

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	MLT 2191
COURSE TITLE:	Histotechniques I
PREREQUISITE(S):	None
COREQUISITE(S):	None
CREDIT HOURS:	4
CONTACT HOURS/WEEK:	4
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	4
Laboratory:	
Other _____:	
FACULTY WORKLOAD POINTS:	4
STANDARDIZED CLASS SIZE ALLOCATION:	20
CATALOG COURSE DESCRIPTION:	
<p>The course will introduce students to the fundamental principles of histologic technology. Included in this course are the laboratory aspects of specimen preparation, fixation, sectioning and routine staining. Laboratory safety, quality assurance, and general health career concepts are covered. This course may be offered by way of Internet.</p>	
SUGGESTED TEXT(S):	<p>Sheehan, D.C. and Hrapchak, B.B. , <u>Theory and Practice of Histotechnology</u>, 2nd ed., Battelle Press: 1987</p> <p>Carson, <u>Histotechnology</u>. ASCP: 1990</p>
IMPLEMENTATION DATE:	Fall Term, 1990 (911)
REVIEW OR MODIFICATION DATE:	<p>Fall Term, 1997 (981)</p> <p>Fall Term, 2002 (20031)</p>

COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Introduction	10
A. Components of Health Care Delivery System	
B. Credentialing Process	
C. Communication Skills	
D. Professional Conduct	
E. Computer Applications	
II. Laboratory Safety	3
A. Chemical Safety	
B. Biohazard Safety	
C. Emergency Procedures	
D. Physical Safety	
III. Blood Borne Diseases, Including HIV/AIDS	4
A. Epidemiology	
B. Transmission	
C. Prevention and Risk Reduction	
D. Behavior Changes	
E. Policy Development	
F. Legal and Ethical Issues	
IV. Histological Specimens	4
A. Sources and Types	
B. Procurement of Specimens	
C. Kinds of Preparations	
D. Labeling/Tracking Requirements	
V. Solution Chemistry	4
A. Histological Solutions	
B. Terminology	
C. Preparation Principles	
VI. Tissue Fixation	6
A. Fixing Fluids	
B. Methods and Appropriate Selection	
C. Washing, Dehydrating and Clearing Methods	

COURSE TOPICS (CONTINUED)	<u>CONTACT HOURS PER TOPIC</u>
VII. Embedding Methods	2
A. Embedding Media	
B. Types of Embedding	
C. Embedding Procedure	
VIII. Sectioning	8
A. Equipment	
1. Technics	
2. Microtome Operation	
B. Types of Sectioning	
1. Frozen	
2. Paraffin	
3. Nitrocellulose	
IX. Mounting and Covering	1
A. Mounting Techniques for Section Types	
B. Covering Techniques for Section Types	
X. Staining	8
A. Types	
B. Preparation - Routine	
C. General Procedure	
D. Routine Stain Preparation	
XI. Introduction to Histochemistry	4
A. Inorganic Constituents of Tissue	
B. Organic Constituents of Tissue	
1. Polysaccharides	
2. Proteins and Amino Acids	
3. Lipids	
4. Enzymes	
XII. Quality Assurance in Histology Laboratory	6
A. Purpose	
B. Components	
C. Design	

PROGRAM TITLE: Histologic Technology
 COURSE TITLE: Histotechniques I
 CIP NUMBER: 0317.030800

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

01.0 DEMONSTRATE KNOWLEDGE OF THE HEALTH CARE DELIVERY SYSTEM AND HEALTH OCCUPATIONS -- The student will be able to:

- 01.01 Identify the basic components of the health care delivery system.
- 01.02 Describe the various types of health care providers and the range of services available including resources to victims of domestic violence.
- 01.03 Describe the composition and functions of a health care team.
- 01.04 Identify the general roles and responsibilities of the individual members of the health care team.
- 01.05 Develop a basic understanding of human needs throughout the lifespan.
- 01.06 Explain the importance of maintaining professional competence through continuing education.
- 01.07 Describe trends affecting the delivery system of health care.

02.0 DEMONSTRATE THE ABILITY TO COMMUNICATE AND USE INTERPERSONAL SKILLS EFFECTIVELY -- The student will be able to:

- 02.01 Develop basic listening skills.
- 02.03 Identify characteristics of successful and unsuccessful communication including barriers.
- 02.05 Compose written communication using correct spelling, grammar, and format.
- 02.06 Use appropriate medical terminology and abbreviations.
- 02.07 Recognize the importance of courtesy and respect for patients and other health care workers and maintain good interpersonal relationships.
- 02.08 Recognize the importance of patient/client education regarding health care.
- 02.11 Demonstrate ability to give and follow directions.
- 02.12 Distinguish between factual reports and personal opinion.

03.0 DEMONSTRATE LEGAL AND ETHICAL RESPONSIBILITIES -- The student will be able to:

- 03.01 Discuss the legal framework of the health care occupation.
- 03.02 Explain the medical liability of health care workers.
- 03.03 Explain the patients' "Bill of Rights."
- 03.04 Describe a Code of Ethics consistent with the health care occupation.
- 03.05 Discuss the importance of maintaining confidentiality of information including computer information.

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S): TITLES(S):

05.0 RECOGNIZE AND PRACTICE SAFETY AND SECURITY PROCEDURES -- The student will be able to:

05.01 Demonstrate the safe use of medical equipment.

05.02 Recognize and report safety hazards.

05.07 Describe fire safety and evacuation procedures.

06.0 RECOGNIZE AND RESPOND TO EMERGENCY SITUATIONS -- The student will be able to:

06.01 Monitor and record vital signs.

06.02 Describe legal parameters relating to the administration of emergency care.

06.03 Obtain and maintain BLS skills of basic rescuer or higher.

06.04 Demonstrate basic understanding of first aid and emergency care.

06.05 Recognize adverse drug related emergencies and take appropriate first aid action.

07.0 RECOGNIZE AND PRACTICE INFECTION CONTROL PROCEDURES -- The student will be able to:

07.01 Demonstrate knowledge of medical asepsis and practice procedures such as handwashing and isolation.

07.02 Demonstrate knowledge of surgical asepsis as utilized in sterilization.

07.03 Describe how to dispose correctly of biohazardous materials, according to appropriate government guidelines such as OSHA.

08.0 DEMONSTRATE COMPUTER LITERACY -- The student will be able to:

08.01 Define terms and demonstrate basic computer skills.

08.02 Describe the uses of computers in health care.

10.0 DEMONSTRATE KNOWLEDGE OF BLOOD BORNE DISEASES, INCLUDING AIDS -- The student will be able to:

10.01 Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.

10.02 Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.

10.03 Identify "at risk" behaviors which promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.

10.04 Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.

10.05 Demonstrate knowledge of the legal aspects of AIDS, including testing.

11.0 APPLY BASIC MATH AND SCIENCE SKILLS -- The student will be able to:

11.01 Draw, read, and report on graphs, charts and tables.

11.02 Measure time, temperature, distance, capacity, and mass/weight.

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S): TITLES(S):

- 11.05 Convert from regular to 24 hour time.
- 11.06 Demonstrate ability to evaluate and draw conclusions.
- 11.09 Calculate ratios.

12.0 IDENTIFY THE ANATOMIC STRUCTURE AND FUNCTION OF BODY SYSTEMS IN RELATION TO DISEASE STATES AND SERVICES PERFORMED BY THE HISTOTECHNICIAN -- The student will be able to:

- 12.03 Demonstrate knowledge of various methods of obtaining histological specimens from patients.
- 12.05 Demonstrate knowledge of types of histological specimens usually submitted for gross and microscopic examination.
- 12.06 Demonstrate knowledge of the processing of histologic specimens especially as related to disease processes.
- 12.07 Demonstrate knowledge of tissue processing methods, especially variety of fixatives used, as each relates to a specific entity or disease process to be diagnosed.

13.0 PRACTICE QUALITY ASSURANCE, SAFETY AND ACCEPTABLE COMMUNICATION SKILLS -- The student will be able to:

- 13.04 Demonstrate knowledge of diagnostic terminology.
- 13.07 Demonstrate knowledge of chemical hazards within the histopathology laboratory.
- 13.08 Demonstrate knowledge of proper disposal methods for all chemical and biological waste within the histopathology laboratory.