



BIOL 6537: Practical Skills in EMS and Disaster Response

Student Leaders:
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"Help! My friend just collapsed, do something! You're a medical student aren't you?" Much of what is learned during pre-clinical training focuses around the scientific basis of medicine. While valuable and necessary, this information is not always immediately applicable. In this elective, we will cover skills that you can apply in an emergency situation – especially in the aid of a loved one. Skills covered include limb immobilization, choking and airway management, responding to strokes, seizures, and more. Additional lecture material includes information on the skillsets of EMS professionals, what is available on an ambulance, EMS as a subspecialty of Emergency Medicine, the FEMA and Incident Command System for large scale disaster response, and emergency preparedness. During the course you will complete a ride-along shift with LifePACT (critical care transport ambulance), and the class will culminate in a simulated Mass Casualty Incident where you will synthesize skills covered throughout the course.

General information:

- 8 course meetings, 2 hours each + Ride along shift
- Each meeting split between lecture and practice time
- Max number of students: 18
- Application deadline: 8/31
- Food provided during each session
- Skills demonstrations will be taught by Dr. Williams and student leaders, with Dr. Williams supervising.
- During skills practice sessions, students will break off into groups and run practice scenarios. Feedback provided by other students, student leaders, and Dr. Williams.
- New Student leaders selected at the end of the course

Meetings Dates/Topics*:

10/12 – **EMS Crash Course I:** General Approach, CPR/Choking Review, Rapid History/Physical Exam (Room 170)

10/19 – **EMS Crash Course II:** Medical Cases – Poison Control, Stroke, Seizures, Shock, Diabetic Emergencies (Room 270)

11/2 – **EMS Crash Course III:** Trauma Cases – lifting and moving, splinting, head/neck injuries (Room 270)

11/9 – **Preparing for the ride along: EMS Professionals, EMS as a Subspecialty of Emergency Medicine** (Room 270)

11/16 – **Disaster Response I:** FEMA deputy administrator (Room 170)

11/30 – **Disaster Response II:** Emergency Preparedness (Room 270)

12/3 – **Disaster Response III:** Bringing it all together – triage during mass casualty incident/practice (Room 270)

12/10 – **Simulated Mass Casualty Incident** (Location TBD)

Ride Along – Scheduled independently. One is required, additional shifts may be taken.

* Lecture topics are tentative and may vary depending on speaker availability

Who would benefit:

Preclinical students interested in learning applicable skills that they can apply in the case of a medical emergency. This would be particularly useful for (though not limited to) students without prior EMS or first aid experience who would like to complement their medical training with a hands-on experience. Moreover, the course would be beneficial to students interested in disaster response, emergency preparedness, or learning more about the role and skillsets of EMS professionals.

What if I'm already an EMT/Paramedic/have an EMS background?

Students with a prior EMS background can still join the course. These students can take on an educational role, and will have the opportunity to help run and develop practice scenarios, demonstrate skills techniques, and can sign up for additional ride along shifts.

Goals:

- 1) To learn and practice skills that can be applied during a medical emergency.
- 2) To gain familiarity with FEMA, the Incident Command System, emergency preparedness, and strategies and techniques in responding during a disaster.
- 3) To branch the disciplines of Emergency Medicine, Public Health, and Emergency Medical Services by way of a practical exposure to all three fields.
- 4) To gain confidence in applying clinical skills during high-stress situations.

Requirements/Evaluation:

Attendance: Mandatory (One excused absence allowed)

Students will be evaluated both through participation at the Mass Casualty Incident simulation at the end of the course, successful completion of a ride-along with LifePACT or other EMS agency, and fulfilling the attendance criteria (>80% of class sessions attended).

Reading list:

- iBook/PDF – First Aid/EMS Guidebook (Provided before first meeting)
- *Medical students as EMTs: skill building, confidence and professional formation* – <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4108757/>
- Further readings will be made available before each course meeting.