# PHARMACOLOGY FOR PhT

## Course Syllabus

<table>
<thead>
<tr>
<th>Course Number:</th>
<th>THRP-0121A</th>
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<tbody>
<tr>
<td>OHLAP Credit:</td>
<td>No</td>
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<tr>
<td>OCAS Code:</td>
<td>None</td>
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<tr>
<td>Course Length:</td>
<td>40 Hours</td>
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<tr>
<td>Career Cluster:</td>
<td>Health Science</td>
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<tr>
<td>Career Pathway:</td>
<td>Therapeutic Services</td>
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<tr>
<td>Career Major(s):</td>
<td>Pharmacy Technician, Advanced Pharmacy Technician</td>
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### Pre-requisite(s):
This course provides the student with an overview of the major categories of classifications of drugs. Emphasis is placed on actions of drugs in the human body as well as trade and generic names.

### Textbooks:
- *Pharmacy Calculations for Technicians 5th Edition*, text with Study Partner CD
- *Certification Exam Review 3rd Edition*, text with Study Partner CD
- *Pharmacy Practice for Technicians 5th Edition*, text with Study Partner CD

### Course Objectives:

#### A. Describe the Evolution of Medicinal Drugs
1. Recognize the important figures, events and resources in the development of pharmacology through the ages.
2. Know what is meant by pharmacology.
3. Define drugs, identify their sources and understand how they work.
4. Be familiar with the federal laws that regulate drugs and the agencies that administer them.
5. Be familiar with the procedure for getting a new drug to market.

#### B. Describe the Goal of Drug Therapy
1. Understand receptors and their function in mechanisms of drug actions.
2. Be aware of the pharmacokinetics involved in developing and testing drugs.
3. Understand that some drug effects are beneficial while others can be harmful.
4. Be familiar with the common terms used to describe drug interactions.

#### C. Demonstrate Knowledge of Drug Classifications
1. List the major classes of drugs.
2. Describe the important action and/or therapeutic uses for the major classes of drugs.
3. Describe the most common or most serious adverse effect for the major classes.
4. Describe special dispensing precautions for the major classes of drugs.
D. **Describe the Use and Function of Antibiotics**
   1. Identify the major types of antibiotics by drug class. ¹
   2. Know indications for the major antibiotics. ¹
   3. Define therapeutic effects, side effects and administration routes of major antibiotics. ¹
   4. Use antibiotic and general drug terminology correctly in written and oral communication. ¹

E. **Describe the Use and Function of Antivirals, Antiretrovirals and Antifungals**
   1. Introduce the student to antivirals, antiretrovirals and antifungals. ¹
   2. Differentiate antivirals, antiretrovirals, and antifungals by their indications, therapeutic effects, side effects, dosages, and administration. ¹
   3. Use antiviral, antiretroviral, and antifungal terminology correctly in written and oral communication. ¹
   4. Define difference in mechanisms of action of antibiotics, antivirals, antiretrovirals and antifungals. ¹

F. **Describe the Use and Function of Antihistamines, Decongestants, Antitussives and Expectorants**
   1. Understand the differences in the antihistamines, decongestants, antitussives, and expectorants. ¹
   2. Know how and when each drug class should be used. ¹
   3. Recognize and understand the side effects that may occur with each group. ¹
   4. Know why some drugs are prescribed for their side effects. ¹

G. **Discuss the Use and Function of Anesthetics, Analgesics and Narcotics**
   1. Understand the central and peripheral nervous systems, their functions and their relationship to drugs. ¹
   2. Become aware of the role of neurotransmitters. ¹
   3. Learn how drugs affect body systems and where they work in the body. ¹
   4. Understand the concept of general and local anesthesia, and know the functions of these agents. ¹
   5. Define the action of neuromuscular blocking agents in reducing muscle activity. ¹
   6. Distinguish between narcotic and nonnarcotic analgesia. ¹
   7. Become familiar with the various types of agents for migraine headaches. ¹

H. **Discuss the Use and Function of Antidepressants, Antipsychotics and Antianxiety Agents**
   1. Differentiate the antidepressant, antipsychotics and antianxiety agents. ¹
   2. Be prepared to discuss the antidepressant classes, their uses and their side effects. ¹
   3. Know why and how lithium and other drugs are used in treating bipolar disorders. ¹
   4. Be familiar with antipsychotics and the drugs that prevent their side effects. ¹
   5. Define anxiety, learn its symptoms, and know the drugs used in its treatment. ¹
   6. Recognize the course and treatment of panic disorders, insomnia and alcoholism. ¹

¹ ODCTE Objective
All unmarked objectives are TTC instructor developed.

**Teaching Methods:**
The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.
Grading Procedures:
1. Students are graded on theory and lab practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.
4. Career Major grades established during coursework are a major criteria in successfully obtaining certification.

Description of Classroom, Laboratories, and Equipment:
Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit:
The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility:
The student must maintain a grade point average of 2.0 or better.