

**Howard University
College of Pharmacy (COP)
Center of Excellence (COE)
Course Plan: Summer, 2017**

Title: Pharmacotherapy Preview

Course Instructor: Brandon Dyson, PharmD, BCPS

Sequence: Summer, 2017

Course Timeline: June 5, 2017 – July 31, 2017 (8 weeks)

Course material can be completed at the student's convenience provided that all modules are complete by the closing date of July 31, 2017

Year: 2nd Academic/Professional

Format: Online non-credit course

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 eight-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 assessment via ExamSoft® and/or Survey Monkey®

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 but is not limited to the mechanisms of action, clinical indications, common and/or serious adverse effects, route of administrations, usual daily doses and other important areas.

This course is structured in an eight-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 scheduling flexibility, but requires that the student remain diligent and self-directed. Course materials can be completed at the student's convenience provided that all modules are complete by the course closing date listed above.

Overall Course Objectives/Learning Goals

This course is intended to enable the student to:

1. To academically prepare for the 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) skills needed to solve pharmaceutical care problems.
4. 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

Module 1

- a. Overview of the Pharmacotherapy Preview Program
- b. Preparation: How to succeed in Integrated Therapeutics
- c. Patient lab values and monitoring
- d. Serum osmolality, anion gap, and other clinical markers
- e. Overview of metabolic disorders

Module 2

- a. Overview of Biostatistics
- b. Basic concepts in Pharmacokinetics
- c. Enzyme induction and inhibition
- d. Drug-drug interactions

Module 3

- a) Hypertension pathophysiology and pharmacotherapy
- b) Antihypertensive agents
 - a. Diuretics
 - b. Beta receptor blocking agents
 - c. Calcium channel Blocking agents
 - d. Angiotensin converting enzyme inhibitors (ACEI)
 - e. Angiotensin Receptor Blockers (ARBs)
 - f. Others (DRIs, Direct Acting Vasodilators)
- c) Arrhythmia pathophysiology and pharmacotherapy

Module 4

- a. Acute Coronary Syndrome and the management of hyperlipidemia
- b. 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 ExamSoft® will be required.

Reading Assignments: 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.

On-Line Class Participation: 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. Students are expected to complete all required activities in a timely manner in order to continue to the next module. It is also expected all students to engage in a professional manner (languages, writings, timeliness, etc).

Course Instructor: Brandon Dyson, PharmD, BCPS, is a graduate of Howard University College of Pharmacy. He completed a PGY1 Practice Residency at Medstar Georgetown University Hospital in Washington, DC. He co-founded and writes for www.tldrpharmacy.com, a site dedicated to simplifying complex clinical topics for pharmacy students and pharmacists. Additionally, he is a regular contributor to the online publication, Pharmacy Times. He currently lives in Austin, TX where he practices as a clinical pharmacist and certified pharmacy preceptor for an academic medical center. He also teaches an online pharmacology class to nurse practitioners through the Georgetown University School of Nursing.

Assessments

Examsoft® software will be used for weekly assessments given via personal computer or laptop. Your laptop should be fully working and charged. Your exam should be downloaded prior to the exam within the specified time. The minimum download time will be announced prior to the exam time. The exams may be composed of multiple choice, fill-in and/or essay type. There will be no formal grading system. However, an overall assessment scale of: Outstanding, Satisfactory, Poor performance will be evaluated.

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.