Course Information Form (CIF)

Course Code: HCS 173

Course Title: Applied Electrocardiography

Department: Allied Health
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 51.0801
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 1-1-1
Credit Hour Distribution:

Lecture: 1	Lab: 1	Clinical: 0	**Total: 1**

General Course Information

Catalog Description

Entry level training to perform, process, and explain the electrocardiogram; overview of cardiac anatomy, physiology, and conduction systems; commonly encountered drugs in cardiac medicine; data procurement, selection, processing, overview of diagnostic tests and presentation for physician's interpretation; professional conduct.

General Course Objectives

- Provide a knowledge base of general entry-level electrocardiogram concepts.
- Provide opportunities for the development of critical thinking and problem solving skills in cardiac healthcare.
- Develop basic skills in electrocardiogram application.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 060

Prerequisites

Approval of program director or department chair

Methods of Evaluation

6-8 quizzes, 6-8 homework assignments, 1-2 skills evaluations, and 1 comprehensive final exam.

Instructional Materials and Additional Supplies

Rapid Interpretation of EKGs, Dale Dubin, M.D., current edition. 0-912912-06-5

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Cardiac and Thoracic Anatomy	1. Describe, locate, and determine heart position and thoracic anatomy.	1	1	0
Electrical Cardiac Output	1. Describe the origin, implication, and measurement of common EKG intervals. 2. Demonstrate proper use of an EKG monitor with application of safety measures.	2	1	0
Principles of Electrocardiography (EKG) Monitors and Other Non-Invasive Monitoring Systems	1. Describe the electronic concept of the EKG monitor, electrodes, patient and equipment grounding, and maintenance; analyze problems with equipment. 2. Demonstrate proper use of an EKG machine with application of safety measures.	2	2	0
Application of Electrocardiography (EKG) Monitors	1. Demonstrate safe and effective EKG testing and non-invasive monitoring systems and procedures. 2. Demonstrate patient education of test preparation and safety issues.	1	2	0
Rhythm Identification	1. Practice and demonstrate rhythm identification. 2. Assess patient responses to cardiac monitoring tests. 3. Identify patient data during procedure, normal rhythm, abnormal rhythm, and patient- and electrically-generated artifacts. 4. Observe and identify rhythms using iStan simulation lab. 5. Identify commonly encountered medications for cardiac health.	5	5	0
Documentation and Communication	1. Describe and demonstrate medical ethics and HIPAA considerations with an awareness of cultural differences. 2. Demonstrate documentation using all forms of data entry.	2	2	0
Complications and Emergency Procedures	1. Identify patient responses and complications during cardiac monitoring. 2. Describe emergency procedures and protocols. 3. Demonstrate emergency procedures relating to cardiac labs and testing.	2	2	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
15	15	0