COURSE NO. AND TITLE: PSM 105 Electrocardiogram

I. FSM MISSION STATEMENT

The mission of the Public Safety Management Program (PSM) is to provide you, the Public Safety professional with highly trained and qualified instructors within the various fields of study in the PSM program. We are committed to the enhancement and advancement of Public Safety professionals through higher education.

II. COURSE DESCRIPTION:
Integrates assessments findings with principles of epidemiology and pathophysiology to formulate a filed impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

III. PREREQUISITE

All students must, in addition to SIU requirements, possess a valid CPR card for Healthcare Providers and Illinois EMT-B License through the entire time enrolled. If student possesses a valid NREMT license they must obtain an IL Basic License by week one of this class. It will be valid for 4 years or until student completes the Paramedic Exam.
A basic A& P class and Medical Terminology class is strongly recommended prior to beginning the Paramedic Classes.

IV. REQUIRED TEXTBOOK:

_Nancy Caroline’s Emergency Care in the Streets Premier Package
ISBN-13 9781284038316

• BIBLIOGRAPHY:

Once the online account is created the above book will be used throughout the series. Supplemental books will be introduced as recommended or required throughout the series of courses. The above is the only requirement for PSM 101.
V. COURSE OBJECTIVES:

Each student will:

1. Understand the indications and procedure for operating an automated external
defibrillator (AED).
2. Describe emergency medical care for the symptomatic patient with bradycardia.
3. Describe emergency medical care for the symptomatic patient with tachycardia.
4. Describe emergency medical care for the patient with cardiac arrest, including the elements of basic life support (BLS) and advanced cardiac life support (ACLS).
5. Describe the components of care following resuscitation, including how to determine return of spontaneous circulation.
6. Describe the pathophysiology of atherosclerosis, peripheral vascular disorders, acute coronary syndrome, and angina pectoris.
7. Discuss the assessment and management of coronary disease and angina.
8. List the signs and symptoms of acute myocardial infarction (AMI).
9. Explain the procedure for managing AMI and suspected AMI in the field, including STEMI and non-STEMI presentations.
10. Understand the benefits of reperfusion techniques (fibrinolysis and percutaneous intervention) in patients with AMI or suspected AMI.
11. Discuss the pathophysiology of congestive heart failure and its signs, symptoms, and treatment.
12. Discuss the pathophysiology of cardiac tamponade and its signs, symptoms, and treatment.
13. Discuss the pathophysiology of cardiogenic shock and its signs, symptoms, and treatment.
14. Describe the pathophysiology, assessment, and management of aortic aneurysms, including both acute dissecting aneurysm of the aorta and expanding and ruptured abdominal aortic aneurysms.
15. Discuss the pathophysiology of hypertensive emergencies and their signs, symptoms, and treatment.
16. Describe the risks posed by thromboembolism.
17. Identify types of congenital heart disease.
18. Describe the pathophysiology of hypertrophic cardiomyopathy.
19. Describe the pathophysiology of other cardiovascular anomalies: coarctation of the aorta, truncus arteriosus, tricuspid atresia, hypoplastic left heart syndrome, tetralogy of Fallot, transposition of the great arteries, and total anomalous pulmonary venous return. (see chapter, Neonatal Emergencies)
20. Describe how infections—endocarditis, pericarditis, and rheumatic fever—can damage the heart.

**Skills Objectives**

1. Demonstrate how to assess and provide emergency medical care for a patient with chest pain or discomfort.
2. Demonstrate how to perform cardiac monitoring.
3. Demonstrate how to acquire a 12-lead ECG.
4. Demonstrate how to perform manual defibrillation.
5. Demonstrate how to perform defibrillation with an AED.