EASTERN ARIZONA COLLEGE
Introduction to Pharmacology
Course Design
2015-2016

Course Information
Division: Allied Health
Course Number: HCE 171
Title: Introduction to Pharmacology
Credits: 3
Developed by: Dr. Siripoon
Lecture/Lab Ratio: 3 Lecture/0 Lab
Transfer Status

<table>
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<tr>
<th>ASU</th>
<th>NAU</th>
<th>UA</th>
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<tbody>
<tr>
<td>Non Transferable</td>
<td>HS Departmental Elective</td>
<td>Non Transferable</td>
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Activity Course: No
CIP Code: 51.0800
Assessment Mode: Pre/Post Test (50 Questions/50 Points)
Semester Taught: Fall
GE Category: None
Separate Lab: No
Awareness Course: No
Intensive Writing Course: No

Prerequisites
None

Educational Value
TO GENERAL EDUCATION: Provides opportunity for students to explore pharmacology concepts.
TO MAJOR / PROGRAM: This course is open to anyone who is interested in pharmacology.
TO OTHER COURSES OR CURRICULA: This course is interrelated with other allied health courses.

Description
This course assists the student in acquiring the drug knowledge and usage of various drugs. Emphasis is placed on drug classes and the mechanisms of action so that students will understand why certain drugs are prescribed for particular disease states.

Supplies
None
**Competencies and Performance Standards**

1. **Acquire the knowledge on principles of pharmacology.**
   
   **Learning objectives**
   
   *What you will learn as you master the competency:*
   
   a. Describe general principles of pharmacology.
   b. Describe mechanisms of drug actions.
   c. Describe pharmacokinetics.
   d. Discuss pharmacodynamics.
   e. Discuss drug interactions and biologic variation.

   **Performance Standards**
   
   *Competence will be demonstrated:*
   
   o In completion of class assignments and activities

   *Criteria - Performance will be satisfactory when:*
   
   o Learner participates in class discussions and activities.
   o Learner provides acceptable verbal responses to questions about principles of drug action.

2. **Acquire knowledge of Anti-Infectives.**

   **Learning objectives**
   
   *What you will learn as you master the competency:*
   
   a. Identify symptoms of bacterial infections.
   b. Identify antibiotic treatment and action.
   c. Discuss classes of antibiotics.
   d. Describe antibiotic side effects and dispensing issues.
   e. Describe drug therapy for fungi and viruses.

   **Performance Standards**
   
   *Competence will be demonstrated:*
   
   o In completion of tests.
   o In completion of class activities and assignments.

   *Criteria - Performance will be satisfactory when:*
   
   o Learner participates in class discussions and activities.
   o Learner provides acceptable verbal responses to questions.

3. **Recognize narocotic pain relievers, neurological and psychiatric drugs.**

   **Learning objectives**
   
   *What you will learn as you master the competency:*
   
   a. Describe the nervous system.
   b. List drug effects on the nervous system.
   c. Describe and give examples of anesthesia.
   d. Describe drugs used for pain management.
   e. Describe antidepressants, antipsychotics, anti-anxiety agents, and alcoholism.
   f. Describe anticonvulsants and drugs to treat other CNS disorders.
Performance Standards

Competence will be demonstrated:
- In completion of the assignments.
- In completion of tests.

Criteria - Performance will be satisfactory when:
- Learner participates in class discussions and activities.

4. Examine respiratory, GI, renal, and cardiac drugs.

Learning objectives

What you will learn as you master the competency:

a. Discuss drugs for treatment of asthma, emphysema, chronic bronchitis and other lung diseases.
b. Identify antitussives, expectorants, decongestants, and antihistamines.
c. Describe gastrointestinal drugs and related diseases.
d. Discuss urinary system drugs.
e. Acquaint self with cardiovascular drugs.

Performance Standards

Competence will be demonstrated:
- In completion of the assignments.
- In completion of tests.

Criteria - Performance will be satisfactory when:
- Learner participates in class discussions and activities.

5. Analyze muscle relaxants, non-narcotic analgesics, hormones, and topicals.

Learning objectives

What you will learn as you master the competency:

a. Assess muscle relaxants, non-narcotic analgesics, and anti-inflammatory drugs.
b. Identify hormones.
c. Describe topicals, ophthalmic, and optics.

Performance Standards

Competence will be demonstrated:
- In completion of the assignments and tests.

Criteria - Performance will be satisfactory when:
- Learner participates in class discussions and activities.

6. Examine chemotherapy and nutritional and alternative substances.

Learning objectives

What you will learn as you master the competency:

a. Discuss drugs used for cancer.
b. Discuss vitamins, nutritional and alternative supplements, antidotes, and emergencies.
Performance Standards

Competence will be demonstrated:
- In completion of the assignments and tests.

Criteria - Performance will be satisfactory when:
- Learner participates in class discussions and activities.

7. Validate the knowledge in gastrointestinal agents.

Learning objectives
What you will learn as you master the competency:
- Recognize antiulcer drugs.
- Recognize antidiarrheals.
- Identify drugs used in treat constipation.

Performance Standards

Competence will be demonstrated:
- In analyzing a case study and answer questions correctly.
- In completion of the assignments.
- In completion of tests.

Criteria - Performance will be satisfactory when:
- Learner participates in class discussions and activities.

8. Acquire the knowledge in anti-infective agents.

Learning objectives
What you will learn as you master the competency:
- Discuss the basic strategies of antimicrobial therapy.
- Identify gram-positive cocci, anaerobes, and gram-negative pathogens.
- Describe bacterial cell wall inhibitors.
- Characterize bactericidal protein synthesis inhibitors.
- Characterize bacteriostatic protein synthesis inhibitors.
- Describe quinolones and other urinary tract antiseptics.
- Acquaint self with the enemies: mycobacteria, viruses, fungi, protozoans and helminthes.

Performance Standards

Competence will be demonstrated:
- In analyzing a case study and answer questions correctly.
- In completion of the assignments.
- In completion of tests.

Criteria - Performance will be satisfactory when:
- Learner participates in class discussions and activities.
9. **Acquire the knowledge of anticancer drugs.**

*Learning objectives*

*What you will learn as you master the competency:*

a. Describe the principles of cancer chemotherapy.

b. Identify alkylating agents.

c. Identify antimetabolites.

d. Describe antibiotic-anticancer, and other anticancer agents.

*Performance Standards*

*Competence will be demonstrated:*

- In analyzing a case study and answer questions correctly.
- In completion of the assignments.
- In completion of tests.

*Criteria - Performance will be satisfactory when:*

- Learner participates in class discussions and activities.

*Types of Instruction*

Classroom Presentation & Demonstration

*Grading Information*

*Grading Rationale*

Quizzes count as 60% of the final grade. Written assignments count as 10% of the final grade. The final exam is worth 30% of the final grade.

*Grading Scale*

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<th>Grade</th>
<th>Percentage of Total Point Value</th>
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<tr>
<td>A</td>
<td>90-100%</td>
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<tr>
<td>B</td>
<td>80-89.99%</td>
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