

**El Paso Community College**  
**Syllabus**  
**Part II**  
**Official Course Description**

<b>SUBJECT AREA</b>	<u>Medical Laboratory Technology</u>		
<b>COURSE RUBRIC AND NUMBER</b>	<u>MLAB 1260</u>		
<b>COURSE TITLE</b>	<u>Clinical-Clinical/Medical Laboratory Technician I</u>		
<b>COURSE CREDIT HOURS</b>	<u>2</u>	<u>0</u>	<u>8</u>
	Credits	Lec	Lab

**I. Catalog Description**

Provides a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Includes clinical practice in the areas of Hematology, Coagulation, Phlebotomy, and laboratory information systems. A grade of "C" or better is required in this course to take the next course. **Prerequisites: BIOL 2402. Corequisites: MLAB 1235, and MLAB 1315. (0:8). Professional Practice Insurance required.**

**II. Course Objectives**

Upon satisfactory completion of this course, the student will be able to:

- A. Discuss laboratory safety and standard precautions.
  - a. Practice standard precautions, and locate and follow Safety Data Sheets (SDS)
  - b. Identify and Comply with internal and external safety regulations.
  - c. Use and dispose of Personal Protective equipment and follow infection control and isolation procedures
  - d. Identify and respond to common phlebotomy related complications and hospital emergency codes.
  - e. Recognize hazards and report safety violations/hazards.
  
- B. Perform venipuncture and/or dermal puncture phlebotomy procedures on infants, children, adolescents, adults, and geriatric patients following special and/or specific instructions when appropriate.
  - a. Identify and communicate special test requirements and perform two forms of patient identification.
  - b. Identify the blood collection tubes, their additives, and their specific use in the proper order of draw.
  - c. Discuss venipuncture site preparation for blood cultures, patients with IV lines, and when in isolation rooms.
  - d. Demonstrate timely specimen collection procedures, transporting, handling and processing to include routine, ASAP, STAT, peak/trough, and other timed collections.
  - e. Describe patient/ donor identification process, venipuncture procedures, banding of patient requirements, and post venipuncture instructions.
  - f. Identify the phlebotomy venipuncture systems such as the Vacutainer, Syringe, and Winged Infusion systems.
  - g. Report and document specimen rejection and/or recollection.
  - h. Apply quality assurance and quality control principles to ensure patient safety and specimen integrity before, during and after phlebotomy procedures.

- C. Perform Microscope maintenance to include Koehler Illumination.
- D. Demonstrate the ability to make and stain blood smears.
- E. Perform hematology automatic and/or manual erythrocyte counts, leukocyte counts, platelet counts, reticulocyte counts, hematocrit, hemoglobin, platelet estimates, ESR's, Sickle Cell preps, and other body fluid analysis.
- F. Discuss the operation, maintenance, troubleshooting, and quality control of automated hematology analyzers, microhematocrit centrifuges, automated slide stainer, and other instruments used in the Hematology and Serology departments.
  - 1. Inventory reagents and supplies before testing
  - 2. Prepare and mix reagents and controls following manufacturer's instructions
  - 3. Recognize interfering substances
  - 4. Prepare Buffy coats for low WBC counts
- H. Perform normal and abnormal differentials.
- I. Analyze and perform counts on body fluid to include, synovial fluid, semen, and CSF.
- J. Employ basic laboratory skills.
  - 1. Interpret and apply manufacturer's instructions/specifications as they relate to reagents, kits, equipment, etc.
  - 2. Prepare dilutions and titers.
  - 3. Perform and interpret staining procedures/methodologies such as Wright stain, Brilliant Cresyl Blue, New Methylene Blue, and other Supravital Stains.
  - 4. Perform routine serological testing such as RPR, C-reactive protein, RA/RF. RPR's, etc.
- K. Evaluate, report and document notification of test results in the above mentioned laboratory areas, including critical values to the appropriate health care provider.
- L. Apply basic concepts of verbal and nonverbal communications, telephone etiquette, personal and patient interaction, stress management, professional behavior and legal implications of the workplace.

### **III. THECB Learning Outcomes (WECM)**

As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

### **IV. Evaluation**

#### **A. Preassessment**

Official MLT challenge exams have as of yet not been structured. Students wishing to challenge a certain course will be administered written examinations to assess comprehension of didactic material and lab practical exams to assess the clinical laboratory skills demonstrating accuracy and precision. The student must score 80% or higher to successfully complete each examination and meet the minimum competency limits set for individual laboratory skills and abilities.

#### **B. Postassessment**

1. Quizzes, lecture exams, and a final comprehensive written examination will be used to assess student' competency in didactic objectives.
2. Lab competency exams and lab practical exams are used to assess students' achievement of psychomotor objectives.
3. Lab practical exams and the identification of unknown specimens will require students to demonstrate a particular skill learned in the clinical lab component of the class.
4. Written unit exams will consist of the following question types: multiple-choice, completion, essay, matching, spelling, analysis, and definition or any combination of these.

**C. Final Examination**

A comprehensive final exam will be administered at the end of the clinical lab departmental rotations.

**D. Evaluation**

To evaluate students' achievement of course objectives, student grades are tabulated using a final grade break down sheet. To successfully complete MLAB1260 Clinical-Clinical/Medical Laboratory Technician I, the student must achieve at least 80% in clinical components. The students overall grade must be no less than a "C," to be allowed to progress to the next program level.

**E. Remediation**

If a student scores less than 80% on any clinical quiz, report form, or exam, the instructor will conference with student to discuss different learning, retaining, and studying methodologies. The instructor will discuss possible weakness and/or problem sources, and will help guide student to take remedial steps toward initiating corrective measures.

**F. Grading**

Grading will follow current El Paso Community College Catalog standards. Grades will be calculated to the nearest tenth, and those at .5 or more will round up to the next whole number. Those below .5 will round down to the next whole number. The assignment of letter grades to percentage scores and final grade determination will be as follows:

Practical Exams	25%
Quizzes	20%
Final Exam	20%
Instructor's Evaluations	5%
Practical Report Forms	<u>30%</u>
	100%

Each section (Hematology, Phlebotomy, and Urinalysis) must be passed with 80% or better in order to satisfactorily pass the course.

No retake exam will be offered for quizzes and the final exam. The lowest quiz grade will be dropped. Students will receive a grade of zero on quizzes missed. Make-up exam may be given for excused absences on the final exam only at the discretion of the instructor.

Grade Scale:

A = 94 - 100
B = 87 - 93
C = 80 - 86
D = 73 - 79
F = 72 and below

**G. Academic Dishonesty**

Students found cheating on MLT work will be given a zero on the first incident. The student will be dropped from the course and the program if there is a second incident.

**V. Disability Statement (American with/Disabilities Act [ADA])**

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

**VI. 6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.