NARRATIVE DESCRIPTION
Following this course, the participant should be able to recognize the epidemiology, demographics and common clinical presentations for the diseases and disorders discussed; construct an appropriate history, physical exam and laboratory evaluation to develop cost-effective and accurate diagnosis; manage as well as employ appropriate follow-up and/or specialty referral for the diseases and disorders presented. This activity is expected to result in improved competence in making appropriate diagnosis and providing effective treatment and referral or follow-up care with the overall goal of improving patient outcomes.

The emphasis will be on aligning physician behavior with current guidelines and evidence-based medicine, as indicated within each topic’s specific objectives. Emergency Medicine is a specialty that has a high rate of utilization and change in standards of care. It is often the point of entry for medical care; therefore, this course was designed to be of value to all practitioners at the level of a practicing physician in an effort to keep them abreast of current clinical practices in Emergency Medicine.

SPECIFIC OBJECTIVES
Day 1
Coagulopathy in the ER: All Bleeding Stops Eventually.
Upon completion of this session, the participant should be able to: COMP, EBM
1. Differentiate different patterns of coagulopathy that present to the ED.
2. Develop an evaluation and treatment plan for non-traumatic bleeding disorders in the ED, including hemophilia, TTP, ITP and others.
3. Outline the rationale and indications for the use of blood products used in the treatment of the bleeding patient.
4. Discuss some of the newer anticoagulation agents used today, such as Prasugrel (Effient) and Dabigatran (Pradaxa), as per the referenced RCT’s and EBM studies such as Rocket, RE-LY and Einstein.

Drug-Drug Interactions (DDIs).
Upon completion of this session, the participant should be able to: COMP, GL
1. Assess the scope of the problem of drug-drug interactions as it pertains to both the outpatient and emergency settings.
2. Explore interactions between prescription and non-prescription medications and review their treatments in the context of the Beers Criteria.

3. Review common drug-drug interactions and their complications commonly seen in the emergency room.

As the World Turns: Peripheral Vertigo in the ED.
Upon completion of this session, the participant should be able to: COMP
1. Illustrate the pathophysiology of benign positional vertigo.
2. Differentiate the various diagnostic tests in the evaluation of patients with peripheral vertigo.
3. Discover how to perform various therapeutic maneuvers, such as the Epley maneuver, in the treatment of patients with benign positional vertigo.

Atrial Fibrillation, Atrial Flutter and PSVT.
Upon completion of this session, the participant should be able to: GL, COMP
1. Differentiate EKG findings for atrial fibrillation, atrial flutter, paroxysmal supraventricular tachycardia, and Wolf-Parkinson-White syndrome.
2. Specify the factors determining the seriousness of any tachycardia.
3. Utilize current effective and approved therapies to treat various supraventricular tachycardias as per the cited systemic reviews and ACC guidelines.

Day 2
Aortic Catastrophes.
Upon completion of this session, the participant should be able to: COMP, EBM
1. Implement AAA Screening as per the systematic review of guidelines.
2. Determine the Stanford classification of a particular aortic dissection based on location.
3. Apply appropriate initial therapy in the patient with aortic dissection.
4. Assess the risk of rupture of abdominal aortic aneurysm based on size.

The Thunderclap Headache.
Upon completion of this session, the participant should be able to: COMP, EBM
1. Determine characteristics suggesting a thunderclap headache.
2. Construct a differential diagnosis beyond subarachnoid hemorrhage in the patient presenting with a thunderclap headache as per the ACEP clinical policy on acute headache.
3. Interpret spinal fluid results in the workup of a thunderclap headache.
Neuromuscular Weakness.
Upon completion of this session, the participant should be able to:\textsuperscript{COMP}
1. Discriminate between various clinical entities causing neuromuscular weakness, including Guillain-Barré syndrome, myasthenia gravis, and others.
2. Demonstrate techniques to be able to discriminate between organic and functional weakness.
3. Compare and contrast upper and lower motor neuron disease.

Ophthalmologic Emergencies.
Upon completion of this session, the participant should be able to:\textsuperscript{COMP, GL}
1. Develop an algorithm for the differential diagnosis of the red eye.
2. Create a diagnostic strategy for sudden monocular and binocular blindness.
3. Review the treatment plans for emergent ophthalmic conditions, including glaucoma, and retinal vein and artery occlusions as per the American Academy of Ophthalmology preferred practice pattern guidelines.
4. Develop a treatment strategy for ophthalmic trauma.

Day 3
Bedside Sedation.
Upon completion of this session, the participant should be able to:\textsuperscript{COMP, GL}
1. Analyze patient characteristics and clinical presentations where the most important risk is for apnea.
2. Debate pulse oximeter and wave form capnography - do we need it?
3. Assess and specify when sedation is an appropriate consideration for the critically ill.
4. Employ the use of sedation in the head injured patients as per the Clinical Practice Guidelines for emergency department use of Ketamine.

Being “Hip” On Ortho.
Upon completion of this session, the participant should be able to:\textsuperscript{COMP-x}
1. Assess if this is just another “found down” patient.
2. Identify which fractures have the highest “missed” rate.
3. Determine when ultrasound is better than a plain film.

Trauma and Orthopedic Pitfalls – Injuries Not To Be Missed.
Upon completion of this session, the participant should be able to:\textsuperscript{COMP}
1. Detect subtle injuries that, unless treated, can have impact on long term musculoskeletal function.
2. Determine and treat subtle presentation of severe traumatic and neurologic injuries.
3. Distinguish particular injury patterns to avoid missing correlated injuries in a traumatically injured patient.

Endocrine Emergencies.
Upon completion of this session, the participant should be able to:\textsuperscript{COMP, GL}
1. Develop, using the latest evidence and the ADA position statement, a comprehensive treatment plan for diabetic ketoacidosis (DKA).
2. Compare and contrast DKA and hyperosmolar non-ketotic states (HHNK).
3. Detect adrenal insufficiency and formulate an efficient treatment plan.
4. Construct treatment algorithms as per the AACE guidelines, for the management of thyrotoxicosis, hyperthyroidism and thyroid storm.

Day 4
Is This Test Necessary: Efficient Use of Testing in the Emergency Department.
Upon completion of this session, the participant should be able to:\textsuperscript{GL, COMP}
1. Develop, using the available evidence, efficient decision making skills for the use of some commonly used lab & radiographic tests in the ED as per the COC guidance and recommendations.
2. Determine - the utility of some less commonly used tests in the ED, including strep tests, D-dimers and coagulation tests.
3. Evaluate case scenarios to discuss optimizing patient care while reducing unnecessary costs.

Upon completion of this session, the participant should be able to:\textsuperscript{GL, COMP}
1. Recognize the early signs of agitation and employ strategies to resolve them.
2. Select appropriate agents for chemical restraint based on available evidence.
3. Using ACEP guidelines as a framework, develop a plan for the medical clearance of a psychiatric patient.
Chest Pain in the Emergency Department – Value of Heart Score.
Upon completion of this session, the participant should be able to:  
1. Who should we heart score – Appraise which patients we should heart score in the ED.  
2. Do risk factors matter – Identify specific risk factors that are significant and will change your approach to the patient with Chest Pain using the HEART Score of the European Society of Cardiology.  
3. What is the incidence of a missed MI – Assess the incidence of a missed MI in patients discharged from the ED.  
4. Determine when stress testing is most appropriate - where are we today with a stress test.  
5. What about a slightly elevated troponin – Interpret how a slightly elevated troponin will affect your care and a patient’s disposition.  

Electrocardiographic Subtleties You Can’t Afford To Miss.
Upon completion of this session, the participant should be able to:  
1. Location, location, location – Appraise the nuances and importance of proper ECG lead placement and determine how the location of an infarct drives the treatment priorities and process.  
2. The problem with a posterior MI – Determine how to detect a subtle posterior MI as it is one of the most commonly missed AMI’s.  
3. AVR do i need to worry – Assess the AVR lead for valuable clinical information and clues as to when you need to worry.  
4. Right axis deviation - why it is bad – Determine Right axis deviation and recognize the clinical significance as to why it is bad.  
5. What about the T wave – Evaluate the T wave for added important information which can reveal electrolyte abnormalities and clinically important cardiac risk.  

Day 5  
Traumatic Brain Injury.
Upon completion of this session, the participant should be able to:  
1. Develop an approach to assessing the head injured patient where you can forget about the GCS scoring system.  
2. Identify the TBI clinical presentation where “The eyes have it.”  
3. Determine when TBI necessitates a “formal” RSI intubation.  
4. Employ appropriate RSI techniques and drug protocols as per sited evidence based medicine recommendations and systemic reviews.  

The High-Risk Abdomen You Cannot Afford To Miss.
Upon completion of this session, the participant should be able to:  
1. Identify clinical presentations and findings that should alert you to not being fooled by a negative test.  
2. Develop clinical strategies that will enable you to think outside the abdominal “black box.”  
3. Determine how one simple bedside test can save a life.  

Abdominal Pain – The Black Box of the Belly.
Upon completion of this session, the participant should be able to:  
1. Review some challenging cases of abdominal pain to help differentiate benign from severe abdominal pain.  
2. Evaluate the utility of various tests, including labs, ultrasound and CT scan, including during pregnancy using the ACOG opinion guidelines, in the diagnosis of abdominal pain.  
3. Determine subtle features of certain presentations of abdominal pain that suggest a more severe cause.  
4. Explore diagnoses of abdominal pain in the absence of abdominal pathology.  

Facial Trauma.
Upon completion of this session, the participant should be able to:  
1. Perform both a rapid screen and a thorough evaluation of the patient with facial trauma.  
2. Outline the challenges in securing an airway in the patient with facial trauma.  
3. Describe the indication for different imaging procedures for facial trauma.  
4. Manage injuries to the soft tissues of the face (lips, tongue, eyelids…).