SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
PARAMEDIC
Revision Date: 12/2023

I. CATALOG DESCRIPTION

Course Number:	**PARM 1115**
Course Title:	**Electrophysiology in Paramedicine**
Prerequisite(s):	**Enrollment in Paramedic program or by instructor approval.**
Catalog Description:	**This introductory ECG course will instruct in the anatomy and physiology of the conduction system of the heart, the electrical system, electrocardiography, abnormal ECG patterns, 12-Lead ECG interpretation, and distinguishing between life-threatening & non-life-threatening dysrhythmias. Cardiac dysrhythmia treatment modalities will be discussed.**
Credit Hours:	**3**
Class Hours:	**45**
Lab Hours:	**0**
Total Contact Hours:	**45**

II. COURSE OBJECTIVES: *Course will:*

1. Review anatomy and physiology of the heart.
2. Introduce heart electrophysiology.
3. Introduce basic ECG interpretation.
4. Introduce treatment modalities for various dysrhythmias.
5. Introduce and practice 12-Lead ECG interpretation.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

1. Demonstrate understanding of didactic material by completing written examinations, quizzes, homework and projects with a cumulative score of ≥75%.
2. Demonstrate the professional traits as outlined in the *EMT Oath and Code of Conduct*.
3. Identify anatomical structures of the heart.
4. Trace the electrical pathways of the myocardium.
5. Interpret various ECG dysrhythmias.
6. Interpret various ECG dysrhythmias located on a 12-Lead ECG, including bundle branch blocks, various locations of acute myocardial injury & infarctions and axis deviation.
7. Demonstrate treatments for various cardiac emergencies.

B. GENERAL EDUCATION LEARNING OUTCOMES

GELO 3: Critical Thinking & Problem Solving

Outcome 1: Collect, identify, interpret and analyze data.

1. The student will demonstrate the ability to interpret and analyze data as well as discuss actions and outcomes of actions.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information)*

A. Anatomy and physiology of the myocardium.
B. Components of the ECG tracing.
C. Steps to ECG interpretation
D. Sinus rhythms
E. Atrial rhythms
F. Ventricular rhythms
G. Junctional rhythms
H. Heart blocks
I. Tachydysrhythmia treatment
J. Bradydysrthyhmia treatment
K. Treatment for pulseless arrest
L. Treatment for ROSC
M. Identifying Axis deviation & Hemiblocks on a 12-Lead ECG
N. Identifying Bundle branch blocks on a 12-Lead ECG
O. Identifying wide complex tachycardias on a 12-Lead ECG
P. Identifying a STEMI
Q. Identifying severe electrolyte imbalances on a 12-Lead ECG

V. INSTRUCTIONAL MATERIALS

A. Required Text(s):

Walraven, G. *Basic Arrhythmias*, current ed., Upper Saddle River: Prentice Hall
Page, B., & Emler, A.W., *12 Lead ECG for Acute and Critical Care Providers*, current edition, Upper Saddle River: Prentice Hall

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Lecture
2. Group discussion
3. Demonstrations

VII. METHODS OF EVALUATION

1. Methods of evaluation are provided in the Course Information Document (CID) found in the course canvas shell.

SCC STANDARD GRADING SCALE POLICY:

A+	**95-100**	**C+**	**75-79**
A	**90-94**	**C**	**70-74**
B+	**85-89**	**D+**	**65-69**
B	**80-84**	**D**	**60-64**
		F	**Below 60**

VIII. SPECIFIC COURSE REQUIREMENTS

A. Students must complete course with a score of Passing ≥75% (C+) to continue in the Paramedic Program.

B. The expectations of students are to abide by the policies and procedures found within the CID and program handbook.