Miami Dade College

Course Description

MLS4221 | Clinical Urinalysis | 3.00 credits

The study of body fluids for physical health and identification of abnormalities in relation to disease states.

Course Competencies:

Competency 1: The student will demonstrate an understanding of the fundamentals of renal function and disease correlations by:

1. Explaining the structure and function of the different parts of the urinary system
2. Explaining the formation of urine in the nephron
3. Analyzing Renal and Metabolic Diseases

Competency 2: The student will demonstrate knowledge of Urinalysis by:

1. Illustrating the different types of urine specimens
2. Explaining the importance for proper collection
3. Evaluating the handling of the different types of urine specimens
4. Explaining the principles of preservation and its effects on urinalysis results
5. Analyzing Physical Examination of Urine
6. Analyzing Chemical Examination of Urine
7. Explaining Microscopic Examination of the Urine
8. Explaining Urine Screening for Renal and Metabolic Disease

Competency 3: The student will demonstrate knowledge of other body fluids by:

1. Explaining the collection, examination, and clinical significance of the following:
    a. Cerebrospinal Fluid
    b. Seminal Fluid
    c. Synovial Fluid
    d. Serous Fluid
    e. Amniotic Fluid

Competency 4: The student will demonstrate knowledge of maintaining quality assurance and safety in the analysis of urine by:

2. Explaining Quality Assurance in Urinalysis
3. Illustrating Quality control in Urinalysis
4. Explaining proper safety in Urinalysis

Competency 5: The student will demonstrate an understanding of instrumentation in the Urinalysis and Body Fluid laboratory by:

1. Explaining the following: Osmometers and the measurement of osmolality
2. Instruments to read reagent strips
3. Instruments to read reagent strips and analyze sediment

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning