Miami Dade College

**Course Description**

**MLT1191L | Histotechnology 1 Lab | 3.00 credits**

This course will introduce students to fundamental laboratory skills and safety concepts in histologic technology. It includes laboratory aspects of specimen preparation, fixation, sectioning and routine staining. The student will also be introduced to the basic principles of record keeping, use and maintenance of laboratory equipment and quality control.

**Course Competencies:**

**Competency 1:** The student will be able to apply the principles of histologic processing of specimens by:

1. Demonstrating proper Tissue grossing techniques
2. Using hand eye coordination when preparing reagents, tissue grossing, embedding, sectioning and H and E staining
3. Illustrating how the factors that can influence what occurs to tissue during fixation tissue fixation, processing, embedding, sectioning, grossing and H and E staining
4. Performing Tissue processing
5. Performing Tissue embedding
6. Performing Tissue sectioning
7. Performing routine hematoxylin and eosin staining

**Competency 2:** The student will demonstrate knowledge and comprehension of the proper use and maintenance of the histotechnology laboratory equipment by:

1. Performing preventive and corrective maintenance of equipment and instruments in the laboratory
2. Performing quality control methods on laboratory equipment and instruments
3. Maintaining a safe working environment in the laboratory
4. Maintaining a clean working environment in the laboratory

**Competency 3:** The student will demonstrate knowledge and comprehension of hazardous in the histotechnology laboratory by:

1. Identifying chemical hazards
2. Identifying biological hazards
3. Identifying physical hazards
4. Identifying mechanical hazards
5. Outlining the principle involved in the safe handling of chemical and biological hazards
6. Following Universal Precautions methods at all times.
7. Following procedures for chemical as well as biological spills
8. Outlining the principle involved in working safely with microtomes

**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
- Formulate strategies to locate, evaluate, and apply information
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Demonstrate knowledge of diverse cultures, including global and historical perspectives
- Demonstrate an appreciation for aesthetics and creative activities
- Describe how natural systems function and recognize the impact of humans on the environment