Course: Medical Simulations ENRH-156

Course Directors: TBD

Faculty Sponsor: Dr. Ravi Bhoja, Anesthesiology

Department: Anesthesiology

Student Liaison: TBD

Requirements:

- Minimum participants for course to be conducted: 6 students
- Maximum number of students per course (if applicable): 24 students

Rationale: Within the past five years, medical simulation has been increasingly brought to the forefront of medical education through statewide competitions and integrated course curriculum. The medical simulations elective is designed to teach critical team dynamics and communication skills using high fidelity simulations. The goal of this elective is to provide a foundation in the interpersonal skills needed to deliver high quality care in the setting of medical teams. Upon completion of the course, students will be expected to know the five team roles, utilize closed loop communication, and perform effective handoffs and debriefs amongst diverse ability groupings, consistent with that found in the clinical setting. There will also be opportunities to learn about acute care medicine, focusing primarily on common presentations and life-threatening emergencies.

Objectives:

- To educate students on the application of medical simulation and its importance in clinical practice.
- To implement classroom knowledge in hands-on, life-like critical care scenarios, through the following:
- Taking a comprehensive, pertinent history
- Performing a pertinent physical
- Evaluating and stabilizing vitals
- Creating a differential diagnosis
- Reading labs and imaging
- Assessing and implementing treatment options
- To learn to care for patients in unpredictable, emergent environments through interdisciplinary teamwork and effective communication.

Format: 12 week course. The course will meet for 1.5 hrs approximately every other week for 12 weeks. The first two weeks we will hold a course introduction meeting over zoom and a introduction to the SIM Center meeting. The second to last week will be a situation monitoring meeting on zoom. All other weeks will be in person activities at the SIM center.

Student Evaluation: Yes. Grades will be pass/fail. Attendance is required to receive credit for the course.

Course Evaluation: Grading will be pass/fail. To receive transcript acknowledgment, students must

- Attend 10 of 12 participant hours
- Complete the online REDCap course evaluation form

Classes will begin with a didactic focused portion to go over conditions and scenario focused portion to work through simulated cases each week. We plan to have each class session last 1.5 hours each week. The didactic content will focus on effective communication skills, how to perform each team role well, and introducing common complaints surrounding a particular organ system. In the scenario portion, with coordination with Anesthesiology Residents, we will run simulations with the class. Each SIM center session will run scenarios relevant to the didactic material that was presented in the prior. Each simulation will include the simulation itself as well as a debrief to allow the students to discuss their communication. Class will be held at the SIM center every week except weeks 1 and 11.

Attendance will be recorded using an online Google Form.

Online Class Delivery:

This elective course will contain both virtual delivery of content via Zoom and in-person delivery in the Sim Center. Powerpoint slides will be prepared for the short introductory lectures ahead of time, and the Share Screen feature will be used. The live Zoom sessions will include more interactive components during the presentations to maintain student engagement. In order to track attendance for the two online sessions, students will be asked to fill out a google form that will ask them questions relevant to the material presented in order to gain credit for that week's class session.

In-Person Class Delivery:

This elective course will contain both virtual delivery of content via Zoom and in-person delivery in the Sim Center. During the SIM center session, the student liaisons will work with Anesthesiology residents as facilitators to run the simulations. The facilitators will also conduct a short debrief at the end of each simulation to highlight key components of the scenario and emphasize learning points of the simulation.

After each class, facilitators/course instructors will meet to discuss if there are any adjustments needed to the use of Zoom to provide the best Simulation experience possible.