

**MA 164 Course Outline as of Fall 2020****CATALOG INFORMATION**

Dept and Nbr: MA 164 Title: CLINICAL LAB THEORIES

Full Title: Theories of the Clinical Laboratory

Last Reviewed: 1/27/2020

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**

Introduction to the clinical laboratory. Urinalysis, hematology, blood chemistry, serology testing, and normal ranges are studied. Students will learn about low complexity tests and how general microscopic slide testing is performed.

**Prerequisites/Corequisites:**

Course Completion of MA 160, MA 161, MA 162, MA 163, MA 167; AND Concurrent Enrollment in MA 165, MA 168, MA 169, and MA 174

**Recommended Preparation:**

Eligibility for ENGL 1A or equivalent

**Limits on Enrollment:****Schedule of Classes Information:**

Description: Introduction to the clinical laboratory. Urinalysis, hematology, blood chemistry, serology testing, and normal ranges are studied. Students will learn about low complexity tests and how general microscopic slide testing is performed. (Grade Only)

Prerequisites/Corequisites: Course Completion of MA 160, MA 161, MA 162, MA 163, MA 167; AND Concurrent Enrollment in MA 165, MA 168, MA 169, and MA 174

Recommended: Eligibility for ENGL 1A or equivalent  
Limits on Enrollment:  
Transfer Credit:  
Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Analyze laboratory techniques and data that medical assistants encounter in the outpatient setting.
2. Discuss and analyze basic medical office tests.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Demonstrate understanding of laboratory testing.
2. Identify a variety of laboratory tests utilized in the outpatient setting.
3. Identify guidelines applicable to medical assisting students using Clinical Laboratory Improvement Amendments (CLIA) criteria.
4. Read and interpret a computerized laboratory request/report.
5. Instruct a patient in the preparation necessary for specific laboratory tests.
6. List the Occupational Safety and Health Administration (OSHA) blood borne pathogen standards for biologic specimen collection.
7. Describe the proper handling and transportation of laboratory specimens per agency.
8. Define patient education for the signs, symptoms, and transmission of infectious diseases.
9. Perform rudimentary urinalysis.
10. Identify the normal ranges for common laboratory tests.
11. Recognize and report abnormal laboratory findings to appropriate medical staff.

### **Topics and Scope:**

- I. Introduction to the Clinical Laboratory and Outpatient Specimen Collection and Low Complexity Testing in Medical Assisting
  - A. The clinical lab - documentation
    1. purpose

2. lab request form
3. using lab directories
4. relationship (of agency lab) to the medical office
5. CLIA criteria
6. testing categories
- B. Quality control and safety methods - specimens
  1. collecting
  2. handling
  3. transport
  4. preparing slides for provider review
- C. Outpatient tests: types
  1. urinalysis
  2. microbiologic
  3. Papanicolaou (PAP)
- D. OSHA regulations
- II. Structure, Function and Terms Related to Urine Composition and Analysis - Under Microscopic View
  - A. Identifying sediment
  - B. Effects of pregnancy
  - C. Normal ranges
- III. Indications for Hematology, Blood Chemistry and Serology Tests
  - A. Process of obtaining a specimen
  - B. Normal ranges
  - C. Abnormal values' reporting
  - D. Transport
- IV. Educating Patients: Guidelines for Specimen Collection

### Assignment:

1. Complete 15-20 pages of reading assignments, per week
2. Homework problems:
  - a. Critical thinking skills, 5-10 applications per week
  - b. Vocabulary assessment, 10-20 words per week
3. Review 10-15 lab reports/data interpretation
4. Completion of 5-7 unit exams and 1 final exam

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework, critical thinking skills; vocabulary assessment

Writing  
20 - 40%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Lab reports, data interpretation

Problem solving  
20 - 40%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations  
0 - 0%

**Exams:** All forms of formal testing, other than skill performance exams.

Completion of unit exams and one final exam

Exams  
20 - 40%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category  
0 - 0%

**Representative Textbooks and Materials:**

Clinical Procedures for Medical Assistants. 10th ed. Bonewit-West, Kathy. Elsevier. 2018  
Instructor prepared materials