



**Course Information**

<b>Course Title</b>	Cardiology
<b>Course Prefix, Num. and Title</b>	EMSP 2444
<b>Division</b>	VOCS
<b>Department</b>	Emergency Medical Services Program
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation.
<b>Pre-Requisites</b>	Current AEMT certification from the Texas Department of State Health Services OR current AEMT certification from the National Registry OR EMSP 1355 with a current EMT certification from the Texas Department of State Health Services.
<b>Co-Requisites</b>	EMSP 2261, EMSP 2330, EMSP 2306, and EMSP 2434

**Semester Credit Hours**

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	4:3:3
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	4.5
<b>Lab/Other Hours Breakdown: Lab Hours</b>	3
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	Enter Clinical Hours Here.
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	Enter Practicum Hours Here.
<b>Other Hours Breakdown</b>	List Total Lab/Other Hours Here.

**Approval Signatures**

<b>Title</b>	<b>Signature</b>	<b>Date</b>
<b>Prepared by:</b>		
<b>Department Head:</b>		
<b>Division Chair:</b>		
<b>Dean/VPI:</b>		
<b>Approved by CIR:</b>		

## Additional Course Information

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

-Cardiovascular Emergencies

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. Arrhythmias - Mechanism of Impulse Formation, Classification of Arrhythmias, Arrhythmias Originating in the SA Node, Arrhythmias Originating in the Atria, Arrhythmias Originating within the AV Junction, Arrhythmias Originating in the Ventricles, Pulseless Electrical Activity, Arrhythmias 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

### Course Learning Outcomes:

#### Learning Outcomes – Upon successful completion of this course, students will:

Be able to integrate pathophysiological principles and assessment findings to formulate a field impression; and implement a treatment plan for the cardiac patient.

#### Methods of Assessment:

Computer Based Exams, critical skills development, scenario assessments, assessment graphs, patient care assessments, oral interviews, critical thinking skills, various hands on skills evaluations and decision making exercises.

### Required text(s), optional text(s) and/or materials to be supplied by the student:

\*AEMT Package ISBN# 9780135573631 (WCJC Student Packet) which includes the following material:\*

ISBN	Author	Description	Ed
0134572033	BLEDSOE & CHERRY	PARAMEDIC CARE VOL 1	Current
0134569954	BLEDSOE & PORTER	PARAMEDIC CARE VOL 2	Current
0134538730	BLEDSOE & PORTER	PARAMEDIC CARE V3	Current
0134449746	BLEDSOE & PORTER	PARAMEDIC CARE VOL 4	Current
0134449754	BLEDSOE & PORTER	PARAMEDIC CARE VOL 5	Current
0134442733	ALEXANDER & BELLE	MBL W/PE ETX A/C ADV EMT	Current
0134572998	BLEDSOE	MBL/PE ET AC PAR CARE V1	Current
013464106X	LIMMER	AEMT REVIEW	Current
0134442237	PLATINUM EDUCATIONAL GRP	PLATINUM PLANNER SAC	Current

(\*If continuing from the AEMT Program the student has already purchased\*)

AND

Paramedic Package ISBN# 9780135573679 (WCJC Student Packet) which includes the following material:

ISBN	Description
------	-------------

Version: 3/20/2019

9780132896603 EMSTESTING.COM: Paramedic student -- Access Card  
9780134380995 Basic Arrhythmias  
9780134381749 MyBRADYLab with Pearson eText -- Access Card -- for Basic Arrhythmias  
9780134609669 Paramedic Review Plus

### **Suggested Course Maximum:**

30

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

Skills lab, various manikins and EMS teaching aids.

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

Affective - 10%  
Class Assignments-- 10%  
Chapter Tests- 15%  
Major Exams- 35%  
Final Exam- 30%

Grade Scale:

A= 90-100  
B= 80-89  
F= 0-79

### **Curriculum Checklist:**

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
  - Critical Thinking
  - Communication
  - Empirical & Quantitative Skills
  - Teamwork
  - Social Responsibility
  - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist