



**CLBT 2090 Clinical Urinalysis, Serology, and Preanalytical Specimen Process
Practicum
Fall Semester 2018**

COURSE INFORMATION

Credit Hours/Minutes: 3/6750 minutes
Class Location: clinical site
Class Meets: M-F
CRN: 20278

INSTRUCTOR CONTACT INFORMATION

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

REQUIRED TEXT

BOC Study Guide 5th ed. ASCP and Polanski review cards, V. Polanski

REQUIRED SUPPLIES & SOFTWARE

Ink pens, pencil, highlighter, permanent marker, paper, pocket notebook, Polanski review cards and any other supplies deemed necessary by instructor. Lab coats with STC patch and uniforms. Students should not share login credentials with others and should change passwords periodically to maintain security.

COURSE DESCRIPTION

Course provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical laboratory job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follows through. Topics include: urinalysis tests, serological tests and techniques, blood and specimen processing, correlation of test results to disease states, safety and quality control, and quality assurance. The clinical practicum is implemented through the use of written training plans, written performance evaluation, and coordinated supervision.

MAJOR COURSE COMPETENCIES

- 1-Urinalysis tests
- 2-Serological tests and techniques
- 3-Blood and specimen processing
- 4-Correlation of test results to disease states
- 5-Safety and quality control

6- Quality assurance

PREREQUISITE(S)

CLBT 1010, CLBT 1030, CLBT 1050

COURSE OUTLINE

| ORDER LEARNING OUTCOMES | DESCRIPTION URINALYSIS TESTS | LEARNING DOMAIN | LEVEL OF LEARNING |
|--------------------------------|---|------------------------|--------------------------|
| 1 | Fulfill all federal, state, and local requirements in preparation for testing. | Cognitive | Application |
| 2 | Perform urinalysis testing techniques. | Psychomotor | Guided Response |
| 3 | Describe abnormal results associated with certain diseases. | Cognitive | Comprehension |
| 4 | Follow procedures for reporting marked abnormalities by immediately reporting abnormal or critical results to a supervisor. | Affective | Valuing |
| 5 | Demonstrate ability to complete documentation in a legible manner and operate laboratory information computer systems | Psychomotor | Guided Response |

| ORDER LEARNING OUTCOMES | DESCRIPTION SEROLOGICAL TESTS AND TECHNIQUES | LEARNING DOMAIN | LEVEL OF LEARNING |
|--------------------------------|---|------------------------|--------------------------|
| 1 | Fulfill all federal, state, and local requirements in preparation for testing. | Cognitive | Application |
| 2 | Perform serology testing techniques. | Psychomotor | Guided Response |
| 3 | Relate any marked abnormalities immediately to supervisor. | Affective | Organization |
| 4 | Demonstrate ability to complete documentation in a legible manner and operate a laboratory information computer system. | Psychomotor | Guided Response |

| ORDER LEARNING OUTCOMES | DESCRIPTION BLOOD AND SPECIMEN PROCESSING | LEARNING DOMAIN | LEVEL OF LEARNING |
|--------------------------------|---|------------------------|--------------------------|
| 1 | Fulfill all federal, state, and local requirements in preparation for testing. | Cognitive | Application |
| 2 | Demonstrate all techniques associated with blood and specimen collecting and processing. | Psychomotor | Guided Response |
| 3 | Recognize criteria for specimen rejection. | Cognitive | Analysis |
| 4 | Relate any marked abnormalities immediately to a supervisor. | Affective | Organization |
| 5 | Demonstrate ability to complete documentation in a legible manner and operate a laboratory information computer | Psychomotor | Guided Response |

| ORDER LEARNING OUTCOMES | DESCRIPTION | LEARNING DOMAIN | LEVEL OF LEARNING |
|-------------------------|--------------------------------------|-----------------|-------------------|
| | BLOOD AND SPECIMEN PROCESSING | | |
| | system. | | |

| ORDER LEARNING OUTCOMES | DESCRIPTION | LEARNING DOMAIN | LEVEL OF LEARNING |
|-------------------------|--|-----------------|-------------------|
| | CORRELATION OF TEST RESULTS TO DISEASE STATES | | |
| 1 | Assess normal and abnormal results in relation to disease processes. | Cognitive | Application |
| 3 | Report any marked abnormalities immediately to a supervisor. | Cognitive | Application |
| 4 | Evaluate all critical level test results. | Cognitive | Evaluation |

| ORDER LEARNING OUTCOMES | DESCRIPTION | LEARNING DOMAIN | LEVEL OF LEARNING |
|-------------------------|---|-----------------|-------------------|
| | SAFETY AND QUALITY CONTROL | | |
| 1 | Discuss and apply all federal, state, and local safety procedures associated with lab processing and testing. | Cognitive | Application |
| 2 | Adhere to and utilize quality control procedures. | Cognitive | Application |
| 3 | Comply with legal and ethical principles in practice of phlebotomy, urinalysis and serology. | Affective | Receiving |
| 4 | Recognize possible sources of error in specimen collection, and serological and urinalysis test results. | Cognitive | Analysis |

| Order Learning Outcomes | Description | Learning Domain | Level of Learning |
|-------------------------|--|-----------------|-------------------|
| | Quality assurance | | |
| 1 | Recognize and promote significance of Quality Assurance programs and the role of the laboratory in QA. | Affective | Characterization |

GENERAL EDUCATION CORE 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.

STUDENT REQUIREMENTS

Students are required to wear name badges. Students must pass a pre-test before attending clinical rotation. Students are required to record clinical hours each day and be signed by the clinical preceptor. Each week this time sheet will be faxed to the program director. Caution: falsification of time sheets or preceptor signatures will result in expulsion from the CLBT program! Students are expected to complete all clinical hours and assignments by the due dates. A ten point penalty will be assessed for each day a case study or study

questions are late. Case studies and study questions will not be accepted after end of course date. Students are responsible for policies and procedures included in the STC Catalog/CLT handbook. Students are responsible for requirements (drug screen, background check, immunizations, Fit test, CPR...) included in the STC Catalog/CLT handbook. No cell phones allowed. Read the infraction section of CLT Handbook. Stay busy during clinical rotation! Learn work flow, instrument operation, QC, and maintenance. If you have any down time- study the Polanski cards! Preceptors are watching you for prospective job opportunities. Take the initiative to draw patients, put up stock, answer phones, and load the instruments

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.

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.

TRADITIONAL ATTENDANCE ADDENDUM: For each clinical rotation, which meets 5 days a week for 4 weeks (PHLEBOTOMY/ URINALYSIS/SEROLOGY is 3 weeks), the maximum number of days a student may miss is 2 days during EACH clinical rotation. All minutes MUST be made up before the end of the semester! Fall semester will consist of 3 weeks of Phlebotomy, Urinalysis, and Serology clinical followed by 4 weeks of Chemistry rotation, and 4 weeks of Hematology. CLBT Certification Review course will be the last two weeks of the fall semester from 8am to 4:00 pm. This course meets for 8 days. Only one day absence is allowed in the Certification Review course. Each day will be dedicated to review of a subject, test given, and graded for the course. Any test missed must be made up. The Mock Registry will be given the last day of the 15 week fall semester. Students must pass the Mock registry with a 70 or higher in three attempts to complete the CLT program.

If the student must be absent, the student must call the clinical site preceptor by 7 am and the Program Director (Ms. Williams) by 8am. Daily attendance and punctuality are of the utmost importance for the successful completion of each rotation. The student is expected to arrive and begin work promptly and to stay until the scheduled rotation is complete. Every day at the clinical site is important. This course requires 6750 minutes of clinical participation (3 weeks at 5 days per week) in addition to skills check list by the preceptor, case study and study questions.

Students who miss more than 2 days for each clinical rotation will be required to bring a doctor's excuse before makeup time will be allowed.

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, 912-538-3126, hthomas@southeasterntech.edu, 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, 912-538-3126, hthomas@southeasterntech.edu.

WITHDRAWAL PROCEDURE

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" is assigned for the course(s) when the student completes the withdrawal form.

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.

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. Students who are dropped from courses due to attendance after the 65% point will receive either a "WP" or "WF" for the semester. Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above.

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.

MAKEUP GUIDELINES

Clinical time missed will be made up at the discretion of the clinical preceptor/ instructor. Case studies and study questions are due on the dates posted on the syllabus. Late assignments will have 10 points deducted for each day late. After end date for the semester, assignments will receive a zero.

Extenuating circumstances are determined at the instructor's discretion. Unless otherwise scheduled with the instructor, it is expected that the test will be taken the next day, scheduled outside of regular class time.

Failure to follow this procedure will result in a grade of zero.

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:

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" 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 a 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:

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

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](#).

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 |
|---|-------------------|
| Clinical site evaluation | 70% |
| Study questions complete; incomplete= 0 | 20% |
| Case study | 10% |

GRADING SCALE

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

GRADING POLICY

A clinical grade of 70 or above is required to pass clinical rotations (grades of 69.9 will not be rounded up). **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.

Evaluation for Phlebotomy, Serology and Urinalysis Rotation

CLBT 2090

Name: _____ Hospital _____

Dates: From _____ To _____

Please evaluate the performance of this student based on the following criteria:

5 – meets criteria 90-100% of the time; 4 –meets criteria 80 – 89% of the time; 3 – meets criteria 70-79% of the time; 2 – meets criteria 60-69% of the time; 1- meets criteria less than 60% of the time. Procedures for each test protocol are located in the Policy and Procedure Manual located in each department at each clinical facility. Students must pass the clinical skills check off sheet with 70 or greater(C) to pass the course.

| Learning outcomes: | Criteria | 5=A | 4=B | 3=C | 2=D | 1=F |
|--|---------------------------------------|-----|-----|-----|-----|-----|
| Urinalysis | | | | | | |
| The student successfully: | | | | | | |
| 1. Fulfill all federal, state and local requirements in preparation for testing. | Must follow steps in protocol exactly | | | | | |
| 2. Perform urinalysis testing techniques. | Must follow steps in protocol exactly | | | | | |
| 3. Describes abnormal results associated with certain diseases. | Must follow steps in protocol exactly | | | | | |
| 4. Follow procedures for reporting marked abnormalities by immediately reporting abnormal or critical results to a supervisor. | Must follow steps in protocol exactly | | | | | |
| 5. Demonstrate ability to complete documentation in a legible manner and operate laboratory information computer systems. | Must follow steps in protocol exactly | | | | | |
| | | | | | | |
| Learning outcomes: | | | | | | |
| Serology | | | | | | |
| The student successfully: | | | | | | |
| 1. Fulfill all federal, state and local requirements in preparation for testing. | Must follow steps in protocol exactly | | | | | |
| 2. Perform serology testing techniques. | Must follow steps in protocol exactly | | | | | |
| 3. Relate any marked abnormalities immediately to a supervisor. | Must follow steps in protocol exactly | | | | | |

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|---|--|--|--|--|--|--|
| 4. Demonstrate ability to complete documentation in a legible manner and operate laboratory information computer systems. | Must follow steps in protocol exactly | | | | | |
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| Learning outcomes: Blood and specimen processing | | | | | | |
| The student successfully: | | | | | | |
| 1. Fulfill all federal, state and local requirements in preparation for testing. | Must follow steps in protocol exactly | | | | | |
| 2. Demonstrate all techniques associated with blood and specimen collecting and processing. | Must follow steps in protocol exactly | | | | | |
| 3. Recognize criteria for specimen rejection. | Must make proper correlation 9 out of 10 times | | | | | |
| 4. Relate any marked abnormalities immediately to a supervisor. | Must follow steps in protocol exactly | | | | | |
| | | | | | | |
| Correlation of test results to disease states: | | | | | | |
| The student successfully: | | | | | | |
| 1. Assess normal and abnormal results in relation to disease processes. | Must make proper correlation 9 out of 10 times | | | | | |
| 2. Evaluate all critical level test results and relate any marked abnormalities immediately to a supervisor. | Must follow steps in protocol exactly | | | | | |
| | | | | | | |
| Safety, QC, and QA | | | | | | |
| The student successfully: | | | | | | |
| 1. Discuss and apply all federal, state and local safety procedures associated with lab processing and testing. | Must follow steps in protocol exactly | | | | | |
| 2. Adhere to and utilize quality control procedures. | Must follow steps in protocol exactly | | | | | |
| 3. Comply with legal and ethical principles of phlebotomy, urinalysis and serology. | Must follow steps in protocol exactly | | | | | |
| 4. Recognize possible | Must make proper | | | | | |

| | | | | | | |
|---|---------------------------------------|--|--|--|--|--|
| sources of error in specimen collection, serological and urinalysis test results. | correlation 9 out of 10 times | | | | | |
| 5. Recognize and promote significance of Quality Assurance programs and the role of the laboratory in QA. | Must follow steps in protocol exactly | | | | | |

Comments:

Areas the improvement:

Signature: _____ Date: _____

Please place in a closed envelop and sign across the seal.

Thank you for training our students! The clinical portion of the CLT program is VITAL to our student's knowledge!

Fall Semester 2018 Lesson Plan

CLBT 2090 Phlebotomy/Serology/Urinalysis (weeks 1-3)

CLBT 2130 Clinical Chemistry (weeks 5-8)

CLBT 2110 Hematology and Coagulation (weeks 10-13)

CLBT 2200 Certification Review (weeks 14-16)

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

| WEEK OF: | CONTENT | TESTS ASSIGNMENTS | COMP AREA |
|--|---|---|---|
| 1 August 13 | Clinical 2090 Phlebotomy/ UA/Serology | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Attention (Att): Cindy Williams | Phlebotomy / UA/Serology Course 1-6 Core A,B,C |
| 2 August 20 | Clinical 2090 Phlebotomy/ UA/Serology | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Phlebotomy / UA/Serology Course 1-6 Core A,B,C |
| 3 August 27 | Clinical 2090 Phlebotomy/ UA/Serology Total: 120 hours | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Phlebotomy / UA/Serology Course 1-6 Core A,B,C |
| 4 Sept. 3 Labor Day Sept.4 | 2130 Clinical Chemistry | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Chemistry Course 1-9 Core A,B,C |
| 5 Sept. 10 | 2130 Clinical Chemistry | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Chemistry Course 1-9 Core A,B,C |

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|------------------|--|---|---|
| 6 Sept. 17 | 2130 Clinical Chemistry | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Chemistry Course 1-9 Core A,B,C |
| 7 Sept. 24 | 2130 Clinical Chemistry Total: 160 hours | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Chemistry Course 1-9 Core A,B,C |
| 8 Oct. 1 | 2110 Clinical Hematology/Coagulation | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Hematology Course 1-8 Core A-C |
| 9 Oct. 8 | 2110 Clinical Hematology/Coagulation | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Hematology Course 1-8 Core A-C |
| 10 Oct. 15 | 2110 Clinical Hematology/Coagulation | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Hematology Course 1-8 Core A-C |
| 11 Oct. 22 | 2110 Clinical Hematology/Coagulation Total: Hours 160 | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Hematology Course 1-8 Core A-C |
| 12 Oct. 29 | Weeks 12 & 13 are for completion of clinical hours if needed. Complete case studies and all study questions. Make sure all evaluations are complete. | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams | Hematology Course 1-8 Core A-C |
| 13 Nov. 5 | Weeks 12 & 13 are for completion of clinical hours if needed. Complete case studies and all study questions. Make sure all evaluations are complete. | Case study Study questions Polanski review cards Fax time sheet 912-538-3106 Att: Cindy Williams ALL CLINICALS COMPLETED! | Hematology Course 1-8 Core A-C |
| 14 Nov. 12 | Certification Review at STC Monday- Thursday! 8-4pm | Monday- PhI/UA/Sero review; TEST Tuesday-Chemistry review; TEST Wednesday-Microbiology review concentrate bacteria; Thursday- Microbiology Review cont. concentrate virus, fungi, and parasites; TEST Work ethics exam. | Review Course 1-12 Core A-C |

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|--|---|---|--------------------------------------|
| | | All study questions due. All clinical site evaluations due. | |
| 15 Nov. 19- 20 Holiday 21-22 | Review | Review | Review Course 1-12 Core A-C |
| 16 Nov. 26 | Certification Review at STC Monday- Thursday 8-4pm | Monday- Hematology Review; TEST Tuesday- Blood bank Review; TEST Wednesday-Review any weak areas; Test taking skills; AMT MOCK MT TEST Thursday- MOCK REGISTRY- you must pass this MOCK registry in 3 attempts with a 70 or higher and the course with a 70 or higher to pass the entire CLT program. All test grades week 14- 16 must be passed with a 70 or above per TSCG standards. All test grades week 14-16 are averaged and is 45% of your grade. Work ethics is 5% MOCK registry is 50% of your grade for this course. | Review Course 1-12 Core A-C |

COMPETENCY AREAS

- 1-Urinalysis tests
- 2-Serological tests and techniques
- 3-Blood and specimen processing
- 4-Correlation of test results to disease states
- 5-Safety and quality control
- 6- Quality assurance

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.

