



BROWARD COLLEGE COURSE OUTLINE

LAST REVIEW: 2009-10
(i.e. 2003-2004)

NEXT REVIEW: 2014-15
(i.e. 2008-2009)

STATUS: A
(A, I, D)

COURSE TITLE: Medical Office Lab Procedures I

COMMON COURSE NUMBER: MEA 0255L

CREDIT HOURS:

CONTACT HOUR BREAKDOWN:

(per 16 week term)

CLOCK HOURS: 48
(Voc. Course ONLY)

Lecture: Lab: **48**

Clinic: Other:

PREREQUISITE(S):

COREQUISITE(S): MEA 0255

PRE/COREQUISITE(S): HSC 1531

COURSE DESCRIPTION: Laboratory Portion of MEA 0255. Includes practice regarding urinalysis, and basic office Microbiology/bacteriology. Consists of 4 hours of laboratory on a mini-semester. Professional uniform required.*(750 characters, maximum)*

UNIT TITLES

1. Laboratory Safety- Universal Precautions
2. Introduction to the use and care of the Microscope
3. Collection and preparation of urine specimens for urinalysis
4. Physical examination of urine
5. Chemical examination of urine
6. Microscopic examination of urine
7. General Office Microbiology/Bacteriology

Common Course Number: MEA 0255L

**Unit 1 Laboratory Safety
Universal Precautions**

Role Delineation & CMA Content Components
Medicolegal guidelines & requirements
Apply principles of infection control and asepsis
Quality control
Comply with quality assurance practices
Document accurately
Instruct individuals according to their needs
Adhere to HIPAA regulations
Maintains and dispose of regulated substances
In compliance with government guidelines

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 Describe the evolution of the Occupational Safety and Health Administration (OSHA)
- 1.2 Define the objective of quality assurance and equipment maintenance
- 1.3 List the universal precautions
- 1.4 Discuss the functions of a medical or clinical laboratory
- 1.5 Implement the safety rules that must be observed in the laboratory
- 1.6 Explain the most common laboratory profiles and associate the body system being surveyed.
- 1.7 List the different levels of laboratory personnel and their educational background.
- 1.8 Identify OSHA standards that seek to safeguard employees
- 1.9 Demonstrate the proper use laboratory apparel
- 1.10 Give examples of physical and chemical hazards
- 1.11 State the different departments within a clinical laboratory and their associated testing responsibilities.

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Unit 2 The Microscope

Role Delineation & CMA Components

Apply principles of infection control

Use Medical Terminology appropriately

Use Quality Control

Document Accurately

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1 Locate and name the parts of the microscope
- 2.1 Demonstrate the function of each part of the microscope
- 2.2 Demonstrate the difference between the course and fine adjustments
- 2.3 Locate and explain the use of the low, high and oil-immersion objectives
- 2.4 Demonstrate the proper care and storage of the microscope

Common Course Number: MEA 0255L

Unit 3 Collection and Preparation of Urine Specimens

Role Delineation & CMA Components
Apply principles of aseptic techniques
Perform clinical duties
Collect and process specimens
Comply with quality assurance practices
Document accurately
Treat all patients with courtesy and respect
Adapt communication to individual's ability to understand

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 3.1 Explain the importance of properly collecting urine specimens
- 3.2 List four types of urine specimens and explain when each may be required
- 3.3 Explain the use of preservatives when collecting an urine specimen
- 3.4 Explain safety precautions that must be observe when handling urine specimens
- 3.5 Explain how to instruct a patient to collect a clean-catch and mid-stream urine specimen according to gender
- 3.7 Explain how to instruct a patient to collect a 24h urine specimen

Common Course Number: MEA 0255L

Unit 4 Physical Examination of Urine

Role Delineation & CMA Components

Manage time efficiently

Use Quality control

Collect and Process Specimens

Document accurately

Perform selected tests that assist with diagnosis and treatment

Safety Precautions

Asepsis in the medical office

Principles of infection control

Equipment preparation and operation

Collecting and processing specimens; diagnostic testing

Comply with quality assurance practices

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 4.1 Identify the physical characteristics of urine evaluated during a routine urinalysis
- 4.2 Identify three abnormal urine colors and give the causes for each
- 4.3 Identify two conditions that may affect the appearance or transparency of urine
- 4.4 Demonstrate how urine's specific gravity is determined
- 4.5 Demonstrate how to use the refractometer
- 4.6 Utilize the terms associated with the physical examination of urine
- 4.7 Demonstrate the process of the physical examination of urine

Common Course Number: 0255

Unit 5 Chemical Examination of Urine

Role Delineation & CMA Components

Manage time efficiently
Apply Principles of Aseptic Techniques
Use Quality Control
Collect and Process Specimens
Perform selected tests that assist with diagnosis and treatment
Comply with quality assurance practices
Document accurately
Adhere to HIPAA regulations
Equipment preparation and operation
Safety procedures
Asepsis in the medical office

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 5.1 Perform the chemical analysis of urine
- 5.2 Integrate the reference values for the ten urine chemical tests
- 5.3 Identify the specimen requirements for the chemical examination of urine
- 5.4 Apply quality assurance procedures in the chemical examination of urine
- 5.5 Demonstrate the use of chemical reagent strips and interprets the results
- 5.6 Implement the safety precautions that must be observed in the chemical testing of urine
- 5.7 Perform the confirmatory chemical tests available

Common Course Number: MEA0255

Unit 6 Microscopic Examination of Urine

Role Delineation & CMA Components

Manage time efficiently

Apply Principles of Aseptic Techniques

Use Quality Control

Collect and Process specimens

Document accurately

Perform selected tests that assist with diagnosis and treatment

Adhere to HIPAA regulations

Safety precautions

Equipment preparation and operation

Comply with quality assurance practices

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 6.1 Apply the role of the medical assistant with regards to the microscopic examination of urine
- 6.2 Utilize the terms associated with the microscopic examination of urine
- 6.3 Identify the four types of cells that may be found in the urine sediment
- 6.4 Identify the types of casts that may appear in the urine sediment and explains their significance
- 6.5 Integrate the reference values for RBCs, WBCs, Casts, bacteria and other components that may be found in the microscopic examination of urine
- 6.6 Perform the steps necessary for preparation of the urine slide
- 6.7 Identify the different types of urine crystals and other sediment components and their significance
- 6.8 Implement the Universal Precautions applicable to this test
- 6.9 Perform the microscopic examination of urine sediment

Common Course Number: MEA 0255L

Unit 7 General Office Microbiology/Bacteriology

Role Delineation & CMA Components

Manage time efficiently

Apply Principles of Aseptic Techniques

Collect and Process Specimens

Document accurately

Perform selected tests that assist with diagnosis and treatment

Adhere to HIPAA regulations

Safety precautions

Equipment preparation and operation

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 7.1 Apply the basic principles of microbiology/bacteriology as they apply to the medical/clinical laboratory
- 7.2 Use aseptic techniques in this area
- 7.3 Collect samples for microbiology/bacteriology testing
- 7.5 Perform CLIA-Waived microbiology/bacteriology testing