

COURSE INFORMATION

COURSE PREFIX/NO: EMS 217
COURSE TITLE: INTRODUCTION TO ELECTROCARDIOGRAPHY
LECTURE HOURS/WEEK: 1
LAB HOURS/WEEK: 3
CREDIT HOURS: 2

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This course covers the basic principles of recognizing and interpreting EKG tracings. Laboratory emphasis is placed on the operation of electrocardiographic equipment. It also includes rhythm interpretation and treatments of symptomatic cardiac rhythms.

COURSE COMPETENCIES

Upon successful completion of EMS 217, the student will be able to:

Module 1: Introduction to Electrocardiography

Section 1: Electrophysiology

Describe the electrophysiologic basis of cardiac arrhythmias

Section 2: Waves and Measurements

Discuss how cardiac electrical stimuli applies to arrhythmia interpretation

Section 3: Analyzing EKG Rhythm Strips

Demonstrate an organized analysis format to gather necessary data from a rhythm strip to interpret the presenting arrhythmia

Module 2: Cardiac Rhythm Recognition

Section 1: Sinus Rhythms

Recognize arrhythmias that originate in the sinus node

Section 2: Atrial Rhythms

Recognize arrhythmias that originate within the atrium

Section 3: Junctional Rhythms

Recognize arrhythmias that originate in the AV junction

Section 4: Heart Blocks

Recognize arrhythmias that are manifestations of conduction defects at the AV node

Section 5: Ventricular Rhythms

Recognize arrhythmias that originate in the ventricles

Section 6: Pacemakers

Recognize arrhythmias that are manifestations of artificial pacemakers

Module 3: Basic 12-Lead Interpretation

Section 1: The 12-Lead ECG

Explain the advantages of a 12-Lead ECG tracing

Explain 12-Lead monitoring leads and electrodes placement

Explain the vectors and axis of electrical flow through the heart

Describe the standardized format for printing 12-Lead ECGs

State the limitations of 12-Lead ECGs

Explain interpreting myocardial damage on the 12-Lead ECG

Explain interpreting chamber enlargement on the 12-Lead ECG

Explain interpreting bundle branch block on the 12-Lead ECG

Explain interpreting other abnormalities on the 12-Lead ECG

Explain the format for analyzing the 12-Lead ECG

COURSE REQUIREMENTS:

1. Students are expected to adhere to the policies regarding student conduct as stated in the current York Technical College Catalog and Handbook.
2. Students are responsible for attending all scheduled classes in EMS 217. Regular attendance and class participation are essential to student success in EMS 217. Students who are absent from scheduled classes/clinical for more than 10% of the scheduled hours will be withdrawn.
3. Students are responsible for all material covered and for completing all assignments.
4. **Students must satisfactorily complete** any required skill competencies.
5. **Students must complete** module exams, quizzes and homework assignments with an average score of 80%. **Students must have a *MINIMUM SCORE OF 80% TO SUCCESSFULLY COMPLETE THIS COURSE!***

ATTENDANCE

This course is taught from the NHTSA's DOT current Paramedic curriculum. Students are responsible for attending all scheduled classes in EMS 217. Students must attend a minimum of 90% of all scheduled activities. Student who are absent from scheduled classes/clinical for more than 10% of the scheduled hours will be withdrawn

ACADEMIC INTEGRITY

Any student found guilty of cheating, dishonesty or plagiarism will be given a grade of "0" on an exam or written work and will be subject to further disciplinary action. Plagiarism refers to "The act of appropriating the literary composition of another, on parts or passage of his writings, on the ideas or language of the same, and passing them off as the product of one's own mind."

METHODS OF INSTRUCTION

Lecture, assigned readings, audiovisuals, handouts, written assignments, discussion, and demonstration.

MINIMAL STANDARDS

Attendance/Participation: Given a course outline, the student will attend and actively participate in a minimum of 90% of scheduled class sessions. All current SC DHEC EMS Division Policies and Procedures will apply to the EMT-P Training Program.

Performance: Upon completion of assigned readings, classroom presentations/demonstrations/practice, out-of-class activities, and other assigned course activities, the student will demonstrate all competencies as required by current SC DHEC EMS Division Policies and Procedures.

EVALUATION STRATEGIES/GRADING:

- A. Lab/Clinical Component

None

- B. Theory Component

The final grade in EMS 217 will be determined by averaging the scores on the following:

In-course Module Exams	75%
Homework/Quizzes	25%
*Combination of above	100%

Must have a *MINIMUM SCORE OF 80% TO SUCCESSFULLY COMPLETE THIS COURSE!

Grading Scale for EMS 217

A	91-100%
B	86-90%
C	80-85%
D	70-79%
F	Below 69%

PREREQUISITES: Admission to York Technical College
Completion of Anatomy and Physiology as per SC DHEC EMS Policy
Completion of EMS 111, EMS 115, EMS 116, EMS 120, EMS 220, EMS 210,
EMS 214, and EMS 221
SC DHEC EMS Intermediate EMT

ENTRY-LEVEL SKILLS:

*Students must be an Intermediate EMT prior to course and must be affiliated with an Emergency Medical Services (EMS) or Rescue Squad/Fire Department SC DHEC EMS Provider through course completion.

*Students must maintain current SC DHEC EMS Division Intermediate EMT status through course completion.

*Students must maintain current BCLS credential as per SC DHEC EMS Division through course completion.

*Students must successfully complete ASSET or HOBET *prior to* entrance into course.

*Students must meet all above criteria and must meet all requirements for function as an Emergency Medical Technician as outlined in the current Americans with Disabilities Act.

CO-REQUISITES: EMS 213, EMS 222

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.

Effective Spring 2009