



# 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**

**COMMON COURSE NUMBER: MEA 0540**

**CREDIT HOURS: 1.0**

**CONTACT HOUR BREAKDOWN:**  
*(per 16 week term)*

**CLOCK HOURS: 37**  
*(Voc. Course ONLY)*

Lecture: **37**      Lab:

Clinic:                      Other:

**PREREQUISITE(S):**

**COREQUISITE(S): MEA 0540L**

**PRE/COREQUISITE(S): HSC 1531**

**COURSE DESCRIPTION:** This course will discuss a brief history of electrocardiography, a brief discussion of the cardiovascular system, 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. Ambulatory cardiac monitors will be studied. *(750 characters, maximum)*

## 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 0540**

## **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 HIPAA regulations

### **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



**Common Course Number: MEA 0540**

**Unit 2 The Cardiovascular System**

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

**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



**Common Course Number: MEA 0540**

**Unit 3 The Electrocardiograph**

**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

**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 0540**

**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  
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: 0540**

**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

**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



**Common Course Number: MEA0540**

**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

**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 0540**

**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

**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