

# HISTOTECHNOLOGY (HT)

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## HT 1 Introduction to Histotechnology

**1 Unit** (Degree Applicable)

Lecture: 18

**Advisory:** Eligibility for ENGL 1A

The role of histotechnicians in preparation and analysis of tissues samples for diagnostic and research purposes. Internet resources, support organizations and periodical references for histotechnicians, as well as regulatory agencies. Set up of an educational plan and portfolio to be used throughout the program.

## HT 2 Scientific Basics for Histotechnicians

**3 Units** (Degree Applicable)

Lecture: 54

**Prerequisite:** CHEM 10 or CHEM 40 or CHEM 50 or CHEM 50H (may be taken concurrently)

General laboratory issues including general laboratory protocols (GLP's), safety, ethics, and terminology relative to the preparation of tissue samples.

## HT 10 Histology

**3 Units** (Degree Applicable)

Lecture: 36 Lab: 54

**Prerequisite:** ANAT 35

Microscopy, cell structure, cell reproduction, and staining. Identification of tissues, organs, and special microstructures, and their detailed morphology. Involves distinguishing normal features from pathological conditions..

## HT 12 Beginning Histotechniques

**5 Units** (Degree Applicable)

Lecture: 54 Lab: 108

**Prerequisite:** HT 1 and HT 2

**Advisory:** MICR 1 or MICR 22

Theory and practical applications and skill-building in tissue fixation, processing, embedding, sectioning, microtomy, hematoxylin-eosin staining (H&E), and microorganism staining. Quality control as it relates to routine histological techniques and equipment.

## HT 14 Advanced Histotechniques

**5 Units** (Degree Applicable)

Lecture: 54 Lab: 108

**Prerequisite:** HT 12

Practical applications of special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to frozen sections, cytology preparation, and microwave technology. Field trip required.

## HT 16 Histochemistry and Immunohistochemistry

**4 Units** (Degree Applicable)

Lecture: 54 Lab: 54

**Prerequisite:** HT 10 and HT 12

Practical applications of enzyme and immunological reactions as they relate to tissue staining. Field trip required.

## HT 17 Work Experience in Histotechnology

**1-4 Units** (Degree Applicable)

(May be taken for Pass/No Pass only)

Lab: 60-300

**Prerequisite:** HT 12 and compliance with Work Experience regulations as designated in the College Catalog

Provides histotechnology students with actual on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice. Placement by Program Director.

## HT 25 Cellular and Molecular Biology for Histotechnicians

**3 Units** (Degree Applicable)

Lecture: 54

**Prerequisite:** (CHEM 10 or CHEM 40) and (BIOL 1 or BIOL 4 or BIOL 4H)

Cellular and Molecular Biology for histotechnicians, with emphasis on structure and function of eukaryotic cells and their organelles, prokaryotic cells, biological molecules, cell division, cell signaling, and major metabolic pathways. DNA structure, function, recombination, and manipulation are also emphasized, as well as molecular techniques with applications for diagnostics and research.