

**SEWARD COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS**

I. TITLE OF COURSE: MT2703- MLT Urinalysis and Body Fluids

**II. COURSE DESCRIPTION: 3 credit hours
2 credit hours of lecture and 1 credit hours of lab per week.**

This course will provide the student with in-depth knowledge of the function of the kidney, urine formation, and the procedures utilized in performing a routine urinalysis and body fluid analysis. Correlation of abnormal findings and disease states will be discussed. Other body fluids covered in this course include feces, seminal, amniotic, cerebrospinal, pleural, pericardial, and peritoneal. Discrimination between normal and abnormal findings and relating this knowledge to disease states will be included in the course material.

For each unit of credit, a minimum of three hours per week with one of the hours for class and two hours for studying/preparation outside of class is expected.

Pre-requisite: Admission to the MLT program.

III. PROGRAM AND/OR DEPARTMENT MISSION STATEMENT:

The Seward County Community College Medical Laboratory Technician program provides a curriculum that produces competent, career entry level medical laboratory technicians.

IV. TEXTBOOK AND MATERIALS:

Strasinger, Susan King, Di Lorenzo, Marjorie Schaub Urinalysis and Body Fluids, 6th Ed., F. A. Davis, Philadelphia, PA, 2014, ISBN 978-0-8036-3920-1.

V. SCCC OUTCOMES

Students who successfully complete this course will demonstrate the ability to do the following SCCC Outcomes.

I: Read with comprehension, be critical of what they read, and apply knowledge gained to real life

II: Communicate ideas clearly and proficiently in writing, appropriately adjusting content and arrangement for varying audiences, purposes, and situations.

III: Communicate their ideas clearly and proficiently in speaking, appropriately adjusting content and arrangement for varying audiences, purposes, and situations.

IV: Demonstrate mathematical skills using a variety of techniques and technologies.

V: Demonstrate the ability to think critically by gathering facts, generating insights, analyzing data, and evaluating information

VI: Exhibit skills in information and technological literacy

IX: Exhibit workplace skills that include respect for others, teamwork competence, attendance/punctuality, decision making, conflict resolution, truthfulness/honesty, positive attitude, judgment, and responsibility

VI. COURSE OUTCOMES:

Upon completion of this course the student will be able to:

1. Relate the proper specimen collection and handling, type of quality control used, reference ranges, principles of analysis currently available, and sources of analytical errors for each of the analytes discussed or approached in the course.
2. Perform all procedures with regard to prescribed safety protocol and confidentiality.
3. Correlate abnormal results with the most likely disease process by determining the clinical significance of findings.
4. Identify the forces involved in fluid formation in the body and correlate the body cavity with containing fluid.
5. Describe the basic physiology and anatomy of the kidney and relate this function to normal and abnormal test results.
6. Describe disease states of the renal system as to etiology, clinical symptoms and expected laboratory results.
7. Relate the appropriate method of collection and preservation of urine specimens for all urinalysis testing
8. List reagents and techniques used to identify amino acids, carbohydrates other than glucose, mucopolysaccharides, mucolipids, amino acids, and proteins.
9. Correctly prepare specimens for cell morphology examination and describe and recognize various cell types that occur in body fluids.
10. Relate the origin, composition, the methods of analysis, the diagnostic importance of test results and explain the specific methodology used for each of the following body fluids: amniotic, CSF, synovial, seminal, feces, pleural, pericardial, and peritoneal.

VII. COURSE OUTLINE:

1. Safety in the Clinical Laboratory
2. Quality Assurance and Management
3. Introduction to Urinalysis
4. Renal Function
5. Physical Examination
6. Chemical Examination
7. Microscopic Examination of Urine
8. Renal Disease
9. Metabolic Disease
10. Cerebrospinal Fluid Analysis
11. Seminal Fluid Analysis
12. Synovial Fluid Analysis
13. Amniotic Fluid Analysis
14. Fecal Fluid Analysis
15. Urinalysis Automation

VIII. INSTRUCTIONAL METHODS:

Lecture, discussion, laboratory exercises, demonstrations, case studies, Med training website.

IX. INSTRUCTIONAL AND RESOURCE MATERIALS:

Handouts, computer tutorial disks, Internet resources, supplies used in hospitals, selected reference readings from text and journals, case studies.

X. METHODS OF ASSESSMENT:

SCCC Outcome #1 will be assessed and measured by class participation and writing assignments indicating comprehension of the material read.

SCCC Outcome #2 will be assessed and measured by written laboratory reports.

SCCC Outcome #3 will be assessed and measured by verbal communication with clinical instructors and of laboratory reports.

SCCC Outcome #4 will be assessed and measured by the student's ability to correctly perform clinical laboratory calculations.

SCCC Outcome #5 will be assessed and measured by the student's ability to correctly perform urinalysis and body fluids procedures, determine validity of results and resolve discrepancies as encountered. Students will also be assessed on their ability to follow prescribed procedures for troubleshooting and problem solving.

SCCC Outcome #6 will be assessed and measured by the student's ability to properly and efficiently operate automated equipment and the microscope.

SCCC Outcome #9 will be assessed and measured by the completion of the Student Attitude Assessment tools by didactic and clinical instructors.

XI. ADA STATEMENT:

Under the Americans with Disabilities Act, Seward County Community College will make reasonable accommodations for students with documented disabilities. If you need support or assistance because of a disability, you may be eligible for academic accommodations. Students should identify themselves to the Dean of Students at 620-417-1106 or going to the Student Success Center in the Hobble Academic building, room 149 A.

Syllabus Reviewed: 3/24/2021