

Minnesota State College Southeast

MEDL 1110: Urinalysis/Body Fluids

A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 1

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers the anatomy of the kidney, renal physiology and the role of the kidney in health and disease. Students will perform physical, chemical and microscopic examinations of urine. The analysis of other body fluids, such as vaginal secretions, semen, and feces will be discussed. Students will gain experience in a simulated clinical urinalysis laboratory. (Prerequisites: Must be a Medical Laboratory Technician accepted student) (2 credits: 1 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 05/07/2012 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Understand basic anatomy and physiology of the kidney
2. Demonstrate comprehension of the technical and procedural aspects of urinalysis and body fluid laboratory tests
3. Exhibit an awareness of regulatory requirements, safety regulation and ethical standards of practice
4. Correlate urinalysis laboratory test results to disease processes
5. Perform physical, chemical and microbiologic urinalysis procedures
6. Recognize unexpected test results and take appropriate action
7. Utilize effective oral and written communication skills
8. Perform information processing

D. LEARNING OUTCOMES (General)

1. Identify and explain the functions of a microscope
2. Demonstrate correct microscopic technique
3. Describe the types of urine specimens and their diagnostic use
4. Describe materials and procedures used for proper collection and identification of urine specimens
5. Identify and state the primary functions of the macroscopic structures of the kidney and urinary tract
6. Describe renal blood circulation and its role in renal function
7. Summarize renal physiology
8. State the volume and solute composition of normal urine
9. Identify and describe normal and abnormal physical properties of urine
10. State the chemical reactions involved when using a reagent strip and tablets to determine the chemical composition of urine
11. Perform and interpret a physical, chemical and microscopic examination of urine
12. Evaluate quality control values to determine analytical errors
13. Describe conditions when urine should be examined microscopically
14. Describe microscopic and staining techniques used to enhance visualization of formed elements in urinary sediment
15. Correlate the relationships among sediment, chemical and physical findings in the urine
16. Describe the physical, chemical and microscopic examination of various body fluids
17. Adhere to and practice safety and regulatory requirements in the urinalysis laboratory
18. Participate in an assimilation laboratory experience

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted