



Western Technical College

10531914 Advanced Prehospital Pharmacology

Course Outcome Summary

Course Information

Description	This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient.
Career Cluster	Law, Public Safety, Corrections and Security
Instructional Level	Associate Degree Courses
Total Credits	3
Total Hours	72

Textbooks

Bundle: Paramedic Care: Principles & Practice Volume 1-5 plus Access Card - 2017, Anatomy and Physiology for Health Professions plus Access Card – 2016, EMStesting.com Paramedic Student Access Card – 2nd Edition, Platinum Planner: Paramedic – Access Card – 2016, Basic Arrhythmias – 2017. 5th Edition. Copyright 2017. Bledsoe, Bryan, Robert Porter and Richard Cherry. Publisher: Pearson. **ISBN-13:** 978-0-13-729851-8. Required.

Prehospital Emergency Pharmacology. 8th Edition. Copyright 2019. Bledsoe, Bryan E. Publisher: Pearson. **ISBN-13:** 978-0-13-487409-8. Required.

531-911 Paramedic Student Reference Guide, Skills Check Sheets and Paramedic Clinical Guidebook. Western. Publisher: Western. Required.

Learner Supplies

Program Clothing. **Vendor:** To be discussed in class. Required.

Success Abilities

1. Cultivate Passion: Expand a Growth-Mindset
2. Cultivate Passion: Increase Self-Awareness
3. Refine Professionalism: Improve Critical Thinking

4. Refine Professionalism: Participate Collaboratively
5. Refine Professionalism: Practice Effective Communication

Program Outcomes

1. Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
2. Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
3. Communicate effectively with others.
4. Demonstrate professional behavior.
5. Meet state and national competencies listed for paramedic certification(s).

Course Competencies

1. Apply principles of emergency medicine pharmacology.

Assessment Strategies

- 1.1. Oral, Written or Graphic Assessment

Criteria

Your performance will be successful when:

- 1.1. you answer questions related to the learning objectives on a test
- 1.2. you achieve the threshold identified by your Training Center on the assessment

Learning Objectives

- 1.a. Describe the importance of medication safety in providing quality EMS care.
- 1.b. Describe legislative acts controlling drug use and abuse in the United States.
- 1.c. Differentiate between the chemical, generic (nonproprietary), official (USP), and trade (proprietary) names of a drug.
- 1.d. List authoritative sources of drug information.
- 1.e. List the classifications of drugs based upon either mechanism of action or the body system affected.
- 1.f. Differentiate between the substances included in Schedules I through V of the Controlled Substances Act.
- 1.g. Discuss factors affecting drug potency.
- 1.h. Discuss considerations for storing and securing medications and controlled substances.
- 1.i. List the phases of medication activity.
- 1.j. Describe various medication interactions.
- 1.k. Describe toxicity concerns regarding medication administration.
- 1.l. Define pertinent terms related to EMS utilization and administration of drugs.
- 1.m. List the four main sources of drug products.
- 1.n. List the physical forms of various drug products.
- 1.o. Discuss the process of pharmacokinetics and pharmacodynamics.
- 1.p. discuss standardization of drugs.
- 1.q. Describe how drugs are classified.

2. Examine medication administration.

Assessment Strategies

- 2.1. Oral, Written or Graphic Assessment

Criteria

Your performance will be successful when:

- 2.1. you answer questions related to the learning objectives on a test
- 2.2. you achieve the threshold identified by your Training Center on the assessment

Learning Objectives

- 2.a. Differentiate between the percutaneous and parenteral routes of medication administration.

- 2.b. Identify the six "rights" of drug administration.
- 2.c. Explain the proper technique for administering medications via various routes (including advantages and disadvantages associated with each route).
- 2.d. Explain the need for patient reassessment after medication administration.
- 2.e. Describe the need for proper documentation of medication administration activities.
- 2.f. Discuss physiological changes of aging that impact pharmacokinetics.
- 2.g. Discuss polypharmacy as related to aging.

3. Administer medication.

Assessment Strategies

- 3.1. Skill Demonstration

Criteria

Your performance will be successful when:

- 3.1. you follow the published protocol provided by your Training Center

Learning Objectives

- 3.a. Apply vascular access procedures.
- 3.b. Demonstrate proficiency in calculating drug dosages.
- 3.c. Apply appropriate use of pharmacology.
- 3.d. Administer medications.

4. Identify the properties of various emergency medicine drugs.

Assessment Strategies

- 4.1. Oral, Written or Graphic Assessment

Criteria

Your performance will be successful when:

- 4.1. you answer questions related to the learning objectives on a test
- 4.2. you achieve the threshold identified by your Training Center on the assessment

Learning Objectives

- 4.a. List the names, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, doses, and any specific administration considerations for medications and intravenous fluids available for administration within the Wisconsin paramedic scope of practice.