**Course Dates:** January 15, 22, February 5, 12, 19, 26
Thursdays, 1:00-3:00 PM

**Maximum Students:** 12

**Class Year:** MS1

**Course Director:** Adam Z. Tobias, MD, MPH
Assistant Professor of Emergency Medicine

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**Description:**
“Is there a doctor on the plane?” These words are simultaneously some of the most anticipated and dreaded by physicians-in-training. This course will provide a framework for bystander treatment and first aid, taught at the knowledge level of first and second year medical students. Each session will approach a different “real-world” clinical scenario with an exploration of the approach to the patient, available resources, stabilization of the condition, and the pathophysiology of the condition. Each session will be held in the WISER simulation center with the use of high-fidelity simulation mannequins.

**Course Objectives:**
- Provide a general structured approach to the injured/ill patient for medical students with limited clinical experience
- Explore scenario-specific techniques for patient stabilization and management
- Discuss initial patient management in resource-poor environments

**Requirements:**
Attendance at each session
Course Outline:
Bystander Emergency Response

Course Director:
Adam Z. Tobias, MD, MPH
Assistant Professor of Emergency Medicine

Location:
WISE center, 230 McKee Place, 3rd Floor

Week 1: January 15, 2015
Standard Approach to the Ill or Injured Patient
The course will begin with an introduction to scene safety and how to best protect yourself when responding to an ill patient. We will review the “ABCs”, abnormal vital signs, the “SAMPLE” history, and focused physical exam techniques. Once we have reviewed patient assessment, we will discuss organizing available resources (such as recruiting bystanders to help) and calling for backup.

Week 2: January 22, 2015
Basic Life Support
After your initial assessment (learned in Week 1) you may need to perform life saving interventions. Some of the most fundamental (yet life-saving) maneuvers in bystander intervention involve CPR and basic airway management. During this session, participants will have an overview of CPR techniques for the adult. Basic airway maneuvers will involve assessment of the airway, finger sweep, chin lift and jaw thrust. Participants will also be introduced to BVM ventilation, considerations for management of supraglottic vs infraglottic airway obstruction, and the Heimlich maneuver.

Week 3: February 5, 2015
In-flight Medical Emergencies Part 1
Have you yet been on a plane when a doctor was requested? Soon you will be able to rise to the challenge! During this week’s session we will discuss common medical emergencies during commercial airline flights and what resources are available on the airplane for your use. We will review cases from the UPMC Medical Command Center, where flights from all over the world call to speak to a doctor. In applying your new skills, there will be simulation of in-flight medical emergencies.

Week 4: February 12, 2015
In-flight Medical Emergencies Part 2
This week’s cases will include an introduction of how to approach a patient with an acute loss of consciousness in the context of an in-flight medical emergency. The first question we will explore is, “was this syncope or seizure?” Depending on this answer; overview of syncope management, approach to the seizing patient, and discussion of the differential diagnosis will be reviewed. Finally, does this plane need to be diverted to take this patient to the hospital?

Week 5: February 19, 2015
Witness to a Car Accident
You are the first person on scene as a multi-vehicle accident occurs before you. Now what? This session will review an approach to the multi-casualty event. Discussions will include ensuring scene safety, an overview of triaging systems for mass casualty events, and which patients to approach first. The trauma patient: As you approach your first patient you see he is confused, bleeding from the scalp and has an obvious leg deformity. How do you proceed? In the review of the trauma patient a systematic approach will be discussed. Primary and secondary survey, hemorrhage control and cervical spine immobilization will be among the topics reviewed.

Week 6: February 26, 2015
Hiking in the Wilderness
The final session will provide an introduction to Wilderness Medicine. Students will be offered several skills stations and case based learning modules. Learning modules will include approaching hyperthermia and hypothermia, such as recognizing the stages of temperature related illness and how to reverse the injuring temperature. Skills stations will include assessment of long bone fracture, joint dislocation and ankle sprain. Discussions will include assessing the injury, immobilization of the injury, associated physical exam and first aid techniques.