Miami Dade College

Course Description

MLT2198 | Histochemistry | 3.00 credits

This course will introduce students to organic chemistry of stains and special stains, dyes, hydrocarbons; aromatics, alcohols, ethers, aldehydes, ketones, carbonyl compounds, amines and amides. Prerequisites: CHM1033, 1033L; corequisite: MLT2198L.

Course Competencies:

Competency 1: The student will demonstrate knowledge and comprehension of the basic principles of histochemistry by:

1. Describing the correlations of hematoxylin and eosin stains with special stain techniques
2. Describing the principle of the different special stain techniques
3. Describing the use of different fixatives for special stain techniques
4. Describing the results of special stains
5. Evaluating the use of the H&E stain in correlation with special stains.
6. Explaining the principle and purpose of special stains as they pertain to different tissues

Competency 2: The student will demonstrate knowledge, of quality control techniques in histochemistry by:

1. Explaining the purpose of using control tissue slides in histochemistry
2. Describing control tissue for each special stain techniques
3. Describing the troubleshooting procedures of special stain techniques
4. Resolving possible problems in staining results due to mistakes in technique
5. Evaluating the purpose and principle of special stains for the various tissue types seen routinely in the histotechnology laboratory

Competency 3: The student will demonstrate a rudimentary knowledge and comprehension of the basic principles of immuno-histochemical staining by:

1. Outlining immunological concepts
2. Describing the properties and procedures needed in making monoclonal and polyclonal antibodies
3. Listing various immuno-histochemical staining methods

Learning Outcomes:

1. Communication
2. Numbers / Data
3. Critical Thinking
4. Information Literacy
5. Computer / Technology Usage
6. Aesthetic / Creative Activities
7. Cultural / Global Prospective