

## FLORIDA STATE COLLEGE AT JACKSONVILLE

## COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: MLT 2150C

COURSE TITLE: Clinical Correlations

PREREQUISITE(S): None

COREQUISITE(S): None

CREDIT HOURS: 2

CONTACT HOURS/WEEK: 3

CONTACT HOUR BREAKDOWN:

Lecture/Discussion:  
Laboratory:  
Other \_\_\_\_\_: 3 (Lecture/laboratory combination)

FACULTY WORKLOAD POINTS: 3

STANDARDIZED CLASS SIZE  
ALLOCATION: 20

CATALOG COURSE DESCRIPTION: This course presents selected topics in advanced laboratory techniques, together with their significance in the diagnosis of diseases. Students build on a fundamental knowledge of clinical laboratory analysis and human pathology to understand more complex laboratory diagnostic procedures in the areas of hematology, endocrinology, therapeutic drug monitoring and microbiology.

SUGGESTED TEXT(S): Henry, J.B. Clinical Diagnosis and Management by Laboratory Methods, Saunders: Latest Edition.

Harr, Clinical Laboratory Science Review. Latest Edition.  
F. A. Davis

IMPLEMENTATION DATE: January, 1989

REVIEW OR MODIFICATION DATE: Fall Term, 1996 (971)  
Fall Term, 2002 (20031)  
Fall Term, 2007 (20081)  
Fall Term, 2008 (20091) - Outline Review 2007

COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Hematological Disorders	10
A. Anemia Profiles	
B. Hemoglobin Electrophoresis	
C. Leukemia Profiles	
D. Cytochemical Stains	
II. Endocrinology	9
A. Review of Endocrine System	
B. Thyroid Profile	
C. Laboratory Evaluation of Thyroid Disorders	
III. Therapeutic Drug Monitoring	9
A. Pharmacokinetics of Therapeutic Drugs	
B. Laboratory Methods in Therapeutic Drug Evaluation	
IV. Anaerobes and Mycobacteria	7
A. Nomenclature/Classification	
B. Laboratory Methods for Identification of Pathogens	
C. Clinical Correlations	
V. Advanced Microbiology Correlations	8
A. Virology	
B. Chlamydia, Rickettsia, Mycoplasma	
C. Pasco: MIC/ID Computer Assisted Identification	
VI. Practicum Orientation	2
A. Rules, Regulations	
B. Professional Attributes	
C. Resume and Interview Techniques	

PROGRAM TITLE: Medical Laboratory Technology  
COURSE TITLE: Clinical Correlations  
CIP NUMBER: 0317.030900

LIST PERFORMANCE STANDARD ADDRESSED:  
NUMBER(S): TITLES(S):

09.0 DEMONSTRATE EMPLOYABILITY SKILLS -- The student will be able to:

- 09.01 Conduct a job search.
- 09.02 Secure information about a job.
- 09.03 Identify documents that may be required when applying for a job.
- 09.04 Complete a job application form correctly.
- 09.05 Demonstrate competence in job interview techniques.
- 09.06 Identify or demonstrate appropriate responses to criticism from employer, supervisor or other person.
- 09.07 Identify acceptable work habits.
- 09.08 Demonstrate knowledge of how to make job changes appropriately.
- 09.09 Demonstrate desirable health habits.
- 09.10 Recognize appropriate affective/professional behavior.
- 09.11 Write an appropriate resume.

26.0 DISCUSS THE GENERAL RESPONSIBILITIES AND FUNCTIONS ENCOUNTERED BY A MEDICAL TECHNICIAN--The student will be able to:

- 26.01 Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solutions of such questions.
- 26.02 Organize and communicate the results obtained by observation and experimentation.
- 26.03 Demonstrate ability to evaluate and draw conclusions.
- 26.04 Demonstrate knowledge of anatomy and physiology of body systems.
- 26.05 Demonstrate ability to report observations in written or oral form.
- 26.06 Discuss the licensure and certification requirements of the major classifications of clinical laboratory personnel.

27.0 APPLY QUALITY ASSURANCE PRINCIPLES AND SAFETY PROTOCOLS--The student will be able to:

- 27.01 Recognize specimen suitability and determine need for rejection/recollection using factors described in clinical protocol.
- 27.02 Describe special procedures for transporting and processing specimens.
- 27.03 Describe clinical laboratory role in providing quality assurance in laboratory testing, reporting, and use and maintenance.
- 27.04 Demonstrate all required calibration procedures.
- 27.05 Demonstrate and record all quality control procedures unacceptable results.
- 27.06 Identify and report problems encountered in daily quality control according to standard operating procedures.
- 27.07 Adhere to current OSHA regulations regarding laboratory hazards.

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S):            TITLES(S):

32.0 DEMONSTRATE KNOWLEDGE OF CLINICAL CHEMISTRY PRINCIPLES AND PROCEDURES—The student will be able to:

32.12 Discuss the role of the laboratory in therapeutic drug monitoring and toxicology.

38.0 DEMONSTRATE KNOWLEDGE OF ADVANCED HEMATOLOGICAL PRINCIPLES AND PROCEDURES—The student will be able to:

38.01 Identify normal and abnormal, immature and mature erythrocytes at each stage of maturation.

38.02 Identify and distinguish between normal, atypical and leukemic leukocytes at each stage of maturation.

38.03 Perform selected cytochemical staining procedures.

38.04 Discuss the principle of and perform hemoglobin electrophoresis with pattern interpretation.

39.0 DEMONSTRATE KNOWLEDGE OF ADVANCED MICROBIOLOGICAL PRINCIPLES AND PROCEDURES—The student will be able to:

40.01 Discuss procedures for and clinical significance of anaerobe identification

40.07 Discuss microbial and immunological techniques to identify selected clinically significant viruses.

40.08 Discuss classification and related disease states of clinically significant viruses.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

<i>Section 1</i>	
COURSE PREFIX AND NUMBER: <b>MLT 2150C</b>	SEMESTER CREDIT HOURS: <b>2</b>
COURSE TITLE: <b>Clinical Correlations</b>	

*Section 2*

TYPE OF COURSE: (Click on the box to check all that apply)

<input type="checkbox"/> AA Elective	<input checked="" type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	<input checked="" type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other	<input type="checkbox"/> PSAV	<input type="checkbox"/> Apprenticeship
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

*Section 3 (If applicable)*

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

*Section 4*

INTELLECTUAL COMPETENCIES:

<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input checked="" type="checkbox"/> Quantitative Skills	<input checked="" type="checkbox"/> Scientific Method of Inquiry
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input checked="" type="checkbox"/> Information Literacy	<input checked="" type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively

<i>Section 5</i>	
LEARNING OUTCOMES	METHOD OF ASSESSMENT
• Explain and apply advanced concepts in hematology, chemistry and microbiology.	Exams
• Demonstrate the ability to read, perform and document a procedure and the results correctly.	Graded Lab notebook
• Demonstrate the ability to work collaboratively as part of a lab team	Observation by instructor
• Utilize critical analysis of quality control and laboratory results to make valid reporting decisions.	Graded lab notebook
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*Section 6*

Name of Person Completing This Form: Rhoda Jost

Date: November 1, 2007