	Transfusion therapy in selected patients	Chapter 16 PPT Type, screen and x match	3-7 A-C
Week 11 3/21-3/24	Chapter 9 Chapter 13	Donor selection and Phlebotomy	Test 9,11,12 Chapter 9 PPT Chapter 13 PPT Type, screen and x match Transfusion reaction workup	3-7 A-C
Week 12 3/28-3/31	Chapter 14	Testing of Donor Blood	Chapter 14 PPT Rh immune globulin/Rosette test(fetal screen)	1,2,3,6 A-C
Week 13 4/4-4/7 *SB 4/4-4/7- OFF	Spring Break	SPRING BREAK	Read Chapter 15 Spring Break	1-7 A-C
Week 14 4/11-4/14	Chapter 15	Compatibility Testing Blood component Preparation and Therapy	Chapter 15 PPT T/S/XM QC BB Reagents Extra lab time	1-7 A-C
Week 15 4/18-4/21	Review	Review all charts, procedures, Polanski cards.	Test 9, 13,14,15 Extra lab time <i>100% Procedure skills-Verbal</i>	7,8 A-C
Week 16 4/25-4/28	Review	Review	Review <i>MOCK BB practice final</i>	7,8 A-C
Week 17 5/2-5/5	Finals	Finals	Lab Final part 1 Lab Final part 2 Comprehensive Final	7,8 A-C

COMPETENCY AREAS:

1. Genetic Theory and clinical applications
2. Immunology
4. Donor unit collection
5. Related lab math
6. Pre-transfusion testing
7. Management of disease states and transfusion reactions
8. Safety and quality control
9. Process improvement