



Clinical Biochemistry

Subject: Clinical Biochemistry

Code number: 1702322

Credit hours: 3 hours

Course designation: 3^d year /second semester

Department: clinical Pharmaceutical

Course syllabus:

1. Principles of bioenergetics and metabolism
2. Metabolism of carbohydrates: Digestion & uptake of carbohydrates. Glycolysis, Tricarboxylic acid cycle, Electron transport and oxidative phosphorylation.
3. Pentose phosphate pathway, gluconeogenesis, glycogen synthesis, glycogenolysis. Disorders of Carbohydrate metabolism (glucose determination, Diabetes Mellitus), Favisim.
4. Metabolism of Lipids: Digestion & uptake of lipids, Oxidation of fatty acids Ketone bodies metabolism, Biosynthesis of lipids. Lipoproteins
5. Disorders of Lipids Metabolism and associated diseases.
6. Metabolism of proteins. Metabolism of amino Acids, Urea cycle
7. Liver functions, Bilirubin metabolism, Liver function tests. Liver diseases.
8. Metabolism of Nucleotides, purine metabolism. Antimetabolites of purine nucleotides.
9. Vitamins and Vitamin analogues



Pharmacology 1

Subject: Pharmacology 1

Code number: 1702261

Credit hours: 1 hours

Course designation: 2nd year /first semester

Department: clinical Pharmaceutical

Course syllabus :

- Enabling the student to understand the basic pharmacodynamic & brief pharmacokinetic principles of drug action and, for 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.



Medicinal chemistry 1

Subject: Medicinal chemistry 1

Code number: 1703324

Credit hours: 2 hours

Course designation: 3^d year /second semester

Department: chemical Pharmaceutical

Course syllabus:

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



phytochemistry

Subject: phytochemistry

Code number: 1703322

Credit hours: 2 hours

Course designation: 3^d year /second semester

Department: Pharmaceutics and Pharmaceutical Technology

Course syllabus:

After completion of pharmacognosy, Based on the information acquired from the pre-requisite courses of pharmacognosy, pharmacology and instrumental analysis, phytochemistry course discusses the major pharmaceutically important secondary metabolites from natural sources (phenolics, steroids, terpenoids glycosides and alkaloids) of pharmaceutical interest. It provides the basic phytochemical knowledge about the natural source, classification, extraction, detection, isolation, pharmacological and toxicological effects. The course extends to the chemistry of natural pesticides as well as drugs of marine origin



Pharmacology II

Subject: Pharmacology II

Code number: 1702362

Credit hours: 3 hours

Course designation: 3^d year /second semester

Department: clinical Pharmaceutical

Course syllabus:

Upon successful completion of this course, the students must be able to:

- Illustrate the clinical features of some diseases efficiently
- Apply this knowledge correctly in selecting appropriate medical intervention
- Advise patients on the safe, rational and effective use of drugs.



Pharmaceutical calculation and compounding

Subject: Pharmaceutical calculation and compounding

Code number: 1701234

Credit hours: 1 hours

Course designation: 2nd year /first semester

Department: Pharmaceutics and Pharmaceutical Technology

Course syllabus:

This course provides a pharmacy student a basic underpinning of calculations applicable to pharmacy practice. It gives a pharmacy student; skills in handling calculations concerning concentration expressions, density and specific gravity, reducing and enlarging formula, isotonicity, buffers and reaction kinetics. It provides a pharmacy student; skills in handling medicinal prescription and its pertaining calculations.



Pharmaceutical calculation and compounding/Practical

Subject: Pharmaceutical calculation and compounding/Practical

Code number: 1701233

Credit hours: 1 hours

Course designation: 3rd year /first semester

Department: Pharmaceutics and Pharmaceutical Technology

Course syllabus:

This practical course in addition to the co-requisite course (1701334) provides an introduction to the metric, avoirdupois, and apothecary systems of measurement and the calculations used in pharmacy practice. Topics include ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to perform correctly the calculations required to prepare a medication order properly.



immunology

Subject: immunology

Code number: 1702355

Credit hours: 2 hours

Course designation: 3rd year /first semester

Department: clinical Pharmaceutical

Course syllabus:

To reinforce and build upon important concepts in immunology.

To gain an in-depth understanding of the cells and molecules of the immune system, the immune response to infection by pathogens, and how the immune response can sometimes cause disease.

-Selected case studies will be used to provide examples of the concepts of the immune response in the infection and disease.

-Vaccines and their biological preparations that improves immunity to a particular disease.



pharmaceutical technology lab

Subject: pharmaceutical technology lab

Code number: 1701335

Credit hours: 2 hours

Course designation: 3rd year /second semester

Department: Pharmaceutics and Pharmaceutical Technology

Course syllabus:

Lab is for supporting the pharmaceutics theoretical part



Pharmaceutical Technology

Subject: Pharmaceutical Technology

Code number: 1701235

Credit hours: 2 hours

Course designation: 3rd year/second semester

Department: clinical Pharmaceutical

Course syllabus:

This course provides students with the scientific and industrial aspects of the design, formulation and manufacture of dosage forms with focus on powder technology (size reduction, granulation, drying and characterization) and tableting. Common excipients, formulation, process, equipment and common manufacturing problems/troubleshooting techniques will be discussed for each process.

Course Objectives

Enriching student's understanding to vital industrial processes including size reduction, granulation, drying and characterization) and tableting.