



**COWLEY COLLEGE
& Area Vocational Technical School**

COURSE PROCEDURE FOR

**ADVANCED MEDICAL LIFE SUPPORT (AMLS)
NCH6205 0 Credit Hour**

Student Level:

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

Prerequisite:

Certification/licensure as EMT, paramedic, RRT, RN or physician.

Controlling Purpose:

This course is designed to help the student increase his/her knowledge concerning medical emergencies using advanced level knowledge and practices that would be very useful for anyone in a prehospital or emergency medicine position.

Learner Outcomes:

Upon completion of the course, the student will be able to differentiate stable vs. unstable patients using advanced knowledge of pathophysiology and critical thinking skills. Students will have in depth knowledge when it comes to the differential diagnosis of the medical patient.

Units Outcomes and Criterion Based Evaluation Key for Core Content:

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

Evaluation Key:

- A = All major and minor goals have been achieved and the achievement level is considerably above the minimum required for doing more advanced work in the same field.
- B = All major goals have been achieved, but the student has failed to achieve some of the less important goals. However, the student has progressed to the point where the goals of work at the next level can be easily achieved.
- C = All major goals have been achieved, but many of the minor goals have not been achieved. In this grade range, the minimum level of proficiency represents a person who has achieved the major goals to the minimum amount of preparation necessary for taking more advanced work in the same field, but without any major handicap of inadequacy in his background.
- D = A few of the major goals have been achieved, but the student's achievement is so

- limited that he is not well prepared to work at a more advanced level in the same field.
- F = Failing, will be computed in GPA and hours attempted.
- N = No instruction or training in this area.

UNIT 1: ASSESSMENT OF THE MEDICAL PATIENT

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Differentiate treatment and transport criteria for stable and unstable patients.
						Differentiate appropriate assessment techniques for stable and unstable adult patients with medical complaints.
						Obtain a comprehensive patient assessment using appropriate interviewing techniques.
						Recognize and explain different pathophysiological responses found during comprehensive assessment of patients with medical complaints.
						Describe the rationale for assessment modifications used for the elderly patient.
						Demonstrate an efficient, focused physical examination technique for evaluating patients with neurological, respiratory, cardiac, abdominal complaints.

UNIT 2: AIRWAY MANAGEMENT, VENTILATION, AND OXYGEN THERAPY

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Recognize patient presentations that require the need for aggressive airway management.
						Identify different clinical situations that determine utilization of a variety of

						options for airway management devices.
						Explain the indications and contraindications for each airway management technique or device.
						Demonstrate with proficiency the appropriate use of airway management techniques that include: oral tracheal intubation, nasotracheal intubation, RSI, digital intubation, lighted-stylet intubation, alternative airway devices (PtL, Combitube, LMA), and surgical airway devices.

UNIT 3: HYPOPERFUSION (SHOCK)

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentations in compensated, progressive, and irreversible shock.
						Use, with proficiency, a comprehensive assessment technique to identify differences in patient presentations and management strategies for hypovolemic, obstructive, distributive, and cardiogenic shock.
						Recognize and explain different pathophysiological responses found during the comprehensive assessment of patients exhibiting hypovolemic, obstructive, distributive, and cardiogenic shock.
						Develop management alternatives for probable differential diagnoses of hypoperfusion to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an appropriate facility.

UNIT 4: DYSPNEA

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies The student will demonstrate the ability to:
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						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit respiratory distress and respiratory failure.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting airway obstruction, asthma, COPD, pneumonia, pleural effusion, tension pneumothorax, PE, pleuritis, ARDS, CHF, AMI, neuromuscular dystrophies, hyperthyroidism, and psychogenic etiologies.
						Use a comprehensive assessment technique to identify differences in patient presentations and management strategies for airway obstruction, asthma, COPD, pneumonia, pleural effusion, tension pneumothorax, PE, pleuritis, ARDS, CHF, AMI, neuromuscular dystrophies, hyperthyroidism, and psychogenic etiologies.
						Develop management alternatives for probable differential diagnoses of dyspnea to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an appropriate facility.

UNIT 5: CHEST PAIN

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit AMI, unstable angina, aortic dissection, PE, esophageal disruption, cardiac tamponade, pericarditis, costochondritis, GI disease, and MVP.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of pts exhibiting AMI, unstable angina, aortic dissection, PE, esophageal disruption, cardiac tamponade, pericarditis, costochondritis, GI disease, and MVP.
						Develop management alternatives for probable differential diagnoses of chest pain, to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an

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						appropriate facility.
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UNIT 6: ALTERED MENTAL STATUS

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit a CVA, TIA, cranial infections, intracranial tumors, DM, HHNS, hepatic encephalopathy, uremic encephalopathy, electrolyte imbalances, acidosis and alkalosis, thyroid disorders, Wernicke's encephalopathy, Korsakoff's psychosis, toxicologic encephalopathy, and environmental etiologies.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting a CVA, TIA, cranial infections, intracranial tumors, DM, HHNS, hepatic encephalopathy, uremic encephalopathy, electrolyte imbalances, acidosis and alkalosis, thyroid disorders, Wernicke's encephalopathy, Korsakoff's psychosis, toxicologic encephalopathy, and environmental etiologies.
						Develop management alternatives for probable differential diagnoses of altered mental status, to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an appropriate facility.

UNIT 7: SEIZURES AND SEIZURE DISORDERS

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit generalized, simple or partial complex seizures, status

						epilepticus, metabolic disorders, and infectious diseases.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting generalized, simple or partial complex seizures, status epilepticus, metabolic disorders, and infectious diseases.
						Develop management alternatives for probable differential diagnoses of seizures, to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an appropriate facility.

UNIT 8: ACUTE ABDOMINAL PAIN/GI BLEEDING

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit right and left hypochondriac, epigastric, umbilical, hypogastric, aortic aneurysm, GERD, and right and left iliac region etiologies.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting right and left hypochondriac, epigastric, umbilical, hypogastric, aortic aneurysm, GERD, and right and left iliac region etiologies.
						Identify anatomical locations that are at risk for gastrointestinal bleeding.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting presentations and predisposing conditions to GI bleeding.
						Develop management alternatives for probable differential diagnoses of acute abdominal pain and GI bleeding to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an appropriate facility.

UNIT 9: SYNCOPE

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to

integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit vasovagal and vasopressor syncope, orthostatic hypotension, and metabolic and neurologic syncope etiologies.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting vasovagal and vasopressor syncope, orthostatic hypotension, and metabolic and neurologic syncope etiologies.
						Develop management alternatives for probable differential diagnoses of syncope to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support, and transportation to an appropriate facility.

UNIT 10: HEADACHE, NAUSEA, AND VOMITING

Outcomes: Given a scenario, the participant will be able to apply critical thinking skills to integrate pathophysiology with assessment and history findings to determine actual and potential patient problems, differential diagnoses, and management strategies.

A	B	C	D	F	N	Specific Competencies
						The student will demonstrate the ability to:
						Demonstrate with proficiency an appropriate, safe scene size-up.
						Identify differences in patient presentation and management strategies for patients that exhibit tension headaches, migraine, subarachnoid and intracerebral hemorrhage, subdural hematoma, meningitis, pre-eclampsia, CO poisoning, and brain abscess, nausea and vomiting etiologies.
						Recognize and explain with accuracy different pathophysiological responses found during the comprehensive assessment of patients exhibiting tension headaches, migraine, subarachnoid and intracerebral hemorrhage, subdural hematoma, meningitis, pre-eclampsia, CO poisoning, and brain abscess, nausea and vomiting etiologies.
						Develop management alternatives for probable differential diagnoses of headache, nausea, and vomiting to include as needed: airway management, respiratory and/or ventilatory support, fluid therapy, pharmacological support,

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						and transportation to an appropriate facility.
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Projects Required:

Projects may vary according to the instructor.

Textbook:

Contact Bookstore for current textbook.

Materials/Equipment Required:

Basic and advanced life support equipment and manikins.

Attendance Policy:

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

Grading Policy:

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

Maximum class size:

Based on classroom occupancy

Course Timeframe:

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