

## **PMT 113 Pharmacy Practice for Pharmacy Technicians III**

### **Syllabus**

**Academic Year 2013-2014**

**COURSE DESCRIPTION:** This course provides the student with a basic introduction to the pharmacology of drugs in common use. The course will be taught by examining body systems, e.g. gastrointestinal, and will include discussion of the drugs commonly used in treating diseases affecting the system. Drugs will be discussed by grouping them into general classes and with important differences among group members being highlighted. The dosage, routes of administration, generic and trade names, common adverse reactions and important drug interactions will be emphasized. Calculation of patient dosage and patient days-supply will be used stressed when appropriate.

**CREDITS: 3**

**INSTRUCTOR:** **Richard Yost, Pharm.D., Room 111, Chelsea**

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**PREREQUISITES:** Complete Pharmacy Practice for Pharmacy Technicians II.

**REQUIRED TEXTS:** *APhA, The Pharmacy Technician, 5<sup>th</sup> edition*, Morton 2013

*APhA, Workbook & Certification Review, 5<sup>th</sup> edition*, Morton 2013

**COURSE OBJECTIVES:** Upon completion of this course, the successful student will be able to:

- Explain how a drug produces a pharmacologic effect
- Explain the importance of bioequivalence
- For each class of drugs discussed the student should be able to recognize generic and brand names, doses, routes of administration and common adverse reactions seen with that class of drug
- State how a given drug might be monitored to determine if it is working
- Be familiar with abbreviations and medical terminology used in association with drug therapy
- Know which drugs have special requirements for storage or dispensing
- Be able to calculate days-supply and dosage for commonly used drugs
- Know how to use inhalers and aerosol devices

**TEACHING PROCEDURES:**

- Lectures and discussions based on material in the text will emphasize immediate feedback from the students to determine comprehension.

- Students will be asked to participate in classroom discussion by bringing experiences from the clerkship into discussion in the classroom.
- Small group work to discuss assigned topics.

### **EDUCATIONAL PHILOSOPHY:**

Students are expected to learn and demonstrate study and work skills that will give them the opportunity to succeed in both the classroom and the workplace. Some of the skills that will allow the student to become a “healthcare professional” are having good attendance, being punctual, reading assigned parts of the text, asking questions, taking notes, listening carefully, studying and reviewing class material, and taking part in classroom discussion.

We expect students to demonstrate the respect that every person desires by being courteous to the instructor and to fellow students and by showing consideration to others. In this regard please adhere to the following policies:

- ALL CELL PHONES MUST BE OFF DURING CLASS TIME.
- UNLESS GROUP WORK IS BEING DONE IN THE CLASSROOM, ONLY ONE PERSON SPEAKS AT A TIME.
- ARRIVING TO CLASS LATE SHOWS DISRESPECTFUL BEHAVIOR AND DISRUPTS THE FLOW OF LEARNING.
- PERIODIC BREAKS WILL BE TAKEN. STUDENTS MUST NOT LEAVE CLASS WHILE THE LECTURE IS IN PROGRESS. THIS IS DISRUPTIVE AND DISRESPECTFUL.
- CHEATING IS UNACCEPTABLE BEHAVIOR. IT INCLUDES CHEATING ON TESTS AND COPYING HOMEWORK FROM TEXTBOOKS OR OTHER STUDENTS.
- YOU WILL BE GIVEN PERIODIC BREAKS DURING CLASS. STUDENTS MUST NOT LEAVE CLASS WHILE THE LECTURE IS IN PROGRESS. THIS IS DISRUPTIVE TO THE CLASS AND DISRESPECTFUL.

All disrespectful behavior will be addressed according to the academic policies and procedures of the College.

By working together much can be achieved. If the student is having any problems that make it difficult to do this work and or to attend classes, he or she should speak to the instructor immediately. Many times the instructors and staff can work with and assist the student to solve these problems and to succeed in completing the program.

### **HOMEWORK:**

Your homework will be to read the assigned pages in the text BEFORE coming to class. Complete any other handouts or assignments that are given. If you are absent, it is your responsibility to do the homework and pass it in during the NEXT scheduled class you attend.

### **HOW YOUR GRADE IS COMPUTED:**

- Tests will be on material covered during class. The exam and quizzes will be multiple choice (choosing the best out of 4 possible answers), and short answer questions.
- If you earn less than 80% on any quiz you should make an appointment with the instructor to go over the exam and demonstrate that you understand the material.

- If you are absent for an exam/quiz and do not call the instructor BEFORE the class you will lose the privilege of taking a make-up exam/quiz.
- Use of electronic or paper dictionaries during exams is not allowed.
- The final exam will be all inclusive of the material covered in this five week course.

Percentage Breakdown of your Final Grade

Final Exam	40%
Homework	15%
Weekly Quizzes	40%
Attendance	5%

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100%

A	Equivalent to a numerical grade of	94 - 100
A-	Equivalent to a numerical grade of	90 - 93
B+	Equivalent to a numerical grade of	87 - 89
B	Equivalent to a numerical grade of	83 - 86
B-	Equivalent to a numerical grade of	80 - 82
C+	Equivalent to a numerical grade of	77 - 79
C	Equivalent to a numerical grade of	70 - 76
D	Equivalent to a numerical grade of	60 - 69
F	Equivalent to a numerical grade of	0 - 59

A grade of “B-” or better in all courses is required for progression in the program.

**ABSENCE AND LATENESS POLICY:**

Attendance will be taken at the beginning of the period. If you arrive after attendance has been taken, it is counted as a late class. Frequent absences and lateness will result in a lowered grade or failure of the course. You will be asked to speak with the instructor to determine and document a plan to deal with the situation if the instructor considers absence or lateness to be a problem.

It is necessary to call the instructor if you are absent. Please leave a message on the appropriate instructor phone number **BEFORE** class begins that you will not be attending class that day. This is what you will be expected to do in a work situation so it is a mandatory part of this program.

***Bunker Hill Community College is committed to providing equal access to the educational experience of all students in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1994. Any students with a documented disability requiring an accommodation should immediately speak to the professor. Students with disabilities, who have not already done so, should schedule***

***an appointment at the Office for Students with Disabilities (Room D106A) to obtain appropriate services.***

## **COURSE OUTLINE**

### Topic 1 Chapter 18 Common Drugs and Their Uses

- **Anti-Infective and Other Immunologic Medications**
  - o Differentiate antibacterial from antibiotic, antifungal, antiviral
  - o List the generic and brand names of common antibiotics, antifungals and antiviral agents
  - o List common adverse effects and significant drugs interactions for anti-infection agents
  - o Know the routes of administration and dosage for common antibiotics, antifungals and antiviral agents
  - o Be familiar with abbreviations and medical terminology used in association with infectious and immunological diseases

### Topic 2

- **Cardiovascular Medications**
  - o Explain the therapeutic effect of common medications use to treat angina, hypertension, hyperlipidemia and thrombosis
  - o List the generic and brand names of commonly used cardiovascular agents
  - o Identify dosage form, routes of administration and doses of commonly used cardiovascular agents
  - o List common adverse events of commonly used cardiovascular agents
  - o List significant drug interactions with commonly used cardiovascular agents

### Topic 3

- **Diabetes Mellitus and Thyroid Medications**
  - o List the generic and brand names for common thyroid replacement medications
  - o List the brand and generic names for common forms of insulin
  - o Calculate the days-supply of insulin given a dosage and type of insulin
  - o List two drugs used to treat hyperthyroidism
  - o Identify the generic and trade names of medications commonly used for diabetes mellitus

- o Identify the route of administration and dose for commonly used diabetes mellitus medications
- o Recognize and use abbreviations and medical terminology used in association with thyroid disease and diabetes mellitus
- o List common adverse reactions to diabetes mellitus and thyroid medications
- o List serious drug interactions with diabetes mellitus and thyroid medications

#### Topic 4

- **Muscular and Skeletal Medications**

- o Explain the therapeutic effect of common medications use to treat pain, muscle spasm, gout, and osteoporosis
- o List the generic and brand names of commonly used muscular and skeletal medications
- o Identify dosage form, routes of administration and doses of commonly used muscular and skeletal medications
- o List common adverse events of commonly used muscular and skeletal medications
- o List significant drug interactions with commonly used muscular and skeletal medications
- o Be familiar with abbreviations and medical terminology used in association with muscular and skeletal diseases

#### Topic 5

- **Nervous System Medications**

- o Explain the therapeutic effect of common medications use to treat diseases of the nervous system
- o List the generic and brand names of commonly used nervous system medications
- o Identify dosage form, routes of administration and doses of commonly used nervous system medications
- o List common adverse events of commonly used nervous system agents
- o List significant drug interactions with commonly used nervous system agents
- o Be familiar with abbreviations and medical terminology used in association with diseases of the nervous system

#### Topic 6

- **Respiratory Medications**

- o Explain the therapeutic effect of common medications use to treat respiratory diseases
- o List the generic and brand names of commonly used respiratory medications
- o Identify dosage form, routes of administration and doses of commonly used respiratory medications
- o List common adverse events of commonly used respiratory medications
- o List significant drug interactions with commonly used respiratory agents
- o Be familiar with abbreviations and medical terminology used in association with cardiovascular disease
- o Be familiar with the use of and the care and maintenance of a metered dose inhaler

Topic 7

- **Gastrointestinal Medications**

- o Explain the therapeutic effect of common medications use to treat diseases GI system
- o List the generic and brand names of commonly used GI agents
- o Identify dosage form, routes of administration and doses of commonly used GI agents
- o List common adverse events of commonly used GI agents
- o List significant drug interactions with commonly used GI agents
- o Be familiar with abbreviations and medical terminology used in association with GI disease
- o List 4 OTC products used to treat GI diseases and their dosage

Topic 8

- **Urinary and Reproductive Medications**

- o Explain the therapeutic effect of common medications use to treat diseases of the urinary and reproductive systems
- o List the generic and brand names of commonly used urinary and reproductive medications
- o Identify dosage form, routes of administration and doses of commonly used urinary and reproductive medications

- o List common adverse events of commonly used urinary and reproductive medications
- o List significant drug interactions with commonly used urinary and reproductive medications
- o Be familiar with abbreviations and medical terminology used in association with urinary and reproductive diseases
- o List OTC products used for contraception

Topic 9

- **Eye, Ear, Nose, Mouth, and Throat Medications**

- o Explain the therapeutic effect of common medications use to treat EENMT conditions
- o List the generic and brand names of commonly used EENMT agents
- o Identify dosage form, routes of administration and doses of commonly used EENMT agents
- o List common adverse events of commonly used EENMT agents
- o List significant drug interactions with commonly used EENMT agents
- o Be familiar with abbreviations and medical terminology used in association with EENMT disease
- o Be able to calculate days-supply for various eye, ear and nasal preparations.
- o Know how to use common nasal aerosol devices

Topic 10

- **Dermatologic Medications**

- o Explain the therapeutic effect of common medications use to treat dermatologic conditions
- o List the generic and brand names of commonly used dermatologic agents
- o Identify dosage form, routes of administration and doses of commonly used dermatologic agents
- o List common adverse events of commonly used dermatologic agents
- o List significant drug interactions with commonly used dermatologic agents
- o Be familiar with abbreviations and medical terminology used in association with dermatologic conditions
- o Be able to estimate days-supply for various dermatologic preparations

Topic 11

- **Hematology and Oncology Medications**
  - o Explain the therapeutic effect of common medications use to treat hematologic/oncologic diseases
  - o List the generic and brand names of commonly used hematologic/oncologic agents
  - o Identify dosage form, routes of administration and doses of commonly used hematologic/oncologic agents
  - o List common adverse events of commonly used hematologic/oncologic agents
  - o List significant drug interactions with commonly used hematologic/oncologic agents
  - o Be familiar with abbreviations and medical terminology used in association with hematologic/oncologic diseases

Topic 12

- **Other Commonly Used Medications**
  - o Explain the therapeutic effect of common vaccines, IV supplements and agents used in transplantation
  - o List the brand names of commonly used vaccines and their components
  - o Name two vaccines that are not injectable
  - o List common adverse events of commonly drugs used in transplantation
  - o List significant drug interactions with drugs used in transplantation
  - o Be familiar with abbreviations and medical terminology used in association with vaccines
  - o Understand any special storage requirements for vaccines

FINAL EXAM

Tentatively scheduled for Monday May 12th at 8:30 AM

Schedule tentative and subject to change.





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