

Health Education (HLED) 1600 Paramedic I with Laboratory (14.5 Units) CSU

Prerequisite: Admission to the Taft College Paramedic Program

Co-Requisite: None

Advisory: Eligibility for ENGL 1500 or 1501, completion of BIOL 2250, and transfer level math course are strongly recommended.

Hours and Units Calculations:

208 hours lecture. (416 Outside of Class hours) 72 hours lab. (696 Total Student Learning Hours) 14.5 Units

Catalog Description: This course introduces the student to the roles and responsibilities of the Paramedic within the EMS system, apply basic concepts of development, pathophysiology, pharmacology, patient assessment, medication administration, airway and ventilation concepts, the pulmonary, cardiac, neurological, and endocrine systems to be able to formulate a “field impression” of patient status. The student will practice and master skills that will allow the student to meet clinical performance objectives. Competency testing is the focus of this course and will include physical assessment, medication administration, IV skills, and airway maintenance including intubation.

Type of Class/Course: Degree Credit

Text: Caroline, Nancy L., *Emergency Care in the Streets*, 12th ed., Volume 1 & 2, American Academy of Orthopaedic Surgeons (AAOS), 2021

Course Objectives:

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

1. Understand the roles and responsibilities of a Paramedic within an EMS system.
2. Apply the basic concepts of development, pathophysiology and pharmacology.
3. Assess and manage emergency patients.
4. Able to properly administer medications.
5. Communicate effectively with patients.
6. Establish and or maintain a patent airway, oxygenate, and ventilate a patient.
7. Demonstrate taking a proper history in order to perform a comprehensive physical exam on any patient.
8. Communicate clinical findings to other health care providers.
9. Integrate pathophysiological principles and assessment findings to formulate a field impression.
10. Implement the treatment plan for the medical patient.
12. Attain Advanced Cardiac Life Support Certification
13. Assess and manage emergency patients.

14. Take a proper history and perform a comprehensive physical exam on any patient.
15. Implement blood borne and pathogen precautions.
16. Safely calculate and administer medications.
17. Successfully perform venipuncture and phlebotomy.
18. Implement the treatment plan for the medical patient.
19. Establish and or maintain a patent airway, oxygenate, and ventilate a patient.
20. Initiate IV therapy successfully.
22. Identify signs of allergic reactions.

Student Learning Outcomes:

- Apply the basic concepts of pathophysiology and pharmacology in laboratory setting.
- Demonstrate assessing and managing emergency patients.
- Demonstrate taking a proper history to perform a comprehensive physical exam on any patient.
- Employ pathophysiological principles and assessment findings to treat patients.
- Perform a physical assessment to manage emergency patients.
- Calculate dosages properly to administer medications.
- Successfully perform venipuncture and phlebotomy.

Conducting a proper history and comprehensive physical exam to evaluate patient.

Course Scope and Content: (Lecture)

Unit I . Preparatory

- A. Paramedic Role
- B. Injury and Illness Prevention
- C. Paramedic Well Being
- D. Roles & Responsibilities
- E. Preventing Disease Transmission
- F. Medical/Legal/Ethical
- G. Pathophysiology
- H. Pharmacology
- I. Medication Administration
- J. Therapeutic Communication
- K. Life Span Development

Unit II Airway Management & Ventilation

- A. What is Airway Management?
- B. Types of Airway Management
- C. Intubation
- D. Emergency Surgical Airways
- E. Securing the Airway

Unit III Patient Assessment

- A. History Taking
- B. Technique of Physical Exam
- C. Clinical Decision Making
- D. Communications
- E. Documentation

Unit IV Medical Patients

- A. Pulmonology
- B. Cardiology
- C. Neurology
- D. Endocrinology
- E. Allergies and Anaphylaxis

Unit V Basic Cardiology

- A. EKG Interpretation used in Advanced Cardiac
- B. Normal Waveforms
- C. Sinus Rhythms
- D. Cardiac Pharmacology

Unit VI The Systematic Approach: BLS Primary Survey and ACLS Secondary Survey

- A. Airway, Breathing, Circulation, Disability, and Exposure (ABCDEs)
- B. Signs and Symptoms, Allergies, Medications, Past Illnesses, Last Oral Intake, and Events Leading up to Present Illness (SAMPLE)

Unit VII Effective Resuscitation Team Dynamics

- A. Clear Messages
- B. Clear Roles and Responsibilities
- C. Closed loop Communications
- D. Knowing One's Limitations
- E. Knowledge Sharing
- F. Constructive Intervention
- G. Re-evaluation
- H. Summarizing
- I. Mutual Respect

Unit VIII Advanced Life Support Cases

- A. Respiratory Arrest Case
- B. Ventricular Fibrillation (VF) Treated with Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) Case
- C. VF/Pulseless VT Case
- D. Pulseless Electrical Activity (PEA) Case
- E. Asystole Case
- F. Acute Coronary Syndromes Case
- G. Bradycardia Case
- H. Unstable Tachycardia Case
- I. Stable Tachycardia Case
- J. Acute Stroke

Course Scope and Content: (Laboratory)

Unit I Preparatory

- A. Injury and Illness Prevention
- B. Prevention of Disease Transmission
- C. Medication Administration
- D. Airway Management and Ventilation
- E. Airway and oxygenation

Unit II Patient Assessment

- A. History Taking
- B. Technique of Physical exam
- C. Clinical Decision Making
- D. Communications
- E. Documentation

Unit III Medical Patients

- A. Pulmonology
- B. Cardiology
- C. Neurology
- D. Endocrinology

Unit IV Allergies and Anaphylaxis

- A. Causes
- B. Symptoms
- C. Treatment

Unit V Advanced Life Support (ALS) Practice

- A. Participation in Effective Resuscitation Team Dynamics
- B. Participate in Intubation
- C. Participate in a Respiratory Arrest Case
- D. Identify Ventricular Fibrillation (VF) and Intervene with Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) Case
- E. Participate in VF/Pulseless VT Case
- F. Participate in Pulseless Electrical Activity (PEA) Case
- G. Respond to an Asystole Case
- H. Participate in an Acute Coronary Syndromes Case
- I. Participate in a Bradycardia Case
- J. Participate in an Unstable Tachycardia Case
- K. Participate in a Stable Tachycardia Case
- L. Participate in an Acute Stroke Case

Learning Activities Required Outside of Class:

The students in this class will spend a minimum of 26 hours per week outside of regular class time doing the following:

1. Skills Syllabus - Review of Procedures as Assigned
2. Create and complete an E-PCR report with all state standard elements including but not limited to a full body assessment, vital sign recording, medication and intervention recording, and full patient interaction narrative for any mock patient scenarios assigned by the instructor.

Methods of Instruction:

1. Lecture and discussion periods
2. Demonstrations
3. Hands on Skills

Methods of Evaluation:

1. The course primarily involves skill demonstrations and problem solving
 - a. Computational or non-computational problem-solving demonstrations including exams and quizzes.
 - b. Skill demonstrations, including class performance(s) and skills performance exam(s)
 - c. Objective examinations, including multiple choice, and true/false.

Laboratory Category: Extensive Laboratory

Pre delivery criteria: All of the following criteria are met by this lab.

1. Curriculum development for each lab.
2. Published schedule of individual laboratory activities.
3. Published laboratory activity objectives.
4. Published methods of evaluation.
5. Supervision of equipment maintenance, laboratory setup, and acquisition of lab materials and supplies.

During laboratory activity of the laboratory: All of the following criteria are met by this lab.

1. Instructor is physically present in lab when students are performing lab activities.
2. Instructor is responsible for active facilitation of laboratory learning.
3. Instructor is responsible for active delivery of curriculum.
4. Instructor is required for safety and mentoring of lab activities.
5. Instructor is responsible for presentation of significant evaluation.

Post laboratory activity of the laboratory: All of the following criteria are met by this lab.

1. Instructor is responsible for personal evaluation of significant student outcomes (lab exercises, exams, practicals, notebooks, portfolios, etc.) that become a component of the student grade that cover the majority of lab exercises performed during the course.
2. Instructor is responsible for supervision of laboratory cleanup of equipment and materials

Supplemental Data:

TOP Code:	125100: Paramedic
SAM Priority Code:	C: Clearly Occupational
Distance Education:	Not Applicable
Funding Agency:	Y: Not Applicable (funds not used)
Program Status:	1: Program Applicable

Noncredit Category:	Y: Not Applicable, Credit Course
Special Class Status:	N: Course is not a special class
Basic Skills Status:	N: Course is not a basic skills course
Prior to College Level:	Y: Not applicable
Cooperative Work Experience:	N: Is not part of a cooperative work experience education program
Eligible for Credit by Exam:	No
Eligible for Pass/No Pass:	Yes
Taft College General Education:	NONE
Discipline:	Emergency Medical Technologies