



## **cosmotology**

**Subject:** cosmotology

**Code number:** 1701438

**Credit hours:** 2 hours

**Course designation:** 4th year/first semester

**Department:** Pharmaceutics and Pharmaceutical Technology

### **Course syllabus:**

This course attempts to provide the students with the experience in the name, structure and function of active ingredients used in cosmetic products. This course will focus on the structure and morphology of skin, hair, nail and teeth .



## Pharmacology III

**Subject:** Pharmacology III

**Code number:**1702466

**Credit hours:** 3hours

**Course designation:**4<sup>th</sup> year/first semester

**Department:** Pharmaceutics and Pharmaceutical Technology

### Course syllabus:

- Pharmacology III covers drugs used to treat GIT, urologic, hematologic and endocrine disorders
- Enabling the student to understand each drug class discussed, to ensure that the student knows the generic names of the most important drugs in the class, mechanism of pharmacologic action, therapeutic uses, adverse effects, precautions, and contraindications.



## Phytotherapy

**Subject:** Phytotherapy

**Code number:**1702473

**Credit hours:** 3hours

**Course designation:**4<sup>th</sup> year/first semester

**Department:** clinical Pharmaceutical

### Course syllabus:

The phytotherapy program is a unique program that introduces students to the plants and their medicinal uses according to various cultures. This program explores the history of plant-based therapies and how to identify herbs, use plant-based foods to maintain health, and make and apply herbal remedies to restore health. Graduates of this program can use knowledge and experience gained to establish a community-based herbal pharmacy to assist family and friends, work in the health and wellness retail sector, and create herbal preparations.

The use of medicinal plants by mankind has taken at least three separate paths. *The first* is historical usage that continues into current times. *The second* is the extraction of active principles from medicinal plants in order to optimize a single chemical compound for treatment of diseases. *The third* and intermediate approach maintains the complexity of a whole herb but subjects it into clinical trials as reported in the literature. Special attention will be focused on plants that have been used for the treatment of human diseases such as cancer, heart disease, nervous system disorders, and other disorders. This course will provide a broader perspective to undergraduates intending to enter medicine or medically-related fields including medicinal chemistry, pharmaceutical science, pharmacology, pharmacognosy, ethnobotany or herbal practice.



## **Therapeutics I**

**Subject:** Therapeutics I

**Code number:**1702364

**Credit hours:** 3hours

**Course designation:**4<sup>th</sup> year/first semester

**Department:** clinical Pharmaceutical

### **Course syllabus:**

This course involves description of the most important and prevalent gynecologic and obstetric disorders in addition to the most common diseases in pediatrics and geriatrics. The etiology, epidemiology, pathogenesis, clinical presentation, stages and classification, lab screening and diagnostic procedures are included. In addition, the course involves therapeutic management of these diseases that includes designing most effective and safe therapeutic regimens with proper medication in the right dose, route and frequency, all according to current best evidence (evidence-based medicine), in addition to non-pharmacological interventions, life-style modifications, and patient education. Monitoring for effectiveness and adverse effects is also included. There is emphasis in the course on teaching the student how to use useful databases, formal webpages, and mobile applications and how to self-learn post-graduation.



## **Toxicology**

**Subject:** Toxicology

**Code number:** 1702456

**Credit hours:** 2hours

**Course designation:**4<sup>th</sup> year/second semester

**Department:** clinical Pharmaceutical

### **Course syllabus:**

This 2-credit hours course covers many aspects of toxicology. Learners receive basic background information on important traditional areas in toxicology, as well as in areas that are currently developing. This background information will include principles, definitions, and basic information, and is designed to bring participants up to current levels of understanding of toxicology as it applies to both the human health and Learning Objectives:

By the end of this course, the students will:

1. Have current cutting-edge knowledge in human health toxicology
2. Be familiar with the process used to interpret biotoxicological data (clinical presentations and the differential lab and physical examinations)
3. Have a working knowledge of techniques for risk assessment in human health
4. Know different sources of toxicants and their mechanism of toxicity.



## **Clinical Cases**

**Subject:** Clinical Cases

**Code number:** 1702475

**Credit hours:** 2hours

**Course designation:**4<sup>th</sup> year/second semester

**Department:** clinical Pharmaceutical

### **Course syllabus:**

The course is designed to provide the student with an introduction to integrative therapeutic modalities which are used in health care. Clinical cases from different medical branches each session will be used to develop the students ability to assess a patient's condition, determine reasonable treatment alternatives, select appropriate therapy (pharmacological and non-pharmacological therapy), monitoring parameters and to justify those choices by utilizing knowledge and skills acquired in clinical pharmacy and therapeutics I.



## **Industrial Pharmacy (I)**

**Subject:** Industrial Pharmacy (I)

**Code number:** 1701436

**Credit hours:** 3hours

**Course designation:** 4<sup>th</sup> year/second semester

**Department:** Pharmaceutics and Pharmaceutical Technology

### **Course syllabus:**

This course provides students with the scientific and industrial aspects of the design, formulation and manufacture of dosage forms with focus on coated tablet, hard/soft gelatin capsules, suspensions and emulsions. Common excipients, formulation, process, equipment and common manufacturing problems/troubleshooting techniques will be discussed for each dosage form.



## **Pharmacokinetics**

**Subject:** Pharmacokinetics

**Code number:** 1701441

**Credit hours:** 2hours

**Course designation:** 4<sup>th</sup> year/second semester

**Department:** Pharmaceutics and Pharmaceutical Technology

### **Course syllabus:**

#### **General Course Description**

This course will introduce students to the basic concepts and principles pharmacokinetics. Pharmacokinetics describes the processes involved in the Absorption of a drug (from its site of administration into the blood circulation, Distribution of the drug to its sites of action, Metabolism of the drug, and its subsequent Excretion of the drug from the body (ADME). Processes that influence the pharmacokinetics of drugs, including formulation, physico-chemical, physiological, pharmacological and pathological factors will be discussed. The use of mathematical equations to describe the pharmacokinetic concepts and principles of drug action are introduced and applied to dosage regimen determinations.

#### **Course Objectives**

- Understanding mathematical background for modeling of the concentration time relationships for the different routes of administration.





- Designing dosing regimens by relating plasma concentration of drugs to their pharmacological and toxicological action,
- Understanding the concept of therapeutic drug monitoring for drugs with narrow therapeutic range or high toxicity.

### **Pharmacokinetics lab**

**Subject:** Pharmacokinetics lab

**Code number:** 1701442

**Credit hours:** 1hours

**Course designation:** 4<sup>th</sup> year/second semester

**Department:** Pharmaceutics and Pharmaceutical Technology

#### **Course syllabus:**

This practical course in addition to the co-requisite course (1701441) provides students with a basic intuitive understanding of the pharmacokinetic principles, terminology, models, equations and factors affecting drug



absorption, distribution , metabolism and excretion and its importance in drug therapeutic or toxic effects. Emphasis will be placed upon the prediction of plasma levels of drugs under varying conditions applying different pharmacokinetic parameters. Handling pharmacokinetic parameters of drugs

## **Therapeutics II**

**Subject:** Therapeutics II

**Code number:**1702367

**Credit hours:** 3hours

**Course designation:**4<sup>th</sup> year/second semester

**Department:** clinical Pharmaceutical

**Course syllabus:**



This course involves description of the most important and prevalent oncologic diseases and renal disorders; their etiology, epidemiology, pathogenesis, clinical presentation, stages and classification, lab screening and diagnostic procedures. In addition, the course involves therapeutic management of these diseases that includes designing most effective and safe therapeutic regimens with proper medication in the right dose, route and frequency, all according to current best evidence (evidence-based medicine), in addition to non-pharmacological interventions, life-style modifications, and patient education. Monitoring for effectiveness and adverse effects is also included. There is emphasis in the course on teaching the student how to use useful databases, formal webpages, and mobile applications and how to self-learn post-graduation.

## **Statistics for Pharmacy**

**Subject:** Statistics for Pharmacy.

**Code number:** 1702443

**Credit hours:** 2hours

**Course designation:**4<sup>th</sup> year/first semester

**Department:** clinical Pharmaceutical

**Course syllabus:**



- Understanding types of data, and appropriate statistical tools for their analysis
- Choose and create effective graphical, tabular, and numerical summaries of data
- Understanding and using probability distributions.
- Using statistics to judge on scientific data, experiments, and hypothesis.
- Understanding the notion of sampling variability and sampling distributions.
- To calculate and interpret confidence intervals and p-values and understand their limitations.
- Selecting and carrying out an appropriate method of analysis to compare the means of two populations, and provide an interpretation of the results of such an analysis.

## **Community Pharmacy**

**Subject:** Community Pharmacy

**Code number:** 1702365

**Credit hours:** 2hours

**Course designation:** 4<sup>th</sup> year/first semester

**Department:** clinical Pharmaceutical



### **Course syllabus:**

This course is two (2) credits hour 1 hour theory and other practical in supposed pharmacy.

This is a pass/fail course.

1. The principal objective of this course is to familiarize students with fundamentals of pharmacy practice in community setting.
2. Training the student on smart pharmacy program scientifically and trading practice by supposing sale and purchase voucher
3. At the end of this course students are supposed to be familiar with the trade name of most commonly prescribed medications in Jordan. Students are also supposed to know the drug store and the manufacturers of these medications. Knowledge of the trade name, drug store, and manufacturers is essential for the practice of community pharmacist by using scientific smart pharmacy program.

## **Medicinal Chemistry 2**

**Subject:** Medicinal Chemistry 2

**Code number:** 1703426

**Credit hours:** 2 Hours



**Course designation:** 5th year

**Department:** chemical Pharmaceutical

**Course syllabus:**

**Course Objectives:**

- Recognize the drugs affecting different targets or receptors.
- Identify the categories of certain classes of drugs and their effects.
- Apply the knowledge from prerequisite courses.
- Recognize the relation between molecules for design of certain synthetic leads.