El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Medical Assisting Technology**
COURSE RUBRIC AND NUMBER	**ECRD 1211**
COURSE TITLE	**Electrocardiography**
COURSE CREDIT HOURS	**2 (Credits) 1 (Lec) : 3 (Lab)**

I. Catalog Description

Fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. A grade of "C" or better is required in this course to take the next course. **Prerequisites: MDCA 1305 and MDCA 1310 and MDCA 1313 and MDCA 1409 and MDCA 1417. (1:3). Lab fee. Professional Practice Insurance required.**

II. Course Objectives

Upon satisfactory completion of this course, the student will be able to:

A. Greet patients.
B. Welcome visitors.
C. Take Vitals.
D. Document Vitals.
E. Take History and Physical.
F. Identify Chief Complaint.
G. Inform doctor of abnormal blood pressure and tests.
H. Listen and Respond appropriately to patients concerns.
I. Maintain Confidentiality.
J. Practice risk management.
K. Observe Universal Precautions.
L. Employ preventive measures.
M. Apply HIPAA (Health Insurance Portability and Accountability Act.).
N. Administer EKG's.
O. Perform patient education.
P. Inform doctor immediately for critical results.
Q. Apply OSHA regulations.
R. Incorporate proper medical terminology.

1. Unit I. Electrophysiology, ECG Recording, and Wave Forms
   a. Define ECG and identify the importance of ECG in the overall care of the patient.
   b. Anatomy and function of the heart as it pertains to structure, composition and movement
   c. Electrophysiology and ECG recording with an emphasis on the phases of the cardiac cycle, the nervous control of the heart, and the electrical conduction system.
   d. Recognize the basic waveforms and measurements on the ECG including:

1. The P wave
2. The PR interval
3. The QRS complex
4. The ST segment
5. The T wave
6. The QT wave
7. The U wave

2. Unit II. Normal and Abnormal Cardiac Rhythms and Junctional Mechanisms
   a. Define and recognize: Sinus Rhythm, Sinus Tachycardia, Sinus Bradycardia, Sinus Arrhythmia, Sinus Arrest and Sinoatrial (SA) blocks.
   b. Define and recognize: Junctional Mechanism, Atrial Mechanism, Ventricular Mechanism.

3. Unit III. AV Conduction Defects and Electrical Interventions
   a. Define and identify AV conduction defects. These include First degree blocks, Second degree blocks, Advanced AV blocks, and Complete AV blocks.
   b. Identify electrical interventions that are used with an emphasis on Defibrillation, Syncronized Cardio Conversion, and Automated External Defibrillation.
   c. Define Electronic Pacemakers and explain how they work.

4. Unit IV. The 12- Lead ECG and Arrhythmias Due to Abnormal Conduction Pathway
   a. Recognize ECG signs of pacemaker malfunction.
   b. Identify the surfaces of the heart by the 12 lead EC
   c. Identify Myocardial Infarction, ST segment and T wave abnormalities.
   d. Recognize the various arrhythmias that are due to an abnormal conduction pathway
   e. Generate and interpret various ECG rhythm strips.

III. THECB Learning Outcomes (WECM)

Upon completing this course, the student will be able to:

1. Describe the anatomy and physiology of the cardiovascular system.
2. Perform basic electrocardiography procedures.
3. Interpret basic dysrhythmias.

IV. Evaluation

A. The following will be used to determine the grade:

1. Four unit exams. Each exam will be 100 points
2. One comprehensive final, 200 points
3. Two lab exams. Each will be 50 points
4. Attendance and class participation will be 50 points
5. Five quizzes will be given throughout the semester. Each will be 20 points

Total possible points = 700

B. Grading Scale

630 - 700 = A (90-100%)
560 - 629 = B (80-89%)
490 – 559 = C (70-79%)
420 – 489 = F (60-69%) or less

*A grade of "F" will need to be repeated for all Health Occupation Classes in order to graduate.

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.

VII. Title IX and Sex Discrimination

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.