

**Northwest Arkansas Community College  
Division of Health Professions**

**Discipline Code**

EMTP

**Course Number**

EMTP 1042

**Course Title**

Paramedic Pharmacology and Parenteral Meds Lab

**Course Description**

This class is taught in conjunction with EMTP 1041. Drug calculations, Starting IV, IV drip, injection, oral administration and drug memorization and numerous other skills are taught. Numerous other skills must be documented and evaluated in order to receive a passing grade in this class. This lab has a very high number of skills that must be performed, and the student should come prepared to aggressively perform skills.

**Prerequisite:**

Admission by acceptance into the Paramedic Program only.

**Credit Hours**

2

**Contact Hours**

30

**Load Hours**

6

**Semesters Offered**

On Demand

**ACTS Equivalent**

This course does not typically transfer

**Grade Mode**

A-F

**Target Audience**

This course is geared for the entry-level paramedic student.

**Learning Outcomes:**

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

1. Define the term 'drug' using pharmacological terminology, describe how drugs are named & classified, identify and describe their common routes of administration to include the advantages & disadvantages associated with each route.
2. Describe the four aspects of movement of drugs through the body (pharmacokinetic

parameters-absorption, distribution, biotransformation, elimination), what biochemical & physiological factors affect each aspect and how each aspect will ultimately affect the drugs effect on the body.

3. Define the term receptor and describe the molecular, biochemical, and/or physiological basis of how drugs interact with the body to cause their affects, side effects and adverse effects (pharmacodynamics).
4. Identify and describe the differences in drug responses in pediatric and geriatric populations from the 'typical' adult.
5. Use pharmacology data resources to identify and describe the following information of drugs: generic, trade and common names of drugs; its therapeutic or chemical type; its common indicated uses; what physiological effects it produces and mechanism of action; any contraindications, side and adverse effects; any drug interactions that are clinically significant; and any precautions for the patient or themselves while working with clients taking the medication.
6. Describe the anatomical and physiological organization of the autonomic nervous system; giving the aspects of autonomic nervous system function (molecular, biochemical & physiological) that can be pharmacologically manipulated for therapeutic treatment
7. Identify and utilize the correct drug dosage formula for a given drug administration situation.
8. Properly administer drugs utilizing: Intramuscular, Intravenous, Subcutaneous, Oral, Rectal, and intradermal routes.
9. Properly insert an NG tube into a manikin
10. Properly insert an IV into a manikin and an actual patient

### **General Education Outcomes Supported**

- Students develop higher order thinking skills.
- Students demonstrate information literacy.

### **Standard Practices**

#### **Topics**

Topics for this course include drug calculation, metric usage, drug administration techniques, NG tube insertion, Medication handling and administration techniques.

### **Required assessment**

Students will record all evaluated skills into the electronic record system used by the program. Number of each skill will need to be completed by the conclusion of the summer session.

### **Grading Guidelines**

Grades will be derived by the number of correctly evaluated and completed skills on time.