Semester and year:  Fall
Course Number:  MOA-241
Meeting Times and Locations:  Lecture:
Instructor:
Office Number:
E-Mail:
Office Hours:

Catalog Course Description:

MOA-241 Clinical Laboratory Technology enables the student to develop competence in the techniques of laboratory procedure commonly performed in a physician’s office. Procedures studied include urinalysis, hematology, bacteriology, immunology, and basal metabolism. 3 lectures, 3 labs, 4 credits
Prerequisite: MOA-240

Credits: 4 - 6 Hours  Lecture: 3 hours
Clock Hours: 90
Laboratory: 3 hours

Prerequisite:  MOA240 Clinical Office Practices

Required Textbooks:
Clinical Procedures for the Medical Assistants, and student workbook, Eighth Edition
By Kathy Bonewit-West
W.B. Saunders Company, A Harcourt Health Science Company

Topical Outline of Course Coverage:
1. Introduction to the Physician's Office Laboratory (POL)
2. Safety in the laboratory
3. The microscope
4. Other laboratory equipment and supplies
5. Statistics in the POL
6. Quality assurance and quality control
7. Record keeping in the POL
8. Urinalysis, physical, chemical, microscopic, anatomy, collection of specimens
9. Hematology, collection, testing, manual, automatic
10. Immunology
11. Cultures

**MOA Curriculum Competencies:**

Competencies are performed for either a grade which is determined and explained to the student prior or for a pass/fail determination by the instructor. The student receives 3 attempts to pass/fail. The student’s grade determination for a grade is 1<sup>st</sup> attempt 100%, minus points if missing a step, 2<sup>nd</sup> attempt is minus 11 points, 3<sup>rd</sup> attempt minus 22 points. Any steps not completed for additional attempts will be minus points. Points are determined by the amount of steps to be completed based on the total grade determination. Some competencies will be a pass/fail determined by the instructor.

*Student must successfully pass all the psychomotor and affective competencies in order to pass the course and progress in the program.*

**MOA Curriculum Competencies:**

**Cognitive Domain**
I.C.10. Identify CLIA waived tests associated with common diseases
I.C.12. Identify quality assurance practices in healthcare
IV.C.1. Describe dietary nutrients including:
   a. carbohydrates
   b. fat
   c. protein
   d. minerals
   e. electrolytes
   f. vitamins
   g. fiber
   h. water
IV.C.2. Define the function of dietary supplements.
IV.C.3. Identify the special dietary needs for:
   a. weight control
   b. diabetes
   c. cardiovascular disease
   d. hypertension
   e. cancer
   f. lactose sensitivity
   g. gluten-free
   h. food allergies
XII.C. Protective Practices
XII.C.1. Identify:
   a. safety signs
   b. symbols
   c. labels

**Psychomotor Domain**
I.P.2. Perform
b. venipuncture  
c. capillary puncture
I.P.11. Obtain specimens and perform:
   a. CLIA waived hematology test
   b. CLIA waived chemistry test
   c. CLIA waived urinalysis
   d. CLIA waived immunology test
   e. CLIA waived microbiology test
II.P.2. Differentiate between normal and abnormal test results.
II.P.3. Maintain lab test results using flow sheets
III.P.10. Demonstrate proper disposal of biohazardous material.
   a. sharps
IV.P.1. Instruct a patient according to patient’s special dietary needs.
V.P.3. Use medical terminology correctly and pronounced accurately to communicate information to providers and patients.
XII.P Protective Practices
XII.P.1. Comply with: a. safety signs; b. symbols; c. labels
XII.P.2. Demonstrate proper use of:
   a. eyewash equipment
   c. sharps disposal containers.

Affective Domain
I.A.2. Incorporated critical thinking skills when performing patient care
I.A.3. Show awareness of a patient’s concerns related to the procedure being performed
II.A.1. Reassure a patient of the accuracy of the test results.
III.A. Recognize the implications for failure to comply with the disease control (CDC) regulations in healthcare settings
IV.A.1. Show awareness of patient’s concerns regarding a dietary change.
V.A.4. Explain to a patient the rationale for performance of a procedure.

Learning Objectives
Upon successful completion of this course, the student will be able to:

1. demonstrate laboratory safety and quality assurance when performing laboratory tests
2. perform routine urinalysis on human specimens using proper collection methods.
3. perform venipuncture and skin punctures, using the guideline established with the OSHA's Bloodborne Pathogens Standards.
4. calibrate, maintain laboratory instruments, operate and maintain binocular microscope.
5. perform manual and automated hematologic studies.
6. perform serologic tests, using antigen-antibody reactions for demonstrating end results.
7. prepare bacterial smears to collect specimens and to perform throat and urine cultures.

The Student is required to:
1. Attend every lecture class.
2. Attend every laboratory session.
3. Participate in all class and laboratory activities.
4. Complete assigned readings in the textbooks and or handouts.
5. Submit assignments on the specified dates.
6. Perform each of the laboratory procedures and tasks.
7. Collect appropriate body fluid specimens.
8. Perform 10 venipunctures from other students in class.
9. Comply with OSHA's Bloodborne Pathogens Standards.
10. Conform with "Universal Precautions"
11. Obtain lecture notes and assignments when absent from class or lab.
12. Keep notebook of procedures to use during externship.

Student Assignments:
1. Reading assignments from textbook, supplement textbooks, journals, articles and handouts.
2. Written assignments on specialized topics as given during the semester.
3. Tests on reading assignments and lecture/discussion materials.
4. Quizzes

Evaluation and Grading:
The following criteria will be utilized in determining final grades for this course:
Students must pass both the chapter tests and clinical competencies to pass the course.
Chapter tests 50 percent and must maintain a 70% passing rate
Clinical competency 50 percent and must maintain a 70% passing rate
Clinical class participation

Final Grade Evaluation:

<table>
<thead>
<tr>
<th>% of Points Earned</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 to 100%</td>
<td>A</td>
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<td>86 to 89%</td>
<td>B+</td>
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<tr>
<td>80 to 85%</td>
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<td>76 to 79%</td>
<td>C+</td>
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<tr>
<td>70 to 75%</td>
<td>C</td>
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<td>0 to 69%</td>
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Test Policy:
All tests are mandatory. Tests will be made up at the next scheduled class. Documentation of absences must be provided to make up the test without penalty of subtraction of 11 points.

Attendance policy: 90% of scheduled class time required. If student falls below 90%, their grade will drop 10%. Any student having a problem with attendance should contact instructor and have documentation of missing time. Students who are late or leave early for 5 classes will be considered as 1 absent class. 90% of scheduled class time is required

Information on Academic and Support Services
Instructors retain the right to revise the course syllabus as needed.

MOA-241- CLASS SCHEDULE
Schedule is subject to change

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapter/Pages</th>
<th>Assignments</th>
</tr>
</thead>
</table>
|              | Introduction and Test summer assignments | Chapter 2 Pg. 50  
Chapter 15 Pg. 579  
Chapter 18 Pg. 657 | Read                   |
|              | Review test POL                      | Chapter 15 Pg. 579       | Read        |
|              | POL and introduce finger stick       | Chapter 15 Pg. 579  
Chapter 17 Pg. 695 | Read        |
|              | Microscope Hematology Slides         | Chapter 20 Pg. 765  
Chapter 18 Pg. 703  
Chapter 15 Pg. 716 | Read        |
<p>|              | Hematology A&amp;P                       | Chapter 18 Pg. 703       | Read        |
|              | Hgb Lecture and procedure            | Chapter 18 Pg. 708       | Read        |
|              | Glucose Lecture and procedure        | Chapter 19 Pg. 703       | Read        |
|              | Phlebotomy-venipuncture              | Chapter 17 Pg. 673       | Read        |</p>
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<tr>
<th>Topic</th>
<th>Chapter References</th>
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<tr>
<td>POL chapter test</td>
<td>Read</td>
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<tr>
<td>Hct lecture and procedure</td>
<td>Chapter 20 Pg. 703</td>
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<td>Chapter 20 Pg. 710</td>
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<td>Cholesterol lecture and procedure</td>
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<td>ESR lecture and procedure H-ployric testing</td>
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<td>Coagulation and Mononucleosis procedure</td>
<td>Chapter 18 Pg. 718</td>
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<td>Urinalysis A &amp;P lecture Hematology Test</td>
<td>Chapter 16 Pg. 616</td>
<td>Read</td>
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<td>Urine manual testing</td>
<td>Chapter 16 Pg. 633</td>
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<td>Clintek testing</td>
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<td>Urine Microscopic procedure</td>
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<td>Microbiology A&amp;P lecture</td>
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<td>Urine culture Start VP check off ESR Check Off</td>
<td>Chapter 16 Pg. 649</td>
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<td>Pregnancy test</td>
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