

**Paramedic Certificate Course  
Competency Based Syllabus  
January 202X**

<b>Course Number</b> Paramedic EMS 1XX		<b>Course Title:</b> Paramedic Preparatory, Pharmacology, Airway Management, and Trauma Patient Management Didactic course			<b>Credit Hours</b> X
<b>Hours:</b> XX hours <b>Outside hours:</b> XX	<b>Lecture/Discussion</b> XX hours	<b>Lab/Simulation</b> X	<b>Clinical</b> X	<b>Field</b> X	

**Course Description:** Topics include: roles and responsibilities of the paramedic, EMS systems and communications, documentation, ethics, ambulance operations, MCI command, rescue awareness, hazardous materials incidents, terrorism, and crime scene awareness. Pharmacology includes the pharmacodynamics and pharmacokinetics of medications, administration techniques, and therapeutic communications. Additional topics include medication mathematics, intravenous fluid and oxygen administration, basic and advanced airway management, surgical and non-surgical airways, and pharmacologic adjuncts used in airway management and ventilation. Traumatic emergencies review the pathophysiology, assessment and management of adult and pediatric patients with injuries involving various body systems.

Additional topics include: resilience, inclusion and diversity, gender identity and inclusion, and active shooter.

**Note:** the sequence of topics may vary from the order listed above. Refer to the course schedule. All hours are in residence.

**Outside hours:**

This course includes textbook recommended reading prior to each class session. The estimated time to complete is XX hours.

**Prerequisite(s):**

Current state EMT or AEMT certification/licensure  
Anatomy & Physiology approved course  
All required immunizations  
Background check and drug screen

**Program Goal:** To prepare Paramedics who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.

**Topic Outline**

- I. Preparatory
  - A. EMS systems
  - B. Workforce safety and wellness

- C. Public safety
- D. Medical, legal, and ethical issues
- E. EMS communications
- F. Documentation
- II. The human body & human systems
  - A. Anatomy & physiology
  - B. Pathophysiology
  - C. Fluid & electrolyte balance
  - D. Life span development
- III. Patient assessment
  - A. Patient assessment
  - B. Critical thinking and clinical decision making
- IV. Pharmacology
  - A. Principles of pharmacology
  - B. Medication administration
  - C. Medical math
- V. Airway management
  - A. Airway management and ventilation
    - 1. RSI medications
  - B. Respiratory emergencies
    - 1. Respiratory medications
- VI. Shock and resuscitation
  - A. Responding to field code
  - B. Management and resuscitation of critical patients
- VII. Trauma
  - A. Trauma systems and mechanism of injury
  - B. Bleeding
  - C. Soft tissue injury
  - D. Burns
  - E. Face and neck trauma
  - F. Head and spine trauma
  - G. Chest trauma
  - H. Abdominal and genitourinary trauma
  - I. Orthopedic trauma
  - J. Environmental emergencies
  - K. Transport operations
  - L. Incident management and MCI
  - M. Vehicle extrication and special rescue
  - N. Hazardous materials
  - O. Terrorism
  - P. Disaster response
  - Q. Crime scene awareness

**Note:** the sequence of instruction of topics may vary from the order above.

**Note:** the course also includes Pre-Hospital Trauma Life Support (PHTLS)

**Required Textbooks:**

A complete listing of required textbooks, including the current editions and ISBN numbers, is included in the Student Enrollment Agreement.

**Required Materials:**

Laptop or other smart device  
Program uniform  
Diagnostic tools

**EMS Program Office Hours: 9 AM 5 PM**

**Phone: xxx xxx-xxxx**

No.	Competency/Objectives
<b>After successful completion of this course the student will be able to:</b>	
I Preparatory	<ol style="list-style-type: none"><li>1. Discuss key tenets of professionalism and ethics and what makes one a professional.</li><li>2. Describe what roles personal and therapeutic communication serves to patients, peers, and members of the in-hospital medical team.</li><li>3. Describe the concept of a team and the role that each participant plays.</li><li>4. Detail examples of successful crew resource management.</li><li>5. Discuss the roles and responsibilities of a paramedic.</li><li>6. Outline the value of life-long learning.</li></ol>
II Human Body and Human Systems	<ol style="list-style-type: none"><li>1. Review the basic constructs of anatomy and physiology, including cellular structure and function.</li><li>2. Review the anatomy and physiology of each of the body systems.</li></ol>
III Pharmacology	<ol style="list-style-type: none"><li>1. Discuss and differentiate between pharmacodynamics and pharmacokinetics and then explain the concepts given any medication presented in the course.</li><li>3. Calculate correct drug dosages given a variety of medication routes of administration.</li></ol>
IV Patient Assessment	<ol style="list-style-type: none"><li>1. Integrate scene and patient assessment findings with knowledge of epidemiology to form a field impression.</li><li>2. Develop differential diagnoses through clinical reasoning to modify assessment and formulate a treatment plan.</li><li>3. Complete a detailed patient history.</li><li>4. Discuss the use of the various patient monitoring devices.</li></ol>
V Airway	<ol style="list-style-type: none"><li>1. Discuss the management of a patient with a compromised airway using basic airway devices.</li><li>2. Discuss the management of a patient with a compromised airway using advanced airway devices.</li></ol>
V Airway Respiratory	<ol style="list-style-type: none"><li>1. Discuss the pathophysiology, symptomatology, and prehospital treatment for each of the following conditions:<ol style="list-style-type: none"><li>a. Acute respiratory failure</li><li>b. Allergic and anaphylactic reactions</li><li>c. COPD, Pneumonia, TB, and ARDS</li><li>d. Pulmonary emboli, pulmonary hypertension, and cor pulmonale</li><li>e. Toxic inhalation</li></ol></li></ol>

	<ol style="list-style-type: none"> <li>Describe how to properly assess a patient complaining of a variety of respiratory symptoms.</li> <li>Discuss the mechanism of action, indications, contraindications, side effects, and dosage for a variety of respiratory related medications.</li> <li>Discuss how to successfully paralyze and place an advanced airway device into a patient in extremis.</li> </ol>
VII Shock & Resuscitation	<ol style="list-style-type: none"> <li>Integrate knowledge of causes and pathophysiology in the management of shock, respiratory failure, or arrest.</li> <li>Identify appropriate early management to prevent arrest.</li> <li>Demonstrate critical thinking in management of shock and respiratory failure.</li> </ol>
X Trauma	<ol style="list-style-type: none"> <li>Discuss the proper response to a trauma scene.</li> <li>Differentiate between the mechanisms of injury caused by blunt and penetrating trauma.</li> <li>Discuss the management of patients with trauma due to the following conditions or specific body system(s)               <ol style="list-style-type: none"> <li>Multi-system trauma</li> <li>Musculoskeletal system</li> <li>Burn trauma</li> <li>Soft tissue trauma</li> <li>Trauma to the face and neck</li> <li>Trauma to the head and spine</li> <li>Chest trauma</li> <li>Abdominal and genitourinary trauma</li> <li>Orthopedic trauma</li> <li>Environmental trauma</li> </ol> </li> </ol>
XII	<p>Operations</p> <ol style="list-style-type: none"> <li>Describe the operational roles and responsibilities to ensure patient, public, and personnel safety.</li> <li>Describe the safe use and maintenance of the various medical and non-medical equipment.</li> <li>Describe the assessment and management of a patient with an infectious disease.</li> </ol>

### Course Completion and Grading

Completion of the Paramedic program is subject to the following criteria:

1. Successful completion of all section **major** exams: unit exams specify the minimum passing grade on each exam.
2. Completion of all assignments including quizzes and other assignments.
3. Participation in practical sessions and successful completion of all skills exams, rated on a 'Pass/Fail' basis.
4. Completion of the course didactic **final** cognitive exam with a minimum grade of XX%.
5. Completion of the Program summative **capstone** cognitive exam with a with the minimum required score.
6. Successful completion of the Program summative capstone practical exam.
7. Successful completion of the Program summative capstone affective evaluation.
8. Completion of all program requirements in the Student Minimum Competency (SMC).
9. Successful completion of ACLS, PALS, and PHTLS, according to the pre-set guidelines of the course.
10. Compliance with all attendance requirements.

The final course/Program didactic grade is weighted and includes the following components:

1. Major/unit exams XX%
2. Course didactic final cognitive exam XX%

### Grading:

A = 90 – 100%

B = 80 - 89%

C = 72 – 79%

F = ≤ 72%

### Method of Evaluation:

1. Major/unit exams
2. Course didactic final cognitive exam
3. Program summative cognitive exam
4. Quizzes (in-class or online)
5. Special assignments, case presentations, or research paper
6. Affective evaluation

Refer to the course schedule for the dates and topics for quizzes, unit exams, and final course exam.

### Online quizzes

1. Taken in class the class day following the classroom discussion.
2. Quizzes are graded and the score released upon completion of the quiz.
3. Quizzes may be taken a total of X attempts and the average of the scores is recorded.
4. Quiz average must be maintained at XX%: failure to do so will result in counseling and progressive discipline.

### Retest Policy for Major/Unit Exams

1. Major exams measure knowledge/competency in specific content areas and therefore, the student must attain a successful score to continue in the program.
2. The passing score in the Paramedic Program follows the specified score for major/unit

exams including the final at the completion of the didactic and lab phases.

3. If the student scores less than the required score on a major exam, the student is retested on a second exam covering the same topics but with different questions.
4. If the score on the retest is less than the required score, the student fails the Program and is dismissed with counseling and suggestions on how to improve performance if they wish to reenter a Paramedic program.
5. On subsequent major exams, the student will only have one additional opportunity to retest a major/unit exam and the same procedure/grading applies.
6. The third instance of failure of a major exam results in dismissal from the program.
7. The didactic final exam is eligible for retest **if** the student has failed no more than one major exam with a successful score on the retests.
8. The instructor and student will determine a mutually agreed upon time to retake an exam. The exam must be completed by that date, not to exceed XX  
9. calendar days.

**Additional Completion Requirements: all courses**

1. Successful completion of the following courses: ACLS, PALS, BLS, and PHTLS.
2. Assigned work.
3. Assigned projects and/or case presentations.
4. Note: it is estimated that two hours of outside study/preparation are required for every hour of class.
5. All summative evaluation ratings on the Professional/Affective Behavior Evaluation tool at the end of the course must be fair or good. Any ratings of needs improvement results in a failing grade.

**Policy for Psychomotor Testing**

1. Students must complete requirements for Student Minimum Competency, based on recommendations by CoAEMSP. The Student Minimum Competency Recommendations include both formative experience and evaluation for terminal competency.
2. A psychomotor exam occurs at the completion of the didactic and laboratory phases.
3. The student can be retested on the same day at the discretion of the exam coordinator.
4. The exam coordinator may elect to refer the student for remediation prior to retesting.
5. A second failure of a skill station *requires* remediation.
6. The third retest of a skill station may be conducted by the Program Medical Director or a faculty member.
7. The third failure constitutes failure of the Program.
8. The summative capstone psychomotor exam consists of one complex out-of-hospital scenario.
9. One retest of the capstone scenario is permitted.
10. Failure of the capstone scenario on retest constitutes failure of the Program.

**Attendance Policy:**

Students must attend at least XX% of the classroom and laboratory hours during the term. Students will be assigned make-up work for all classroom hours missed: usually in the form of written essays on the topics missed during the absence.

Tardiness is a disruption of the learning environment. Any student arriving to class more than XXX minutes late will be docked one hour of class attendance.

Students are expected to attend class as scheduled. Absence and tardiness will be recorded at each class session and the instructor will counsel students demonstrating attendance

problems. Students failing to maintain satisfactory attendance and missing more than XX% of the course hours in the term will be dismissed from the program.

<b>Online Participation:</b>	The student must have access to a reliable internet connection. At a minimum, study materials, practice exercises, major exams and quizzes and grades are made available and/or posted online.
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<b>Instructor Name:</b> XXXXXX	<b>Phone:</b> (office) XXX XXX-XXXX	<b>E-mail:</b> XXXXXXX
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**Instructor Office Hours:**

Hours vary based on class activities. Please contact instructor to schedule appointments as necessary.

**Accommodations for Students with Disabilities**

The program provides reasonable and appropriate accommodation for students with a documented disability. In accordance with the Americans with Disabilities Act (ADA), it is the student's responsibility to notify the program, in writing, of any diagnosed disability and provide the appropriately prescribed accommodations requested. **This documentation must be provided at the time of enrollment and at least XX business days prior to the first day of the program.**

**Additional Program policies**

Refer to the *Student Handbook* for information regarding all Program policies including accreditation, diversity and discrimination, learning resources, policies regarding payment, withdrawal, dress code, use of electronic equipment, health, drugs and alcohol, injury reporting, academic progress and academic probation, student conduct, conflict resolution, patient confidentiality, use of social media, graduation/completion requirements, and other Program policies.

**Program Information Disclaimer**

From time-to-time various regulatory, accreditation, public health, or other operational requirements make changes to Program information and policies necessary. When this occurs, changes may be implemented during the term the student is enrolled in or the catalog year. In this situation, the staff will work with the students to meet and accommodate the new requirements when possible.

The course schedule may also be altered based on course needs, delivery methodologies, instructor schedules, or other factors.