Common Course Outline
HSTO 155
Histology Practicum I
3 Credits

Community College of Baltimore County

Description

HSTO 155 – Histology Practicum I provides the student with entry-level clinical experiences in a histopathology laboratory. Throughout the practicum, the student acquires a working knowledge of sectioning specimens, processing schedules, paraffin embedding of tissue, routine staining, mounting techniques and trouble shooting. After demonstrating proficiency, students may be permitted to perform procedures under qualified supervision. Students participate in the supportive functions of instrument operation, quality control, troubleshooting and problem solving. Procedures are performed according to documented methodology, policy and protocol established for routine and specialized areas.

3 Credits

Prerequisites: HSTO 101; HSTO 102

Overall Course Objectives

Upon completion of this course students will be able to:

1. prepare and clean up an embedding unit;
2. utilize the instruments used for embedding specimens;
3. demonstrate the importance of specimen orientation, alignment, multiple pieces, inking, and tissue carryover;
4. troubleshoot problems with embedding;
5. explain the importance of processing schedules related to specimens;
6. prepare and clean up a microtomy station;
7. utilize the instruments used for microtomy;
8. section various types of tissue;
9. review troubleshooting problems with microtomy;
10. explain the Hematoxylin and Eosin (H&E) staining reagent line up; and
11. demonstrate coverslipping slides by hand.

Major Topics

I. Purpose of embedding
II. Paraffin
III. Other embedding medium
IV. Embedding station
V. Specimen orientation
VI. Troubleshooting microtomy problems

VII. Microtomes
VIII. Cryostats
IX. Ultrastructure of a cell
X. Nuclear and cytoplasmic staining
XI. Hematoxylin
XII. Progressive vs regressive staining
XIII. Polychromatic staining
XIV. Troubleshooting H&E staining
XV. Resinous media vs aqueous media

Course Requirements

Grading procedures will be determined by the individual faculty member but will include the following:

Grading/exams

- A Technical Evaluation/Checklist
- A Laboratory Practical
- A Professional Evaluation
- A Post-internship Exam
- A Clinical Objective Write-up

Written Assignments: Students are required to use appropriate academic resources.

Other Course Information
This course is a Histology program core course.
This course is part of a program sequence, which requires admission to the program.
This course is offered in the Fall only.

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