



Course Description

MLT2192 | Histotechnology 2 | 3.00 credits

This course is a continuation of Histotechnology 1. Students will be introduced to advanced processing techniques of human tissue for anatomical pathology and concepts of instrumentation. Prerequisite: MLT1191.

Course Competencies:

Competency 1: The student will demonstrate knowledge and comprehension of theories of microtomy and frozen sectioning by:

1. Describing the principles of cryostat sectioning
2. Describing principles of rapid staining

Competency 2: The student will demonstrate knowledge and comprehension of brain tissue processing by:

1. Outlining the differences in processing brain tissue vs. all other human tissue
2. Outlining processing technique for brain tissue
3. Outlining grossing technique for brain tissue

Competency 3: The student will demonstrate knowledge and comprehension of kidney biopsy, muscle, bone and bone marrow processing by:

1. Outlining the process of obtaining the preceding biopsies
2. Outlining the problems that may arise with the preceding biopsies
3. Outlining processing schedules of the preceding biopsies

Competency 4: The student will demonstrate knowledge and comprehension of the importance of instrumentation in the modern histotechnology laboratory by:

1. Describing the operation of automatic stainer, tissue processors and microtomy equipment
2. Explaining and outlining the use of immuno-histochemistry staining techniques on automatic stainer

Competency 5: The student demonstrates knowledge and comprehension of the description, function, and histologic pictorial description of either an organ or tissue and explain why an anatomical or physiological issue will require the use of the Hematoxylin and Eosin stain as well as a special stain by:

1. Explaining how the hematoxylin/eosin stain is used rule out or rule in certain disease states
2. Explaining how the use of particular fixatives helps in the diagnosis of the disease state
3. Correlating how the use of the correct fixative can enhance clinical findings with anatomical pathology findings

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Demonstrate knowledge of diverse cultures, including global and historical perspectives
- Use computer and emerging technologies effectively