

# Emergency Medical Science, A.A.S.

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People who work in the field of emergency medical science (EMS) often enter people's lives during critical times of illness and injury. Their ability to act knowledgeably, compassionately, quickly and calmly can stabilize chaotic, frightening situations.

JCCC offers three progressively intensive options for learning the skills of emergency medical science. All three options prepare you for state certification examinations.

JCCC's financial aid program includes scholarships, grants and loans if you are eligible. Financial aid is particularly important in the MICT program, since long hours usually prohibit you from holding a full-time job.

## EMS First Responder Course

EMS first responder students receive classroom and skills training in cardiopulmonary resuscitation (CPR), patient assessment, and fracture and airway management. This class is recommended for:

- people without a medical background who wish to enter the EMT program
- anyone who wishes to learn basics of emergency medical care
- firefighters, police officers, lifeguards and others from agencies involved in public safety
- employees involved in company safety programs

The First Responder course meets the standards for Emergency Medical Responder (EMR) training and testing.

Students successfully completing this course will be allowed to sit for the certification examination administered by the Kansas Board of Emergency Medical Services.

The EMS First Responder class is offered as the need arises – in general, once each semester.

EMS 128	EMS First Responder	5
Total Hours		5

## Emergency Medical Technician Course

This program is designed for individuals interested in providing medical care to patients in the pre-hospital setting. It will provide the participants with opportunities to gain information, skills and attitudes necessary for certification and practice as an emergency medical technician (EMT) in the state of Kansas.

The program has been approved by the Kansas Board of Emergency Medical Services. It addresses information and techniques currently considered to be the responsibility of the EMT, according to the United States Department of Transportation, National Standard Curriculum. The program consists of lecture instruction, practical skill training and clinical experience.

Classroom instruction includes anatomy, physiology, recognition and care of actual medical emergencies and trauma-related injuries. Skills in performing CPR, bandaging, splinting, childbirth techniques and other emergency care procedures are taught. An extrication session will give students hands-on experience with auto accident situations and provide the opportunity to observe an air evacuation of a patient. Upon instructor recommendation, students will participate in a clinical observation in a hospital setting. Students participate in seven hours of lecture and five hours of lab a week (average). Students are also required to attend Saturday session(s) as necessary. Saturday dates and times will be announced during the first class session.

Students successfully completing this course with a "C" will be allowed to sit for the certification examinations administered by the Kansas Board of Emergency Medical Services.

EMS 131	Emergency Medical Technician*	10
Total Hours		10

## EMT Practicum

EMT Practicum is designed to give the EMT-B, recently certified or those with limited field experience, the additional skills and confidence needed to successfully compete for a position as an EMT-B with an EMS service. Skills will include ambulance operation, driving, map reading, insurance billing and unit maintenance. This course will also provide high-fidelity scenario training in all aspects of the EMS call, as well as extensive field lab time with a local EMS service.

Students will become directly involved in their own training by leading and participating in realistic medical emergency scenarios with "actors" playing life-like patients and bystanders. Numerous field internship shifts on a licensed ambulance are part of the training. Students will work through all phases

of an ambulance call. They will be presented with complex patient-care situations that require the development of critical thinking and decision-making skills. Students will be tested on their ability to lead a team of pre-hospital caregivers in the diagnosis, proper treatment and evacuation of a patient. Scenario simulations will be set up to be as life-like as possible.

EMS 133	Emergency Medical Technician Practicum*	3
Total Hours		3

## Mobile Intensive Care Technician (Paramedic) Program

This advanced emergency medical care program consists of four courses, including a clinical rotation in a hospital setting and a field internship with an ambulance service. You learn emergency procedures such as cardiac monitoring and defibrillation and the administration of medications and IV fluids. Successful completion of this program and subsequent certification exams will enable graduates to work as skilled paramedics and to provide sophisticated, advanced pre-hospital life support.

JCCC's MICT program is fully accredited by the Committee on Accreditation of Educational Programs for the EMS Professions (CoAEMSP). If you are interested, contact the Admissions office for an application packet, which includes deadlines, admission requirements and options for meeting academic criteria.

This is a selective admission program with limited enrollment. If you are accepted into the program, you take classes in the spring, summer and fall, completing the program in December.

Students successfully completing this program with a "C" will be allowed to sit for the certification examinations administered by the Kansas Board of Emergency Medical Services.

This program requires a professional liability insurance fee. Students will be notified via their JCCC student e-mail account if they are required to pay a \$16 fee. The dollar amount for fees is subject to change.

(Major Code 248A; State CIP Code 51.0904)

- Emergency Medical Science (<http://www.jccc.edu/ems>)

## Associate of Applied Science Degree

### Prior to beginning professional courses

**Successful completion of an EMT course and successful completion of the following courses:**

Electives		0-2
Note: Students who choose BIOL 144 must take 2 hours of electives		
BIOL 144	Human Anatomy and Physiology*	5-8
or BIOL 140 & BIOL 225	Human Anatomy and Human Physiology*	
ENGL 121	Composition I*	3
Health/Physical Education Elective ^		1
Select one of the following:		3
SOC 125	Social Problems	
Social Science/Economics Elective ^^		
Select one of the following:		3
PHIL 143	Ethics	
Humanities Elective ^^		
Total Hours		15-20

^ Health/Physical Education Elective (<http://catalog.jccc.edu/spring/degreecertificates/electives/health-and-or-physical-ed-aas>)

^^ Social Science/Economics Elective (<http://catalog.jccc.edu/spring/degreecertificates/electives/social-sci-econ-aas>)

^^^ Humanities Elective (<http://catalog.jccc.edu/spring/degreecertificates/electives/humanities-aas>)

### First Semester

EMS 220	MICT I*	10
EMS 225	MICT II*	10
Total Hours		20

## Second Semester

EMS 230	MICT III Clinicals*	12
Total Hours		12

## Third Semester

EMS 271	MICT IV Field Internship*	15
Total Hours		15

**Total Program Hours: 64-65**

**Total Professional Credit Hours - 47**

## Courses

### EMS 121 CPR I - Basic Life Support for Healthcare Provider\* (1 Hour)

**Prerequisites or corequisites:** RDG 126 or College Reading Readiness

This course provides an overview of the cardiovascular and respiratory systems, a discussion of medical and environmental emergencies leading to the need for CPR, and an introduction to diagnostic signs and triage, as well as insight into the structure and function of the emergency medical services system. The most current practical CPR skills will be taught, including CPR, AED, and airway obstruction techniques for adults, children and infants. Upon successful completion of all American Heart Association standards, the student will receive affirmation at the Healthcare Provider level. 4 hrs. lecture, lab/wk. for 5 wks. This course will meet the general education requirement for Health and/or Physical Education.

### EMS 128 EMS First Responder\* (5 Hours)

**Prerequisites or corequisites:** RDG 126 or College Reading Readiness

This course is designed to provide training in emergency medical care for those who are apt to be the first persons responding to an emergency incident. Fire, police, civil defense personnel, school bus drivers, day-care providers, utility workers and industrial workers are a few examples of those persons who would benefit from this training. The student will receive both didactic and psychomotor skills training in CPR, patient assessment, fracture management, airway management and trauma management. Successful completion of this course with a minimum grade of "C" will enable the student to sit for the First Responder certification exam administered by the Kansas Board of Emergency Medical Services. The First Responder course meets the standards for Emergency Medical Responder (EMR) training and testing. 6 hrs. lecture, 6.5 hrs. lab/wk. for 8 wks. (average).

### EMS 131 Emergency Medical Technician\* (10 Hours)

**Prerequisites:** Successful completion of an Emergency Medical Responder or First Responder course with a 'C' or higher OR an Associate Degree or greater OR Program Director review of previous experience

This program is designed for individuals interested in providing medical care to patients in the pre-hospital setting. It will provide the participants with opportunities to gain information, skills and attitudes necessary for certification and practice as an emergency medical technician (EMT) in the state of Kansas. This program has been approved by the Kansas Board of Emergency Medical Services (BEMS). It addresses information and techniques currently considered the responsibility of the EMT according to the United States Department of Transportation, National Standard Curriculum. The program consists of didactic instruction, practical skill training and clinical experience. Students are also required to attend Saturday session(s) as necessary. Saturday dates and times will be announced during the first class session. Classroom instruction includes anatomy, physiology, recognition and care of medical emergencies and trauma-related injuries. CPR, bandaging, splinting, childbirth techniques and airway management are among the skills taught. An extrication session will give students hands-on experience with automobile accident situations. Upon instructor recommendation, students will participate in clinical and field observation. All transportation to and from off-campus sites is the responsibility of the student. Students completing this course with a minimum grade of "C" will be allowed to sit for the Kansas EMT State Certification examination and receive JCCC certificate of completion. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 5.5 hrs. lecture, 7 hrs. instructional lab/wk.

### EMS 133 Emergency Medical Technician Practicum\* (3 Hours)

**Prerequisites:** EMS 130 or EMS 131 or equivalent and a copy of current EMT-B card

EMT Practicum is designed to give the newly certified EMT-B the additional skills and confidence needed to successfully compete for a position as an EMT-B with an EMS service. Skills will include ambulance operation, driving, map reading, insurance billing and unit maintenance. This course will also provide high-fidelity scenario training in all aspects of the EMS call as well as extensive field lab time with a local EMS service. Students will participate in realistic medical emergency scenarios with "actors" playing life-like patients and bystanders as well as numerous field internship shifts on a licensed ambulance. Students will work through all phases of an ambulance call. They will be presented with complex patient care situations that require the development of critical thinking and decision-making skills. Students will be tested on their ability to lead a team of pre-hospital caregivers in the diagnosis, proper treatment and evacuation of a patient. Scenario simulations will be set up to be as life-like as possible. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 2 hrs. lecture, 10 hrs. lab/wk. This course is only offered in the summer.

**EMS 140 Basic Cardiology and EKG Recognition\* (3 Hours)**

**Prerequisites:** Prospective students should be certified in a health profession, i.e

The health care worker with an understanding of ECG tracing will function more effectively when providing care for the cardiac patient. Increasing numbers of professionals are being called upon to utilize ECG tracing in their work settings, but without adequate knowledge of its use. This course will serve as both continuing education and the preparation for the job entry and/or job advancement. During the course, students will learn to apply monitoring and 12-lead electrodes, diagnose ECG dysrhythmias and infarct locations, treat ECG dysrhythmias, and defibrillate ventricular fibrillation. 3 hrs. lecture/wk.

**EMS 206 Training Officer I\* (1 Hour)**

**Prerequisites:** Kansas Board of EMS certification at the Emergency Medical Technician - Basic (EMT-B) level or above and approval of the course instructor

This course is a requirement for the Kansas Board of Emergency Medical Services (KSBEMS) certification as a Training Officer (TO). The course is intended to prepare the student to plan, implement, coordinate, teach and evaluate continuing education programs. The course is a prerequisite for Training Officer II. 15 hrs. lecture, 5 hrs. lab total.

**EMS 207 Training Officer II\* (2 Hours)**

**Prerequisites:** Kansas Board of Emergency Medical Services certification at the provider level the student wishes to teach, completion of EMS 206 Training Officer I and approval of the course instructor

This course is a requirement for the Kansas Board of Emergency Medical Services (KSBEMS) certification as a Training Officer (TP). The course is intended to prepare the student to plan, implement, coordinate, teach and evaluate continuing education programs. As a TOII a student will also be qualified to plan, implement, coordinate, teach and evaluate Initial Instruction Programs for the First Responder level of certification in Kansas. 33 hrs. lecture, 7 hrs. lab total.

**EMS 210 Emergency Medical Services Instructor Coordinator\* (5 Hours)**

**Prerequisites:** Prospective students must meet all the requirements for selection as set forth by the Kansas Board of Emergency Medical Services, which includes certification as a care provider, documentation of pre-hospital experience and successful completion of the BEMS pre-selection process

This course covers the basic tenets of adult education as they apply to teaching emergency medical services provider courses. Students are oriented to all Kansas requirements for conducting initial courses of instruction for ambulance attendants. Successful completion will be the first step toward certification as a Kansas EMS instructor coordinator. This program has been approved by the Kansas Board of Emergency Medical Services (BEMS). It addresses information and techniques currently considered the responsibility of the EMT-IC according to the United States Department of Transportation, National Standard Curriculum. 5 hrs. lecture-demonstration/wk. for 8 wks.

**EMS 220 MICT I\* (10 Hours)**

**Prerequisites:** Admission to the MICT program

MICT I is the first of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. In this narrowly focused but intense foundational course, the paramedic student will gain a significant knowledge of patient assessment, pharmacology and medication administration techniques, electrocardiography, advanced airway management, and paramedic scope of practice. Much material will be covered rapidly, and emphasis is on organization, internalization and synthesis of the basic knowledge of the discipline in this 10-week course. Additionally, during the initial psychomotor teaching labs, students will gain the ability to assess patients, administer medications, treat dysrhythmias and manage the airway through manikin practice. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 192 hrs. integrated lecture/lab.

**EMS 225 MICT II\* (10 Hours)**

**Prerequisites:** EMS 220 with a grade of "C" or higher

MICT II is the second of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. This course builds on the foundational knowledge developed in MICT I and covers advanced management of medical and trauma emergencies in the out-of-hospital environment. Much material will be covered rapidly, and emphasis is on organization, internalization, synthesis and application of the basic knowledge of the discipline in this 10-week course. Students demonstrate competency at motor skill performance, and extensive simulation practice is afforded. Students begin field observation with a paramedic ambulance crew and complete an Advanced Cardiac Life Support Course. 314 hrs. integrated lecture/lab/field experience.

**EMS 230 MICT III Clinicals\* (12 Hours)**

**Prerequisites:** EMS 225 with a grade of "C" or higher

MICT III is the third of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. During MICT III, paramedic students have the opportunity to take the knowledge and skills gained in MICT I and II and apply them in actual supervised clinical practice. MICT III represents a brief, intense 14-week course in which knowledge and skills are synthesized and applied to patients under supervision of physicians and nurses in clinical practice in the emergency department, critical care unit, surgery/ recovery room, labor/delivery room, pediatric emergency department and burn center. Field observation lab and classroom and laboratory review are included as well. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 622 hrs. integrated lecture/lab and field/clinical experience.

**EMS 271 MICT IV Field Internship\* (15 Hours)**

**Prerequisites:** EMS 230 with a grade of "C" or higher

MICT IV is the final of four courses in advanced out-of-hospital emergency medical care leading to the opportunity to sit for the National Registry Examination for Paramedics. During MICT IV, paramedic students have the opportunity to take the knowledge and skills gained in MICT I, II and III and apply them in an actual practice environment. MICT IV represents an intense 4-month course in which knowledge, skills and professional behaviors are synthesized and applied to victims of sudden trauma or medical emergencies under supervision of paramedic preceptors at the emergency scene and in the ambulance. Entry-level competence into the profession is demonstrated as the student demonstrates the ability to assess the scene and the patient, develop a plan for therapeutic intervention as well as scene management, and effectively lead the out-of-hospital resuscitation team's effort. Classroom and laboratory review are included. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 810 hrs. integrated lecture/ lab and field/clinical experience.