

Common Course Outline
HSTO 255
Histology Practicum II
3 Credits

Community College of Baltimore County

Description

HSTO 255 – Histology Practicum II provides the student with clinical experiences in special stains that will include carbohydrates, amyloid, connective tissue, muscle, and lipids. Throughout the practicum, the students continue sectioning specimens, paraffin embedding of tissue, routine staining, mounting techniques and troubleshooting. 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.

3 Credits

Prerequisite: HSTO 155

Overall Course Objectives

Upon completion of this course students will be able to:

1. demonstrate the theory and application of special staining techniques;
2. perform special stains both manually and on an automated stainer;
3. demonstrate stains independently with supervision;
4. operate laboratory equipment related to staining;
5. perform quality control and follow all student lab procedures and practices;
6. evaluate specimen quality with a certified tech;
7. identify tissue specimens, grossly and microscopically;
8. review troubleshooting problems;
9. follow safety procedures for storage and disposal of chemicals; and
10. demonstrate laboratory safety for universal precautions.

Major Topics

- I. Carbohydrates
 - a. Periodic acid-Schiff (PAS)
 - b. PAS with diastase
 - c. Mayer mucicarmine
 - d. Alcian blue 2.5
 - e. Colloidal iron
- II. Amyloid
 - a. Congo Red
 - b. Crystal violet

- III. Connective tissue
 - a. Masson trichrome
 - b. Verhoeff -Van Gieson
 - c. Movat pentachrome
 - d. Gomori reticular
- IV. Muscle – Phosphotungstic acid-haematoxylin (PTAH)
- V. Lipids
 - a. Oil red O
 - b. Sudan black B

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 Spring only.