



## CLBT 1030 Urinalysis and Body Fluids

### COURSE SYLLABUS

Fall Semester 2019

#### COURSE INFORMATION

Credit Hours/Minutes: 2/3000 minutes

Class Location: Room #739

Class Meets: MTW 11:10-12:30

CRN: 20092

#### INSTRUCTOR CONTACT INFORMATION

Instructor Name: Cynthia Williams, MS, MT (AMT) (HHS)

Email Address: Cynthia Williams (cwilliams@southeasterntech.edu)

Vidalia/Office Location: Vidalia Campus/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

Fundamentals of Urine and Body Fluid Analysis, Nancy A. Brunzel 3rd ed.

#### REQUIRED SUPPLIES & SOFTWARE

Ink pens, pencil, highlighter, permanent marker, paper, 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 theory and techniques required to conduct tests on urine and various body fluids. Theory and tests are related to disease states and diagnosis. Topics include: fundamental theory of urinalysis; basic urinalysis tests; correlation of urinalysis to disease states; related lab math; body fluid tests; special urinalysis and related testing; and safety and quality control.

#### MAJOR COURSE COMPETENCIES

- 1- Fundamental theory of Urinalysis
- 2- Basic Urinalysis tests
- 3- Correlation of urinalysis to disease states
- 4- Related Lab Math
- 5- Body Fluids Tests
- 6- Special Urinalysis and Related Testing
- 7- Safety and Quality Control

PREREQUISITE(S)

BIOL 2113, BIOL 2113L, CLBT 1010

COURSE OUTLINE

Fundamental theory of urinalysis

Order	Description	Learning Domain	Level of Learning
1	Discuss kidney physiology in the formation of urine.	Cognitive	Comprehension

Basic urinalysis tests

Order	Description	Learning Domain	Level of Learning
1	Describe the anatomy and physiology of the urinary system.	Cognitive	Comprehension
2	Describe various methods and applications of urine collection.	Cognitive	Comprehension
3	Perform clarity, color, and specific gravity.	Psychomotor	Guided Response
4	Perform routine chemical urinalysis including pH, protein, glucose, ketones, bilirubin, blood, nitrite, urobilinogen, and leukocyte esterase.	Psychomotor	Guided Response
5	Explain clinical significance of routine biochemical tests.	Cognitive	Comprehension
6	Discuss principles of routine biochemical tests.	Cognitive	Comprehension
7	Give normal values for routine biochemical tests.	Cognitive	Application
8	Perform confirmatory tests as indicated.	Psychomotor	Guided Response
9	Explain principles of confirmatory tests.	Cognitive	Comprehension
10	Discuss clinical significance of confirmatory tests.	Cognitive	Comprehension
11	Perform microscopic urinalysis including significant element identification in urinary sediment.	Cognitive	Synthesis
12	Explain the significance of the microscopic exam.	Cognitive	Comprehension
13	Give normal values of the microscopic urinalysis exam.	Cognitive	Application

Correlation of urinalysis to disease states

Order	Description	Learning Domain	Level of Learning
1	Correlate selected normal macroscopic and microscopic characteristics of urine examination including crystals, microorganisms, and artifacts.	Cognitive	Analysis
2	Correlate selected pathological macroscopic and microscopic characteristics of urine examination including crystals, microorganisms, and artifacts.	Cognitive	Analysis

Related lab math

Order	Description	Learning Domain	Level of Learning
1	Perform related math calculations for metric system, correction of specific gravity, calculation of dilutions, calculation of body fluid cell counts, calculation of % motile and % abnormal morphology in semen analysis.	Cognitive	Synthesis

Body fluids tests

Order	Description	Learning Domain	Level of Learning
1	Perform routine analysis tests on related body fluids.	Psychomotor	Guided Response

Order	Description	Learning Domain	Level of Learning
2	Determine the clinical significance of various body fluid analyses including gastrics, seminal fluids, CSF, feces, transudates, and exudates.	Cognitive	Application

#### Special urinalysis and related testing

Order	Description	Learning Domain	Level of Learning
1	Explain the clinical significance of osmolality, renal function tests, quantitative tests, aminoaciduria, porphyrins, melanin, indican, haptoglobin, hemosiderin, myoglobin, and Bence-Jones protein.	Cognitive	Comprehension

#### Safety and quality control

Order	Description	Learning Domain	Level of Learning
1	Set up and perform selected quality control and safety procedures for urinalysis.	Psychomotor	Guided Response
2	Discuss possible sources of error in biochemical testing.	Cognitive	Comprehension

#### 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 badge. Students must wear closed toe shoes, gloves, and lab coat while in the lab. 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 E-Catalog/CLT handbook. Students are required to read the chapter prior to class. Test will be timed- one hour per test. 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 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.

### **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:** [Macy Gay mgay@southeasterntech.edu](mailto:mgay@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:** [Macy Gay mgay@southeasterntech.edu](mailto:mgay@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" 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 (TESTS, QUIZZES, HOMEWORK, PROJECTS, ETC...)

Exams or labs missed for any reason will be made up at the discretion of the instructor. Exams will be made up the first day back in class. Labs are made up at the instructor's discretion. 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 this includes the final.

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 <sup>st</sup> Street, Vidalia Office 165 Phone: 912-538-3126 <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Lanie Jonas, Director of Human Resources Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1st Street, Vidalia Office 138B Phone: 912-538-3230 Email: Lanie Jonas <a href="mailto:ljonas@southeasterntech.edu">ljonas@southeasterntech.edu</a>

#### 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
Chapter tests	65%
Lab reports	5%
Comprehensive Final Test	30%

#### GRADING SCALE

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

WEEK	CHAPTER	CLBT 1030 URINALYSIS AND BODY FLUIDS FALL SEMESTER 2019 LESSON PLAN LESSON PLAN IS SUBJECT TO CHANGE AT THE DISCRETION OF THE INSTRUCTOR. CONTENT:	ASSIGNMENTS & TESTS DUE	COMP AREA
1 AUG. 13-16	1 & 2	Chapter 1 Microscope Chapter 2 QA/ Safety	Syllabus Safety/MSDS LAB #1	Course 2,6 Core A,B,C
2 AUG. 19-23	3	Chapter 3 UA specimen types, collection/ preservation	Study Stack tables Polanski cards Clinical Lab Review handout- Ua	Course 1,2,4 Core A,B,C
3 AUG. 26-30	4	Chapter 4 Kidney	<b>TEST 1-3</b>	Course 1,2,3,4 Core A,B,C
4 Sept. 2= Holiday!! 3-6	5	Chapter 5 Renal function	GFR Creatinine clearance	Course 1,2,3,4 Core A,B,C
5 Sept. 9-13	6	Chapter 6 Physical exam of Ua	<b>Test 4 &amp; 5</b> LAB #1 Refractometer & Sp gravity LAB #2 Macroscopic exam	Course 1,2,3,4 Core A,B,C
6 Sept. 16-20	7	Chapter 7 Chemical exam of Ua	LAB #3 Chemical dipstick, Confirmatory test, QC/normal values LAB#4 Fecal analysis,	Course 1,2,3,4 Core
7 Sept. 23-27	8	Chapter 8 Microscopic exam of Urine sediment	Ua microscopic; drawings & special screening LAB #5 Student sample UA's	Course 1,2,3,4 Core A,B,C
8 30-Oct. 4	8	Chapter 8 Microscopic exam of Urine sediment, cont.	Hospital samples UA	Course 2,4,5,6 Core A,B,C
9 Oct. 7-11	9	Chapter 9 Renal and metabolic diseases	<b>TEST 6,7,8</b>	Course 4,5,7 Core A,B,C
10 Oct. 14-18	10	Chapter 10 Fecal analysis	<b>TEST 9</b>	Course 4,5,7 Core A,B,C

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11 Oct. 21-25	11 & 12	Chapter 11 Seminal Fluid analysis Chapter 12 Amniotic Fluid analysis	Semen analysis APT test	Course 4,5,7 Core A,B,C
12 Oct.28- Nov.1	13 &14	Chapter 13 CSF analysis Chapter 14 Synovial Fluid analysis	<b>TEST 10,11,12</b>  LAB#7 CSF hemocytometer	Course 4,5,7 Core A,B,C
13 Nov. 4-8	15 & 16	Chapter 15 Pleural, pericardial, peritoneal fluid analysis Chapter 16 Vaginal fluid analysis	LAB #8 KOH & wet prep	Course 4,5,7 Core A,B,C
14 Nov. 11-15	Review	Review for final	<b>TEST 13,14,15,16</b> Review calculations Review dipstick methodology Review UA pictures AAB practice test	Course 1-7 Core A,B,C
15 Nov.18-22	Review	Review	Review all labs MOCK final	Course 1-7 Core A,B,C
16 Nov. 25-26 Holiday 27-29	<b>Review</b>	<b>Review</b>	<b>Review all labs</b>	Course 1-7 Core A,B,C
17 Dec. 2-5	<b>Review</b>	<b>Finals</b>	<b>Comprehensive Final</b>	Course 1-7 Core A,B,C

Competency Areas:

- 1- Fundamental theory of Urinalysis
- 2- Basic Urinalysis tests
- 3- Correlation of urinalysis to disease states
- 4- Related Lab Math
- 5- Body Fluids Tests
- 6- Special Urinalysis and Related Testing
- 7- Safety and Quality Control



### 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.