



Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title - Cardiology

Course Prefix and Number - EMSP 2444

Department - Public Safety Training

Division – Vocational Science

Course Type: (check one)

- Academic General Education Course (from ACGM – but not in WCJC Core)
- Academic WCJC Core Course
- WECM course (This course is a Special Topics or Unique Needs Course: Y or N)

Semester Credit Hours # : Lecture hours# : Lab/other hours # 4:3:3

Equated Pay hours for course – 4.5

Course Catalog Description – Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation.

Prerequisites/Co requisites – THEA Reading Requirement; EMSP 1401, EMSP 1260, and concurrent enrollment in EMSP 1355, EMSP 1338, EMSP1356, EMSP 2260, and EMSP 2261.

List Lab/ Other Hours
Lab Hours 3
Clinical Hours
Practicum Hours
Other (list)

Approvals – the contents of this document have been reviewed and are found to be accurate.

Prepared by Maggie Mejorado	Signature 	Date 9/16/10
Department Head 	Signature 	Date 9/16/10
Division Chair 	Signature 	Date 9/16/10
Vice President of Instruction or Dean of Vocational Instruction	Signature 	Date 10-29-10



I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

- A. Review of Cardiovascular Anatomy and Physiology- Cardiovascular Anatomy, Cardiac Physiology, Electrophysiology
- B. Electrocardiographic Monitoring- The Electrocardiogram, Relationship of the ECG to Electrical Events in the Heart, Interpretation of Rhythm Strips
- C. Dysrhythmias- Mechanism of Impulse Formation, Classification of Dysrhythmias, Dysrhythmias Originating in the SA Node, Dysrhythmias Originating in the Atria, Dysrhythmias Originating within the AV Junction, Dysrhythmias Originating in the Ventricles, Pulseless Electrical Activity, Dysrhythmias Resulting from Disorders of Conduction, ECG Changes Due to Electrolyte Abnormalities and Hypothermia
- E. Assessment of the Cardiovascular Patient- Scene Size-Up and Primary Assessment, Focused History, Secondary Assessment
- F. Management of Cardiovascular Emergencies- Basic Life Support, Advanced Life Support, Monitoring ECG in the Field, Vagal Maneuvers, Precordial Thump, Pharmacological Management, Defibrillation, Emergency Synchronized Cardioversion, Transcutaneous Cardiac Pacing, Carotid Sinus Massage, Support and Communication
- G. Managing Specific Cardiovascular Emergencies- Acute Coronary Syndrome, Angina Pectoris, Myocardial Infarction, Heart Failure, Cardiac Tamponade, Hypertensive Emergencies, Cardiogenic Shock, Cardiac Arrest, Peripheral Vascular and Other Cardiovascular Emergencies
- H. Prehospital ECG Monitoring- Prehospital 12-Lead ECG Monitoring

II. Course Learning Outcomes

Course Learning Outcome	Method of Assessment
<p>The student will be able to perform a proper cardiac patient assessment and perform a comprehensive cardiac physical exam on any patient suffering from a cardiac condition in a pre-hospital setting; develop a systematic approach to execute a correct and proper electrocardiogram interpretation; effectively communicate with the patient and partners in the field and establish and maintain mechanical cardiac function during transport to the nearest and proper cardiac facility; perform Advanced Cardiac Life Support procedures in a pre-hospital setting in accordance with the American Heart Association guidelines and protocols.</p>	<p>Written Exams, course schedules/syllabus, scenario assessments, clinical manuals, student handbooks, and assesment graphs. Patient care assessments, oral interviews, critical thinking skills and decision making. Conduct themselves in a professional manner at all times in dealing with patients, instructors and other public safety professionals.</p>

III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

Brady's Essentials of Paramedic Care 2nd Ed.
Brady's Essentials of Paramedic Care 2nd Ed. Workbook
Fast N Easy ECGs
American Heart Association ACLS Provider Manual
American Heart Association PALS Provider Manual
WCJC EMS Student Handbook in a WCJC Red Binder
Spiral notebook or similar for classroom notes and clinical site notes
Black pens
2- #2 pencils
Loose-leaf notebook paper for assignments (can be kept in the 3 ring binder)
Uniform
Stethoscope
EMT scissors
Penlight
Physical Exam

IV. Suggested Course Maximum - 30

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.

Data projector, computer, Cardiac monitor and simulator

VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course

Chapter Tests -10%
Major Exams 40%
Final Exam 50%

VII. Curriculum Checklist

- **Academic General Education Course** (from ACGM – but not in WCJC Core)
No additional documentation needed
- **Academic WCJC Core Course**
Attach the Core Curriculum Checklist, including the following:
 - Basic Intellectual Competencies
 - Perspectives
 - Exemplary Educational Objectives
- **WECM Courses**
If needed, revise the Program SCANS Matrix & Competencies Checklist.