Cerro Coso College

Course Outline of Record Report

10/11/2021

HCRSC255 : Basic Cardiac Rhythm Interpretation

General Information

Author:	-
Course Code (CB01) :	HCRSC255
Course Title (CB02) :	Basic Cardiac Rhythm Interpretation
Department:	Allied Health
Proposal Start:	Fall 2013
TOP Code (CB03) :	(1230.20) Licensed Vocational Nursing
SAM Code (CB09) :	Clearly Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) :	CCC000548431
Curriculum Committee Approval Date:	04/12/2013
Board of Trustees Approval Date:	06/13/2013
External Review Approval Date:	08/24/2013
Course Description:	This course is designed to enable students to interpret basic cardiac rhythms in health care related settings. Heart anatomy, physiology, and dysrhythmias relating to atrial and ventricular dysfunction, basic electrical conduction disorders and treatment plans are presented.
Submission Type:	New Course
Author:	No value

Faculty Minimum Qualifications

Master Discipline Preferred:	No value
Alternate Master Discipline Preferred:	• Nursing
Bachelors or Associates Discipline Preferred:	• Health Care Ancillaries (Medical assisting, hospice worker, home care aide, certified nurse aide, health aide, ward clerk, central service technology, childbirth educator, primary care associate, massage therapy)
Additional Bachelors or Associates Discipline Preferred:	No value

Course Development Options

Basic Skills Status (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13)

Course is not a special class.

Grade Options

- Letter Grade Methods
- Satisfactory Progress

☐ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior To College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Course Support Course Status (CB26)

No value

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type	Active
Cerro Coso Vocational Nursing	Certificate of Achievement	Summer 2018
Cerro Coso Vocational Nursing	A.S. Degree Major	Summer 2018
Cerro Coso Vocational Nursing (In Development)	Certificate of Achievement	Fall 2021

Transferability & Gen. Ed. Options

Course General Education Status (CB25)

No value

Transferability

Transferable to CSU only

Transferability Status

Approved

Units and Hours:

Summary

Minimum Credit Units (CB07)	3
Maximum Credit Units (CB06)	3
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	108
Total Student Learning Hours	162
Faculty Load	0

Credit / Non-Credit Options

Course Credit Status (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22)

Credit Course.

Non-Credit Characteristic

No Value

Course Classification Status (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Classs
Lecture Hours	3	6
Laboratory Hours	0	0
Activity Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	0
Activity	0
Total	54
Course Out-of-Class Hours	
Lecture	0
Laboratory	0
Activity	0
Total	108

Time Commitment Notes for Students

No value

Faculty Load

Extra Duties: 0

Faculty Load: 0

Units and Hours: - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Prerequisite

ENGLC070 - Introductory Composition

Students must be able to read and comprehend at a college level text book explaining basic cardiac rhythm interpretation as it relates to the healthcare profession. The reading level encourages students to have the skills necessary for success in the assignments and subject matter material presented.

Entrance Skills

Entrance Skills	Description
No value	No value

Limitations on Enrollment

Limitations on Enrollment	Description
No value	No value

Specifications

Methods of Instruction

Methods of Instruction	Other
Rationale	Other Methods: Power Point Slides Group Discussions Textbook Exercises Internet Research
Methods of Instruction	Written work
Rationale	No value
Methods of Instruction	Presentations (by students)
Rationale	No value

Methods of Instruction	Problem Solving
Rationale	No value

Methods of Instruction	Peer-to-peer instruction
Rationale	No value

Methods of Instruction	Outside reading
Rationale	No value

Methods of Instruction	Lecture
Rationale	No value

Methods of Instruction	Discussion
Rationale	No value

Methods of Instruction	Case Study
Rationale	No value

Assignments

A. Group Discussions
B. Internet Research
C. Textbook Assignments on assigned chapters (End of Chapter questions) Example of assignment: Briefly describe how to determine the presence of left ventricular hypertrophy using the 12-lead ECG.

Methods of Evaluation	Rationale
Tests	Exams (Multiple choice and/or short answer)
Tests	Quizzes (Multiple choice and/or short answer)
Other	Internet Research
Participation	Discussion Groups
Homework	Weekly readings, discussion threads, participation
Homework	Completion of textbook exercises

Equipment

No Value

Textbooks

Author	Title	Publisher	Date	ISBN
	Ellis, K. . (2012) EKG Plain & Simple, 3rd, Pearson Publishing			

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Apply knowledge of coronary anatomy, physiology and electrophysiology.	Expected SLO Performance: 70.0
Discriminate lead morphology and placement, and relate to technical aspects of the EKG.	Expected SLO Performance: 70.0
Calculate heart rates and apply the 5 steps of rhythm interpretation.	Expected SLO Performance: 70.0
Evaluate rhythms originating in the sinus node and atria.	Expected SLO Performance: 70.0
Decipher rhythms originating in the AV juntion and Ventricles.	Expected SLO Performance: 70.0
Elucidate rhythms of AV heart block and pacemakers.	Expected SLO Performance: 70.0

Outline

Course Outline

A. Anatomy and Physiology of the Heart
1. Description and location of the heart
2. Function of the heart
3. Heart surfaces
4. Heart valves
5. Blood flow through the heart and lungs
6. Coronary circulation
7. Cardiac innervation
B. Electrophysiology of the Heart

1. Cardiac cells
2. Depolarization and repolarization
3. Electrical conduction system of the heart
4. The cardiac cycle
5. Waveforms and current flow
6. Refractory and supernormal periods of the cardiac cycle
7. ECG graph paper

C. Waveforms; Intervals; Segments; and Complexes

1. P wave
2. PR interval
3. ST segment
4. T wave
5. QT interval
6. U wave

D. Cardiac Monitors

1. Purpose of ECG monitoring
2. Types of bedside monitoring
3. Applying the electrode pads
4. Troubleshooting monitor problems

E. Analyzing a Rhythm Strip

1. Determine the regularity of the R waves
2. Calculate the heart rate
3. Identify and examine P waves
4. Measure the PR interval
5. Measure the QRS complex

F. Sinus Arrhythmias

1. Normal sinus rhythm
2. Sinus tachycardia
3. Sinus bradycardia
4. Sinus arrhythmia
5. Sinus pause

G. Atrial Arrhythmias

1. Wandering atrial pacemaker
2. Premature atrial contraction
3. Nonconducted premature atrial contraction
4. Paroxysmal atrial tachycardia
5. Atrial flutter
6. Atrial fibrillation

H. AV Junctional Arrhythmias

1. Premature junctional contraction
2. Junctional rhythm
3. Accelerated junctional arrythmia
4. Paroxysmal junctional tachycardi

I. AV Blocks

1. Atrioventricular heart blocks
2. First-degree AV block
3. Second-degree AV block
4. Third-degree heart block

J. Ventricular Arrhythmias and Bundle-Branch Blocks

1. Bundle-branch block
2. Premature ventricular contractions
3. Ventricular tachycardia
4. Idioventricular rhythm
5. Accelerated idioventricular rhythm
6. Ventricular standstill and asystole

K. Pacemakers

1. Temporary pacemakers
2. Permanent pacemakers
3. Classification of pacemakers
4. Pacemaker terms
5. Pacemaker malfunctions
6. Analyzing pacemaker rhythm strips

Delivery Methods and Distance Education

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings (“Hybrid”) -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

Face 2 Face
Online

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section?

Courses will use same curriculum and student learning outcomes. Moodle will be utilized for all uploads.

Effective Student-Instructor Contact: Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Moodle Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) -Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV -Interactive Video -Other (specify)

contact_moodle_message
contact_chat
contact_email
contact_other

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

No Value

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

s508_itv
s508_moodle
s508_publisher

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

No Value