

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 – TSI Reading requirement met; EMSP 1401 and EMSP 1260

Co-Requisites: EMSP 1338, EMSP 1355, EMSP 1356, EMSP 2260, and EMSP 2261

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

Prepared by Maggie Mejorado

Date 9/21/11

Reviewed by department head Maggie Mejorado

Date 3/27/2012

Accuracy verified by Division Chair Terry David Lynch

Date 3/27/2012

Approved by Dean of Vocational Instruction or Vice President of Instruction Lac

Date 11-9-12



I. Topical Outline –

- 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
The student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression; and implement a treatment plan for the cardiac patient.	Written Exams, course schedules/syllabus, scenario assessments, clinical manuals, student handbooks, and assesment graphs. Read EKG monitor and strip recognition. Patient care assessments, oral interviews, critical thinking skills and decision making.

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

- AAOS Emergency Care in the Streets 6th Ed.
- AAOS Emergency Care in the Streets 6th Ed. Workbook
- Fast N Easy ECG Textbook
- AHA PALS textbook
- AHA ACLS Textbook
- Medical Dictionary
- 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.

EKG monitor, EKG simulator, Mannequin, Data projector, Computer

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 -20%

Major Exams -40%

Final Exam - 40%

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.