# EMERGENCY MEDICAL SERVICES (EMS) EDUCATION

Emergency Medical Services, more commonly known as EMS, is a system that provides emergency medical care. Once it is activated by an incident that causes serious illness or injury, the focus of EMS is the emergency medical care of the patient(s).

EMS is most easily recognized when emergency vehicles or helicopters are seen responding to emergency incidents. But EMS is much more than a ride to the hospital. It is a system of coordinated response and emergency medical care, involving multiple people and agencies. A comprehensive EMS system is ready every day for every kind of emergency. EMS does not exist in isolation but is integrated with other services and systems intended to maintain and enhance the community's health and safety.

The University of Toledo Emergency Medical Services (EMS) Program offers blended **Basic EMT courses** over one- and two-semester options, as well as a blended **Paramedic course** over a one-year (threesemester) certificate program under UToledo's College of Medicine and Life Sciences (https://www.utoledo.edu/med/). The Basic EMT onesemester option is only available to those students taking less than (6) CH as it is an accelerated course geared for the public.

Didactic education is 100% online with in-person skills labs and in-person clinical rotations. Every Thursday will be a 3-hour online required didactic review with the class and Instructor.

Skills labs are offered Tues, Weds, and Thurs 0800-1600 for specific courses with the flexibility for students to choose attendance in the Paramedic and two-semester EMT program which days they would like to attend. One day is required every other week.

We use experienced instructors and a variety of other well-trained medical professionals to facilitate training using low and high-fidelity simulation for scenario-based learning and cadaveric experiences for real-life skill and procedural performance.

To be admitted to the program, students must meet pre-requirements that include an in-person meeting with the Program Director, and department administered reading exam and meet all pre-requirements. Those pre-requirements include an FBI background check, a current American Heart (AHA) CPR card, and completed health and immunization requirements. Students are encouraged to contact the department and schedule a meeting time at least 30 days in advance before the course begins.

The University of Toledo Emergency Medical Services (EMS) Program (https://www.utoledo.edu/med/ems/about.html) produces competent entry-level emergency medical responders in the area of cognitive, psychomotor, and effective/behavioral domains.

The program boasts a 100% pass rate for the State of Ohio DPS EMT and Paramedic Certified status and a 100% employment rate in the EMS field.

For further information, please visit https://www.utoledo.edu/med/ems/

With cutting-edge technologies and a wide variety of opportunities for interprofessional interactions, UToledo's EMS students are trained and prepared for real patient interaction like no other students in the Midwest. Students trained through UToledo's EMS Education program will receive college credit for coursework completed and receive some of the most cutting-edge and high-tech training available in the U.S. Students have access to many of UToledo's cutting-edge training and simulation centers such as The Interprofessional Immersive Simulation Center (IISC) (https://www.utoledo.edu/centers/iisc/) and the Hillebrand Clinical Skills Center. (https://www.utoledo.edu/centers/csc/) Through various forms of training and simulation, students gain hands-on experience in areas such as:

1) Gross Anatomy: Hands-on experience with both fresh and embalmed cadavers is provided for students as they complete their coursework in anatomy & physiology and advanced airway skills development.

**2) Clinical Skills:** Utilizing both pre-programmed mechanical and reallife (actor) patients, students develop and evaluate communication and assessment skills, and receive timely feedback and debriefing to enforce the educational benefit. Students also have access to hands-on skill labs for individual skill development.

**3) Simulated Patient Scenarios:** Students often have the opportunity to interact interprofessionally with students from other professions in controlled simulated scenarios. Students train with state-of-theart computerized simulated patients for team scenarios. Events can be recorded and provide the ability to debrief and provide immediate feedback to individuals and teams, reinforcing performance concepts.

# 4) Virtual Immersive Reality (VIR) and Computer-Aided Learning

**Modules:** Technologies used include virtual immersive stereoscopic 3D model modules along with a variety of advanced educational learning modules.

The successful completion of the coursework supports the application for the state of Ohio's EMS certificate and National Registry.

- EMT Basic, Certificate (https://catalog.utoledo.edu/undergraduate/ medicine-life-sciences/emergency-medical-services/emt-basiccertificate/)
- EMT Paramedic Certificate (https://catalog.utoledo.edu/ undergraduate/medicine-life-sciences/emergency-medical-services/ emt-paramedic-certificate/)

# EMS 1220 Emergency Medical Technician Basic 1 [3 credit hours]

Emergency Medical Technicians are entry level health care providers of emergency medical services. EMTs are clinicians, trained to respond quickly to emergency situations regarding medical issues, traumatic injuries and accident scenes. This course provides fundamental knowledge and training across the breadth of Emergency Medical Services (EMS). This is part one of 2 sections needed for licensure. Successful completion of both EMT-B1 and EMT B2 courses makes students eligible for state and national certification. This is a twosemester "blended" program with online didactics and in-person skills labs. Skill labs are required and are offered on Tuesdays or Wednesdays every other week from 08:00-14:00. This course is designed for students to take as an elective that are carrying more than 6 credit hours. **Term Offered:** Fall



#### EMS 1230 Emergency Medical Technician Basic 2

#### [4 credit hours]

Emergency Medical Technicians are entry level health care providers of emergency medical services. EMTs are clinicians, trained to respond quickly to emergency situations regarding medical issues, traumatic injuries and accident scenes. This course provides fundamental knowledge and training across the breadth of Emergency Medical Services (EMS). This is part two of 2 courses needed for licensure. Successful completion of both EMT-B1 and EMT B2 courses makes student eligible for state and national certification. This is a "blended" program with online didactics and in-person skill labs. Skill labs are required and occur on Tuesdays or Wednesdays EVERY OTHER WEEK. **Prerequisites:** EMS 1220 with a minimum grade of D-**Term Offered:** Spring

#### EMS 1240 Emergency Medical Technician Field Experience [1 credit hour]

Emergency Medical Technicians are entry level health care providers of emergency medical services. EMTs are clinicians, trained to respond quickly to emergency situations regarding medical issues, traumatic injuries and accident scenes. This course provides fundamental knowledge and training across the breadth of Emergency Medical Services (EMS). This is part 3 of 3 sections needed for licensure. This is to be arranged with instructors and clinical coordinator during EMT-B1 OR EMT-B2. Successful completion of EMT-B1, EMT B2 and EMT Field Experience courses makes student eligible for state and national certification.

Corequisites: EMS 1230 Term Offered: Spring

#### EMS 1250 Emergency Medical Technician- Basic

[7 credit hours]

Emergency Medical Technicians are entry level health care providers of emergency medical services. EMTs are clinicians, trained to respond quickly to emergency situations regarding medical issues, traumatic injuries and accident scenes. This course provides fundamental knowledge and training across the breadth of Emergency Medical Services (EMS). Successful completion of this course makes the student eligible for state and national certification. This one semester is a compressed option designed specifically for students that are not enrolled in more than 6 credit hours. A two-semester option is available for those students seeking this certificate course as an elective. This course includes a clinical component near the end that requires the student to complete a 10 hour/10 patient assessment requirement in the ED or Squad setting.

Term Offered: Spring

#### EMS 1300 Anatomy & Physiology for the Prehospital Provider [4 credit hours]

The systemic approach to anatomy and physiology is presented to the student. The knowledge is a fundamental portion of the education of any health care provider and is paramount for successful practice as an EMS provider. Under the current national paramedic curriculum, it has become necessary to expose students to a broader range of information. It will be the focus of this course to better equip the student with structure and function of the human body that will allow a student to recognize the homeostatic state.

Term Offered: Summer

#### EMS 1310 Paramedic I

#### [10 credit hours]

This is the first of three courses that provide training for students to become certified paramedics. The course covers a variety of preparatory topics such as legal considerations, assessment, pharmacology, venous access, medication administration, EKG interpretation, and assessment/ management of cardiovascular emergencies. It also incorporates handson application thru skill labs, simulation, and direct patient contact in a clinical environment. Upon successful completion of this course, the student will be eligible enroll in Paramedic II. In addition to EMS Basic EMT certification, an applicant for this course must have successfully completed an approved Anatomy class and an EMS Program Entrance Examination.

#### Term Offered: Fall

#### EMS 1320 Paramedic II

#### [10 credit hours]

This is the second of three courses that provide training for students to become certified paramedics. This course covers a variety of medical emergencies (ie: respiratory, neurology, endocrinology, etc.) as well as obstetric and gynecological emergencies, childbirth and neonatology, assessment and management of various conditions that involve pediatrics and geriatrics. It also incorporates hands-on application thru skill labs, simulation, and direct patient contact in a clinical environment. Upon successful completion of this course, the student will be eligible enroll in Paramedic III.

Prerequisites: EMS 1310 with a minimum grade of D-Term Offered: Spring

### EMS 1330 Paramedic III

#### [10 credit hours]

This is the last of three courses that provide training for students to become certified paramedics. This course will complete the remaining paramedic curriculum with Operational topics such as Rescue, Mass Casualties, etc. The student will also finish all necessary field and clinical requirements, and must demonstrate "street readiness" while completing EMS field Internship hours. Upon successful completion, students are eligible to take the National Registry Examination for certification as a Paramedic.

**Prerequisites:** EMS 1320 with a minimum grade of C **Term Offered:** Summer

# EMS 2310 Paramedic I

## [10 credit hours]

This is the first of three courses that provide training for students to become certified paramedics. The course covers a variety of preparatory topics such as legal considerations, assessment, pharmacology, venous access, medication administration, EKG interpretation, and assessment/ management of cardiovascular emergencies. It also incorporates handson application thru skill labs, simulation, and direct patient contact in a clinical environment. Upon successful completion of this course, the student will be eligible enroll in Paramedic II. In addition to EMS Basic EMT certification, an applicant for this course must have successfully completed an approved Anatomy class and an EMS Program Entrance Examination.

Term Offered: Spring, Fall



#### EMS 3320 Paramedic II

#### [10 credit hours]

This is the second of three courses that provide training for students to become certified paramedics. This course covers a variety of medical emergencies (ie: respiratory, neurology, endocrinology, etc.) as well as obstetric and gynecological emergencies, childbirth and neonatology, assessment and management of various conditions that involve pediatrics and geriatrics. It also incorporates hands-on application thru skill labs, simulation, and direct patient contact in a clinical environment. Upon successful completion of this course, the student will be eligible enroll in Paramedic III.

Prerequisites: EMS 2310 with a minimum grade of C Term Offered: Spring, Summer

#### EMS 4330 Paramedic III

#### [10 credit hours]

This is the last of three courses that provide training for students to become certified paramedics. This course will complete the remaining paramedic curriculum with Operational topics such as Rescue, Mass Casualties, etc. The student will also finish all necessary field and clinical requirements, and must demonstrate "street readiness" while completing EMS field Internship hours. Upon successful completion, students are eligible to take the National Registry Examination for certification as a Paramedic.

Prerequisites: EMS 3320 with a minimum grade of C Term Offered: Summer, Fall

