

First Term

INTEGRATED PHARMACOTHERAPY I (PHRP 401)

Course Description

This course reviews the pharmacotherapy of various diseases with a primary focus on applying knowledge gained from other courses in order to be able to construct safe and effective evidence-based pharmaceutical care for patients with such disease states and to understand the rationale of selecting appropriate drug regimens. Therapeutic topics, practice guidelines, and case studies will be used to provide Pharm.D. students with the opportunity to apply these skills in various pharmacy practice settings.

PATIENT ASSESSMENT (PHRP 404)

Course Description:

The patient assessment course is developed to primarily focus on identification, interpretation and assessment of drug-Related problems and common complaints. Students shall gain skills necessary for diagnostic findings analysis, performance of specific physical examination techniques. Also students shall acquire required skills for drug monitoring, interpreting laboratory parameters beside detailed history taking and accurate documentation of subjective and objective gained information from pharmacy-perspective point of view. The course consists of didactic lectures supported by topic discussion and practical skills lab to enrich and widen students' comprehension. Role playing will be part of the program to further consolidate the course objectives

SELF-CARE & NON-PRESCRIPTION DRUGS (PHRP 405)

Course Description:

Self-Care & Non-Prescription drug therapy is an essential component of pharmaceutical care. This course is designed to provide P2 pharmacy students with the information needed to:

- Recognize conditions that are self-treatable with nonprescription drugs
- Identify laws which govern nonprescription therapy
- Assess patient's needs, risk factors, and potential for adverse events
- Assist with product selection
- Advise and counsel patients on therapeutic options and outcomes of therapy
- Recognize appropriate physical assessment techniques needed to evaluate a patient's condition and response to therapy

BASIC PHARMACOKINETICS I (PHRS 401)

Course Description:

An introduction to the concepts and techniques involved in quantitative processes associated with the absorption, distribution, metabolism, and elimination of drugs as well as their application to optimize and individualize dosage regimens in applied pharmacotherapy. The course will rigorously develop basic pharmacokinetic concepts based on calculus approaches and appropriate model systems. Based on this fundamental knowledge and understanding, the students will learn how to apply pharmacokinetic concepts to develop and optimize clinically appropriate dosage regimens based on demographic, physiologic, pathophysiologic and pharmacologic criteria, including drug-drug interactions. The didactic material and assigned problems during the Assignment sessions will familiarize the student with the latest advances in pharmacokinetics and biopharmaceutics. This will also introduce the student to basic concepts of pharmacodynamics and therapeutic drug monitoring and their relevance for drug therapy and dosage regimen individualization.

INTRODUCTORY PHARMACY PRACTICE EXPERIENCE II (PHRP 400)

Course Description:

An Overview of the IPPE Curriculum:

In the second year (P2) IPPE II (PHRP 400) students will spend longer time, in a group, with specific preceptors providing pharmaceutical care in both the operational and the clinical arms including experiential assignments with the managers of these services. The experiences will be spread around, institutional and direct patient care sites. Students will be expected to make short and concise presentations pertaining to patient cases simulating those in the real.

Second Term

INTEGRATED PHARMACOTHERAPY II (PHRP 402)

Course Description

This course reviews the pharmacotherapy of various diseases with a primary focus on applying knowledge gained from other courses in order to be able to construct safe and effective evidence-based pharmaceutical care for patients with such disease state and to understand the rationale of selecting appropriate drug regimens. Therapeutic topics, practice guidelines, and case studies will be used to provide Pharm.D. students with the opportunity to apply these skills in various pharmacy practice.

CLINICAL RESEARCH METHODOLOGY (PHRP 406)

Course Description:

The fundamental aim of this course is to teach students how to design and conduct a proper (applied) research. Moreover, this course is directed to students taking their first course in educational research. Therefore, this course is an essential building block in the education of a pharmacist.

This course is intended to enable the student to define some basic biostatistical concepts, and different types of clinical and basic research and studies. It also emphasizes an overview on conducting research and using different software to manage and organize data. Thus, this course will provide the students with the basic information about the clinical research processes and enable them to design their own research investigation. In addition, this course will permit students to read and appreciate the literature of educational research.

By the end of this course, students must be able to follow the research processes in order to prepare their research proposal and eventually their final research report within a definite time period.

IMMUNIZATION (PHRP 407)

Course Description:

This is a one credit course that will be taught for P-2 students. It is based on Saudi Ministry of Health National Immunization Program and Centers for Disease Control and Prevention (US Department of Health and Human Services) curriculum on Epidemiology and Prevention of Vaccine-Preventable Diseases. This course will provide the student with adequate knowledge on the value of immunization in preventing disease. It will touch upon the majority of vaccines marketed in the world and the role of the pharmacist in managing such a vital program and products.

ALTERNATIVE THERAPY (PHRP 408)

Course Description:

This course provides an overview of complementary and alternative therapies such as dietary supplements, herbal medicine, and health products of natural origin. This course will provide students with the necessary knowledge and skills to understand, evaluate various alternative therapies, and educate patients about the proper use of these products, including dosing, potential drug interactions, and adverse effects. By the end of this course, the students will be well-versed in the safe and effective use of these therapies and their interaction with conventional medicines.

BASIC PHARMACOKINETICS II (PHRS 402)

Course Description:

This course is a continuation of Basic Pharmacokinetics I (PHRS 401) where it also emphasizes the concepts and techniques involved in quantitative processes associated with the absorption, distribution, metabolism, and elimination of drugs as well as their application to optimize and individualize dosage regimens in applied pharmacotherapy. The course will rigorously develop basic pharmacokinetic concepts based on calculus approaches and appropriate model systems. Based on this fundamental knowledge and understanding, the students will learn how to apply pharmacokinetic concepts to develop and optimize clinically appropriate dosage regimens based on demographic, physiologic, pathophysiologic and pharmacologic criteria, including drug-drug interactions. The didactic material and assigned problems during the Assignment sessions will familiarize the student with the latest advances in pharmacokinetics and biopharmaceutics. This will also introduce the student to basic concepts of pharmacodynamics and therapeutic drug monitoring and their relevance for drug therapy and dosage regimen individualization.

Third Term

INTEGRATED PHARMACOTHERAPY III (PHRP 403)

Course Description

This course reviews the pharmacotherapy of various diseases with a primary focus on applying knowledge gained from other courses in order to be able to construct safe and effective evidence-based pharmaceutical care for patients with such disease state and to understand the rationale of selecting appropriate drug regimens. Therapeutic topics, practice guidelines, and case studies will be used to provide Pharm.D. students with the opportunity to apply these skills in various pharmacy practice.

CLINICAL LITERATURE EVALUATION (PHRP 409)

Course Description:

This core course consists of a blended learning approach designed to introduce Pharm.D students to the skills necessary for independent literature searching, critical literature evaluation, and communication of medication information. Blended learning includes lectures, discussions, readings and self-study materials. The majority of lectures will be delivered over Blackboard. Students will be introduced to the efficient use of resources available at the KSAU-HS Library and online. Emphasis is placed on:

- The structure and function of medical literature
- A systematic approach to drug information requests
- Systematic search strategies
- Critical evaluation and interpretation of medical and pharmacy Literature

RESEARCH PROPOSAL (PHRP 411)

Course Description:

This course is intended to guide the student in the selection, preparation, and the submission of the Pharm. D. Research Proposal. Once the research proposal is submitted and approved, the student will enroll in the (Pharm. D. Research, PHPP-510) the semester that follows. The latter is the actual conduction of the designated Pharm. D. research project whose proposal was approved earlier. Thus, the two courses focus on one single research project from conception to conclusion; they share some of the same "Course Learning Outcomes". The student has to conclude the proposal section successfully before moving to conducting the actual research.

CLINICAL TOXICOLOGY (PHRP 412)

Course Description:

This course provides the basic and clinical principles of clinical toxicology including recognition of various types of acute and chronic toxicity, different classes of toxicants and mechanisms of toxicity of the commonly used drugs, household products and industrial chemicals. Emphasis is placed on the use of specific antidotes as well as other clinical management and prevention approaches for poisoning cases in children and adults.

APPLIED PHARMACOKINETICS (PHRP 413)

Course Description:

This course is designed to introduce the student to the practical application of pharmacokinetic principles in clinical practice. The course will focus on the integration of pharmacokinetic analysis with therapeutic information for the optimization of a patient's drug therapy. The course will identify the various elements of clinical pharmacokinetics and pharmacodynamics that may have substantial effects on therapeutic drug monitoring and individualization of drug therapy. These general considerations will provide a framework for evaluation of individual medications or therapeutic classes that will be presented throughout this course.