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 reponsibility 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:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

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 leans

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%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None	Problem solving 0 - 0%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Performance exams	Skill Demonstrations 20 - 45%

Exams: All forms of formal testing, other than skill performance exams.

Completion, Identify EKG rhythm strips	Exams 45 - 70%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:

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