Miami Dade College

Course Description

MLT2624L | Special Techniques in Clinical Chemistry | 2.00 credits

The principles and performance of radioimmunoassay, EMIT, ELISA, and toxicological techniques for thyroid function, hormones, and toxic substances. Prerequisites: MLT1610, 1610L; corequisites: MLT2620, 2620L.

Course Competencies:

Competency 1: The student will demonstrate knowledge and application of the principle of electrophoresis by:

1. Performing Electrophoresis techniques
2. Correlating the significance of the different protein electrophoresis procedures in state of disease
3. Listing several substances that can be separated electrophoretically and explaining the clinical significance of abnormalities found in each

Competency 2: The student will demonstrate knowledge and application of the principle of different toxicology procedures by:

1. Evaluating pharmacokinetics
2. Describing forms of administration
3. Describing Drugs of Abuse screening techniques
4. Explaining Drugs of Abuse confirmatory testing

Competency 3: The student will demonstrate knowledge and comprehension of molecular diagnostic procedures by:

1. Describing the advantage of molecular diagnostic procedures
2. Recognizing and identifying assays for detection and quantitation of DNA and RNA
3. Listing and explaining the procedure of the Polymerase chain reaction (PCR)
4. Listing and explaining the procedure of Hybridization Techniques

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively