Howard University College of Pharmacy (COP) Center of Excellence (COE) Course Plan: Summer, 2013

Title: Pharmacotherapy Preview

Course Coordinator: Soon Y. Park, Pharm. D. Associate Professor

Sequence: Summer, 2013

Course Timeline: June 3rd 2013 – June 28th 2013

Year: 2nd Academic/Professional **Format:** Online non-credit course

Consultant/Instructor: Brandon Dyson, Pharm. D.

Prerequisites: Pharmacy students who have taken all P1 courses, transitioning from P1 to P2

Course Registration: On-Line. COE website

Required Textbooks/References/Online Resources

1. Basic and Clinical Pharmacology. 12th Ed.

Editors: Katzung, Masters, and Trevor Publishers: McGraw-Hill Medical

ISBN: 9780071764018

2. Goodman & Gilman's The Pharmacologic Basis of Therapeutics. 12th Ed.

Editors: Brunton, Chabner, Knollman, Knollmann

Publishers: McGraw-Hill Medical

ISBN: 0071624422

Recommended books or study aids:

1. Applied Therapeutics: The Clinical Use of Drugs. 9th Ed.

Editors: Koda-Kimble, Young, Kradjan, Guglielmo, Alldredge and Corelli Publishers: Lippincott, Williams & Wilkins, Philadelphia, PA 19106

ISBN: 078174845-3

2. Pharmacotherapy: A Pathophysiologic Approach. 8th Ed. Editors: DiPiro, Talbert, Yee, Matzke, Wells, and Posey

Publishers: McGraw-Hill Medical

ISBN: 00771703543

Supplemental reading as assigned by individual instructors and course coordinator

Course Description

This four-week program is offered online to all rising second year pharmacy students, through the COE website and Blackboard. Students will receive preparation guidelines, and a structured introductory module including weekly assignments, textbook readings, online chat room discussions, and online video tutorials.

The Pharmacotherapy Preview acts as a primer to relevant topics students can expect to encounter in their second professional year. Course materials will focus on the pathophysiology and pharmacotherapy of relevant disease states. Extensive focus will be given to the interpretation of patient laboratory values, electrolytes, and to the pharmacology and utilization of medications in the treatment of various cardiac disorders. This includes the mechanisms of actions, clinical indications, common and/or serious adverse effects, route of administrations, usual daily doses and other important areas.

This course is structured in a four-week online format. In order for students to achieve the course goals and objectives, a number of teaching methods will be employed. Students will be required to complete reading assignments, to review posted materials, and to participate in online assignments, discussion groups, and assessments. The online nature of this course gives the student some degree of scheduling flexibility, but requires that the student remain diligent and self-directed.

Overall Course Objectives/Learning Goals

This course is intended to enable the student to:

- 1. To academically prepare for the upcoming second professional year by gaining early exposure to major topics encountered in the curriculum.
- 2. To further develop the capability of self-directed learning by participating in an entirely online course format.
- 3. To further develop problem solving, group interactions, and communication (both written and verbal) of skills needed to solve pharmaceutical care problems.
- To utilize various educational teaching methods including problem-based learning and computer technology provided in the curriculum, and apply these concepts to their educational process.

Learning Topics and Schedule

Week 1 (June 3 – 7)

- a. Overview of PSP Program
- b. Preparation: How to ensure success in Integrated Therapeutics
- C. Patient lab values and monitoring
- d. Serum osmolality, anion gap, and other clinical markers
- e. Overview of metabolic disorders

Week 2 (June 10 - 14)

- a. Basic concepts in Pharmacokinetics
- b. Basic concepts in Biostatistics
- c. Acute Coronary Syndrome and the management of hyperlipidemia
- d. Hypertension pathophysiology and pharmacotherapy
- e. Antihypertensive agents
 - a. Diuretics
 - b. Beta receptor blocking agents

Week 3 (June 17 - 21)

- a. Antihypertensive agents continued
 - a. Calcium channel Blocking agents
 - b. Angiotensin converting enzyme inhibitors ACEI
 - c. ARBs
 - d. Others (DRIs, Direct Acting Vasodilators)
- b. Arrhythmia pathophysiology and pharmacotherapy

Week 4 (June 24 – 28)

- a. Anticoagulant / thrombolytic pathophysiology and pharmacotherapy
 - a. Oral anticoagulants
 - b. Parenteral anticoagulants
 - c. Antiplatelet pharmacotherapy
 - d. Thrombolytic pharmacotherapy
 - e. Other agents used in disorders of blood coagulation

Instructional/Methodology/Activities

A variety of teaching methodologies will be employed. Students will be required to complete reading assignments, participate in online group discussions, and to complete online activities and assessments. Further, the utilization of online and computer-based resources such as, AccessPharmacy® and Tegrity® will be required.

<u>Reading Assignments</u>: Students are expected to review assigned materials and articles provided by the instructor and textbook assignments as noted prior to the start of the scheduled activity.

<u>On-Line Class Participation:</u> Students are expected to participate in all activities. Students are also expected to read the appropriate materials prior to participation in online discussions and activities. It is also expected all students to engage in a professional manner (languages, writings, timeliness, etc).

<u>Course Instructor:</u> Brandon Dyson, Pharm.D. is a graduate of Howard University College of Pharmacy; class of 2013.

Assessments

Weekly assessments will be distributed via SurveyMonkey®. They will be small, short-answer questions designed to stimulate further thinking or highlight specific areas of significance. They can be taken at the leisure of the student. However, in order to achieve maximum benefit from the class, students are strongly encouraged to complete the assessments in a timely manner so that they may keep up with online discussions.

Course Evaluation:

Each student will be provided an opportunity to evaluate the course anonymously as noted in the course schedule. This evaluation is provided by the College of Pharmacy. Faculty and other course personnel are not present for this evaluation.