

EMC 114 Course Outline as of Fall 2013**CATALOG INFORMATION**

Dept and Nbr: EMC 114 Title: BASIC ARRHYTHMIA
 Full Title: Basic Arrhythmia Recognition Course
 Last Reviewed: 12/10/2018

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0	8	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable
 Grading: Grade Only
 Repeatability: 21 - Legally Mandated Repetition
 Also Listed As:
 Formerly: EMC 275.1

Catalog Description:

Application of basic principles of cardiac anatomy and physiology to recognize basic heart arrhythmias. Designed for health and allied care personnel who assume responsibility for cardiac monitoring in the pre-hospital and hospital setting.

Prerequisites/Corequisites:**Recommended Preparation:**

Eligibility for ENGL 100 or ENGL 102 or ESL 100

Limits on Enrollment:**Schedule of Classes Information:**

Description: Basic principles of cardiac anatomy and physiology to recognize basic heart arrhythmias. Course for health & allied care personnel who assume responsibility for cardiac monitoring in the pre-hospital or hospital setting. (Grade Only)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 100 or ENGL 102 or ESL 100

Limits on Enrollment:

Transfer Credit:

Repeatability: Legally Mandated Repetition

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:

IGETC:	Transfer Area	Effective:	Inactive:
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CSU Transfer:	Effective:	Inactive:
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UC Transfer:	Effective:	Inactive:
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CID:

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:

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

1. Identify and define 9 structures of the heart and their basic function.
2. Define the following terms related to cardiac electrophysiology:
 - A. Depolarization
 - B. Repolarization
 - C. Action potential
 - D. Refractory states
3. Describe the sequence of cardiac activation and recovery, and relate this information to the electrocardiogram (EKG) configuration.
4. Demonstrate a systematic method of EKG interpretation.
5. Identify normal waveforms for monitoring leads II, modified cardiac lead (MCL) 1 and 6.
6. Classify arrhythmias according to site, mechanism and severity.
7. Identify 15 arrhythmias.
8. Recognize and describe 4 conduction defects.
9. Identify 3 premature and escape beats and state the mechanism for each.
10. Discuss possible nursing and medical interventions for 15 major arrhythmias.
11. Identify pacemaker rhythms.

Topics and Scope:

1. Overview
 - A. Cardiac anatomy and physiology
 - B. Myocardial blood supply
 - C. Cardiac conduction system
2. EKG Interpretation

- A. Vectors, lead placements
 - B. Waves and measurements
 - C. Analysis of EKG rhythm strips
 - D. Modified cardiac leads
3. Conduction System
 - A. Anatomy
 - B. EKG analysis
 - C. Sinus rhythms
 4. Cardiac Rhythms
 - A. Atrial
 - B. Junctional
 - C. Ventricular
 5. Heart Blocks - Conduction Defects

Assignment:

1. Read approximately 10 pages per week.
2. Identify approximately 20 rhythm strips per week.
3. Exam identifying 15 strips rhythm strips

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Identify 20 rhythm strips	Writing 5 - 10%
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Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None	Problem solving 0 - 0%
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Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Performance exams	Skill Demonstrations 20 - 45%
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Exams: All forms of formal testing, other than skill performance exams.

Completion, Identify EKG rhythm strips	Exams 45 - 70%
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Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%
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Representative Textbooks and Materials:

EKG Workbook by Huff, Lippincott 6th ed. 2004
Instructor prepared materials.