



BROWARD COMMUNITY COLLEGE COURSE OUTLINE

LAST REVIEW: 2005-06
(i.e. 2003-2004)

NEXT REVIEW: 2010-11
(i.e. 2008-2009)

STATUS: A
(A, I, D)

COURSE TITLE: Basic Electrocardiography for Medical Assistants Laboratory

COMMON COURSE NUMBER: MEA 0540L

CREDIT HOURS: 1.0

CONTACT HOUR BREAKDOWN:

(per 16 week term)

CLOCK HOURS: 38
(Voc. Course ONLY)

Lecture: Lab: **38**

Clinic: Other:

PREREQUISITE(S):

COREQUISITE(S): MEA 0540

PRE/COREQUISITE(S): HSC 1531

COURSE DESCRIPTION: Laboratory portion of MEA 0540. This course will emphasize the role of the Medical Assistant, the care and use of the electrographic (EKG) machine, positioning the patient, electrical hazards, normal EKG pattern, identifying and reporting abnormal EKG patterns and mounting the EKG.

UNIT TITLES

- 1. Role of the Electrocardiographer**
- 2. The Cardiovascular System**
- 3. The Electrocardiograph**
- 4. The Electrocardiogram**
- 5. Basic Electrocardiogram interpretation**
- 6. Exercise Electrocardiography**
- 7. Ambulatory Monitoring**



Unit 1 Role of the Electrocardiographer

Role Delineation Components

Understand and adhere to managed care policies and procedures
Manage time efficiently
Recognized and responds to emergencies
Adhere to triage procedures
Maintain confidentiality
Use effective verbal communications
Recognized and respond to verbal and non-verbal communications
Document accurately
Instruct individuals according to their needs
Adhere to established patient screening procedures
Adhere to HIPAA regulations
Assist with examination procedures
Obtain patient history and vital sings

Specific Learning Outcomes:

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

- 1.1 Understand the history of the electrocardiogram
- 1.2 Understand the role of the electrocardiographer
- 1.3 Understand how electrocardiograms are used
- 1.4 Understand what is needed in order to perform an electrocardiogram



Unit 2 The Cardiovascular System

Role Delineation Components

Manage time efficiently
Recognized and responds to emergencies
Use effective verbal communications
Recognized and respond to verbal and non-verbal communications
Document accurately
Instruct individuals according to their needs
Adhere to HIPAA regulations

Specific Measurable Learning Outcomes:

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

- 2.1 Identify the structures of the heart and their functions.
- 2.1 Compare and contrast pulmonary and systemic circulation
- 2.2 Explain the cardiac cycle\
- 2.3 Identify what happens during systole and diastole
- 2.4 Explain the conduction system of the heart as it relates to the ECG/EKG
- 2.5 Identify each part of the ECG/EKG waveform
- 2.6 Describe the cardiac activity that produces the ECG/EKG waveform



Unit 3 The Electrocardiograph

Role Delineation Components

- Understand and adhere to managed care policies and procedures
- Manage time efficiently
- Recognized and responds to emergencies
- Perform diagnostic testing
- Maintain confidentiality
- Use effective verbal communications
- Recognized and respond to verbal and non-verbal communications
- Document accurately
- Instruct individuals according to their needs
- Comply with quality assurance practices
- Adhere to HIPAA regulations
- Screen and follow patient tests results

Specific Measurable Learning Outcomes:

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

- 3.1 Apply the basic principles to produce an electrocardiogram.
- 3.2 List the functions of common electrocardiogram machines
- 3.3 Describe the parts of the electrocardiogram machines
- 3.4 Compare and contrast the differences between a single channel and a multichannel electrocardiograph machine
- 3.5 Identify the electrocardiograph controls and how each control is used



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Unit 4 The Electrocardiogram

Role Delineation Components

Understand and adhere to managed care policies and procedures

Manage time efficiently

Recognized and responds to emergencies

Adhere to triage procedures

Maintain confidentiality

Use effective verbal communications

Recognized and respond to verbal and non-verbal communications

Document accurately

Instruct individuals according to their needs

Perform diagnostic tests

Adhere to HIPAA regulations

Specific Measurable Learning Outcomes:

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

- 4.1 Identify the three types of leads
- 4.2 Explain how each lead is recorded
- 4.3 Identify common electrodes and electrolyte products



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Unit 5 Basic Electrocardiogram Interpretation

Role Delineation Components

Understand and adhere to managed care policies and procedures

Manage time efficiently

Recognized and responds to emergencies

Adhere to triage procedures

Maintain confidentiality

Use effective verbal communications

Recognized and respond to verbal and non-verbal communications

Document accurately

Instruct individuals according to their needs

Adhere to HIPAA regulations

Screen and follow up patient test results

Specific Measurable Learning Outcomes:

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

- 5.1 Identify components of medical terms.
- 5.2 Identify the key terminology associated with the heart and the ECG/EKG
- 5.3 Identify basic cardiac arrhythmias
- 5.4 Identify common electrocardiogram artifacts



Unit 6 Exercise Electrocardiography

Role Delineation Components

- Understand and adhere to managed care policies and procedures
- Manage time efficiently
- Recognized and responds to emergencies
- Adhere to triage procedures
- Maintain confidentiality
- Use effective verbal communications
- Recognized and respond to verbal and non-verbal communications
- Document accurately
- Instruct individuals according to their needs
- Adhere to HIPAA regulations
- Assist with patient examination

Specific Measurable Learning Outcomes:

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

- 6.1 Describe exercise electrocardiography.
- 6.2 Identify at least three other names for exercise electrocardiography
- 6.3 List the different uses of exercise electrocardiography
- 6.4 List the steps necessary for preparation of the patient
- 6.5 Understand proper safety measures before, during, and after exercise electrocardiography



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Unit 7 Ambulatory Monitoring

Role Delineation Components
Understand and adhere to managed care policies and procedures
Manage time efficiently
Recognized and responds to emergencies
Adhere to triage procedures
Maintain confidentiality
Use effective verbal communications
Recognized and respond to verbal and non-verbal communications
Document accurately
Instruct individuals according to their needs
Adhere to HIPAA regulations
Assist with patient examination
Prepare patients for examination procedures
Obtain patient history and vital signs

Specific Measurable Learning Outcomes:

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

- 7.1 Prepare the patient physically and mentally for cardiovascular testing.
- 7.2 Identify the different types of ambulatory monitors
- 7.3 Identify variations of Holter monitoring
- 7.4 List the common uses for ambulatory monitoring
- 7.5 Identify the procedure for reporting the results from ambulatory monitoring