



**COWLEY COLLEGE  
& Area Vocational Technical School**

**COURSE PROCEDURE FOR**

**PRINCIPLES OF EMS SYSTEMS  
EMS5669 3 Credit Hours**

**Student Level:**

This course is open to students on the college level in either the freshman or sophomore year.

**Catalog Description:**

**EMS5669 - PRINCIPLES OF EMS SYSTEMS (3 hrs)**

This course is designed to help the student increase his/her knowledge concerning the principles of EMS systems. Upon completion of the course, the student will be able to describe basic EMS system issues, EMS and trauma systems, medical oversight, EMS administration, and operations, and specialty EMS issues and operations.

**Prerequisites:**

None.

**Controlling Purpose:**

This course is designed to help the student increase his/her knowledge concerning the principles of EMS systems.

**Learner Outcomes:**

Upon completion of the course, the student will be able to describe basic EMS system issues, EMS and trauma systems, medical oversight, EMS administration and operations, and specialty EMS issues and operations.

**Units Outcomes and Criterion Based Evaluation Key for Core Content:**

The following defines the minimum core content not including the final examination period. Instructors may add other content as time allows.

Evaluation Key:

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the goals of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been

achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.

- D = A few of the major goals have been achieved, but the student's achievement is so limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

<b>UNIT 1: BASIC EMS SYSTEM ISSUES</b>						
Outcomes: The student will gain an understanding of basic EMS system issues.						
A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Define the different types of EMS providers and describe their roles within the EMS system.
						Define the role of EMS medical directors.
						Define the role of higher education as it relates to increasing EMS professionalism.
						Describe career opportunities for EMS providers.
						Describe future challenges surrounding EMS staffing issues.
						Describe the role of EMS personnel and the EMS system in prevention, public health, community intervention, and disaster preparedness.
						Discuss health and safety programs and plans for bloodborne pathogen exposure, respiratory protection, workplace violence prevention, fire safety and ergonomics.
						Explain some of the occupational issues specific to women in EMS.
						Discuss system responsibility to act and the refusal of care.
						Explain the overall risk of EMS providers and physician directors.
						Describe patient transport issues and how EMTALA affects EMS.
						Discuss EMS obligations for medically indicated transfers.
						Describe the basics of clinical research.
						List the six Ds of outcome measurement.
						Describe the challenges in conducting EMS research.

						Explain why the data generated from EMS research should drive the operation of the EMS system.
						Describe the components of the national EMS Education Agenda of the Future, such as core content, scope of practice, standards, program accreditation, and certification.
						Discuss the characteristics of an EMS education program, including sponsorship, medical oversight, administrative policies and procedures, evaluation, and curriculum.

<b>UNIT 2: EMS AND TRAUMA SYSTEMS</b>						
Outcomes: The student will study the fundamental aspects of EMS and trauma systems.						
A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Describe the historical events that led to EMS systems development.
						Describe the basic building blocks of EMS systems, including clinical elements, system design/development, and legislative/public policy.
						Recall the fourteen attributes of a modern EMS system.
						Discuss the role of the lead agency within EMS systems.
						Recall NHTSA statewide EMS systems evaluation components.
						Describe the integral and functional components of EMS systems.
						Describe historical factors that influenced the development of state and regional EMS systems.
						Discuss the components of state EMS systems.
						Recall the responsibilities of a regional EMS system.
						Discuss the challenges of EMS systems.
						Discuss the development of our nation's trauma system.
						Describe key concepts behind the inclusive trauma care system.
						Explain the importance of injury prevention.
						Describe the continuum of trauma care through rehabilitation.

<b>UNIT 3: MEDICAL OVERSIGHT</b>
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Outcomes: Students will gain an overview medical oversight in EMS.						
A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Describe how emergency departments and EMS systems are related.
						Define online and offline medical direction.
						Explain the importance of communication between the emergency department and the EMS system.
						Define medical oversight, and explain the importance of medical accountability.
						Describe the aspects of offline medical oversight.
						Describe the aspects of online medical oversight.

<b>UNIT 4: EMS ADMINISTRATION AND OPERATIONS</b>						
Outcomes: The student will gain an understanding of EMS administration and operations.						
A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Explain the different EMS system models, and crew and response configurations.
						Describe the integrated process of field response.
						Recall the aspects of field clinical response.
						Describe the infrastructure and support services functions.
						Discuss the major factors that affect the cost of providing EMS services.
						Explain cost versus outcome.
						Describe the various EMS funding sources.
						Describe the various components of an EMS system communication plan.
						Explain the methods and components of EMS record documentation and information systems.
						Describe the two keys to quality documentation.
						Discuss the aspects of quality management and documents, as well as legal and security matters.

## UNIT 5: SPECIALTY EMS ISSUES AND OPERATIONS

Outcomes: The student will gain an understanding of various specialty EMS issues and operations.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Recall the goals of air medical transport.
						Describe the impact of EMSC on the health and welfare of children in the United States.
						Describe the challenges affecting the rural EMS setting.
						Describe the role of EMS in disaster preparedness and response.
						Describe the role of EMS during mass gatherings.
						Discuss EMS considerations during response to terrorist incidents and WMDs.
						Explain the components of a tactical EMS program.
						Discuss HazMat, fire ground, and military EMS.

### **Projects Required:**

Projects may vary according to the instructor.

### **Textbook:**

Contact Bookstore for current textbook.

### **Materials/Equipment Required:**

Computers and printers.  
Internet.

### **Attendance Policy:**

Students should adhere to the attendance policy outlined by the instructor in the course syllabus.

### **Grading Policy:**

The grading policy will be outlined by the instructor in the course syllabus.

### **Maximum class size:**

Based on classroom occupancy

### **Course Timeframe:**

The U.S. Department of Education, Higher Learning Commission and the Kansas Board of Regents define

Rev. 6/10/2016

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credit hour and have specific regulations that the college must follow when developing, teaching and assessing the educational aspects of the college. A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for approximately fifteen weeks for one semester hour of credit or an equivalent amount of work over a different amount of time. The number of semester hours of credit allowed for each distance education or blended hybrid courses shall be assigned by the college based on the amount of time needed to achieve the same course outcomes in a purely face-to-face format.

**Refer to the following policies:**

[402.00 Academic Code of Conduct](#)

[263.00 Student Appeal of Course Grades](#)

[403.00 Student Code of Conduct](#)

**Disability Services Program:**

Cowley College, in recognition of state and federal laws, will accommodate a student with a documented disability. If a student has a disability which may impact work in this class and which requires accommodations, contact the Disability Services Coordinator.