



# 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**



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Common Course Number: MEA 0540L

## 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



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## 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



**Common Course Number: MEA 0540L**

**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



**Common Course Number: 0540L**

**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



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Common Course Number: MEA0540L

## 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



**Common Course Number: MEA 0540L**

**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