

New Program Request Form

CA1

General Information

Institution submitting proposal	Cowley College
Name, title, phone, and email of person submitting the application <i>(contact person for the approval process)</i>	Chris Cannon EMS Program Director and Department Chair 620-229-5985 chris.cannon@cowley.edu
Identify the person responsible for oversight of the proposed program	Chris Cannon EMS Program Director and Department Chair
Title of proposed program	Advanced Emergency Medical Technician (AEMT)
Proposed suggested Classification of Instructional Program (CIP) Code	51.0904
CIP code description	A program that prepares individuals, under the remote supervision of physicians, to recognize, assess, and manage medical emergencies in prehospital settings and to supervise Ambulance personnel. Includes instruction in basic, intermediate, and advanced EMT procedures; emergency surgical procedures; medical triage; rescue operations; crisis scene management and personnel supervision; equipment operation and maintenance; patient stabilization, monitoring, and care; drug administration; identification and preliminary diagnosis of diseases and injuries; communication and computer operations; basic anatomy, physiology, pathology, and toxicology; and professional standards and regulations.
Standard Occupation Code (SOC) associated to the proposed program	29-2042
SOC description	Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities.
Number of credits for the degree <u>and</u> all certificates requested	Certificate A – 24 Credit Hours Certificate B – 39 Credit Hours
Proposed Date of Initiation	July 1, 2023
Specialty program accrediting agency	Kansas Board of EMS
Industry certification	AEMT – Kansas Board of EMS AEMT – National Registry of EMTs

Signature of College Official _____ *Michelle Schorr* _____ Date 1/31/2023

Signature of KBOR Official _____ Date _____

Program Rationale

The Advanced Emergency Medical Technician (AEMT) program is a two semester program that allows currently certified Emergency Medical Technicians (EMTs) to gain the knowledge, skills and behaviors necessary to seek Kansas certification as an AEMT. The AEMT certification exists between the EMT (more basic) and Paramedic (more advanced) scopes of practice, and allows practitioners to administer some medications via the IV and other routes, interpret EKGs, provide manual defibrillation, and other advanced therapies. The short length of the program, plus the ability of AEMTs to fulfill Advanced Life Support positions on an ambulance, makes the certification attractive to ambulance services and to EMTs who are currently practicing and who are not going to Paramedic school.

Cowley College was requested to develop the Advanced Emergency Medical Technician certificate program by the Arkansas City Fire/EMS Department and the Winfield Fire/EMS Department and offer it at one of Cowley College's local campuses. Once development of the program began other local departments stated support for the initiative, including Mulvane EMS, Wellington Fire/EMS, Sedgwick County EMS, and multiple others. These departments stated the following reasons for program need:

1. There is a very significant shortage of certified EMTs and paramedics applying for open positions at each department. Some position posting received zero qualified applicants.
2. The short duration of the AEMT program allows for rapid upskilling of existing staff.
3. Since the program has no general education prerequisites and is shorter in duration than paramedic training, several staff members have stated interest in pursuing AEMT certification if a local program was available.
4. Having trained AEMTs on the departments staff would allow them to "spread out" advanced life support calls for their current paramedics. With the existing staffing of an EMT and paramedic on an ambulance, the paramedic has to take every advanced life support (serious to critical condition) patient. Having AEMTs would allow the AEMT and paramedic to alternate who is the caregiver on advanced life support calls, thereby reducing stress and fatigue on the workforce.
5. Having AEMT training locally and offered at convenient times with convenient clinical and field training locations would help entice not only existing staff at local departments to take the course, but could potentially help recruit other local students to enter the workforce as AEMTs.

Cowley College has an existing EMT training program and a nationally accredited Paramedic Program, with extensive infrastructure in place to support EMS learners. This infrastructure includes the following items:

1. Qualified and experienced EMS faculty to serve as lead program faculty, lab assistants and clinical coordinators.
2. Existing quality assurance and improvement processes to ensure student, patient and instructor safety during all aspects of the educational process.
3. Extensive amounts of equipment and supplies to support the program, including high fidelity patient simulators and the types of the types of equipment encountered in local EMS services.
4. Existing clinical and field training contracts with local hospitals and EMS services.
5. A history of student success in the current EMS programs. The 2022 paramedic students boast a 100% success rate on the practical and written certification exams, as well as a 100% positive placement rate.

Program Description

Please note: A full list of program objectives may be found in Appendix A.

Admission Requirements - Program

1. Current EMT certification, or able to gain EMT certification prior to the end of the AEMT program
2. Successful completion of a criminal history background check

Admission Requirements - College

Cowley College welcomes students from across the United States and around the world. Admission to Cowley College is open to all individuals who can academically benefit from its educational programs. However, Cowley College reserves the right to deny a student admission or readmission if it is determined to be in the best interests of the college community to do so or if the college is unable to provide the services, courses or program(s) needed to assist the student in meeting educational objectives.

New Students

Before full admission can be granted, students must:

1. Complete a free Application for Admission. To Apply Online, go to www.cowley.edu/apply/index.html
2. Submit final high school transcript or GED results to the Admissions Office.
3. Provide ACT scores, if available.
4. Unless exempt from assessment based on ACT scores, take course placement assessment at one of Cowley's Enrollment Services' location. Contact your desired location for testing availability.
5. If you are an online students and unable to visit a Cowley College campus/center in person, special arrangements can be made if placement assessment testing is necessary. Contact us to make other arrangements. Email admissions@cowley.edu or call 620.441.6335.
6. Enroll with an Admissions Representative at any of our locations. Locations information is listed above. Instructions for enrolling are below in the ENROLLMENT section.
7. Applicants may be provisionally admitted for a maximum of twelve (12) credit hours pending submission of the required documents.

Graduation Requirements - Program

1. Satisfactorily complete the appropriate sequence of courses as defined by the AEMT curriculum.
2. Demonstrate entry-level AEMT competence in the cognitive, psychomotor, and affective domains as detailed in the AEMT syllabus and handbook.
3. Certify in the following courses: BCLS, ACLS, AMLS, EPC or PALS or PEPP, and PHTLS.
4. Complete all required skills, patient contacts, etc. as required in skills labs and clinical rotations.
5. Complete 30 team leads during the field internship rotations.
6. Successfully complete all unit and final exams.
7. Successfully complete the summative (final) cognitive, psychomotor and affective evaluations and exams.
8. Other detailed graduation requirements may be found in the AEMT syllabus and handbook.

Graduation Requirements - College

Cowley College policy 216 describes the requirements for graduation with a technical certificate. Those are as follows:

1. Successful completion of the certificate required courses.

2. A minimum of a 2.0 grade point average for all courses applied to the certificate.
3. Completion of a degree application and submit it to the Registrar's office according to the published deadlines for submission.
4. If a student does not maintain continuous enrollment (excludes summer), the student will be required to follow the graduation requirements that are in effect at the time of re-enrollment.

Catalog Descriptions

AEMT 1: This is the first course in the Advanced EMT (AEMT) technical curriculum and helps prepare the student for progression through the program. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT.

AEMT 2: This is the second course in the Advanced EMT (AEMT) technical curriculum and is comprised of hospital clinical rotations and capstone field internship. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT.

Demand for the Program

Please note: A list of support letters from local EMS employers may be found in Appendix B.

The AEMT program is being developed at the request of local industry partners, specifically the Arkansas City Fire/EMS Department and the Winfield Fire/EMS Department. Both departments state that there is difficulty finding paramedics to apply for their open positions, and feel that offering the AEMT program will offer an avenue for their currently staff EMTs to increase their scope of practice to the advanced life support (ALS) level which would allow them to help staff ALS ambulances. They also believe the course could potentially develop into an AEMT-to-Paramedic bridge program, further enhancing their existing staff's qualifications and certifications. The AEMT program will also draw other EMT students from across the region, offering more recruiting opportunities for the local employers to hire from the course graduates.

Other EMS employers, including Butler County EMS, Great Bend Fire/EMS, Mulvane EMS, Reno County EMS, Sedgwick County EMS, Wellington Fire/EMS and American Medical Response have stated that they will provide interviews and potentially hire program graduates. Some EMS services have also stated they will provide field internship placements and/or personnel to serve on the EMS advisory committee. The full list of support letters may be found in Appendix B.

Kansas Department of Labor Data

Data from the Kanas Department of Labor shows **annual openings of 200** for the SOC code 29-2040.

Occupational Code	Occupational Title
29-2040	Emergency Medical Technicians and Paramedics

Total	
Openings	Openings: Annual
2,002	200

Employment		Change in Employment		
Base Year 2020	Projected Year 2030	Numerical	Percent	Percent: Annual
2,650	2,864	214	8.1%	0.8%

Openings due to					
Exits	Exits: Annual	Transfers	Transfers: Annual	Numerical Change	Numerical Change: Annual
511	51	1,277	128	214	21

A search on Glassdoor for AEMT job postings in the Wichita, KS area on 1/6/23 showed 16 current openings. Please note, these are **current** openings, not annual openings. A similar search conducted for EMT job openings showed 29 current openings, and a search for Paramedic openings showed 32 current openings.

A search on Kansasworks.com for AEMT job postings in the Wichita, KS area on 1/6/23 showed 35 current openings. Please note, these are **current** openings, not annual openings. A similar search conducted for Paramedic job openings showed 147 current openings.

Perkins Comprehensive Local Needs Assessment

From Page 11 of the current Perkins Comprehensive Local Needs Assessment:

“Paramedic: 73 concentrators, 148 openings. Multiple comments from industry via advisory committee and local governments requesting more graduates.”

High School Students

The AEMT program will not be offered to high school students. High school students will be advised to enroll in the EMT program.

Business/Industry Partnerships

Cowley College has extensive Business and Industry partnerships for the EMS program, which includes contracts for hospital clinical and field internship training at partner facilities. Many partners also provide members for the EMS advisory committee. The list of partners includes the following:

Hospital Partners

- William Newton Hospital (Winfield)
- South Central Kansas Medical Center (Arkansas City)
- Ascension Via Christi (Wichita) – All campuses, including St. Francis and St. Joseph
- Wesley Medical Center (Wichita) – All campuses
- Kansas Medical Center (Andover)
- McPherson Hospital (McPherson)
- Newman Regional Hospital (Emporia)
- Great Bend Regional Hospital (Great Bend)

Field Internship Partners

- Arkansas City Fire/EMS
- Butler County EMS
- Emporia Fire/EMS
- Great Bend Fire/EMS
- McPherson EMS
- Miami County EMS
- Mulvane EMS
- Reno County EMS
- Sedgwick County EMS
- Winfield Fire/EMS
- Wellington Fire/EMS

Contracts for these industry partners are on file with the EMS Program Director and may be shared upon request.

Duplication of Existing Programs

Regional providers of AEMT programs include Butler Community College and Hutchinson Community College, with collaboration for program development sought from both Butler and Hutchinson in the form of sharing of syllabi, lab manuals, and program consultations between program directors. Cowley College has existing infrastructure to locally support the proposed program without incurring new costs. Offering the program locally is the desire of local industry partners.

Kansas Training Information Program (K-TIP) Data

2021 K-TIP Report Data					
51.0904 Emergency Medical Technology/Technician (Emt Paramedic)					
Institution	Total # Concentrators	Total # Graduates	Total # Graduates Exited	Total # Graduates Exited and Employed	Average Wage: Graduates Exited and Employed
Barton Community College	34	13	10	10	\$56,937
Coffeyville Community College	12	7	7	7	\$47,256
Cowley Community College	26	12	11	11	\$49,605
Garden City Community College	13	^	^	^	^
Hutchinson Community College	35	13	11	11	\$71,559
Johnson County Community College	35	18	13	13	\$60,340
Kansas City Kansas Community College	39	^	^	^	^
Wichita State University Campus of Applied Sciences and Technology	^	^	^	^	^
TOTAL	194	63	52	52	\$57,139

Program Information

Please refer to Appendix C for a listing of the Programs of Study for the Certificates A and B.

The proposed credit hours for the AEMT courses are higher than other programs offered in the area. In developing the program, the faculty, program director, medical director and advisory committee reviewed the curriculum requirements, and the decision was made to include more classroom, clinical and field internship time than other similar programs. This decision was made to safeguard the public, as the curriculum that must be covered in the program is very extensive and the faculty believes that the proposed times are sufficient to prepare entry-level AEMT providers. A review of current investigation cases at the Kansas Board of EMS that involve a disproportionately large number of AEMTs also factored into this decision.

Certificate A – 24 Hours

EMS 5690 Advanced EMT 1 – 12 Credit Hours

This is the first course in the Advanced EMT (AEMT) technical curriculum and helps prepare the student for progression through the program. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT.

EMS 5691 Advanced EMT 2 – 12 Credit Hours

This is the second course in the Advanced EMT (AEMT) technical curriculum and is comprised of hospital clinical rotations and capstone field internship. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT.

Certificate B – 39 Hours

EMS5690 Advanced EMT 1 – 12 Credit Hours

EMS5691 Advanced EMT 2 – 12 Credit Hours

PLUS Paramedic Program Prerequisite Courses

COM2725 Interpersonal Communications – 3 Credit Hours

PHO6460 Ethics – 3 Credit Hours

SOC6811 Principles of Sociology – 3 Credit Hours

BIO4110 Biology Review – 1 Credit Hour

BIO4150 Anatomy and Physiology – 5 Credit Hours

The AEMT program will require approval from the Kansas Board of EMS to offer. After the program of study receives Kansas Board of Regents approval, the EMS faculty will attain the necessary approval from the Kansas Board of EMS to offer the course. This consists of submitting a Sponsoring Organization request and plan, similar to what is on file at the KSBEMS for EMT and Paramedic, for the AEMT course offering. No issues gaining this approval is anticipated. CAAHEP, the national accrediting body for EMS educational programs, does not accredit AEMT programs.

Faculty

Faculty qualifications for a lead instructor include:

1. Paramedic certification
2. AAS Degree or higher
3. 3 years of EMS field experience
4. Instructor-Coordinator certification preferred

Faculty qualifications for a lab assistant/clinical coordinator include:

1. AEMT or Paramedic Certification
2. 1 year of EMS field experience preferred

Cost and Funding for Proposed Program

The AEMT program will be conducted at the existing Cowley College Winfield campus at 1406 E. 8th Street. This is the main campus for EMS course offerings and houses more EMS equipment and supplies than any other Cowley College campus. No extra costs will be incurred for physical facilities.

Faculty costs are paid out of the Cowley College HHS department budget from local funds and based on tuition and fees collected for enrollment. For a faculty member to receive full pay for a class, a minimum of 6 students must be enrolled and attend the course. Courses with less than 6 students enrolled may be either cancelled, or the faculty member can agree to teach the course for a reduced contract.

Students will be charged student fees to cover the following items:

Criminal Background Check and UA (required by clinical/field partners)	\$85
Liability Insurance (required by clinical/field partners)	\$30
Personal Protective Equipment (gloves, N95)	\$65
NREMT Exam Fee	\$136
Kansas Board of EMS Certification Fee	\$50
Practical Exam Fee	\$125
ACLS, AMLS, PHTLS, EPC certification fees	\$600 (\$150 per class)
Scheduling/Competency Tracking Software access fee	\$84

No new equipment is anticipated to be required for the program, as items in the Paramedic and EMT program inventories are sufficient to provide the necessary items for the AEMT program. Supplies, such as IV catheters and other items, will be purchased Cowley College HHS budget, as well as shared from the EMT and Paramedic supply inventories.

Program Review and Assessment

Cowley College utilizes a 3-year program review cycle that is administered by the Academic Affairs office. The review consists of a self-study document that is prepared by the program faculty. The self-study is then reviewed and approved by the following: Vice President for Academics, Department Chair, Other Academic Department Chairs (Peer Review), President, Board of Trustees Academic Sub-Committee, and the Board of Trustees. The Cowley EMS Education program was last reviewed in the 2021-2022 Academic Year.

Program Approval at the Institution Level

Program Advisory Committee

Please note: The original proposal for the AEMT program included a Certificate A, B and C. After discussion with Kansas Board of Regents staff, the decision was made to change the proposal to only include Certificates A and B.



Advisory Committee Meeting Membership List December 2022

SPONSOR / INSTITUTION NAME:		Cowley College	
CoAEMSP PROGRAM NUMBER:		600162	
CHAIR OF THE ADVISORY COMMITTEE:		Mr Nathan Sturchio –Training Officer, Butler County EMS	
Community of Interest	Name(s) – List all members. Multiple members may be listed in a single category.		Agency/Organization
Physician(s) <i>may be fulfilled by Medical Director</i>	Dr. Kent Potter Dr. Rob Dillard		Cowley College Medical Director Newton Medical Center ED Physician
Employer(s) of Graduates Representative	Brad Klein Angela Hamilton Malachi Winters Frank Williams Tim Hay		Winfield Fire/EMS Sedgwick County EMS Sedgwick County EMS Butler County EMS Wellington Fire/EMS
Key Governmental Official(s)	Wayne Wilt		Cowley County Commissioner
Police and Fire Services	Pete Swart Luke McCormick		Mulvane Department of Public Safety Great Bend Fire/EMS
Public Member(s)	Gary Brewer		Community Member (Johnson and Johnson, retired)
Hospital / Clinical Representative(s)	Jessica Adelhardt Tiffany Poyner		Wesley Medical Centers Ascension Via Christi Medical Centers
Other	Jeb Burress		Butler Community College, Partner Institution
Faculty <i>ex officio, non-voting member,</i>	Samantha Troyer Jeremy Goerzen Cameron Schwarz		Cowley College Cowley College Cowley College
Sponsor Administration, <i>ex officio, non-voting member</i>	Dr. Michelle Schoon		Cowley College, Vice President of Academic Affairs
Current Student	Madison Frost		2022-2023 Wichita Class
Graduate	Aaron Sutton Tierra Defebaugh		2004 Cowley Graduate 2018 Cowley Graduate
Program Director <i>ex officio, non-voting member</i>	Chris Cannon		Cowley College
Medical Director <i>ex officio, non-voting member</i>	Dr. Kent Potter		Cowley College

Cowley College AEMT Program - RESPONSE REQUESTED

Cannon, Chris <chris.cannon@cowley.edu>

Tue 9/20/2022 1:09 PM

To: Cannon, Chris <chris.cannon@cowley.edu>

Bcc: Aaron Sutton <suttonmict@gmail.com>; alexmcwilliams05@hotmail.com <alexmcwilliams05@hotmail.com>; Angela Hamilton <Angela.Hamilton@sedgwick.gov>; Clara Rucker <claralouiserucker@gmail.com>; Clark, Michael (mclar70@yahoo.com) <mclar70@yahoo.com>; Dr. Michelle Schoon <michelle.schoon@cowley.edu>; drkentpotter@yahoo.com <drkentpotter@yahoo.com>; Frank Williams <fwilliams@bucoks.com>; Gary Brewer (gbrewer.417@gmail.com) <gbrewer.417@gmail.com>; J. R. Behan (E-mail) <groundpoint9@gmail.com>; Jeremy Goerzen <jeremy.goerzen@cowley.edu>; Jeri Smith (jsmith@arkansascityks.gov) <jsmith@arkansascityks.gov>; Kelia Waugh <kwaugh15@outlook.com>; Malachi Winters (malachi.winters@sedgwick.gov) <malachi.winters@sedgwick.gov>; Nathan Sturchio <nsturchio@bucoks.com>; Pete Swart (pswart@mulvane.us) <pswart@mulvane.us>; Robert Dillard (kshousecalls@protonmail.com) <kshousecalls@protonmail.com>; Troyer, Samantha <Samantha.Troyer@cowley.edu>; Schwarz, Cameron <Cameron.Schwarz@cowley.edu>; Vincent Warren <vwarren@winfieldks.org>

Dear EMS education advisory committee members,

In response to requests from local industry, we are seeking approval to offer an Advanced EMT (AEMT) course here at Cowley. AEMT is an intermediate step between EMT and paramedic certification that offers a more expanded scope of practice, including more medications, IVs, and EKG interpretation/defibrillation.

I've been resistant to offering an AEMT class in the past, as with our accelerated paramedic program there wasn't a compelling reason to offer it. There are also a LOT of investigation issues from the Kansas Board of EMS on AEMT providers, which is likely due in part to poor initial training. However, with the continued shortage of EMS personnel and with multiple requests from our local EMS partners, we are moving forward with a program. We plan to structure this program more like a "paramedic-lite" program with our accreditation safety nets in place, as opposed to an "emt-plus" course with lesser requirements.

The program will consist of two "main" courses, AEMT 1 and AEMT 2.

AEMT 1 is the classroom and simulation lab portion of the program. It will be based on the Kansas Education standards, and is 12 credit hours in length. For comparison, the AEMT 1 course is 9 hours at Hutchinson and 10 hours at Butler. More time is needed to cover the course competencies adequately to ensure we are graduating safe, competent providers.

AEMT 2 is the clinical and field internship portion of the program. It will be comprised of 160 hours in the hospital and 300 hours on an ambulance. Hours in a hospital are very important for students to see a large number of patients, and having a field internship with adequate hours to meet the team lead requirements is essential to student entry-level competence. Comparison on hours is below.

Butler Requirements for Clinical and Field: 96 hours hospital, 250 hours field
Hutchinson Requirements for Clinical and Field: 0 hours hospital, 180 hours field
PROPOSED COWLEY: 160 hours hospital, 300 hours field

There will be three proposed College Certificates:

Certificate A, 24 hours: This is comprised of AEMT 1 and AEMT 2 only.

Certificate B, 36 hours: This is EMT, plus AEMT 1 and 2. Not every certified EMT received college credit for their EMT class, but this certificate is for those who did.

Certificate C, 51 hours: EMT, AEMT 1 & 2, plus the paramedic prerequisite general education courses.

A copy of each certificate, as well as the Kansas AEMT education standards are attached.

The program will also include several non-credit classes: ACLS, AMLS, EPC, and PHTLS.

I DO NEED ADVISORY COMMITTEE APPROVAL TO MOVE FORWARD WITH THIS PROJECT. I'd ask that anyone who **DOES NOT** approve, please respond to me no later than Tuesday, 9/28/22.

Thank you in advance! Please call or email with questions.

Chris Cannon

EMS Program Director

Department Chair

Cowley College

Winfield Campus

1406 E. 8th Street

Winfield, KS 67156

www.cowley.edu/paramedic

www.facebook.com/cowleyems

Re: Cowley College AEMT Program - RESPONSE REQUESTED

Cannon, Chris <chris.cannon@cowley.edu>

Wed 9/21/2022 6:22 PM

To: Cannon, Chris <chris.cannon@cowley.edu>

Bcc: Aaron Sutton <suttonmict@gmail.com>; alexmcwilliams05@hotmail.com <alexmcwilliams05@hotmail.com>; Angela Hamilton <Angela.Hamilton@sedgwick.gov>; Clara Rucker <claralouiserucker@gmail.com>; Clark, Michael (mclar70@yahoo.com) <mclar70@yahoo.com>; Dr. Michelle Schoon <michelle.schoon@cowley.edu>; drkentpotter@yahoo.com <drkentpotter@yahoo.com>; Frank Williams <fwilliams@bucoks.com>; Gary Brewer (gbrewer.417@gmail.com) <gbrewer.417@gmail.com>; J. R. Behan (E-mail) <groundpoint9@gmail.com>; Goerzen, Jeremy <jeremy.goerzen@cowley.edu>; Jeri Smith (jsmith@arkansascityks.gov) <jsmith@arkansascityks.gov>; Kelia Waugh <kwaugh15@outlook.com>; Malachi Winters (malachi.winters@sedgwick.gov) <malachi.winters@sedgwick.gov>; Nathan Sturchio <nsturchio@bucoks.com>; Pete Swart (pswart@mulvane.us) <pswart@mulvane.us>; Robert Dillard (kshousecalls@protonmail.com) <kshousecalls@protonmail.com>; Troyer, Samantha <Samantha.Troyer@cowley.edu>; Schwarz, Cameron <Cameron.Schwarz@cowley.edu>; Vincent Warren <vwarren@winfieldks.org>

 2 attachments (623 KB)

AEMT 1 Course Procedure.pdf; AEMT 2 Course Procedure .pdf;

Please find the course procedures for AEMT 1 and AEMT 2 attached. Thanks!

Chris Cannon

Department Chair
EMS Program Director
Cowley College
1406 E. 8th
Winfield, KS 67156
620-229-5985

www.cowley.edu/paramedic
www.facebook.com/cowleyems

From: Cannon, Chris

Sent: Tuesday, September 20, 2022 1:09 PM

To: Cannon, Chris <chris.cannon@cowley.edu>

Subject: Cowley College AEMT Program - RESPONSE REQUESTED

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EMS Program Director

Department Chair

Cowley College

Winfield Campus

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Winfield, KS 67156

www.cowley.edu/paramedic

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Program Approval at the Institution Level

Curriculum Committee

Please note: The original proposal for the AEMT program included a Certificate A, B and C. After discussion with Kansas Board of Regents staff, the decision was made to change the proposal to only include Certificates A and B.

ACADEMIC AFFAIRS MEETING MINUTES

October 6, 2022

Student Center Conference Room

2:15 pm

In person attendance: Marlys Cervantes, Chris Cannon, Shelby Huddleston, Mark Flickinger, Devin Graves, Michelle Schoon, Todd Shepherd, Scott Layton. Paul Erdmann attended for a portion of the meeting.

Attendance via ZOOM: Julia Jarboe and Janice Stover.

NEW PROGRAMS:

AEMT Courses and Certificates- In-between paramedic and EMT certificates. They can do more medications and is seen as a more advanced life support care certificate. Chris has received letters of support from Wellington, Winfield and Arkansas City. No extra equipment will be needed. An adjunct will be able to teach these classes. It was asked if this would bring in new students or split the current enrollment. Chris reported that it will bring in more students especially the career EMTs for fire departments. The Advanced EMT Cert. A is just two classes: AEMT 1 (EMS5690), AEMT 2 (EMS5691) - each a 12-hour class and completed in two semesters. The Advanced EMT Cert. B is three classes: EMT (EMS5605), AEMT 1, AEMT 2 - each course is 12 hours and completed in 3 semesters. The Advanced EMT Cert. C is three EMS classes: EMT, AEMT 1, AEMT 2 and five gen-ed support classes (suggested: Interpersonal Communications, Ethics, Principles of Sociology, Biology Review and Human Anatomy and Physiology.) This certificate would be completed in four semesters and consists of 51 credit hours.

Motion to approve moved by Scott Layton, seconded by Todd Shepherd, Michelle approved and motion carried.

Meeting adjourned at 3:56 PM.

Minutes recorded by Katie Phillips.

Program Approval at the Institution Level

Governing Board

Please note: The original proposal for the AEMT program included a Certificate A, B and C. After discussion with Kansas Board of Regents staff, the decision was made to change the proposal to only include Certificates A and B.

**EXCERPT OF MINUTES
MEETING OF THE GOVERNING BODY OF
COWLEY COLLEGE, COWLEY COUNTY, KANSAS,
HELD ON OCTOBER 17, 2022**

The Board of Trustees of Cowley College met in open session in the President’s private dining room inside the McAtee Dining Center on the main campus, 206 S. 4th Street, Arkansas City, KS. The Chairperson presided, and the following members of the Board of Trustees were present or absent as indicated:

	<u>Present</u>	<u>Absent</u>
Dr. Steve Abrams, Trustee	<u>X</u>	<u> </u>
Brett Bazil, Trustee	<u>X</u>	<u> </u>
Dr. Alan Marcotte, Trustee	<u>X</u>	<u> </u>
Bob McGregor, Trustee	<u>X</u>	<u> </u>
Marla Sexson, Trustee	<u> </u>	<u>X</u>
David Stanley, Trustee	<u>X</u>	<u> </u>
Gary Wilson, Chair	<u>X</u>	<u> </u>
Glennis Zimmerman, Vice Chair	<u>X</u>	<u> </u>
Tiffany Vollmer, Clerk of the Board	<u>X</u>	<u> </u>

The Chairperson declared that a quorum was present and called the meeting to order. The Board of Trustees heard and approved the Awards and Reports, Public Comment, Consent Agenda, Procurement, and Executive Session.

(Other Proceedings)

* * * * *

Under Standing Committee Reports, in the Trustee Academic Subcommittee report, Trustee Bob McGregor requested the following:

A RESOLUTION APPROVING THE ADVANCED EMT CERTIFICATES A, B, AND C AS PRESENTED.

Thereupon, Trustee Wilson moved that said Resolution be passed. The motion was seconded by Trustee Marcotte . Said Resolution was duly read and considered, and upon being put, the motion for the adoption of said Resolution was carried by the vote of the governing body, the vote being as follows:

Aye: 7 _____

Nay: 0 _____

Thereupon, the Chairperson declared the Resolution duly adopted and was signed by the Chairperson and attested by the Clerk of the Board of Trustees.

* * * * *

(Other Proceedings)

There being no further business to come before the meeting, on motion duly made and seconded, the meeting was adjourned.

ADOPTED by the governing body and approved by the Chairperson of Cowley College, this 17th day of October, 2022.



A handwritten signature in black ink, appearing to read "Paul H. Wilson", written over a horizontal line.

Chairperson

ATTEST:

A handwritten signature in black ink, appearing to read "Tiffany Valle", written over a horizontal line.

Clerk of the Board of Trustees

Appendix A

Course Procedures
(includes objectives)

COWLEY COLLEGE COURSE PROCEDURE

EMS 5690 – ADVANCED EMT 1 12 Credit Hours

Student Level:

This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:

EMS 5690 – ADVANCED EMT 1 (12 hrs.)

This is the first course in the Advanced EMT (AEMT) technical curriculum and helps prepare the student for progression through the program. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT.

KRSN: NA

Course Classification: Lecture/Lab

Prerequisites:

EMT certification is required. Student selected to enter the AEMT program.

Co-requisites:

Current immunizations. Criminal record check.

Controlling Purpose:

This is the first course in the Advanced EMT (AEMT) technical curriculum and helps prepare the student for progression through the program. The student will develop competencies in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification.

Learner Outcomes:

Upon completion of the course, the student will be able to:

1. Apply fundamental knowledge of the EMS system, safety/well-being of the AEMT, medical/legal and ethical issues to the practice of EMS.
2. Apply fundamental knowledge of communication and documentation to the practice of EMS.
3. Use foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals.
4. Integrate complex knowledge of the anatomy and physiology of the airway, respiratory and circulatory systems to the practice of EMS.
5. Apply comprehensive knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.
6. Apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide patient management.
7. Apply knowledge (fundamental depth, foundational breadth) of upper airway anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

8. Apply fundamental knowledge of the medications carried by AEMTs that may be administered to a patient, including routes of administration and patient safety.
9. Apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest and post resuscitation management.
10. Apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for ill patients.
11. Apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for injured patients.
12. Apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for pediatric, geriatric, neonatal and obstetrical patients.
13. Apply fundamental knowledge of ambulance operations to ensure patient, public, and personnel safety.
14. Apply knowledge of research and public health principles to the practice of EMS.

Unit Outcomes for Criterion Based Evaluation:

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

UNIT 1: EMS Systems

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge of the EMS system to EMS practice.

- Define emergency medical services (EMS).
- Discuss the four levels of EMS training and licensure.
- Describe licensure criteria for advanced emergency medical technicians (AEMTs).
- Describe how the Americans with Disabilities Act (ADA) applies to employment as an AEMT.
- Discuss the history of the development of the EMS system.
- Describe the levels of EMS training in terms of skill sets needed for each of the following:
 - emergency medical responder (EMR), emergency medical technician (EMT), AEMT, and paramedic.
- Discuss the possible presence of other responders at a scene with EMR training, some knowledge of first aid, or merely good intentions, and their need for direction.
- Describe the components of the EMS system.
- Describe how medical direction of an EMS system works and your role in the process.
- Describe the goals of Mobile Integrated Healthcare (MIH) and community paramedicine.
- Discuss the purpose of the EMS continuous quality improvement (CQI) process.
- Describe ways to limit or eliminate human error and improve patient safety.
- Characterize the EMS system's role in prevention and public education in the community.
- Discuss the signs of human trafficking that you may encounter during an emergency response.
- Describe situations in which transport to a specialty center is warranted.
- Describe your roles and responsibilities as an AEMT.
- Describe the attributes you are expected to possess.
- Discuss the impact of the Health Insurance Portability and Accountability Act (HIPAA) on patient privacy.

UNIT 2: Workforce Safety and Wellness

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge of workforce safety and wellness to EMS practice.

- Define infectious disease and communicable disease.
- Describe the routes of disease transmission.
- Explain the mode of transmission and the steps to prevent and/or manage an exposure to hepatitis, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS).
- Describe the steps to take for personal protection from airborne and bloodborne pathogens.
- Know the standard precautions that are used in treating patients to prevent infection.
- Explain proper handwashing techniques.
- Explain the proper techniques for putting on and taking off personal protective equipment.
- Describe components of an infection control plan.
- Describe the steps to prevent a potential exposure.
- List the ways immunity to infectious diseases is acquired.
- Explain postexposure management of exposure to patient blood or body fluids, including completing a postexposure report.
- Describe the steps necessary to determine scene safety and to prevent work-related injuries at the scene.
- Describe the various hazards that may be encountered and how to prepare for them.
- Explain how to recognize possibly violent situations and which steps to take to deal with them.
- Describe how to handle behavioral emergencies.
- Describe the protective clothing and gear that is available to protect you.
- Explain the physiologic, physical, and psychological responses to stress.
- Describe posttraumatic stress disorder (PTSD) and steps that can be taken to decrease the likelihood that PTSD will develop, including critical incident stress management.
- Describe components that can contribute to stress, such as burnout and compassion fatigue.
- Explain the importance of peer support in maintaining emotional well-being for yourself and your coworkers.
- Identify the steps that contribute to wellness and their importance in managing stress.
- Discuss workplace issues such as diversity, sexual harassment, and substance abuse.
- Describe issues concerning care of the dying patient, death, and the grieving process of family members.
- Describe reactions to expect from critically ill and injured patients and how you can effectively work with patients exhibiting a range of behaviors.
- Demonstrate proper handwashing techniques.
- Demonstrate how to properly remove gloves.
- Demonstrate the necessary steps to prevent a potential exposure situation.

UNIT 3: Medical, Legal and Ethical Issues

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge of medical/legal and ethical issues to EMS practice.

- Discuss the scope of practice and standards of care that are imposed on you as an advanced emergency medical technician (AEMT).
- Differentiate between licensure and certification as they apply to your practice as an AEMT.
- Discuss the four factors that determine negligence.

- Describe your legal duty to act.
- Discuss the issues of abandonment, assault, battery, kidnapping, and false imprisonment, including the implications for you as an AEMT.
- Compare defamation, slander, and libel.
- Describe situations in which Good Samaritan laws or immunity would apply.
- Define consent, including how it relates to decision-making capacity.
- Compare expressed consent, informed consent, implied consent, and involuntary consent.
- Discuss consent by minors for treatment or transport.
- Describe local emergency medical services (EMS) system protocols for using forcible restraint.
- Explain your role and obligations if a patient refuses treatment or transport.
- Discuss the importance of do not resuscitate orders and local protocols as they relate to the EMS environment.
- Describe ethics and morality, including the implications for you as an AEMT.
- Describe the relationship between patient communications, confidentiality, and the Health Insurance Portability and Accountability Act (HIPAA).
- Explain the mandatory reporting requirements for special situations, including abuse or neglect, drug- or felony-related injuries, childbirth, and crime scenes.
- Describe the presumptive and definitive signs of death.
- Explain how to manage patients who are identified as organ donors.
- Explain the importance of medical identification devices in treating the patient.

UNIT 4: Communication and Documentation

Outcomes: Applies fundamental knowledge of communication and documentation to EMS practice.

- Describe factors and strategies to consider for therapeutic communication with patients.
- Discuss the techniques of effective nonverbal communication.
- Discuss the techniques of effective verbal communication.
- Understand special considerations in communicating with difficult patients, older adults, children, hard-of-hearing patients, visually impaired patients, non-English-speaking patients, and special needs patients.
- Describe how to effectively communicate transfer of care, including delivery of the oral report on arrival at the hospital.
- Understand the basic principles of the various types of communications equipment used in emergency medical services (EMS).
- Describe EMS communication procedures during the following phases of a typical call: notification or initial receipt of call, communication with dispatch enroute to call, on scene, during transport, on arrival at hospital (or point of transfer), and return to service.
- List the proper sequence of information to communicate in radio delivery of a patient report.
- Describe the use of radio communications, including the proper methods of initiating and terminating a radio call.
- Describe the use of written communication and documentation.
- Explain the legal implications of the patient care report (PCR).
- Identify the information required in a PCR and how to report errors.
- Understand how to document refusal of care, including the legal implications of the patient's decision.
- Discuss state and/or local special reporting requirements, such as for gunshot wounds, dog bites, and abuse.
- Demonstrate the techniques of successful cross-cultural communication.
- Demonstrate delivery of a formal oral report during transfer of care.

- Demonstrate how to provide a verbal radio report to the receiving facility.
- Demonstrate a simulated, concise radio transmission with dispatch.
- Demonstrate completion of a PCR.

UNIT 5: Medical Terminology

Outcomes: Upon completion of this unit, the students will be able to use foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals.

- Explain the purpose and the importance of being familiar with medical terminology.
- Explain the Greek and Latin origins of medical terms.
- Define medical eponyms, homonyms, antonyms, and synonyms; include examples for each.
- Name the four word parts or components used to build medical terms; include examples of each.
- Describe how compound words are created and how the plural is formed when using medical terminology; include examples of each.
- Describe the anatomic position and why it is used.
- List the three planes of the human body.
- List medical terms associated with regional anatomy.
- Explain the importance of using accurate medical terminology for direction, movement, and position in your documentation and other communication.
- Describe the topography of the abdominal region, including the four abdominal quadrants and the nine abdominal regions.
- Identify specialized prefixes used to indicate position, direction, and location.
- Define specific terms used to indicate the patient's position on the scene or prior to transport: prone, supine, Fowler position, and recovery (left lateral recumbent) position.
- Interpret standardly accepted medical abbreviations, acronyms, and symbols.
- Identify error-prone medical abbreviations, acronyms, and symbols.
- Know appropriate terminology related to pharmacology.

UNIT 6: Anatomy and Physiology

Outcomes: Upon completion of this unit, the students will be able to integrate complex knowledge of the anatomy and physiology of the airway, respiratory and circulatory systems to the practice of EMS.

- Describe the structure of a cell.
- Describe how the structure of a cell membrane relates to movement into and out of the cell.
- Discuss the four steps that make up the life cycle of the cell.
- Describe the process of cellular respiration.
- Compare aerobic to anaerobic processes.
- Discuss cell transport mechanisms, including diffusion, osmosis, facilitated diffusion, active transport, endocytosis, and exocytosis.
- Explain the concept of fluid balance, as well as the purpose and mechanisms for maintaining homeostasis.
- Identify the anatomy and describe the physiology of the skeletal and musculoskeletal systems.
- Discuss the anatomy and physiology of the respiratory system.
- Discuss the concepts of respiration and ventilation.
- Describe the process of gas exchange in the alveoli.
- Explain the brainstem's role in regulating respiration.
- Describe the concept of hypoxic drive.

- Explain how the level of carbon dioxide in the blood and the blood's pH relate to ventilation.
- Discuss the anatomy and physiology of the circulatory system.
- Discuss the concepts of afterload, stroke volume, and cardiac output.
- Discuss the Starling law of the heart.
- Discuss the anatomy and physiology of the nervous system.
- Describe the anatomy and physiology of the integumentary system.
- Explain the anatomy and physiology of the digestive system.
- Discuss the anatomy and physiology of the endocrine system.
- Describe the anatomy and physiology of the urinary system.
- Discuss the anatomy and physiology of the genital system.

UNIT 7: Pathophysiology

Outcomes: Upon completion of this unit, the students will be able to apply comprehensive knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

- Define pathophysiology, including its role in diagnosing and treating disease.
- Compare atrophy, hypertrophy, hyperplasia, dysplasia, and metaplasia as means of cellular adaptation.
- List factors that can affect or upset homeostasis.
- Explain the causes, clinical manifestations, assessment, and management of edema.
- Discuss types of fluid deficits and potential resulting complications.
- Explain the physiologic consequences of electrolyte imbalances in sodium, potassium, calcium, phosphate, and magnesium.
- Compare respiratory acidosis, respiratory alkalosis, metabolic acidosis, and metabolic alkalosis.
- Outline how cellular injury occurs in patients with hypoxia, chemical exposures, infection (sepsis), immunologic exposures (hypersensitivity reactions), inflammatory conditions, genetic disorders, nutritional imbalances, physical damage (mechanical injury), and other harmful exposures, such as extremes of hot and cold.
- Examine the concept of apoptosis.
- Define perfusion, including the physiologic consequences of hypoperfusion.
- Analyze the mechanisms by which the body compensates for hypoperfusion.
- Discuss the causes of central and peripheral shock, including cardiogenic, obstructive, hypovolemic, and distributive shock.
- Explain how to treat a patient in shock.
- Describe multiple organ dysfunction syndrome.
- Examine the body's three defense mechanisms against pathogens: anatomic barriers, the immune response, and the inflammatory response.
- Explain how plasma protein systems—the complement system, the coagulation (clotting) system, and the kinin system—modulate the inflammatory response.
- Compare wound healing by primary intention with wound healing by secondary intention.
- Outline each of the four types of hypersensitivity reactions and mechanisms for immunologic injury.
- List several autoimmune reactions.
- Compare inherited and acquired immunodeficiencies.
- Analyze the controllable and uncontrollable risk factors that intersect in order to cause disease.
- Outline how incidence, prevalence, morbidity, and mortality data are used to analyze disease risk.
- Analyze risk factors for cancer and cardiovascular disease.
- Describe how hematologic disorders occur.

- Name common renal, gastrointestinal, and neuromuscular disorders.
- List the stages of the general adaptation syndrome and explore the relationship between stress and disease.

UNIT 8: Life Span Development

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge of life span development to patient assessment and management.

- Know the terms used to designate the following developmental stages: infants, toddlers, preschoolers, school-age children, adolescents (teenagers), early adults, middle adults, and older adults.
- Describe the major physical and psychosocial characteristics of an infant's life.
- Describe the major physical and psychosocial characteristics of a toddler's life.
- Describe the major physical and psychosocial characteristics of a preschooler's life.
- Describe the major physical and psychosocial characteristics of a school-age child's life.
- Describe the major physical and psychosocial characteristics of an adolescent's life.
- Describe the major physical and psychosocial characteristics of an early adult's life.
- Describe the major physical and psychosocial characteristics of a middle adult's life.
- Describe the major physical and psychosocial characteristics of an older adult's life.

UNIT 9: Patient Assessment

Outcomes: Upon completion of this unit, the students will be able to apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide patient management.

- Identify the components of the patient assessment process.
- Explain how the different causes and presentations of emergencies will affect how you perform each step of the patient assessment process.
- Describe the key elements of the critical thinking process and how you can apply them in the field.
- Discuss some of the possible environmental, chemical, and biologic hazards that may be present at an emergency scene, ways to recognize them, and precautions to protect personal safety.
- Discuss how to survey a scene for signs of violence and protect yourself and bystanders from real or potential danger.
- Describe how to determine the mechanism of injury or nature of illness at an emergency and the importance of differentiating trauma patients from medical patients
- List the minimum standard precautions that should be followed and personal protective equipment that should be worn at an emergency scene, including examples of when additional precautions would be appropriate.
- Explain why it is important to identify the total number of patients at an emergency scene and how this evaluation relates to determining the need for additional or specialized resources, implementation of the incident command system, and triage.
- Describe the principal goals of the primary survey process.
- Explain the process of forming a general impression of a patient as part of the primary survey and the reasons why this step is critical to patient management.
- Describe the assessment of airway status in patients who are responsive and unresponsive.
- Give examples of possible signs and causes of airway obstruction in patients who are responsive and unresponsive, as well as the appropriate response.

- Describe the assessment of a patient's breathing status, including the key information you must obtain during this process and the emergency medical care required for patients who have both adequate and inadequate breathing.
- List the signs of respiratory distress and respiratory failure.
- Describe the assessment of a patient's circulatory status, including the different methods for obtaining a pulse and appropriate management depending on the patient's status.
- Explain the variations required to obtain a pulse in infant and child patients compared with adult patients.
- Describe the assessment of a patient's skin color, temperature, and condition, including examples of both normal and abnormal findings and the information this provides related to the patient's status.
- Discuss the process of assessing for and methods for controlling external bleeding.
- Explain the importance of assessing a patient's level of consciousness to determine altered mental status.
- Give examples of different methods used to assess alertness, responsiveness, and orientation.
- List the steps to follow during the primary survey of a trauma patient, including examples of abnormal signs and appropriate related actions.
- Discuss the steps used to identify and subsequently treat life-threatening conditions that endanger a patient during an emergency.
- Explain the process for determining the priority of patient care and transport at an emergency scene, including examples of conditions that necessitate rapid transport.
- Discuss the importance of protecting a trauma patient's spine and identifying fractured extremities during patient packaging for transport.
- Discuss the process of taking a patient history, its key components, and its relationship to the primary survey process.
- Describe examples of different techniques you may use to obtain information from patients during the history-taking process.
- Discuss different challenges you may face when taking a patient history on sensitive topics and strategies that can be used to facilitate each situation.
- Describe the purpose of performing a physical exam during secondary assessment, its components, special patient considerations, and methods for determining which aspects of the physical exam will be used.
- Name the devices used to monitor a patient's medical condition during the secondary assessment and reassessment.
- Describe the purpose of a full-body exam, and list the steps used during this process.
- Explain situations in which patients may receive a focused assessment, including examples, by body system, of what each focused assessment should include based on a patient's chief complaint.
- List normal respiratory rate, pulse rate, and blood pressure ranges for adults, children, and infants.
- Explain the importance of performing a reassessment of the patient and the steps in this process.
- Demonstrate the techniques for assessing a patient's airway, and correctly obtain information related to respiratory rate, rhythm, quality/character of breathing, and depth of breathing.
- Demonstrate how to obtain a pulse rate in a patient.
- Demonstrate how to assess a radial pulse in a responsive patient and an unresponsive patient.
- Demonstrate how to assess a carotid pulse in an unresponsive patient.
- Demonstrate how to palpate a brachial pulse in a child who is younger than 1 year (or a manikin).

- Demonstrate how to assess capillary refill in an adult or child older than 6 years.
- Demonstrate how to assess capillary refill in an infant or child younger than 6 years.
- Demonstrate how to use the AVPU scale to test for patient responsiveness.
- Demonstrate how to evaluate a patient's orientation and document the patient's status correctly.
- Demonstrate how to perform a rapid full-body scan during the primary survey of a patient.
- Demonstrate the use of a pulse oximetry device to evaluate the effectiveness of oxygenation in the patient.
- Demonstrate the use of electronic and manual devices to assist in determining the patient's blood pressure in the field.
- Demonstrate the use of an end-tidal carbon dioxide monitoring device to assist in determining the patient's concentration of expired carbon dioxide in the field.
- Demonstrate how to assess a patient's blood glucose level.
- Demonstrate how to perform a full-body exam.
- Demonstrate how to perform a focused assessment.
- Demonstrate how to measure blood pressure by auscultation.
- Demonstrate how to measure blood pressure by palpation.
- Demonstrate how to test pupil reaction in response to light in a patient and document their status correctly.

UNIT 10: Airway and Ventilation

Outcomes: Upon completion of this unit, the students will be able to apply knowledge (fundamental depth, foundational breadth) of upper airway anatomy and physiology to patient assessment and management to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

- Review the major structures of the respiratory system.
- Discuss the physiology of breathing.
- Describe factors related to ventilation, including partial pressure and volumes.
- Describe factors related to the pathophysiology of respiration, including ventilation-perfusion ratio mismatch, hypoventilation, hyperventilation, and circulatory compromise.
- Review the concept of acid-base imbalance.
- Explain how to assess for adequate and inadequate respiration, including the use of pulse oximetry.
- List the signs of adequate breathing.
- List the signs of inadequate breathing.
- Explain how to assess for a patent airway.
- Describe abnormal breathing patterns to recognize when assessing a patient's breathing.
- Discuss the methods for end-tidal carbon dioxide assessment, including its importance.
- Describe the assessment and care of a patient with apnea.
- Describe how to perform the head tilt–chin lift maneuver.
- Describe how to perform the jaw-thrust maneuver.
- Explain the use of the recovery position to maintain a clear airway.
- Discuss the importance and techniques of suctioning.
- Explain the advanced emergency medical technician's (AEMT's) role in performing tracheobronchial suctioning.
- Explain how to measure and insert an oropharyngeal (oral) airway.
- Explain how to measure and insert a nasopharyngeal (nasal) airway.
- Describe the importance of giving supplemental oxygen to patients who are hypoxic.

- Describe the basics of how oxygen is stored, and the various hazards associated with its use.
- Explain how to use a nonrebreathing mask and state the oxygen flow requirements for its use.
- Describe the indications for using a nasal cannula rather than a nonrebreathing face mask.
- Describe the indications for use of a humidifier during supplemental oxygen therapy.
- Describe the use of a one-, two-, or three-person bag-mask device and a manually triggered ventilation (MTV) device.
- Explain how to perform mouth-to-mouth or mouth-to-mask ventilation.
- Describe the signs associated with adequate and inadequate artificial ventilation.
- Describe the indications, contraindications, and complications of use of continuous positive airway pressure (CPAP).
- Explain the considerations surrounding gastric distention.
- Discuss airway management considerations for patients with a laryngectomy, tracheostomy, or stoma.
- Describe how to recognize and care for a foreign body airway obstruction.
- Discuss supraglottic, single lumen and multi-lumen airway devices, including how they work; their indications, contraindications, and complications; and the procedure for inserting them.
- Explain the role of the AEMT in assisting a paramedic partner with airway skills beyond the AEMT scope of practice.
- Demonstrate use of pulse oximetry.
- Demonstrate how to position the unresponsive patient.
- Demonstrate the steps in performing the head tilt–chin lift maneuver.
- Demonstrate the steps in performing the jaw-thrust maneuver.
- Demonstrate the steps in performing the tongue-jaw lift maneuver.
- Demonstrate how to place a patient in the recovery position.
- Demonstrate how to operate a suction unit.
- Demonstrate how to suction a patient’s airway.
- Demonstrate how to perform tracheobronchial suctioning.
- Demonstrate the insertion of an oral airway.
- Demonstrate the insertion of a nasal airway.
- Demonstrate how to place an oxygen cylinder into service.
- Demonstrate the use of a partial rebreathing mask in providing supplemental oxygen therapy to patients.
- Demonstrate the use of a Venturi mask in providing supplemental oxygen therapy to patients.
- Demonstrate the use of a humidifier in providing supplemental oxygen therapy to patients.
- Demonstrate how to assist a patient with ventilations using the bag-mask device for one and two rescuers.
- Demonstrate mouth-to-mask ventilation.
- Demonstrate the use of an MTV device to assist in delivering artificial ventilation to the patient.
- Demonstrate the use of an automatic transport ventilator to assist in delivering artificial ventilation to the patient.
- Demonstrate the use of CPAP.
- Demonstrate how to suction a stoma.
- Demonstrate mouth-to-stoma ventilation with a resuscitation mask.
- Demonstrate bag-mask device-to-stoma ventilation.
- Demonstrate insertion of the King airway.
- Demonstrate insertion of the laryngeal mask airway.
- Demonstrate insertion of an i-gel supraglottic airway.

UNIT 11: Principles of Pharmacology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge of the medications carried by AEMTs that may be administered to a patient.

- Discuss important drug terminology, including intended effects, unintended effects, untoward effects, indications, and contraindications.
- Discuss the differences between generic, trade, chemical, and official medication names, and provide an example of each.
- Discuss the US laws and regulations that relate to medication manufacturing and distribution.
- List the five schedules of drugs with the highest abuse potential per the Controlled Substances Act.
- Discuss the US Food and Drug Administration (FDA) approval process.
- Describe the proper storage for drugs and security concerns.
- Describe the medication administration considerations that must be applied to special populations, including pediatric, geriatric, and pregnant patients.
- Discuss legal, moral, and ethical considerations related to drug administration.
- Explain the term mechanism of action.
- Describe the roles and functions of the sympathetic and parasympathetic nervous systems.
- Discuss the concept of receptor sites, including adrenergic receptors, and how medications may take advantage of these.
- Discuss the concepts of agonists and antagonists as they relate to medications.
- List the types of drugs that affect the sympathetic nervous system, including sympathomimetics and sympatholytics, and describe how they create their effects.
- List the types of drugs that affect the parasympathetic nervous system, including parasympathomimetics and parasympatholytics, and describe how they create their effects.
- Discuss the effects of opioid agonists, opioid antagonists, and opioid agonist-antagonists.
- Discuss types of sedative-hypnotics, including benzodiazepines, barbiturates, and nonbarbiturate hypnotics.
- Discuss central nervous system stimulants and depressants.
- Discuss drugs that affect the cardiac system, including cardiac glycosides, antidysrhythmics, and antihypertensive medications, and describe how they exert their effects.
- Describe drugs that affect the respiratory system, including oxygen, over-the-counter medications, bronchodilators, and xanthines.
- Explain the solid, liquid, and gas forms of medication; provide examples of each; and discuss how the form of a medication dictates its route of administration.
- Describe the enteral and parenteral routes of medication administration and explain how they differ.
- Describe the following routes of medication administration and discuss their individual rates of absorption: oral, intravenous, intraosseous, subcutaneous, intramuscular, sublingual, intranasal, and inhalation.
- Define the term pharmacokinetics and describe the stages a medication goes through while being processed in the body.
- Define the term pharmacodynamics and describe the types of predictable and unpredictable responses a drug may create.
- Discuss the concepts of serum sickness, idiosyncratic reaction, cumulative effect, summation, potentiation, drug dependence, and medication interaction.
- Give the generic and trade names, actions, indications, contraindications, routes of administration, side effects, interactions, and doses of the medications and intravenous fluids

that may be administered by an AEMT in an emergency as directed by state protocols and local medical direction.

UNIT 12: Vascular Access and Medication Administration

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge of the medications carried by AEMTs that may be administered to a patient, including routes of administration and patient safety.

- Describe the role of medical direction in medication administration, and explain the difference between direct orders (online) and standing orders (off-line).
- Explain the rights of medication administration and describe how each one relates to emergency medical services.
- Explain why determining a patient's prescription and over-the-counter (OTC) medications is a critical aspect of patient assessment.
- Discuss basic cell physiology and how it relates to intravenous (IV) therapy.
- List commonly used IV fluid compositions and types of IV solutions.
- Discuss the techniques for performing IV therapy.
- Discuss the factors to consider when choosing an IV solution.
- Discuss the factors to consider when choosing an administration set.
- Discuss the factors to consider when choosing an IV site.
- List types of IV catheters.
- Discuss alternative IV sites and techniques.
- Describe complications that can occur as a result of IV therapy.
- Describe special considerations when performing IV therapy on a pediatric or geriatric patient.
- Discuss the techniques for establishing an intraosseous (IO) line.
- List the types of IO devices available.
- Discuss the possible complications of IO infusion.
- Discuss the systems of weights and measures used when administering medication.
- Explain principles of drug dose calculations, including desired dose, concentration on hand, volume on hand, volume to administer, and IV drip rate.
- Discuss the advantages, disadvantages, and techniques for administering the following routes: SQ, IM, IV, IO, PO, TD.
- Demonstrate the process an AEMT should use when following the rights of medication administration.
- Demonstrate the Medication Administration Cross Check (MACC).
- Demonstrate how to spike an IV bag.
- Demonstrate how to obtain vascular access.
- Demonstrate how to gain IO access.
- Demonstrate how to administer oral medication to a patient.
- Demonstrate how to draw medication from an ampule.
- Demonstrate how to draw medication from a vial.
- Demonstrate how to administer a subcutaneous medication to a patient.
- Demonstrate how to administer an intramuscular medication to a patient.
- Demonstrate how to administer a sublingual medication to a patient.
- Demonstrate how to administer an intranasal medication to a patient.
- Demonstrate how to administer a medication via inhalation to a patient.
- Demonstrate how to assist a patient with a metered-dose inhaler (MDI).
- Demonstrate how to assist a patient with a small-volume nebulizer.

- Demonstrate how to administer a medication via the IV bolus route.
- Demonstrate how to administer a medication via the IO route.

UNIT 13: Shock and Resuscitation

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest and post resuscitation management.

- Describe the physiology of perfusion, including the role of the autonomic nervous system in controlling blood pressure.
- Discuss cardiac output, heart rate, stroke volume, and systemic vascular resistance.
- Discuss myocardial contractility, afterload, and preload, and how they relate to shock.
- Discuss the pathophysiology of shock (hypoperfusion).
- Describe how the body compensates for decreased perfusion.
- Explain how the body progresses to multiple-organ dysfunction syndrome (MODS).
- Recognize the causes of shock.
- Describe the various types of shock, including hypovolemic shock, cardiogenic shock, obstructive shock, and distributive shock.
- Describe the signs and symptoms of shock.
- Describe the three stages of shock.
- Explain the progression of shock, including the three distinct phases.
- Discuss the assessment of a patient who could be in shock.
- Describe the steps to follow in the emergency care of the patient with signs and symptoms of shock.
- Discuss the role of fluid administration in treating a patient in potential shock.
- Discuss special considerations in fluid resuscitation.
- Demonstrate how to complete an emergency medical services patient care report for a patient with bleeding and/or shock.
- Demonstrate how to treat a patient in potential shock.
- Explain the elements of basic life support (BLS), how it differs from advanced life support (ALS), and why BLS must be applied rapidly.
- Explain the goals of cardiopulmonary resuscitation (CPR) and when it should be performed on a patient.
- Explain the components of CPR, the six links in the American Heart Association (AHA) chain of survival, and how each one relates to maximizing patient survival.
- Discuss guidelines for circumstances that require the use of an automated external defibrillator (AED) on both adult and pediatric patients experiencing cardiac arrest.
- Explain four special situations related to the use of an AED.
- Describe the proper way to position an adult patient to receive BLS care.
- Describe the purpose of external chest compressions.
- Describe the two techniques advanced emergency medical technicians (AEMTs) may use to open an adult patient's airway and the circumstances that would determine when to use each technique.
- Describe the recovery position and circumstances that would warrant its use as well as situations in which it would be contraindicated.
- Describe the process of providing artificial ventilations to an adult patient, ways to avoid gastric distention, and modifications required for a patient with a stoma.
- Explain the steps in providing one-rescuer adult CPR.

- Explain the steps in providing two-rescuer adult CPR, including the method for switching positions during the process.
- Explain crew resource management and the roles of the team member and the team leader.
- Summarize the steps of post-cardiac arrest care.
- Describe the different mechanical devices that are available to assist emergency medical care providers in delivering improved circulatory efforts during CPR.
- Describe the different possible causes of cardiopulmonary arrest in children.
- Explain pediatric BLS procedures and how they differ from BLS procedures used in an adult patient.
- Describe the ethical issues related to patient resuscitation, including examples of when not to start CPR on a patient.
- Explain the various factors involved in the decision to stop CPR after it has been started on a patient.
- Explain common causes of foreign body airway obstruction in both children and adults and how to distinguish mild or partial airway obstruction from complete airway obstruction.
- Describe the different methods for removing a foreign body airway obstruction in an infant, child, and adult, including the procedure for a patient with an obstruction who becomes unresponsive.
- Describe special resuscitation circumstances, such as opioid overdose or cardiac arrest in pregnancy.
- Discuss how to provide grief support for a patient's family members and loved ones after resuscitation has ended.
- Discuss the importance of frequent CPR training for AEMTs, as well as public education programs that teach compression-only CPR.
- Demonstrate how to position an unresponsive adult for CPR.
- Demonstrate how to check for a pulse at the carotid artery in an unresponsive child or adult.
- Demonstrate how to perform external chest compressions on an adult.
- Demonstrate how to perform a head tilt–chin lift maneuver on an adult.
- Demonstrate how to perform a jaw-thrust maneuver on an adult.
- Demonstrate how to place a patient in the recovery position.
- Demonstrate how to perform artificial ventilations in an adult.
- Demonstrate how to perform one-rescuer adult CPR.
- Demonstrate how to perform two-rescuer adult CPR.
- Demonstrate the use of mechanical devices that assist emergency responders in delivering improved circulatory efforts during CPR.
- Demonstrate how to check for a pulse at the brachial artery in an unresponsive infant.
- Demonstrate how to perform external chest compressions on an infant.
- Demonstrate how to perform CPR on a child who is between 1 year of age and the onset of puberty.
- Demonstrate how to perform a head tilt–chin lift maneuver on a pediatric patient.
- Demonstrate how to perform a jaw-thrust maneuver on a pediatric patient.
- Demonstrate how to perform rescue breathing on a child.
- Demonstrate how to perform rescue breathing on an infant.
- Demonstrate how to remove a foreign body airway obstruction in a responsive adult patient using abdominal thrusts (Heimlich maneuver).
- Demonstrate how to remove a foreign body airway obstruction in a responsive pregnant patient or patient with obesity using chest thrusts.
- Demonstrate how to remove a foreign body airway obstruction in a responsive child older than 1 year using abdominal thrusts (Heimlich maneuver).
- Demonstrate how to remove a foreign body airway obstruction in an unresponsive child.

- Demonstrate how to remove a foreign body airway obstruction in an infant.

UNIT 14: Medical Overview

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for acutely and chronically ill patients.

- Differentiate between medical emergencies and trauma emergencies, remembering that some patients may have both.
- Name the various categories of common medical emergencies and give examples.
- Describe the evaluation of the nature of illness.
- Identify elements and steps in the assessment of a patient with a medical emergency.
- Explain the importance of transport time and destination selection for a medical patient.
- Describe the general assessment and management principles when working with a patient who may have an infectious or communicable disease.
- Define epidemic and pandemic.
- Discuss the pathophysiology, signs and symptoms, and management of a patient with HIV or acquired immunodeficiency syndrome.
- Discuss precautions to protect against exposure to HIV.
- Discuss the pathophysiology, signs and symptoms, and management of a patient with influenza, and describe ways to protect against its transmission.
- Discuss the pathophysiology, signs and symptoms, and management of a patient with hepatitis.
- Discuss precautions to protect oneself against exposure to hepatitis.
- Discuss other infectious diseases of special concern and their routes of transmission, including herpes simplex, syphilis, meningitis, tuberculosis, pertussis, and methicillin-resistant *Staphylococcus aureus*.
- Identify other new and emerging diseases, including West Nile virus, severe acute respiratory syndrome, and avian flu.
- Discuss infections that are global health issues, including Middle East respiratory syndrome coronavirus, COVID-19, and Ebola.
- Understand the procedure for taking a travel history, and apply its findings to the patient's present condition.

UNIT 15: Respiratory

Outcomes: Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for respiratory patients.

- Review the structures and functions of the upper and lower airways, lungs, and accessory structures of the respiratory system.
- Explain the physiology of respiration and list the signs of normal breathing.
- Explain the special patient assessment and care considerations that are required for pediatric patients who are experiencing respiratory distress.
- Discuss the pathophysiology of respiration and provide examples of the common signs and symptoms a patient with inadequate breathing may present with in an emergency situation.
- Explain the concept of hypoxic drive.
- Describe the various respiratory conditions that cause dyspnea, including their causes, assessment findings and symptoms, complications, and specific prehospital management and transport decisions.

- List and review the characteristics of infectious diseases that are frequently associated with dyspnea.
- Explain the special patient assessment and care considerations that are required for geriatric patients who are experiencing respiratory distress.
- Describe the assessment of a patient who is in respiratory distress and the relationship of the assessment findings to patient management and transport decisions.
- Describe the primary emergency medical care of a person who is in respiratory distress.
- List and define five different types of adventitious breath sounds, their signs and symptoms, and the disease process associated with each one.
- Summarize the steps in emergency medical care of a patient with dyspnea.
- State the generic name, medication forms, dose, administration, indications, actions, and contraindications for medications that are administered via metered-dose inhalers and small-volume nebulizers.
- Discuss the application of a continuous positive airway pressure/bilevel positive airway pressure unit.
- Discuss some epidemic and pandemic considerations related to the spread of influenza type A and strategies advanced emergency medical technicians should use to protect themselves from infection during a possible crisis situation.
- Demonstrate the process of history taking to obtain more information related to a patient's chief complaint based on a case scenario.
- Demonstrate how to use the OPQRST-I assessment to obtain more specific information about a patient's breathing problem.
- Demonstrate how to utilize and how to assist a patient with the administration of a small-volume nebulizer.
- Demonstrate how to assist a patient with the administration of a metered-dose inhaler.

UNIT 16: Cardiovascular

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for cardiovascular patients, to include EKG interpretation and defibrillation.

- Review the basic anatomy and physiology of the cardiovascular system.
- Discuss the regulation of heart function.
- Describe the cardiac cycle, including the concepts of afterload, stroke volume, and cardiac output.
- Describe the pathophysiology of angina pectoris, thromboembolism, and myocardial infarction.
- List the dangerous dysrhythmias that may follow a myocardial infarction.
- Discuss the pathophysiology of cardiogenic shock and its signs, symptoms, and treatment.
- Discuss the pathophysiology of heart failure and its signs, symptoms, and treatment
- Discuss the pathophysiology of pulmonary edema.
- Describe the pathophysiology, signs and symptoms, and management of hypertensive emergencies.
- Describe the pathophysiology, assessment, and management of aortic aneurysm/dissection.
- Explain patient assessment procedures for cardiovascular problems.
- Explain the relationship between airway management and the patient with cardiac compromise.
- Discuss emergency medical care for cardiovascular emergencies, including angina pectoris, thromboembolism, and myocardial infarction.
- List the indications and contraindications for the use of nitroglycerin.
- Explain that many patients will have had cardiac surgery and may have implanted pacemakers.

- Define cardiac arrest.
- Discuss the different types of automated external defibrillators (AEDs).
- Describe the difference between the fully automated and the semiautomated defibrillator.
- List the advantages of using AEDs.
- List the indications and contraindications for use of an AED.
- Explain the use of remote, adhesive defibrillator pads.
- Explain why not all patients in cardiac arrest need to be attached to an AED.
- List the reasons for early defibrillation.
- Describe AED maintenance procedures.
- Explain the circumstances that may result in inappropriate shocks from an AED.
- Explain the role played by medical direction in the use of AEDs.
- Explain the need for a case review of each incident in which an AED is used.
- Discuss the importance of practice and continuing education with the AED.
- Explain the reason not to touch the patient, such as by delivering cardiopulmonary resuscitation, while the AED is analyzing the heart rhythm and delivering shocks.
- Describe the emergency medical care for the patient with cardiac arrest.
- Explain the relationship of age to defibrillation.
- Discuss the procedures to follow for standard operation of the various types of AEDs.
- Describe the components of care following AED shocks.
- Explain criteria for transport of the patient following CPR and defibrillation.
- Discuss the role of cardiac monitoring.
- Demonstrate how to assess and provide emergency medical care for a patient with chest pain or discomfort.
- Demonstrate the administration of aspirin to a patient with chest pain.
- Demonstrate the administration of nitroglycerin.
- Demonstrate how to perform maintenance of an AED.
- Demonstrate how to use an AED and perform CPR.
- Demonstrate how to place electrodes for cardiac monitoring.
- Explain the purpose of EKG monitoring.
- Describe how EKG wave forms are produced.
- Use the EKG graph to identify and measure wave forms.
- Measure time and plot out wave forms and complexes.
- Correlate the electrophysiological and hemodynamic events occurring throughout the entire cardiac cycle with the various EKG wave forms, segments and intervals.
- Identify how heart rates, durations, and amplitudes may be determined from EKG recordings.
- Relate the cardiac surfaces or areas represented by the EKG leads.
- Determine heart rate and rhythm.
- Begin a systematic approach to EKG rhythm analysis
- Given an EKG, identify the arrhythmia.
- Identify the limitations to the EKG.
- Differentiate among the primary mechanisms responsible for producing cardiac arrhythmias.
- Describe a systematic approach to the analysis and interpretation of cardiac arrhythmias.
- Identify the major classifications of pediatric cardiac rhythms.
- Identify the EKG changes characteristically produced by electrolyte imbalances and specify the clinical implications.
- Identify patient situations where EKG rhythm analysis is indicated.
- Value and defend the urgency in rapid determination of and rapid intervention of patients in cardiac arrest.

- Value and defend the possibility of termination of resuscitative efforts in the out-of-hospital setting.
- Demonstrate how to set and adjust the EKG monitor settings to varying patient situations.
- Demonstrate a working knowledge of various EKG lead systems.
- Demonstrate how to record an EKG.
- Defend patient situations where EKG rhythm analysis is indicated.
- Describe the arrhythmias originating in the sinus node, the AV junction, the atria, and the ventricles.
- Identify the EKG characteristics of the atrial mechanisms.
- Differentiate atrial from junctional ectopic beats.
- Recognize the change in direction of the P wave.
- Differentiate between sinus and junctional P waves
- Differentiate between ectopic and escape junctional mechanisms.
- Identify the causes for the junctional mechanisms.
- Describe the arrhythmias originating or sustained in the AV junction.
- Describe the abnormalities originating within the bundle branch system.
- Describe the process of differentiating wide QRS complex tachycardias.
- Recognize the pitfalls in the differentiation of wide QRS complex tachycardias.
- Recognize AVNRT and AVRT.
- Recognize Wolff-Parkinson-White and Brugada syndromes.
- Describe the conditions of pulseless electrical activity.
- Describe the phenomena of reentry, aberration and accessory pathways.
- Describe the incidence, morbidity and mortality associated with myocardial conduction defects.
- Identify the surfaces of the heart visualized by the 12, 15 and 18 leads.
- Identify the surfaces of the heart visualized by the right precordial leads.
- Describe methods to calculate the electrical axis.
- Recognize a significant abnormal axis deviation.
- Recognize the changes on the EKG that may reflect evidence of myocardial ischemia and injury.
- Recognize the limitations of the EKG in reflecting evidence of myocardial ischemia and injury.
- Correlate abnormal EKG findings with clinical interpretation.
- Demonstrate the ability to correctly run a 12-18 lead EKG.
- Defend the rationale for performing a 12-18 lead EKG.
- Identify the major therapeutic objectives in the treatment of the patient with any arrhythmia.
- Identify the major mechanical, pharmacological and electrical therapeutic interventions.
- Describe the major mechanical, pharmacological and electrical therapeutic interventions.
- Based on field impressions, identify the need for rapid intervention for the patient in cardiovascular compromise.
- Demonstrate satisfactory performance of psychomotor skills of basic and advanced life support techniques according to the current American Heart Association Standards and Guidelines, including:
 - a. Cardiopulmonary resuscitation in out-of-hospital setting
 - b. Defibrillation
- Demonstrate proper techniques for performing infant and child defibrillation

UNIT 17: Neurology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for neurological patients.

- Review the anatomy and physiology of the brain and spinal cord.
- List the various ways blood flow to the brain may be interrupted and cause a stroke.
- Discuss the causes of ischemic strokes, hemorrhagic strokes, and transient ischemic attacks (TIAs), and their similarities and differences.
- Discuss the different types of headaches, the possible causes of each, and how to distinguish a harmless headache from a potentially life-threatening condition.
- Describe the dangers associated with increased intracranial pressure (ICP) and the processes that occur in the brain with increased ICP.
- List the general signs and symptoms of stroke, and identify those symptoms that manifest if the left hemisphere of the brain is affected, if the right hemisphere of the brain is affected, and if there is bleeding in the brain.
- Discuss three conditions with symptoms that mimic stroke and the assessment techniques the advanced emergency medical technician (AEMT) may use to identify them.
- Define a generalized seizure, focal seizure, and status epilepticus, including their effects on a patient and how they differ from each other.
- Describe the different phases of a seizure.
- List the different types of seizures and their possible causes.
- Explain why it is important for the AEMT to recognize when a seizure is occurring or whether one has already occurred in a patient and to identify other problems that may be associated with the seizure.
- Describe the postictal state and the specific patient care interventions that may be necessary to assist the patient.
- Define altered mental status, its various possible causes, and the patient assessment considerations that apply to each.
- Discuss scene safety considerations when responding to a patient with a neurologic emergency.
- Describe the steps involved in performing a primary survey of a patient who is experiencing a neurologic emergency and the necessary interventions that may be required to address all life threats.
- Discuss the special considerations required for pediatric patients who exhibit altered mental status.
- Discuss special considerations for geriatric patients who are experiencing a neurologic emergency.
- Describe the process of history taking for a patient who is experiencing a neurologic emergency, and explain how this process varies depending on the nature of the patient's illness.
- Discuss how to use a stroke assessment tool to identify a stroke patient rapidly, giving examples of two commonly used tools.
- List the key information an AEMT must obtain and document for a stroke patient during assessment and reassessment.
- Explain why a patient who is suspected of experiencing a stroke is placed on stroke alert and requires treatment within the first 3 to 6 hours after the stroke begins.
- Describe the patient management, treatment, and transport of patients who are experiencing headaches, stroke, seizure, or altered mental status.
- Demonstrate how to use a stroke assessment tool such as the Cincinnati Prehospital Stroke Scale to test a patient for aphasia, facial weakness, and motor weakness.

UNIT 18: Gastroenterology and Urology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to

provide basic and selected advanced care and transportation based on assessment findings for gastrointestinal and urology patients.

- Review the anatomy and physiology of the gastrointestinal and renal systems.
- Define the term *acute abdomen*.
- Define peritonitis and list its potential signs and symptoms.
- Explain the concept of referred pain.
- Recognize that abdominal pain can arise from other body systems.
- Discuss the various potential causes of acute abdomen, including gastrointestinal hemorrhage (eg: from esophagitis, gastroesophageal reflux disease, peptic ulcer disease, Mallory-Weiss tear, esophageal varices, or hemorrhoids) and nonhemorrhagic conditions (eg: gallstones, pancreatitis, appendicitis, gastroenteritis, diverticulitis).
- Discuss the pathophysiology of chronic inflammatory abdominal conditions, including ulcerative colitis, irritable bowel syndrome, and Crohn disease.
- Discuss the various types of urologic pathophysiology, including urinary tract infections.
- Discuss the various types of renal pathophysiology, including kidney stones, acute kidney injury, chronic kidney disease, and end-stage renal disease.
- Identify gynecologic conditions that can cause abdominal pain, including pelvic inflammatory disease and ectopic pregnancy.
- Identify male genital tract conditions that can cause abdominal pain, including epididymitis, priapism, benign prostate hypertrophy, testicular masses, and testicular torsion.
- Identify pathophysiologies of other organ systems that can lead to gastrointestinal and urologic conditions, including aneurysm and hernia.
- Describe the assessment process for patients with an acute abdomen or urologic emergency.
- Describe the procedures to follow in managing the patient with shock associated with abdominal emergencies.
- Discuss general management of a patient with an acute abdomen or urologic emergency.
- Explain the purpose of renal dialysis.
- Describe potential complications of dialysis or a missed dialysis treatment.
- Demonstrate the assessment of a patient's abdomen.

UNIT 19: Endocrinology and Hematology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for endocrine and hematology patients.

- Review the anatomy and physiology of the endocrine system and its main function in the body.
- Discuss the role of glucose as a major source of energy for the body and its relationship to insulin.
- Compare hypothyroidism with hyperthyroidism.
- Define the term diabetes.
- Discuss complications of diabetes.
- Distinguish between the two types of diabetes and how their onset patterns differ.
- Explain some age-related considerations when managing a geriatric patient who has undiagnosed diabetes.
- Identify risk factors associated with prediabetes, including the role of hemoglobin A1c blood tests, in distinguishing prediabetes from diabetes.
- Discuss diagnosis and management of gestational diabetes.
- Explain some age-related considerations when managing a pediatric patient who is experiencing a hyperglycemic or hypoglycemic crisis.

- Describe the differences and similarities between hyperglycemic and hypoglycemic diabetic emergencies, including their onset, signs and symptoms, and management considerations.
- Discuss the steps to follow when conducting a primary survey and secondary assessment of a patient with an altered mental status who is a suspected diabetic patient.
- Explain the process for assessing and managing the airway of a patient with an altered mental status, including ways to differentiate a hyperglycemic patient from a hypoglycemic patient.
- Describe the interventions for providing emergency medical care during a hypoglycemic crisis to
- Describe the interventions for providing emergency medical care during a hyperglycemic crisis to responsive and unresponsive patients with a history of diabetes.
- Provide the generic and trade names, form, dose, administration, indications, and contraindications for giving oral glucose to a patient with a decreased level of consciousness who has a history of diabetes.
- Explain when it is appropriate to obtain medical direction when providing emergency medical care to a patient with diabetes.
- Provide the generic and trade names, form, dose, administration, indications, and contraindications for administering dextrose to a patient with hypoglycemia.
- Provide the generic and trade names, form, dose, administration, indications, and contraindications for administering glucagon to a patient with hypoglycemia.
- Discuss the composition and functions of blood.
- Describe the pathophysiology of sickle cell disease and the four main types of sickle cell crises.
- Describe blood clotting disorders and the risk factors, characteristics, and management of each.
- Describe the assessment and management of a patient with suspected sickle cell disease.
- Demonstrate the assessment and care of a patient with hypoglycemia and a decreased level of consciousness.
- Demonstrate how to administer glucose to a patient with an altered mental status.
- Demonstrate how to administer dextrose to a patient with hypoglycemia.
- Demonstrate how to administer glucagon to a patient with hypoglycemia.
- Demonstrate the assessment and care of a patient with sickle cell crisis.
- Demonstrate the assessment and care of a patient with a blood clotting disorder.

UNIT 20: Immunology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for immune-related patients.

- Understand and define the terms *allergic reaction* and *anaphylaxis*.
- Describe the purpose of the immune system.
- Discuss the process that begins when a foreign substance is detected in the body (primary response).
- Explain the roles of basophils and mast cells in the immune response process.
- Describe the process that occurs when the body undergoes a secondary response.
- Explain the difference between a local response and a systemic response to allergens.
- Explain the roles of two types of chemical mediators, histamine and leukotrienes, in the immune response process.
- List and compare the signs and symptoms of an allergic reaction with those of anaphylaxis.
- Describe the assessment process for a patient with an allergic reaction.
- Explain the importance of managing the airway, breathing, and circulation of a patient who is having an allergic reaction.
- Review the process for providing emergency medical care to a patient who is experiencing an allergic reaction.

- Explain the rationale, including communication and documentation considerations, when determining whether to administer epinephrine to a patient who is having an allergic reaction.
- List the types of insect stings that may cause an allergic reaction, and describe specific treatment of patients with such stings.
- Discuss patient education related to prevention and management of anaphylaxis and allergic reactions.

UNIT 21: Toxicology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for toxicology patients.

- Define the terms toxicology, poison, and overdose.
- Describe the routes by which poisons are absorbed in the body.
- Discuss major toxidromes and their use in assessment and management of toxicologic emergencies.
- Identify the common signs and symptoms of poisoning.
- Discuss substance abuse and concepts associated with it.
- Describe the assessment and treatment of a patient with suspected poisoning.
- Describe the assessment and treatment of a patient with a possible overdose.
- Understand the role of airway management in a patient with poisoning or overdose.
- Explain the use of activated charcoal, including indications, contraindications, and the need to obtain approval from medical control before its administration.
- Discuss emergencies related to severe intoxication, including alcoholism.
- Explain the effects of each of the specific types of poisons: alcohol, opioids, stimulants, marijuana, hallucinogens, sedative-hypnotic drugs, cardiac medications, other medications, organophosphates, inhalants, metals, and caustics.
- Describe the assessment and treatment for the patient with suspected food poisoning.
- Describe the assessment and treatment for the patient with suspected plant poisoning.
- Demonstrate the steps in the assessment and treatment of the patient with suspected poisoning.
- Demonstrate the steps in the assessment and treatment of the patient with suspected overdose.
- Demonstrate the steps required to administer activated charcoal.

UNIT 22: Psychiatric

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for psychiatric patients.

- Discuss the potential causes of behavioral emergencies, including organic and functional causes.
- Identify psychiatric signs and symptoms.
- Describe the assessment process for patients with psychiatric emergencies, including safety guidelines and specific questions to ask.
- Discuss risk factors that help indicate whether a patient may become violent.
- Discuss the importance of history taking when assessing a patient with a psychiatric emergency.
- Discuss general management of a patient with a psychiatric emergency.
- Explain the safe management of a potentially violent patient.
- Discuss assessment and management of specific psychiatric emergencies.

- Describe the care for a patient experiencing a psychotic episode.
- Explain how to recognize the behavior of a patient at risk of suicide, and discuss the management of such a patient.
- Define agitated delirium and describe the care for a patient with agitated delirium.
- Discuss types of mood disorders and their management, including mania and depression.
- Discuss types of neurotic disorders and their management, including generalized anxiety disorder, phobias, and panic disorder.
- Discuss medicolegal considerations and their relevance in psychiatric emergencies.
- Describe situations where restraint may be justified.
- Explain the causes of posttraumatic stress disorder (PTSD), along with its signs and symptoms.
- Describe the special needs of combat veterans and their management
- Demonstrate the techniques used to mechanically restrain a patient.

UNIT 23: Gynecology

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for gynecology patients.

- Review the anatomy and physiology of the female reproductive system.
- Describe abnormalities associated with the menstrual cycle, including premenstrual syndrome, mittelschmerz, and amenorrhea.
- Discuss the pathophysiology of gynecologic emergencies, including pelvic inflammatory disease, sexually transmitted infections, vaginal yeast infections, ruptured ovarian cyst, ectopic pregnancy, vaginal bleeding, endometritis, endometriosis, postpartum eclampsia, and sexual assault.
- Explain the assessment process for patients with gynecologic emergencies.
- Discuss the importance of history taking when assessing a patient with a gynecologic emergency.
- Discuss the general management of a patient with a gynecologic emergency.
- Discuss assessment and management of specific gynecologic emergencies, including pelvic inflammatory disease, ruptured ovarian cyst, ectopic pregnancy, and vaginal bleeding.
- Discuss special considerations in the assessment and management of victims of sexual assault, including those related to maintaining patient confidentiality and preserving evidence of the crime.

UNIT 24: Trauma Overview

Outcomes: Upon completion of this unit, the students will be able to apply fundamental knowledge to provide basic and selected advanced care and transportation based on assessment findings for injured patients.

- Define the term mechanism of injury (MOI), and explain its relationship to potential energy, kinetic energy, and work.
- Define the term index of suspicion, and explain its relationship to the advanced emergency medical technician's (AEMT's) assessment of trauma.
- Define the terms blunt trauma and penetrating trauma, and provide examples of the MOI that would cause each one to occur.
- Describe the five types of motor vehicle collisions, the injury patterns associated with each one, and how each relates to the index of suspicion of life-threatening injuries.
- Discuss the three specific factors to consider during assessment of a patient who has been injured in a fall, plus additional considerations for pediatric and geriatric patients.

- Discuss the effects of high-, medium-, and low-velocity penetrating trauma on the body and how an understanding of each type helps the AEMT form an index of suspicion about unseen life-threatening injuries.
- Discuss primary, secondary, tertiary, and miscellaneous blast injuries, and describe the anticipated damage each one will cause to the body.
- Describe multisystem trauma and the special considerations that are required for patients who fit this category, and provide a general overview of multisystem trauma patient management.
- Outline the major components of trauma patient assessment, including considerations related to whether the MOI was significant or nonsignificant.
- Discuss the special assessment considerations related to a trauma patient who has injuries in each of the following areas: head, neck and throat, chest, and abdomen.
- Describe trauma patient management in relation to scene time, type of transport, and destination selection and list the Association of Air Medical Services criteria for the appropriate use of emergency air medical services.
- Discuss the facilities and transport resources available through emergency medical services (EMS) trauma systems.
- Describe the American College of Surgeons' Committee on Trauma classification of trauma centers and how it relates to making an appropriate destination selection for a trauma patient.

UNIT 25: Bleeding

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for bleeding patients.

- Discuss the physiology of perfusion.
- Review the cardiac cycle, including the concepts of preload, afterload, and cardiac output.
- Discuss the pathophysiology of external and internal bleeding.
- Describe the characteristics of arterial bleeding, venous bleeding, and capillary bleeding.
- Explain how to determine the nature of illness for internal bleeding, including identifying possible traumatic and nontraumatic causes.
- List the signs and symptoms of internal bleeding.
- List the signs and symptoms of hypovolemic shock.
- Discuss the body's physiologic response to hemorrhaging.
- Describe the four classes of hemorrhaging.
- Describe the assessment process for patients with external and internal bleeding.
- Discuss the importance of addressing life-threatening hemorrhage prior to airway and breathing concerns.
- Describe what could be happening in the body when a patient with suspected internal bleeding becomes calm and still.
- Discuss transport considerations for patients who are hemorrhaging.
- Explain the emergency medical care of a patient with external bleeding.
- Discuss situations in which a tourniquet may be used to control external bleeding.
- List precautions to follow when applying a tourniquet.
- Discuss the use of splints to control external bleeding.
- Describe how hemostatic agents work to control severe hemorrhage.
- List specific instances in which using a pneumatic antishock garment (PASG) to control bleeding may be an effective alternative.
- Discuss assessment and management of bleeding from the nose, ears, and mouth.
- Explain the emergency medical care of a patient with internal bleeding.
- Explain how to manage hemorrhagic shock.

- Demonstrate emergency medical care of the patient with external bleeding using direct pressure.
- Demonstrate emergency medical care of the patient with external bleeding using wound packing.
- Demonstrate emergency medical care of the patient with external bleeding using a commercial tourniquet.
- Demonstrate emergency medical care of the patient who shows signs and symptoms of internal bleeding.

UNIT 26: Soft Tissue Trauma

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with soft tissue trauma.

- Review the anatomy and physiology of the skin.
- List the functions of the skin.
- Discuss the pathophysiology of soft-tissue injuries, including closed injuries, open injuries, and burns.
- Describe the following types of closed soft-tissue injuries: contusion, hematoma, and crush injury.
- Describe the following types of open soft-tissue injuries: abrasions, lacerations, avulsions, amputations, bite wounds, penetrating wounds, and blast injuries.
- Describe the pathophysiology of wound healing.
- Describe the assessment process for patients with a soft-tissue injury.
- Describe the relationship between airway management and the patient with closed and open injuries.
- Discuss emergency medical care of a patient with a soft-tissue injury.
- List the functions of sterile dressings and bandages.
- Discuss assessment and management of avulsions, amputations, bite wounds, gunshot wounds, open abdominal wounds, impaled objects, and open neck wounds.
- Discuss the pathophysiology of burns, and explain the development of hypovolemic shock.
- Define and give the characteristics of superficial, partial-thickness, and full-thickness burns.
- Explain how the seriousness of a burn is related to its depth and extent.
- Explain the steps involved in the assessment of burns.
- Describe and discuss the emergency management of burns, including chemical, electrical, thermal, inhalation, and radiation burns.
- Demonstrate the emergency medical care of closed soft-tissue injuries.
- Demonstrate how to control bleeding in an open soft-tissue injury.
- Demonstrate the emergency medical care of a patient with an open abdominal wound.
- Demonstrate how to stabilize an impaled object.
- Demonstrate how to care for a burn.
- Demonstrate the emergency medical care of a patient with a chemical, electrical, thermal, inhalation, or radiation burn.

UNIT 27: Head, Facial, Neck and Spinal Trauma

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with head, facial, neck and spinal trauma.

- Review the anatomy and physiology of the head, face, and neck, including the major structures and specific landmarks that advanced emergency medical technicians must know.
- Describe the factors that may cause the obstruction of the upper airway following a facial injury.

- Discuss the causes and the patient care considerations related to each of the following types of facial injuries: soft-tissue injuries, nasal fractures, mandibular fractures, Le Fort fractures, orbital fractures, and zygomatic fractures.
- Explain the patient assessment and management process of providing emergency medical care to the patient who has sustained facial and neck injuries.
- List the steps in the emergency medical care of the patient with soft-tissue wounds of the face and neck.
- List the steps in the emergency medical care of the patient with an eye injury based on the following scenarios: foreign object, impaled object, burns, lacerations, blunt trauma, closed head injuries, and blast injuries.
- Describe the three different causes of burn injuries to the eye and the patient management considerations related to each cause.
- List the steps in the emergency medical care of the patient with an injury of the nose.
- List the steps in the emergency medical care of the patient with one of the following injuries of the ear: lacerations, avulsions, foreign body insertions, and perforation of the tympanic membrane.
- List the steps in the emergency medical care of the patient with a facial fracture.
- List the steps in the emergency medical care of the patient with dental and cheek injuries, including management of oropharyngeal bleeding, impaled objects, and avulsed teeth.
- List the steps in the emergency medical care of the patient with an upper airway injury caused by blunt trauma.
- List the steps in the emergency medical care of the patient with a penetrating injury to the neck, including management of regular and life-threatening bleeding and impaled objects.
- List the steps in the emergency medical care of the patient with laryngeal injuries, including both open and occult injuries.
- List the steps in the emergency medical care of the patient with muscular injuries of the neck, including both sprains and strains.
- Demonstrate the care of a patient who has a penetrating eye injury.
- Demonstrate the removal of a foreign object from under a patient's upper eyelid.
- Demonstrate the stabilization of a foreign object that has been impaled in a patient's eye.
- Demonstrate irrigation of a patient's eye using a nasal cannula, bottle, or basin.
- Demonstrate how to control bleeding from a neck injury.
- List the major bones of the skull and spinal column and their related structures, and describe their functions as related to the nervous system.
- Review the anatomy and physiology of the nervous system, including its divisions into the central nervous system (CNS) and peripheral nervous system and the structures and functions of each.
- Describe the regions of the brain, including the cerebrum, diencephalon, brainstem, and cerebellum, and their functions.
- Discuss age-related variations that are required when providing emergency care to a pediatric patient who has a suspected head or spinal injury.
- List the mechanisms of injury that cause a high index of suspicion for the possibility of a head or spinal injury.
- Discuss the different types of head injuries, their potential mechanism of injury (MOI), and general signs and symptoms of a head injury that the advanced emergency medical technician (AEMT) should consider when performing a patient assessment.
- Distinguish between the signs and symptoms of head injury and those of traumatic brain injury.
- Define traumatic brain injury (TBI) and explain the difference between a primary (direct) injury and a secondary (indirect) injury, providing examples of possible mechanisms of injury that may cause each one.

- Discuss the different types of brain injuries and their corresponding signs and symptoms, including increased intracranial pressure (ICP), concussion, contusion, and injuries caused by medical conditions.
- Discuss the different types of injuries that may damage the cervical, thoracic, or lumbar spine, providing examples of possible mechanisms of injury that may cause each one.
- Describe the steps in the patient assessment process for a person who has a suspected head or spinal injury, including specific variations that may be required as related to the type of injury.
- Discuss when it would be appropriate to establish intravenous access in a patient with a head or spinal injury, including the importance of judicious fluid administration.
- Describe the process of providing emergency medical care to a patient with a head injury, including the four general principles designed to protect and maintain the critical functions of the CNS.
- Describe the process of providing emergency medical care to a patient with a spinal injury, including the implications of not properly caring for patients with injuries of this nature, the steps for performing manual in-line stabilization, implications for sizing and using a cervical spine immobilization device, and key symptoms that contraindicate in-line stabilization.
- Describe the process of preparing patients who have suspected head or spinal injuries for transport, including the use and functions of a long backboard, short backboard, and other short spinal extrication devices to immobilize the patient's cervical and thoracic spine.
- Explain the different circumstances in which a helmet should be either left on or taken off a patient with a possible head or spinal injury, and then list the steps AEMTs must follow to remove a helmet, including the alternate method for removing a football helmet.
- Demonstrate how to perform manual in-line stabilization on a patient with a suspected spinal injury.
- Demonstrate how to apply a cervical collar to a patient with a suspected spinal injury.
- Demonstrate how to perform spinal motion restriction.
- Demonstrate how to utilize a scoop stretcher.
- Demonstrate how to utilize a vacuum mattress.
- Demonstrate how to perform spinal motion restriction for a patient with a suspected spinal injury who was found in a sitting position.
- Demonstrate how to remove a helmet from a patient with a suspected head or spinal injury. (pp

UNIT 28: Chest Trauma

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with chest trauma.

- Review the anatomy and physiology of the thorax.
- Understand the mechanics of ventilation in relation to chest injuries.
- Discuss specific chest injuries, including closed versus open chest injury; blunt versus penetrating trauma; and effects on cardiac output, respiration, and ventilation.
- Differentiate between a pneumothorax (open, simple, and tension) and a hemothorax.
- List general signs and symptoms of a chest injury.
- Discuss the significance of various signs and symptoms of chest injury, including changes in heart rate, dyspnea, jugular venous distention, muffled heart sounds, changes in blood pressure, diaphoresis or changes in pallor, hemoptysis, and changes in mental status.
- Explain the assessment process for a patient with a chest injury.
- Explain the general management of a patient with a chest injury.
- Explain the assessment and management of chest wall injuries, including rib fractures, flail chest, sternal fracture, clavicle fracture, and commotio cordis.
- Describe the complications of rib fractures.

- Describe the complications of flail chest.
- Explain the assessment and management of lung injuries, including simple pneumothorax, open pneumothorax, tension pneumothorax, hemothorax, and pulmonary contusion.
- Explain the complications associated with an open pneumothorax (sucking chest wound).
- Explain the assessment and management of myocardial injuries, including cardiac tamponade, myocardial contusion, and myocardial rupture.
- Describe the complications of cardiac tamponade.
- Explain the assessment and management of vascular injuries, including traumatic aortic disruption and penetrating wounds of the great vessels.
- Explain the assessment and management of other thoracic injuries, including diaphragmatic injury, esophageal injury, tracheobronchial injury, and traumatic asphyxia.
- Describe the steps to take in the assessment of a patient with a suspected chest injury.
- Demonstrate the management of a patient with a sucking chest wound.
- Demonstrate the management of a patient with a flail chest.

UNIT 29: Abdominal and Genitourinary Trauma

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with abdominal and genitourinary trauma.

- Review the anatomy and physiology of the abdomen, including the abdominal quadrants and boundaries.
- Discuss the difference between hollow and solid organs.
- Review the anatomy and physiology of the female and male genitourinary systems.
- Describe some special considerations related to the care of pediatric patients and geriatric patients who have experienced abdominal trauma.
- Discuss closed abdominal injuries, providing examples of the mechanisms of injury that are likely to cause this type of trauma in a patient, as well as key signs and symptoms.
- Discuss open abdominal injuries, including ways to distinguish low-velocity, medium-velocity, and high-velocity injuries; examples of the mechanisms of injury that would cause each; and signs and symptoms exhibited by a patient who has experienced this type of injury
- Describe the different ways hollow and solid organs of the abdomen can be injured and include the signs and symptoms a patient might exhibit, depending on the organ or organs involved
- Discuss the types of traumatic injuries that may be sustained by the organs of the male and female genitourinary systems, including the kidneys, urinary bladder, and internal and external genitalia.
- Discuss the assessment of a patient who has experienced an abdominal or genitourinary injury.
- Discuss special considerations related to patient privacy when assessing a patient with a genitourinary injury.
- Discuss the emergency medical care of a patient who has sustained a closed abdominal injury.
- Discuss the emergency medical care of a patient who has sustained an open abdominal injury, including penetrating injuries and abdominal evisceration.
- Discuss the emergency medical care of a patient who has sustained a genitourinary injury related to the kidneys, bladder, external male genitalia, female genitalia, or rectum.
- Demonstrate proper emergency medical care of a patient who has experienced a blunt abdominal injury.
- Demonstrate proper emergency medical care of a patient who has a penetrating abdominal injury with an impaled object.
- Demonstrate how to apply a dressing to an abdominal evisceration wound.

UNIT 30: Orthopedic Trauma

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with orthopedic trauma.

- Describe the function of the musculoskeletal system.
- Review the anatomy and physiology of the musculoskeletal system.
- Name the four types of forces that can cause musculoskeletal injuries.
- Describe the various types of musculoskeletal injuries and the signs and symptoms of each.
- Differentiate between open and closed fractures.
- Describe the signs and symptoms of a dislocation, sprain, and a strain.
- Explain how to assess the severity of a musculoskeletal injury.
- Explain the reasons for splinting at the scene versus transporting the patient immediately.
- Explain the emergency medical care of a patient with an orthopedic injury.
- Explain the emergency medical care of a patient with a swollen, painful, deformed extremity (fracture).
- Understand the need for splinting, including its principles and possible complications.
- Describe the complications that can result from musculoskeletal injuries.
- Recognize the characteristics of specific types of musculoskeletal injuries.
- Explain the significance and the assessment and management of a patient with a pelvic fracture.
- Explain the emergency medical care of the patient with an amputation.
- Demonstrate the assessment of neurovascular status.
- Demonstrate the care of musculoskeletal injuries.
- Demonstrate how to apply a Hare traction splint.
- Demonstrate how to apply a Sager traction splint.
- Demonstrate how to apply a rigid splint.
- Demonstrate how to apply a vacuum splint.
- Demonstrate how to splint the clavicle, the scapula, the shoulder, the humerus, the elbow, and the forearm.
- Demonstrate how to splint the hand and wrist.
- Demonstrate how to care for a patient with an amputation.

UNIT 31: Environmental Emergencies

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with environmental emergencies.

- Describe four factors that affect how a person deals with exposure to a cold or hot environment and how each one relates to emergency medical care.
- Explain the five different ways a body can lose heat and ways the rate and amount of heat loss or gain can be modified in an emergency situation.
- Define and discuss hypothermia, including the signs and symptoms of its four different stages and the risk factors for developing it.
- Explain local cold injuries and their underlying causes.
- Describe the process of providing emergency care to a patient who has sustained a cold injury, including assessment of the patient, and management of care.
- Explain the importance of following regional and state protocols when rewarming a patient who is experiencing moderate or severe hypothermia.

- Describe the three forms of illness that are caused by heat exposure, including their signs and symptoms, and give examples of persons who are at the greatest risk of developing one of them.
- Describe the process of providing emergency care to a patient who has sustained a heat injury, including assessment of the patient, and management of care.
- Define *drowning* and discuss its incidence, risk factors, and prevention.
- Describe three physical laws that affect pressure in the context of diving and diving-related conditions.
- Describe the three different types of diving emergencies, how they may occur, and their signs and symptoms.
- List the basic rules of performing a water rescue, and discuss why rescue personnel should have a prearranged water rescue plan based on the environment in which they work.
- List four conditions that may result in a spinal injury following a submersion incident and the steps for stabilizing a patient with a suspected spinal injury in the water.
- Discuss recovery techniques you may need to follow when managing a patient who has been involved in a submersion incident.
- Describe the process of providing emergency care to a patient who has been involved in a drowning or diving emergency, including assessment of the patient, and management of care.
- Discuss the types of dysbarism injuries that may be caused by high altitudes, including their signs and symptoms and emergency medical treatment in the field.
- Discuss lightning injuries, including their incidence, risk factors, assessment, and emergency medical treatment.
- Identify the species of spiders found in the United States that may cause life-threatening injuries, and then describe the process of providing emergency care to patients who have been bitten by each type.
- Discuss the emergency medical care of patients who have been stung by Hymenoptera, including steps you should follow if a patient develops a severe reaction to the sting or bite.
- Identify the species of snakes found in the United States that are venomous, and then describe the process of providing emergency care to patients who have been bitten by each type and are showing signs of envenomation.
- Discuss the emergency medical care of patients who have been stung by scorpions or bitten by ticks, including steps you should follow if a patient develops a severe reaction to the sting or bite.
- Discuss the emergency medical care of patients who have been stung by a coelenterate or other marine animal.
- Demonstrate the emergency medical treatment of local cold injuries in the field.
- Demonstrate using a warm-water bath to rewarm the limb of a patient who has sustained a local cold injury.
- Demonstrate how to treat a patient with heat cramps.
- Demonstrate how to treat a patient with heat exhaustion.
- Demonstrate how to treat a patient with heatstroke.
- Demonstrate how to stabilize a patient with a suspected spinal injury in the water.
- Demonstrate how to care for a patient who is suspected of having an air embolism or decompression sickness following a drowning or diving emergency.
- Demonstrate how to care for a patient who has been bitten by a pit viper and is showing signs of envenomation.
- Demonstrate how to care for a patient who has been bitten by a coral snake and is showing signs of envenomation.
- Demonstrate how to care for a patient who has sustained a coelenterate envenomation.

UNIT 32: Obstetrics and Neonatal Care

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for obstetric and neonatal patients.

- Review the anatomy and physiology of the female reproductive system and gestation.
- Describe the normal changes that occur in the body during pregnancy.
- Discuss the pathophysiology of conditions affecting pregnancy, including spontaneous abortion (miscarriage), ectopic pregnancy, hypertension, substance abuse isoimmunization, gestational diabetes, placenta previa, abruptio placentae, trauma, and physical abuse.
- Recognize the need to consider two patients—the woman and the unborn fetus—when treating a pregnant trauma patient.
- List special considerations involving pregnancy in different cultures and with teenage patients.
- Describe commonly used obstetric terminology.
- Outline the assessment process for pregnant patients.
- Describe the indications of an imminent delivery.
- Discuss assessment and management of nondelivery emergencies.
- Differentiate between the three stages of labor.
- Explain the steps involved in normal delivery management.
- Explain the necessary care of the baby as the head appears.
- Discuss Apgar scores, including how and when to obtain them.
- Describe the procedure followed to cut and tie the umbilical cord.
- Describe delivery of the placenta.
- Discuss postpartum care to provide, including addressing postpartum hemorrhage.
- Explain how to manage complications of labor, including preterm labor, postterm pregnancy, fetal distress, and uterine rupture.
- Discuss high-risk pregnancy conditions and their prehospital management, including meconium staining, multiple gestation, cephalopelvic disproportion, intrauterine fetal death, and amniotic fluid embolism.
- Discuss complications of delivery, including breech presentation, limb presentation, shoulder dystocia, nuchal cord, and prolapsed umbilical cord.
- Discuss postpartum complications and their prehospital management, including excessive bleeding, uterine inversion, pulmonary embolism, and spina bifida.
- Discuss the initial steps of assessment for neonates, including drying and warming, positioning, suctioning, and stimulation.
- Explain how to measure essential parameters including heart rate, color, and respiratory effort.
- List the steps of the algorithm for neonatal resuscitation, including key time frames for interventions.
- Discuss techniques for airway management during neonatal resuscitation.
- Discuss techniques for circulation support during neonatal resuscitation.
- Describe vascular access considerations in the neonate.
- Discuss assessment and management of specific emergencies including apnea or inadequate respiratory effort, bradycardia, hypoglycemia, and hypovolemia.
- Demonstrate the procedure to assist in a normal cephalic delivery.
- Demonstrate care procedures of the infant as the head appears.
- Demonstrate the steps to follow in postdelivery care of the infant.
- Demonstrate how to cut and tie the umbilical cord.
- Demonstrate how to assist in delivery of the placenta.
- Demonstrate the postdelivery care of the woman.
- Describe how to assist with a breech delivery in the field.
- Describe how to assist with a limb presentation in the field.

- List the steps of neonatal resuscitation.
- Explain how to perform chest compressions on a neonate.

UNIT 33: Pediatrics

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for pediatric patients.

- Explain some of the challenges inherent in providing emergency care to pediatric patients and why effective communication with both the patient and family members is critical to a successful outcome.
- Describe differences in the anatomy, physiology, and pathophysiology of the pediatric patient as compared with the adult patient and their implications for the health care provider, with a focus on the following body systems: respiratory, circulatory, nervous, musculoskeletal, gastrointestinal, and integumentary.
- Describe the steps in the primary survey for providing emergency care to a pediatric patient, including the elements of the pediatric assessment triangle (PAT), hands-on ABCDEs, transport decision considerations, and privacy issues.
- Discuss the steps in the secondary assessment of a pediatric patient, describing what the advanced emergency medical technician (AEMT) should look for related to different body areas and the method of injury.
- Describe the different causes of pediatric respiratory emergencies, the signs and symptoms of increased work of breathing, the difference between respiratory distress and respiratory failure, and the emergency medical care strategies used in the management of each.
- List the possible causes of an upper and a lower airway obstruction in a pediatric patient and the steps in the management of foreign body airway obstruction.
- List lower airway emergencies in a pediatric patient, including asthma, and possible causes, signs and symptoms, and steps in patient management.
- Explain how to determine the correct size of an airway adjunct intended for a pediatric patient during an emergency.
- List the different oxygen delivery device options that are available for providing oxygen to a pediatric patient, including the indications for the use of each and precautions the AEMT must take to ensure the patient's safety.
- Discuss the most common causes of shock (hypoperfusion) in a pediatric patient, its signs and symptoms, and emergency medical management in the field.
- Discuss the use of intravenous therapy in pediatric patients, including intraosseous access and fluid resuscitation.
- Discuss the most common causes of altered mental status in a pediatric patient, its signs and symptoms, and emergency medical management in the field.
- List the common causes of seizures in a pediatric patient, the different types of seizures, and their emergency medical management in the field.
- List the common causes of meningitis, patient groups who are at the highest risk for contracting it, its signs and symptoms, special precautions, and emergency medical management in the field.
- Discuss the types of gastrointestinal disease emergencies that might affect pediatric patients and their emergency medical management.
- Discuss poisoning in pediatric patients, including common poison sources, signs and symptoms of poisoning, and its emergency medical management.
- Discuss dehydration emergencies in pediatric patients, including how to gauge their severity based on key signs and symptoms, and emergency medical management.

- Discuss the common causes of a fever emergency in a pediatric patient and the role of the AEMT regarding patient management.
- Discuss assessment and management of a child with hypoglycemia.
- Discuss assessment and management of a child with hyperglycemia.
- Discuss the common causes of drowning emergencies in pediatric patients, their signs and symptoms, and emergency medical management.
- Discuss the common causes of pediatric trauma emergencies and differentiate between injury patterns in adults, infants, and children.
- Discuss the significance of burns in pediatric patients, their most common causes, and general guidelines an AEMT should follow when assessing patients who have sustained burns.
- Explain the four triage categories used in the JumpSTART system for pediatric patients during disaster management.
- Describe child abuse and neglect and its possible indicators, and then describe the medical and legal responsibilities of an AEMT when caring for a pediatric patient who is a possible victim of child abuse.
- Discuss why managing posttraumatic stress is important for all health care professionals.
- Discuss sudden infant death syndrome (SIDS), including its risk factors, patient assessment, and special management considerations related to the death of an infant patient.
- Discuss the responsibilities of the AEMT when communicating with family or loved ones following the death of a child.
- Demonstrate how to position the airway in a pediatric patient.
- Demonstrate how to palpate the pulse and estimate the capillary refill time in a pediatric patient.
- Demonstrate how to use a length-based resuscitation tape to size equipment appropriately for a pediatric patient.
- Demonstrate how to insert an oropharyngeal airway in a pediatric patient.
- Demonstrate how to insert a nasopharyngeal airway in a pediatric patient.
- Demonstrate how to administer blow-by oxygen to a pediatric patient.
- Demonstrate how to apply a nasal cannula to a pediatric patient.
- Demonstrate how to apply a nonrebreathing mask to a pediatric patient.
- Demonstrate how to assist ventilation of an infant or child using a bag-mask device.
- Demonstrate how to perform one-person bag-mask device ventilation on a pediatric patient.
- Demonstrate how to perform two-person bag-mask device ventilation on a pediatric patient.
- Demonstrate how to obtain intraosseous access in a pediatric patient.
- Demonstrate how to immobilize a pediatric patient who has been involved in a trauma emergency.
- Demonstrate how to immobilize a pediatric patient who has been involved in a trauma emergency in a car seat.

UNIT 34: Geriatrics

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for geriatric patients.

- Define the term geriatrics.
- Discuss the economic impact of aging, independent and dependent living, advance directives, and end-of-life care.
- Discuss generational considerations when communicating with geriatric patients and their families.
- Discuss how to respond to nursing or skilled care facilities.
- Explain the leading causes of death among geriatric patients.
- Discuss the normal physiologic changes that occur in various body systems as people age.

- Describe the pathophysiology of common conditions affecting geriatric patients.
- Discuss psychiatric emergencies in the older population.
- Define polypharmacy and explain the toxicity issues that can result.
- Know the potential implications of a patient taking multiple medications. (p 1811)
- Discuss special considerations when performing the patient assessment process on a geriatric patient with a medical condition.
- Explain the GEMS diamond (Geriatric patients, Environmental assessment, Medical assessment, and Social assessment) and its role in the assessment and care of the geriatric patient.
- Discuss emergency medical care of a geriatric patient including fluid resuscitation.
- Discuss assessment and management of common conditions and injuries affecting geriatric patients, including respiratory, cardiovascular, neurologic, endocrine, gastrointestinal, renal, and toxicologic emergencies.
- Explain special considerations for a geriatric patient who has experienced trauma, including performing the patient assessment process on a geriatric patient with a traumatic injury.
- Discuss elder abuse and neglect, and its implications in assessment and management of the patient.

UNIT 35: Patients with Special Challenges

Outcomes: Upon completion of this unit, the students will be able to provide basic and selected advanced care and transportation based on assessment findings for patients with special challenges.

- List examples of patients with special needs whom advanced emergency medical technicians (AEMTs) may encounter during an emergency.
- Describe how to interact with patients with special needs, based on the nature of their impairment.
- Discuss the special patient care considerations that may be required when providing emergency medical care to patients with developmental disabilities, including patients with autism spectrum disorder, Down syndrome, and prior brain injuries.
- Describe different types of visual impairments and the special patient care considerations that may be required when providing emergency medical care for these patients depending on the level of their disability.
- Describe different types of hearing impairments and the special patient care considerations that may be required when providing emergency medical care for these patients, including tips for effective communication.
- Describe the four types of hearing aids that may be worn by patients, including troubleshooting strategies that may help to fix a hearing aid that is not working.
- Discuss the special patient care considerations that may be required when providing emergency medical care to patients who have the following conditions:
 - Define obesity and bariatrics.
 - Discuss the special patient care considerations that may be required when providing emergency medical care to bariatric patients, including the best way to move a patient with obesity.
 - Discuss the special patient care considerations that may be required when providing emergency medical care to patients who rely on a form of medical technology assistance, including the following:
 - Describe the assessment and management process for patients with special needs.
 - Describe home care, the types of patients it serves, and the services it encompasses.
 - Discuss hospice and palliative care.
- Explain the responsibilities of AEMTs when responding to calls for terminally ill patients who have do not resuscitate orders.

- Discuss the issues of poverty and homelessness in the United States, including the negative effects on a person's health, and the role of AEMTs as patient advocates.
- Demonstrate different strategies to communicate effectively with a patient who is hard of hearing or deaf.
- Explain how to suction and clean a tracheostomy.

UNIT 36: Transport Operations

Outcomes: Upon completion of this unit, the students will be able to apply knowledge of transport operations to ensure patient, public, and personnel safety.

- Describe the nine phases of an ambulance call, including examples of key tasks that advanced emergency medical technicians (AEMTs) perform during each phase.
- Describe the medical equipment carried on an ambulance, including examples of supplies that are included in each main category of the ambulance equipment checklist.
- Provide examples of the safety and operations equipment carried on an ambulance, including how each item might be used by AEMTs in an emergency.
- Explain the importance of performing regular vehicle inspections.
- List the specific parts of an ambulance that should be inspected daily.
- Describe the minimum information that should be gathered by the emergency medical services (EMS) dispatcher for every emergency call.
- Provide examples of some high-risk situations and hazards that may affect the operation of the ambulance and the safety of its passengers during both pre-transport and transport.
- Discuss specific considerations that are required for ensuring scene safety, including personal safety, patient safety, and traffic control.
- Describe the key elements related to patient information that must be included in the patient care report upon patient delivery to the hospital.
- Summarize the tasks that must be completed by AEMTs at the completion of an ambulance call.
- Define the terms cleaning, disinfection, high-level disinfection, and sterilization.
- Discuss the guidelines for driving an ambulance safely and defensively, including key steps EMS personnel can take to improve safety while enroute to the scene, the hospital, and the station.
- Describe the elements that dictate the use of emergency warning lights and siren to the scene and to the hospital and the factors required to perform a risk-benefit analysis regarding the use of these devices.
- Give examples of the specific, limited privileges that are provided to emergency vehicle drivers by most state laws and regulations.
- Explain why using police escorts and crossing intersections pose additional risks to EMS personnel during transport, including the special considerations related to each.
- Describe the capabilities, protocols, and methods for air medical operations.
- Describe key scene safety considerations when preparing for the medical evacuation of a patient by helicopter, including establishing a landing zone, mitigating onsite hazards, and approaching the aircraft.
- Demonstrate how to perform a daily inspection of an ambulance.
- Demonstrate how to clean and disinfect the ambulance and equipment during the post-run phase.
- Demonstrate how to use defensive ambulance driving techniques.
- Demonstrate how to operate safely around an air ambulance.

UNIT 37: Vehicle Extrication, Special Rescue, and Hazardous Materials

Outcomes: Upon completion of this unit, the students will be able to apply knowledge of vehicle

extrication, special rescue, and hazard materials roles and responsibilities to ensure patient, public, and personnel safety.

- Explain the responsibilities of advanced emergency medical technicians (AEMTs) in patient rescue and extrication.
- Compare the terms extrication and entrapment.
- Discuss how to ensure safety at the scene of a rescue incident, including scene size-up and the selection of the proper personal protective equipment and additional necessary gear.
- List the 10 phases of extrication and the role of AEMTs during each one.
- Discuss the situational awareness factors AEMTs must use to ensure safety at the site of a vehicle extrication.
- Name some vehicle safety system components that may be hazardous to both AEMTs and patients following a motor vehicle crash; include how AEMTs can mitigate these dangers.
- Explain the different factors that must be considered before attempting to gain access to the patient during an incident that requires extrication.
- Discuss patient care considerations related to assisting with rapid extrication, providing emergency care to a trapped patient, and removing and transferring a patient.
- Contrast simple access and complex access in vehicle extrication.
- Discuss situations that would require special technical rescue teams and the AEMTs role in these situations.
- Describe tactical situations and the techniques used to stay safe at these incidents.
- Describe some of the unique aspects of responding to a hazardous materials (hazmat) incident.
- Know the entry-level training or experience requirements identified by the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation for AEMTs responding to a hazmat incident.
- Describe the types of containers used to store hazardous materials.
- Discuss the specific reference materials AEMTs can use to recognize a hazmat incident.
- Explain the role of AEMTs during a hazmat incident before and after the hazmat team arrives and the precautions required to ensure the safety of civilians and responders.
- Name the three control zones established at a hazmat incident, the characteristics of each zone, and the personnel who work within each one.
- Describe the four levels of personal protective equipment required at a hazmat incident to protect responders from injury and contamination.
- Explain patient care at a hazmat incident; include the special requirements that are necessary for those patients who require immediate treatment and transport prior to full decontamination.
- Using an example, demonstrate how to correctly identify the US Department of Transportation's labels, placards, and markings used to designate hazardous materials.
- Demonstrate the ability to use a variety of reference materials to identify a hazardous material.

UNIT 38: Incident Management, Terrorism Response, and Disaster Management

Outcomes: Upon completion of this unit, the students will be able to apply knowledge of incident management, terrorism response, and disaster management roles and responsibilities to ensure patient, public, and personnel safety.

- Describe the National Incident Management System (NIMS) and its major components.
- Describe the purpose of the incident command system (ICS) and its organizational structure.
- Explain the role of emergency medical services (EMS) response within the ICS.
- Describe how the ICS assists EMS in ensuring both personal safety and the safety of bystanders, health care professionals, and patients during an emergency.
- Describe your role as an advanced emergency medical technician (AEMT) in establishing command under the ICS.

- Describe the purpose of medical incident command within the ICS and its organizational structure.
- Describe the specific conditions that would define a situation as a mass-casualty incident (MCI); include examples.
- Describe what occurs during primary and secondary triage, how the four triage categories are assigned to patients on the scene, and how destination decisions regarding triaged patients are made.
- Describe how to perform the START and JumpSTART triage methods.
- Explain how a disaster differs from an MCI.
- Describe the role of the AEMT during a disaster operation.
- Demonstrate how to perform triage based on a fictitious scenario that involves a mass casualty incident.
- Describe international terrorism and domestic terrorism, and include some examples of incidents that have been caused by each one.
- List examples of four different types of goals that commonly motivate terrorist groups to stage a terrorist attack.
- Discuss the response plans that have been developed for active shooter events.
- Describe weapons of mass destruction (WMDs), and include examples of the five categories of weapons that are considered WMDs.
- Describe how the National Terrorism Advisory System relates to your daily activities as an advanced emergency medical technician (AEMT) and your ability to respond to and survive a terrorist attack.
- Describe key observations you must make on each call to assist in the determination of whether an incident is related to terrorism.
- Describe the critical response actions you must perform at a suspected terrorist event related to establishing and reassessing scene safety, personnel protection, notification procedures, and establishing command.
- Discuss the history of chemical agents, the four main classifications, routes of exposure, effects on the patient, and patient care.
- Discuss three categories of biologic agents, the routes of exposure, effects on the patient, and patient care.
- Explain the role of emergency medical services in relation to syndromic surveillance and points of distribution during a biologic event.
- Describe the history of nuclear/radiologic devices, sources of radiologic materials and dispersal devices, medical management of the patient, and protective measures to take during a nuclear/radiologic incident.
- Describe the mechanisms of injury caused by incendiary and explosive devices, including the types and severity of blast injuries.
- Demonstrate the steps you can take to establish and reassess scene safety based on a scenario of a terrorist event.
- Demonstrate how to manage a patient who has been exposed to a chemical agent.
- Demonstrate the use of the DuoDote Auto-Injector and/or the Antidote Treatment Nerve Agent Auto-Injector.

UNIT 39: Research and Public Health

Outcomes: Upon completion of this unit, the students will be able to apply knowledge of research and public health principles to the practice of EMS.

- Describe the importance of quality EMS research to the future of EMS.
- Analyze the role of continuous quality improvement with respect to continuing medical education and research.

- Describe the importance and benefits of research.
- Explain the basic principles of research.
- Describe a process of evaluating and interpreting research.
- Advocate the need for supporting and participating in research efforts aimed at improving EMS systems.
- Discuss public health principles relevant to infectious/ communicable disease.
- Identify public health agencies involved in the prevention and management of disease outbreaks.

Projects Required:

Varies, refer to syllabus.

Textbook:

Contact Bookstore for current textbook.

Materials/Equipment Required:

Contact Bookstore for current materials/equipment required.

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 Time Frame:

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

DISCLAIMER: THIS INFORMATION IS SUBJECT TO CHANGE. FOR THE OFFICIAL COURSE PROCEDURE CONTACT ACADEMIC AFFAIRS.

Rev. 9/21/22

COWLEY COLLEGE COURSE PROCEDURE

EMS 5691 – ADVANCED EMT 2 12 Credit Hours

Student Level:

This course is open to students on the college level in either the Freshman or Sophomore year.

Catalog Description:

EMS 5691 – ADVANCED EMT 2 (12 hrs.)

This is the second course in the Advanced EMT (AEMT) technical curriculum and is comprised of hospital clinical rotations and capstone field internship. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT.

KRSN: NA

Course Classification: Lecture/Lab and Clinical Experience

Prerequisites:

Successful completion of the AEMT 1 course with a grade of “C” or higher.

Co-requisites:

Current immunizations. Criminal record check.

Controlling Purpose:

This is the second course in the Advanced EMT (AEMT) technical curriculum and is comprised of hospital clinical rotations and capstone field internship. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care. Successfully completing this course and the other AEMT curriculum courses will prepare the student for Kansas and NREMT AEMT certification and to function as an AEMT. This course allows the student to complete the skills and patient care competencies defined by the Kansas Board of EMS.

Learner Outcomes:

Upon completion of the course, the student will be able to:

1. Upon completion of the hospital clinical rotations, the students will have participated in the assessment and appropriate management of patients of various ages, pathologies and complaints.
2. At the conclusion of the field internship experience, the student will be able to coordinate patient care and assign tasks to be able to comprehend, apply and evaluate clinical information while demonstrating technical proficiency in all skills and behavior necessary to fulfill the role as an entry level AEMT, and in a simulated patient care scenario.

Unit Outcomes for Criterion Based Evaluation:

The following outline defines the minimum core content not including the final examination period.

Instructors may add other material as time allows.

UNIT 1: Hospital Clinical Objectives

Outcomes: Upon completion of this unit, the students will have participated in the assessment and appropriate management of patients of various ages, pathologies and complaints.

- Perform patient assessment, including:
 - Perform a primary assessment to rule out life threats.
 - Ascertain the patient's history, including HPI, PMH, medications and allergies.
 - Assess vital signs.
 - Perform a secondary assessment.
 - Develop a clinical impression and discuss with the physician or nurse.
 - Perform the necessary documentation.
- Perform venipuncture to draw venous blood samples.
- Recite the class, action, dosage, uses, duration of action, contraindications, precautions, antidote and side effects of all AEMT medications administered to patients.
- Set up, start and maintain IV fluid therapy on adult and pediatric patients, to include changing IV bags and properly calculating flow rates.
- Correctly recognize the need for and perform patient suctioning.
- Properly recognize the need and administer oxygen therapy, utilizing all AEMT equipment.
- Assist in the management of behavioral, medical and traumatized patients.
- Initiate treatment of lacerations and other soft tissue wounds and assist the physician as needed.
- Correctly apply EKG leads.
- Correctly interpret ECG tracings.
- Assist respiratory therapist in performing the respiratory assessment, to include breath sounds, history, and assisting with the administration of breathing treatments.
- Identify accepted methods of treating dysrhythmias.
- Identify the effects of an AMI on the electrocardiogram and laboratory test results.
- Identify the parameters evaluated for the diagnosis of AMI and relate these to the pre-hospital setting.
- Perform supraglottic airway management and understand the indications for this treatment.
- Closely observe arterial blood gas sampling and interpret laboratory test results.
- Observe and perform cardiopulmonary resuscitation.
- Observe and if possible, perform triage.
- Observe and if possible, assist with the normal obstetric delivery.
- Interpret lab results and correlate to the patient's presentation.
- Manage the emotionally disturbed patient.
- Defibrillate patients when indicated.
- Use peak flow meter and discuss values with the respiratory therapist.
- Observe and if possible, insert an intraosseous needle and establish an infusion.
- Utilize proper body substance isolation procedures.
- Show integrity, appropriate communication and time management, and respect.
- Show empathy, patient advocacy, and careful delivery of service.
- Show self-motivation, self-confidence, appropriate appearance and personal hygiene, teamwork and diplomacy.

UNIT 2: Field Internship Phase 1

Outcomes: At the completion of phase 1 of the field internship experience the AEMT student will be

able to identify his/her preceptors, understand departmental rules as they apply to the station, the vehicle, safety, documentation, and QA/QI policies, and become familiar with the individual locations of emergency equipment both in the station and the ambulance.

- Describe the three basic types of ambulance calls: medical emergencies, trauma emergencies, and transfers.
- Identify his/her role responsibility during calls.
- Determine what equipment is to be brought to the patient on each call.
- Understand how to approach a call-in terms of patient care.
- Demonstrate scene safety awareness and appropriate precautions.
- Understand service policy on infection control, safety, documentation, medical protocols and QA/QI policies.
- Understand the documentation expectations of each ambulance call.
- Accurately perform a complete unit check at the beginning of each shift.

UNIT 3: Field Internship Phase 2

Outcomes: At the completion of phase 2 of the field internship experience the AEMT student will be able to practice team cooperation in patient care delivery to include communication with co-workers, appropriate equipment operation, obtaining accurate vital signs, successful initiation of IVs on any patient requiring this therapy and reciting the dosages, indications and contraindications for all AEMT medications carried by the field internship site.

Continue to perform all skills acquired during phase 1 while also:

- Successful communication between the student and preceptors.
- Demonstration of appropriate and accurate operation, location, maintenance and various uses of equipment.
- Demonstrate the ability to perform BCLS consistent with the American Heart Association guidelines.
- Demonstrate the ability to obtain a full and accurate set of vital signs to include respirations, heart rate, blood pressure, pupil status and skin condition.
- Perform a thorough patient assessment appropriate to patient's presentation and chief complaint.
- Formulate an accurate working impression utilizing information gathered to include age, physical exam and patient history, and communicate to the preceptor a triage consistent with the patient's condition.
- Decide upon a course of action and implement a team approach to carrying out a treatment plan.
- Given the opportunity, demonstrate knowledge of proper skill techniques and utilize all equipment to include IV initiation, EKG interpretation, airway management, medication administration and any other intervention appropriate to the patient's condition and the service AEMT protocols.
- Recite all dosages, indications and contraindications for any of the AEMT medications carried by the field internship site.
- Demonstrate a knowledge base consistent with information presented to the student to this point in the field internship experience.

UNIT 4: Field Internship Phase 3

Outcomes: At the conclusion of phase 3 of the students' field internship experience, the student will be able to coordinate patient care and assign tasks to be able to comprehend, apply and evaluate clinical

information while demonstrating technical proficiency in all skills and behavior necessary to fulfill the role as an entry level AEMT, and in a simulated patient care scenario.

Continue to perform all skills acquired during phases 1 and 2 while also:

- Demonstrate appropriate scene management of any situation and function competently under stressful situations to include appropriate assessment, treatment and transportation priorities when multiple patients are encountered.
- Demonstrate the ability to perform a thorough patient interview and physical assessment.
- Demonstrate the ability to develop a treatment management plan and perform the necessary skills, or delegation of tasks when appropriate, related to emergency management of the patient.
- Demonstrate effective communication between the student and preceptors, patients, family members, bystanders, public service personnel and other health care providers either orally, in writing or by radio.
- Demonstrate the ability to accurately complete all the necessary reports associated with the patient contact.
- Demonstrate integrity, self-motivation, self-confidence, appropriate appearance and personal hygiene, teamwork, diplomacy, appropriate communication, time management, respect, empathy, patient advocacy and careful delivery of service consistent with affective objectives outlined in the Cowley affective evaluation.

Projects Required:

Varies, refer to syllabus.

Textbook:

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Materials/Equipment Required:

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Attendance Policy:

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Course Time Frame:

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Rev. 9/21/22

Appendix B

Letters of Support from Local EMS Employers



City of Arkansas City, Kansas

FIRE-EMS DEPARTMENT

October 3, 2022

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

Cowley College EMS Education is nationally accredited by the Commission on Accreditation of Allied Health Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Professions to provide Paramedic Education. This accreditation status means that Cowley has robust quality assurance and improvement processes in place to ensure student and patient safety. These processes can be easily replicated from the paramedic program to the AEMT program.

In addition to the processes discussed above, Cowley also possesses the faculty expertise, equipment, and clinical partnerships to conduct this program without having to incur the costs of developing these items from the ground up.

This program will be very beneficial to our organization. There is currently a significant employee shortage in EMS. Having an AEMT program will allow us to not only recruit new employees, but to develop our current long-term EMT employees into advanced life support providers. We will provide field internship opportunities for students in the program and will provide personnel to serve on the advisory committee.

In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,

Jeri L. Smith, EMS Director
Arkansas City Fire-EMS Department
115 S. D Street
Arkansas City, KS 67005
620-441-4430
jsmith@arkansascityks.gov

115 South D Street / Arkansas City, Kansas / 67005-2622
(620) 441-4430 www.arkcity.org

'Preserving Our Past, Creating Our Future'



BUTLER COUNTY
EMERGENCY MEDICAL SERVICES

FRANK WILLIAMS
Director

Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368

January 8, 2023

To whom it may concern,

This letter is to support and affirm the relationship between our agency and Cowley College EMS department. This strong relationship includes the EMT and Paramedic level of education currently offered by Cowley College. We are supportive of adding the Advanced Emergency Medical Technician (AEMT) level course/certification to this list.

For decades, Butler County EMS and Butler County Rescue Squad have successfully worked hand-in-hand with Cowley College. We continue to collaborate primarily on maintaining and creating EMS workforce across the region. Cowley has also been a great partner in enhancing our overall innovation surrounding best practice of EMS. Cowley College's plan to provide AEMT level certification enhances the success of our team and many EMS agencies across the South-Central Region.

We continue to need all levels of EMS certification, including AEMT educational programs. We enjoy the AEMT internship process and will continue to support Cowley to accomplish this real-life EMS experience.

In closing, we depend on Cowley College and their EMS educational programs. We cannot emphasize enough the importance of maintaining healthy local community college EMS educational system, through funding, State approval, and support, for Butler County, Kansas and beyond.

Respectfully submitted,

Frank A. Williams RN, BSN, DMS, Paramedic
Chief – Butler County EMS/ Butler County Rescue Squad
701 North Haverhill Rd.
El Dorado, Kansas 67042
(316) 322-4262 (office)
(316) 321-9264 (fax)
fwilliams@bucoks.com

cc: file



January 6, 2022

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

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This program will be very beneficial to our organization as there is currently a significant employee shortage in EMS. Having an AEMT program will allow us to not only recruit new employees, but to develop our current long-term EMT employees into advanced life support providers. We will provide interviews and potentially hire the AEMT program graduates.

In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,

Craig Isom, BS, Paramedic, CMTE
Program Director, EagleMed

January 6, 2022

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

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In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,



Luke McCormick
Fire Chief
Great Bend Fire/EMS

Assistant City Administrator: Logan Burns
City Clerk/Finance Director: Shawna Schafer, CPA
City Attorney: Allen Glendenning
Community Coordinator/CVB Director: Christina Hayes

Human Resource Director: Randy Keasling
Police Chief: Steve Haulmark
Public Lands Director: Scott Keeler
Fire Chief: Luke McCormick

Public Works Director: Jason Cauley
Network Administrator: James Cell

City of Halstead

Fire / EMS



303 Main • P.O. Box 312 • Halstead, Kansas 67056 • 316-835-2606 • Emergency 911

1/9/2023

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

Cowley College EMS Education is nationally accredited by the Commission on Accreditation of Allied Health Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Professions to provide Paramedic Education. This accreditation status means that Cowley has robust quality assurance and improvement processes in place to ensure student and patient safety. These processes can be easily replicated from the paramedic program to the AEMT program.

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In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,



Anderson Lowe
Director Emergency Services & Emergency Management



MULVANE EMERGENCY SERVICES

910 E. MAIN
MULVANE, KANSAS 67110
(316) 777-1551

*"Serving so others
may live"*

To Whom It May Concern:

It is my pleasure to write this letter of recommendation for the formation of an AEMT program by Cowley County Community College. I was very pleased when I received an Email about the possibility of adding an AEMT program to the already respected EMS programs through Cowley County Community College. As someone who oversees an EMS agency, I appreciate the possibility of more well-trained EMS professionals to help staff the shortcomings we have been experiencing in our state. AEMT staff help close the gap between EMT and Paramedic and makes advanced life support more available throughout the state, especially in smaller agencies. I was also pleased to see the proposed requirements to complete the AEMT program through Cowley County Community College. I especially feel the required hospital clinical hours to be a great benefit for the students. I know I was able to see and experience a lot of things during my hospital clinicals while going through the paramedic program at Cowley County Community College.

Pete Swart
EMS Captain
Mulvane EMS
910 E Main
Mulvane, KS 67110
Office:(316)777-1551
Fax: (316)777-9520

CITY OF MULVANE

211 NORTH SECOND • MULVANE, KS 67110 • (316) 777-1143



Reno County Emergency Medical Service
at Hutchinson Regional Medical Center

January 6, 2023

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

Cowley College EMS Education is nationally accredited by the Commission on Accreditation of Allied Health Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Professions to provide Paramedic Education. This accreditation status means that Cowley has robust quality assurance and improvement processes in place to ensure student and patient safety. These processes can be easily replicated from the paramedic program to the AEMT program.

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This program will be very beneficial to our organization as there is currently a significant employee shortage in EMS. Having an AEMT program will allow us to not only recruit new employees, but to develop our current long-term EMT employees into advanced life support providers. We will provide field internship opportunities for students in the program, personnel to serve on the advisory committee, and provide interviews and potentially hire program graduates.

Respectfully

Dave Johnston, Chief, Reno County EMS



*Sedgwick County...
working for you*

January 9, 2023

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

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This program will be very beneficial to our organization as there is currently a significant employee shortage in EMS. Having an AEMT program will allow us to not only recruit new employees, but to develop our current long-term EMT employees into advanced life support providers. We will provide field internship opportunities for students in the program, personnel to serve on the advisory committee, and provide interviews and potentially hire program graduates.

In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,

A handwritten signature in black ink that reads "Shannon Reed". The signature is written in a cursive, flowing style.

Col. Shannon Reed
Operations Division Chief
Sedgwick County EMS

**CITY of WELLINGTON
FIRE / EMS DEPT**

**Tim Hay
Chief**



**200 North C Street
Suite 200
Wellington, KS 67152
620-326-7443
Fax 620-326-8475**

Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

Cowley College EMS Education is nationally accredited by the Commission on Accreditation of Allied Health Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Professions to provide Paramedic Education. This accreditation status means that Cowley has robust quality assurance and improvement processes in place to ensure student and patient safety. These processes can be easily replicated from the paramedic program to the AEMT program.

In addition to the processes discussed above, Cowley also possesses the faculty expertise, equipment, and clinical partnerships to conduct this program without having to incur the costs of developing these items from the ground up.

This program will be very beneficial to our organization. There is currently a significant employee shortage in EMS. Our department presently has two vacancies and cannot find certified AEMT's or Paramedics. We have two full time staff who will be required to take the AEMT class in the next year. Having an AEMT program will allow us to not only recruit new employees, but to develop our current long-term EMT employees into advanced life support providers. We will provide field internship opportunities for students in the program and will provide personnel to serve on the advisory committee.

In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,

Tim Hay
Fire/EMS Chief



Winfield Fire & EMS Department

330 E 9th Avenue
Winfield Kansas 67156
Phone (620) 221-5560
Fax (620) 221-5689



Dear Kansas Board of Regents,

This letter is to support the addition of an Advanced Emergency Medical Technician (AEMT) program at Cowley College. This program is needed locally to support the EMS workforce, and our existing partnership with Cowley College will make this offering convenient for our current and future staff members.

Cowley College EMS Education is nationally accredited by the Commission on Accreditation of Allied Health Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Professions to provide Paramedic Education. This accreditation status means that Cowley has robust quality assurance and improvement processes in place to ensure student and patient safety. These processes can be easily replicated from the paramedic program to the AEMT program.

In addition to the processes discussed above, Cowley also possesses the faculty expertise, equipment, and clinical partnerships to conduct this program without having to incur the costs of developing these items from the ground up.

This program will be very beneficial to our organization. There is currently a significant employee shortage in EMS. Having an AEMT program will allow us to not only recruit new employees, but to develop our current long-term EMT employees into advanced life support providers. We will provide field internship opportunities for students in the program and will provide personnel to serve on the advisory committee.


Furthermore, since the year 2020 our department has struggled with staffing shortages. Year 2020 we hired two employees to get the department to full staff. Year 2021 hired three

employees and still couldn't complete full staffing capability. Finally in the year 2022 we hired six employees. Two of these six are currently enrolled in an EMT program meaning they are not yet certified. One of our employees is from out of state working on transferring his license to the State of Kansas. Not one of these eleven employees is a Paramedic certified technician.

Paramedics are a need in our community. By gaining certified AEMT employees will help to close the gap for the standard of care within our response area before it gets more critical.

In closing, we fully support the AEMT program at Cowley College and look forward to seeing it implemented in late 2023.

Regards,



Vincent R Warren

Fire/EMS Chief

Appendix C
Programs of Study



Cowley College Degree Grid

The Advanced EMT (AEMT) Certificate A helps prepare the student for certification and practice as an AEMT. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care.

Advanced EMT (AEMT) (CERT. A)					
COURSE NUMBER	COURSE NAME	SEMESTER			
		1	2	3	4
TECHNICAL REQUIREMENTS					
EMS 5690	AEMT 1	12			
EMS 5691	AEMT 2		12		
TOTAL HOURS 24		12	12	0	0

Depending on skill level and assessment scores, students may be required to take the necessary basic skill or prerequisite courses prior to enrolling in the program.



Cowley College Degree Grid

The Advanced EMT (AEMT) Certificate B helps prepare the student for certification and practice as an AEMT, as well as providing the general education courses in preparation for paramedic certification. The student will develop fundamental depth and breadth in the principles and practice of AEMT-level patient care.

Advanced EMT (AEMT) (CERT. B)					
COURSE NUMBER	COURSE NAME	SEMESTER			
		1	2	3	4
TECHNICAL REQUIREMENTS					
EMS 5691	AEMT 1	12			
EMS 5692	AEMT 2		12		
COM 2725	Interpersonal Communications			3	
PHO 6460	Ethics			3	
SOC 6811	Principles of Sociology			3	
BIO 4110	Biology Review			1	
BIO 4150	Human Anatomy and Physiology			5	
TOTAL HOURS 39		12	12	15	0
Depending on skill level and assessment scores, students may be required to take the necessary basic skill or prerequisite courses prior to enrolling in the program.					

KBOR Fiscal Summary for Proposed Academic Programs

CA-1a Form (2020)

Institution: Cowley College

Proposed Program: Advanced EMT (AEMT)

IMPLEMENTATION COSTS				
Part I. Anticipated Enrollment			Implementation Year	
Please state how many students/credit hours are expected during the initial year of the program?				
			Full-Time	Part-Time
A. Headcount:			12	0
Part II. Initial Budget			Implementation Year	
A. Faculty		Existing:	New:	Funding Source:
Full-time	#	\$0	\$0	
Part-time/Adjunct	#	\$12,600 Lead (\$525/CH) \$5,848 (clinical coordination and lab assistants)	\$0	Cowley College HHS Department Budget
		Amount	Funding Source	
B. Equipment required for program		\$0	Share existing equipment	
C. Tools and/or supplies required for the program		\$0	Share existing supplies	
D. Instructional Supplies and Materials		\$0	Publisher copy on hand	
E. Facility requirements, including facility modifications and/or classroom renovations		\$0	None Needed	
F. Technology and/or Software		\$0	None Needed	
G. Other (<i>Please identify; add lines as required</i>)		\$0		
Total for Implementation Year		\$18,448	Cowley College HHS Department Budget	
ONGOING COSTS				
Part I. Program Enrollment			Second and Third Years	
Please state how many students/credit hours are expected during the first two years of the program?				
			Full-Time	Part-Time
A. Headcount:			24	--
Part II. Ongoing Program Costs			First Two Years	
A. Faculty		Existing:	New:	Funding Source:
Full-time	#	\$0	\$0	
Part-time	#	\$36,896	\$0	Cowley College HHS Department Budget
		Amount	Funding Source	
B. Equipment required for program		\$0		
C. Tools and/or supplies required for the program		\$4,000	Cowley College HHS Department Budget	
D. Instructional Supplies and Materials		\$0		

KBOR Fiscal Summary for Proposed Academic Programs

CA-1a Form (2020)

E. Facility requirements, including facility modifications and/or classroom renovations	\$0	
F. Technology and/or Software	\$0	
G. Other (<i>Please identify; add lines as required</i>)		

CA-1b Form Intentionally Omitted

AEMT Program is not eligible for high school enrollment.

Kansas Promise Eligibility Request Form

CA-1d Form (2022)

This application should be used for new programs (currently in the program approval process) or existing programs the institution would like reviewed for Kansas Promise eligibility.

Program Eligibility

Per statutory language (Section 28), a “promise eligible program” means any two-year associate degree program or career and technical education certificate or stand-alone program offered by an eligible postsecondary educational institution that is:

- 1) approved by the Board of Regents;
- 2) high wage, high demand or critical need; and
- 3) identified as a “promise eligible program” by the Board of Regents pursuant to [K.S.A. 2021 Supp. 74-32,272](#):
 - Information Technology and Security
 - Mental and Physical Healthcare
 - Advanced Manufacturing and Building Trades
 - Early Childhood Education and Development

Section 29 (9d), states that the Board of Regents may designate an associate degree transfer program as an eligible program only if such program is included in:

- 1) An established 2+2 agreement with a Kansas four-year postsecondary education institution; or
- 2) An articulation agreement with a Kansas four-year postsecondary educational institution and is part of an established degree pathway that allows a student to transfer at least 60 credit hours from the eligible postsecondary educational institution to a four-year postsecondary education institution for the completion of an additional 60 credit hours toward a bachelor’s degree.

Section 30 states an eligible postsecondary educational institution may designate an additional field of study to meet local employment needs if the promise eligible programs within this field are two-year associate degree programs or career and technical education certificate or stand-alone programs approved by the Board of Regents that correspond to jobs that are high wage, high demand, or critical need in the community from one of the following fields:

- 1) Agriculture;
- 2) Food and Natural Resources;
- 3) Education and Training;
- 4) Law, Public Safety, Corrections, and Security; or
- 5) Distribution and Logistics

Name of Institution	Cowley College
Name, title, and email of person responsible for Academic program	Chris Cannon EMS Program Director and Department Chair 620-229-5985 chris.cannon@cowley.edu
Name, title, and email of Financial Aid contact	Lena Spencer Director of Financial Aid 620-441-2701 lena.spencer@cowley.edu

Kansas Promise Eligibility Request Form

CA-1d Form (2022)

Information Technology and Security				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

Mental and Physical Healthcare				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date
51.0904	Advanced EMT (AEMT)	Y	Certificate	7/1/2023

Advanced Manufacturing and Building Trades				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

Early Childhood Education and Development				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

College Designated Field of Study:				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date

**If any programs are claiming “critical need” status, please provide supporting documentation:

Signature of College Official Michelle Schorn Date 1/31/2023

Signature of KBOR Official _____ Date _____

Special Note to Kansas Independent Colleges:

Please carbon copy the KICA contact below when submitting this application to the Kansas Board of Regent office:

Matt Lindsey, President KICA
matt@kscolleges.org