

Biology (GS 114) 2 Units

Introduction to biology
Introduction to cytology
Cell structure and function-part I
Cell structure and function-part II
Cell structure and function-part III
Cell metabolism
Cellular respiration
Plant tissue
Photosynthesis
Nucleic acids and chromosomes
Gene Expression
Cell reproduction
Introduction to body tissues
Introduction to body system

General Chemistry (GS 111) 2 Units

وحدات القياس الكيميائية – أمثلة ومسابئلة
المادة
التركيب الذري والجول الذري
المبادئ والخواص في الجدول الذري
مبدأ باولي وقاعدة هوند والتوزيع الالكتروني التوزيع الالكتروني والتدرج في الخواص في
الجدول الدوري
الحسابات الكيميائية
الصيغ الكيميائية ومفهوم المول ووزن المعادلات
الحسابات الكيميائية
العلاقات المولية والوزنية والحسابات الكمية
والمفاعل المحدد للتفاعل – أمثلة ومسابئلة
تفاعلات الأكسدة والأختزال – أمثلة ومسابئلة
طرق التعبير عن التراكيز الكيميائية – أمثلة ومسابئلة
مصطلحات طبية (GS 112)

Nouns, Pronouns., The simple present tense , the present progressive tense, Introducing the students to the parts of speech in English, The passive voice which is widely used in technical and scientific English, Writing activities on medical and medically related subjects, The reading comprehension, Basic medical terms used in instruction, Medical prefixes and suffixes, Basic medical terms used in the medical practice, Introduction to medical examination, Different types of exercises to enhance the students, command of medical English follow these text.

الفيزياء (GS 113)

Basic concepts, Properties of matter, Properties of matter, Elasticity, hydrodynamics, Temperature , Sound waves, Electromagnetic wave, Electromagnetic wave, Atomic physics, Atomic physics.

Arabic Language (GS 115) 2 Units

التعريف باللغة العربية وأهميتها وقوتها التعبيرية
مكونات الجملة العربية
الجملة الأسمية والجملة الفعلية
النواسخ (كان واخواتها، كاد واخواتها، ان واخواتها)
جمع المذكر والمؤنث السالم – المثنى – الأفعال الخمسة – الممنوع من الصرف
الإعراب أقسامه وعلاماته
الإعراب والبناء في الأسماء
الإعراب والبناء في الفعل والحرف
الأحصاء الحيوي (GS 116)

مقدمة عن الإحصاء وطرق جمع والعرض البيانات جدوليا وبيانيا، تحليل البيانات (مقاييس النزعة المركزية) التوزيعات الاحتمالية المتقطعة، التوزيعات الاحتمالية المستمرة، دالة كتلة الاحتمال وتوزيعاتها، الاحتمالات ودالة كثافة الاحتمال، خصائص دالة كثافة الاحتمال للمتغير المتقطع و المستمر، توزيعات المعاينة، اختبارات الفروض لمتوسط المجتمع، اختبارات الفروض لنسبة المجتمع، التقدير بنقطة أو بفترة اختبارات الفروض للفرق بين متوسطين و اختبارات الفروض للفرق بين نسبتيين

Pharmaceutics I (Ph 132) 3 Units

History of Pharmacy
Orientation to Pharmacy
Concept of pre-formulations and formulation
Systems and techniques of measurement and weighing
Pharmaceutical calculations
Identification of laboratory apparatus
Pharmaceutical calculations
Chloroform and Peppermint water
Aqueous iodine solution
Weak iodine solution
Pharmaceutics I tutorial

Physical Pharmacy I (Ph 142) 3 Units

Mathematical preparation
The states of matter
Solution and solubility
Buffered and isotonic solution
Colligative properties of solutions
Distribution of solutes between immiscible solvent
The phase rule
Identification of laboratory apparatus
Analysis of Errors

Ternary phase diagram
Intermolecular binding forces
Determination of surface tension

Histology (Ph 162) 2 Units

Introduction and The cell
Epithelium and connective tissue
Cartilage and bone
Blood
Muscular tissue
Nervous tissue
Cardiovascular tissue
Skin and Lymphoid tissues
Respiratory tissue
Digestive tissue
Endocrine tissue
Urinary and Reproductive tissues

Organic Chemistry I (Ph 122) 3 Units

Chemistry of Aliphatic Compounds

- Physical and Chemical properties, preparation and reactions of
- Hydrocarbons including alicyclic compounds
- Alkyl halides
- Alcohols, ethers, aldehydes, ketones
- Carboxylic acids and acid derivatives
- Amines

Stereochemistry

- Isomerism: constitutional isomerism (chain, position, functional group) tautomerism
- Optical isomerism: enantiomers, chirality, condition for chirality, element of symmetry, superimposable and non-superimposable, chiral molecule that do not possess a chiral atom, stereochemistry of SN1, SN2, SNi reactions, racemization and resolution of organic compounds, asymmetric synthesis
- Conformational isomerism: free rotation about C-C bond, conformation (staggered, eclipsed, gauche) energy barrier, conformation analysis of different compounds (ethane, n-butane), stereochemistry of alicyclic compounds with special reference to cyclohexane and substituted cyclohexanes.

Geometrical isomerism:

E and Z nomenclature, determination of configuration, interconversion of geometry; isomers, stereoselectivity & stereospecificity (definition and examples); stereochemistry of addition reactions (cis, trans)

Techniques

1. Laboratory safety: Eye safety, fires, the hazardous of organic solvents, waste solvents disposal, dispensing reagents, food in the laboratory, and first aid
 2. Melting points and boiling points determination
 3. Recrystallization (purification of solid organic compounds, choosing a solvent, gravity filtration, Buchner filtration, decolorization and MP determination)
 4. Distillation: Theory of simple and fractional distillation, azeotropic solution, separation of organic compounds through simple distillation, steam distillation: theory, apparatus, and uses in separation of organic compounds
 5. Extraction: Separation of a mixture of toluene, nitrobenzene, and aniline (separating funnel, and drying agents)
 6. Sublimation: Theory, apparatus, and uses
- Physical properties: Condition, colour, odour, Solubility, ...

Analytical Chemistry I (Ph 112) 3 Units

Introduction

Analytical calculations

Volumetric quantitative methods of analysis

Neutralization in analytical chemistry

Oxidation – Reduction reactions

Pharmacology I (Ph 152) 3 Units

General introduction

Classification of crude drugs

Crude drugs obtained from Plant source

Leaves, barks, wood and flowers

Study of Microscope

Microscopical and chemical identification of Starches

Microscopical examination of calcium oxalate crystals

Morphological and microscopical studies of leaf drugs

Morphological and microscopical studies of flower drug

Pharmaceutics II (Ph 233) 3 Units

Introduction to dosage forms

Pharmaceutical solutions

Pharmaceutical Suspension

Galenical Preparations

Orange tincture

Simple syrup

Orange syrup

Camphor liniment
Ferrous sulphate mixture
Pharmaceutics II tutorial

Physical Pharmacy II (Ph 243) 3 Units

Interfacial phenomena
Colloids
Rheology
Physical pharmacy applications
Solubility of benzoic acid in water
The effect of Tween 80 on the solubility of benzoic acid in water
Determination of viscosity using Stoke's equation
Determination of partition coefficient of benzoic acid

Anatomy (Ph 263) 2 Units

Introduction
Skin and muscular system
Skeletal and nervous system
Endocrine glands and lymphatic system
Cardiovascular system
Digestive and respiratory systems
Urinary and genital systems

Organic Chemistry II (Ph 223) 3 Units

Introduction to chemistry of aromatic compounds (including polynuclear)

- Benzene: structure, stability
- Aromaticity (requirements : Huckel ($4n+2$ antiaromaticity)
- Classification of aromatic hydrocarbons (naming and structures benzenoid and nonbenzeneoid compounds)
- Isomerism in the substituted benzenes
- Theory of electrophilic substitution reactions
- Substitution in the benzene and polynuclear compounds (mechanism of electrophilic substitution and orientation effects)
- Chemistry of aromatic compounds structure, nomenclature, synthesis, physical and chemical properties
- Arenes (substituted benzenes and polynuclear compounds)
- Halogen containing compounds (nuclear and side chain)
- Aromatic nitro compounds; amines (nuclear and side chain)
- Aromatic sulphonic acids
- Aromatic alcohols, phenols and ethers
- Aldehydes and ketones

- Carboxylic acids (mono, di-basic) and their derivatives (amino, hydroxy)

General Reactions and tests:

1. Action of dry heat
2. Action of sodalime
3. Action of 30% NaOH solution
4. Action of concentrated sulfuric acid
5. Reaction and colouration with iron (iii) chloride
6. Detection of elements (Na, K)

Functional group identification

Single Step Synthesis

Analytical Chemistry II (Ph 213) 3 Units

Precipitometry

Argentometric titration and applications

Gravimetry and applications

Complexometry and applications

Pharmacology II (Ph 253) 3 Units

Crude drugs obtained from Plant source

Seeds, fruits, herbs, roots and rhizomes

Unorganised drugs

Crude drugs obtained from Animal source

Crude drugs obtained from Mineral source

Morphological and microscopical studies of seed drugs

Morphological and microscopical studies of fruit drugs

Morphological and microscopical studies of bark drug

Morphological and microscopical studies of rhizome drug

Powder microscopy of selected crude drugs

Identification of selected crude drugs (Spotters)

Instrumental Analysis I (Ph 214) 3 Units

Electrochemistry

- Introduction
- Potentiometry
- Conductometry
- Polarography
- Columetry
- Electrogravimetry
- Amperometric titration

Thermal Analysis

Spectroscopy

Absorption – Spectroscopy

- Introduction U.V. / Vis.

- Infra-Red.
- N.M.R.

Emission Spectroscopy

- Flame photometry
- Fluorimetry

Non Absorption Spectroscopy

- Refractometry, Polarimetry, ORD Nephelometry and turbidimetry.

Mass Spectrometry:

Preparation of Molar, Normal and different concentrated solution for Analytical Uses

Assay of Boric acid / Benzoic acid

Assay of FeSO₄ / H₂O₂

Assay of CuSO₄ / KCl

Estimation of drug I samples by Potentiometric titration

Estimation of drug II samples by Potentiometric titration

Pharmaceutics III (Ph 234) 3 Units

Emulsions

Semi - solid dosage forms

Micromeritics

Preparation of Arachis oil emulsion

Preparation of Liquid paraffin emulsion

Preparation of Calamine lotion

Preparation of Salicylic acid lotion

Preparation of Aminobenzoic acid lotion

Preparation of Lubricating Jelly

Preparation of Zinc oxide paste

Preparation of Vanishing cream

Preparation of Cold cream

Pharmacology I (Ph 244) 3 Units

General pharmacology

Pharmacology of Autonomic nervous system

Autocoids

Animals used in experimental pharmacology

Handling of laboratory animals and techniques of drug administration

Effect of route of administration of drug on the pharmacological response/ action

Study of the effect of changing liver microsomal enzyme systems activity on drug action

Medicinal Chemistry I (Ph 224) 3 Units

Introduction

Physicochemical Properties and Biological Activity

Drug Metabolism

Antihistaminic agents

Local anesthetics

Diagnosis agents

Identification of some drugs

To carry out characteristic chemical tests for identification of some studied in theory, as specified in the BP (vol I & II)

Assay of some drugs (With emphasis on the functional group analysis)

Phytochemistry I (Ph 254) 3 Units

Volatile oils

Glycosides

Estimation of volatile oil content in crude drug.

Determination of phenol content in volatile oil.

Determination of aldehyde content in volatile oil.

Determination of ester value in volatile oil.

Identification tests for volatile oil and its constituents.

Physiology I (Ph 264) 2 Units

Introduction

Autonomic nervous system

Blood and circulation system

Renal Physiology

Gastrointestinal Physiology

Instrumental Analysis II (Ph 315) 3 Units

Electrochemistry- Applications related to real drugs

- Introduction
- Potentiometry
- Conductometry
- Polarography
- Columetry
- Electrogravimetry
- Amperometric titration

Spectroscopy – Application related to real drugs

Absorption – Spectroscopy

- Introduction U.V. / Vis.
- Infra-Red.
- N.M.R.

Emission Spectroscopy

- Flame photometry
- Fluorimetry

Non Absorption Spectroscopy

- Refractometry, Polarimetry, ORD Nephelometry and turbidimetry.

Mass Spectrometry:

Estimation of drug samples by Potentiometric titration.
Estimation of drug samples by Conductometric titration
Estimation of drug samples by Colorimeter and U.V. Visible Spectrophotometer
Interpretation of compounds through IR, NMR, Mass Spectra

Pharmaceutics IV (Ph 335) 3 Units

Complexation and protein binding
Kinetics
Product stability
Preparation of Suppositories using theobroma oil base and displacement value calculation (Theoretical)
Preparation of Suppositories using Glycero-gelatin base and displacement value calculation (Theoretical)
Determination of rate, rate constant and half life of Zero order reaction (Theoretical)
Determination of rate, rate constant and half life of First order reaction (Theoretical)

Pharmacology II (Ph 345) 3 Units

Pharmacology of Cardiovascular system
Pharmacology of Urinary system
Pharmacology of Haemopoietic system
Pharmacology of drugs acting on respiratory system
Diuretic activity of frusemide using rats.
Assessment of grip strength in mice using diazepam
Effect of drugs on rabbit eye
Evaluate the effect of cisapride on gastrointestinal motility and its antagonism by codeine phosphate using rats

Medicinal Chemistry II (Ph 325) 3 Units

Antiseptics and disinfectants
Sulpha drugs and miscellaneous antibacterials
Antibiotics
Antimycobacterial agents: Concepts of multi-drug therapy
Antifungal Agents: Synthesis of Miconazole
Antiviral agents and an introduction of current anti-AIDS therapy
Antimalarials: synthesis of chloroquine and primaquine
Anthelmintics
Antiamoebics
Assay of some drugs (estimation and % purity) B.P.

Phytochemistry II (Ph 355) 3 Units

Resin and resin combinations
Glycosides
Bitter principles
Tannins

Alkaloids

Identification tests for alkaloids.

Identification tests for tannins.

Identification tests for glycosides.

Identification tests for resins.

Estimation of total tannin content by ferric chloride method

Physiology II (Ph 365) 3 Units

Central nervous system physiology

Endocrine and Reproduction physiology

Respiration physiology

Special sense physiology

Haematology

Blood pressure

Introduction to microbiology (Ph 366) 3 Units

General microbiology

Bacteriology

Safety and instruction in microbiology

Aseptic technique

Equipment and microscopes used in microbiology

Simple staining

Gram's staining method

Spore staining method and Capsule staining method

Biochemistry (Ph 326) 3 Units

Introduction

Carbohydrates

Proteins

Enzymes

Nucleotides and nucleic acids

Haem metabolism

Lipids

Vitamins

Qualitative tests of Carbohydrates

Qualitative tests of Proteins and amino acids

Qualitative tests of Lipids

Preparation of Buffers

Estimation of Glucose (Serum).

Estimation of total Proteins (Serum).

Estimation of total Cholesterol (Serum)

Pharmaceutical technology I (Ph 336) 3 Units

Size reduction and Size Separation

Mixing

Evaporation

Drying
Filtration
Centrifugation
Preparation of simple ointment and sulphur ointment
Preparation of emulsifying ointment and Whitfield ointment
Preparation of non-staining Iodine ointment
Preparation of cold cream
Preparation of vanishing cream
Preparation of salicylic acid and sulphur cream
Preparation of cetrimide cream

Biopharmaceuticals (Ph 316) 2 Units

Introduction
Drug absorption from gastrointestinal tract (G.I.T)
Drug absorption via buccal and other routes of administration
Disposition factors influencing drug activity
Considerations in drug evaluation
Application of biotechnology (Biopharmaceuticals)
Improvement of dissolution characteristics of slightly soluble drugs by some methods.
Comparison of dissolution studies of two different marketed products
Influence of polymorphism on solubility and dissolution.
Protein binding studies of a highly protein bound drug and poorly protein bound drug.
Extent of plasma-protein binding studies on the same drug.(i.e. highly and poorly protein bound drug) at different concentrations.
Bioavailability studies of some commonly used drugs.
Calculation of bioavailability from the urinary excretion data for two drugs.
Calculation of AUC and bioequivalence from the given data for two drugs.
In vitro absorption study.

Applied Pharmacognosy I (Ph 356) 3 Units

General methods of extraction of phytoconstituents
Chromatography
Plant tissue Culture
Herbal medicine and its quality control
Isolation of starch from potatoes
Isolation of casein from milk
Isolation of citric acid from lemon juice
Thin layer chromatography
Column chromatography

Pathology (Ph 346) 2 Units

Introduction

Cell and tissue reactions
Inflammation and repair
Pathology of the immune reaction
Genetic mechanisms of diseases
General circulatory pathology
General tumor pathology
Environmental and nutritional pathology
Infections

Pharmaceutical technology II (Ph 437) 3 Units

Crystallization
Packaging
Cosmetology
Fermentation technology
Blood products and preparations
Surgical sutures and ligatures
Preparation of Tragacanth Jelly
Preparation of Boric Acid Suppositories
Preparation of Zinc oxide suppositories
Preparation Tooth paste
Solubility curves
Calculation of Filter media resistance and cake resistance
Rate of Sedimentation
Particle size analysis

Hospital Pharmacy I (Ph 417) 3 Units

أنواع المستشفيات وهيكلتها
صيدلة المستشفيات, دورها , أهدافها Drug Formulary System
لجنة العلاج والدواء و وظائفها Pharmacy and Therapeutic Committee
زيارة لمكتبة الجامعة للاطلاع على مصادر المعلومات مثل دساستير الأدوية و BNF

Applied Pharmacognosy II (Ph 457) 3 Units

Biosynthesis of secondary metabolites
Structure elucidation of natural products
Narcotic plants
Marine natural products
Cultivation of crude drugs
Determination of foreign organic matters
Determination of foaming index
Determination of swelling factor
Determination of moisture content
Determination of extractive values

Therapeutics I (Ph 447) 3 Units

Drugs acting on Central Nervous System
Drugs acting on GIT
Anticonvulsant activity of phenytoin sodium using MES method

CNS depressants activity of
chlorpromazine (CPZ) Using Actophotometer
Analgesic effect of morphine on mice using Eddy's hot plate method
Analgesic effect of morphine on mice Using
tail flick method
Effect Of Pentobarbital Sodium On Sleeping
Time In Mice.

Medicinal Chemistry III (Ph 427) 3 Units

Drugs acting on CNS
Analgesics and NSAIDs
Drugs acting on peripheral nervous system
Diuretics
Identification of some drugs: Based on B.P.
Assay of some drugs (with emphasis on the functional group analysis)

Microbiology I (Ph 467) 3 Units

Mycology
Virology
Microbial contamination of Non-sterile drugs and spoilage
Disinfectants, Antiseptics and preservatives
Sterilisation and Sterility testing
Microbiological assays
Cultivation of bacteria and Identification of bacteria
Motility and counting of bacteria
Cultivation and staining of fungi, germ tube formation assay
Antibiotic assay

Clinical Biochemistry I (Ph 458) 3 Units

Introduction
Blood glucose and its determination
Plasma enzymes in diagnosis
Plasma lipids and lipoproteins
The liver diseases and liver function test
Renal disease and renal function test
Enzymatic determination of blood glucose.
Determination of plasma insulin by ELISA.
Assay of plasma alanine and aspartate aminotransferase (ALT/AST).
Assay of plasma alkaline and acid phosphatase (ALP/ACP).
Estimation of plasma total cholesterol, HDL/LDL cholesterol and triglycerides

Pharmaceutical industry I (Ph 438) 3 Units

Free powder dosage forms
Granules
Tablets

Coating of solids
Capsules and microencapsulation
Prolonged acting pharmaceuticals
Preparation of effervescent granules by dry method and wet method
Preparation of tablets containing different types of drug substances by wet granulation, dry granulation and direct compression methods.
Evaluation of prepared tablets/ commercial tablets, capsules.
(Weight variation test, disintegration test, hardness, friability)

Hospital Pharmacy II (Ph 418) 3 Units

Drug Information Centerمركز معلومات الدواء

المحاليل الوريدية

Drug Distribution systemآلية توزيع الأدوية داخل المستشفى

Aseptic Technique
Clean Room
Air Filtration
I.V. incompatibilities

زيارة لمكتبة الجامعة للاطلاع على مصادر المعلومات

Therapeutics II (Ph 448) 3 Units

Endocrine pharmacology
Chemotherapy
Effects of Physostigmine and Atropine on Ciliary Movements
Local Anesthetic Effect Of Drugs Using Nerve Block Anesthesia Method
Assessment Of Grip Strength In Mice Using Diazepam
Assessment Of Analgesic Effect Of Morphine Against Acetic Acid-Induced Writhing In Mice.
Effect of drugs on rabbit eye

Medicinal Chemistry IV (Ph 428) 3 Units

Drugs acting on CVS
Hormones (steroidal hormones)
Hypoglycemic agents
Concepts of Drug Design and Development
Assay of some drugs (with emphasis on the functional group analysis)
Synthesis of some drugs; eg. Aspirin, paracetamol, phenytoin

Microbiology II (Ph 468) 3 Units

Immunology
Sources of infections and modes of transmission
Prevention and control of infectious diseases
Bacterial diseases
Immunological mediated diseases
Viral diseases
Mycotic infections
Food microbiology
Microbiology of water, milk and Air

Immunological and molecular biological reactions for diagnosis of infections diseases (ELISA, CFT, Western blotting, PCR).

Sterility test of pharmaceutical preparations.

Microbiological examination of water and water supplies.

Microbiological examination of food samples.

Microbiology of milk

Test for sterility for water

Test for sterility of Antibiotics

Clinical Biochemistry II (Ph 559) 3 Units

Protein determination

Enzymes determination

Carbohydrates and lipids determination

Haematology

Endocrinology

Estimation of creatinine in plasma/urine samples.

Enzymatic estimation of blood urea nitrogen (BUN).

Determination of urine specific gravity and osmolarity (Fishberg conc. test).

Determination of serum total bilirubin.

Blood cell counting using haemocytometer (counting chamber).

Pharmaceutical Analysis I (Ph 529) 3 Units

Introduction

Introduction of a new drug

Chemical purity and its control

Principles of pharmaceutical Quality Control

Analytical criteria for drug quality assessment

The Analytical problem

Good practice in the manufacturer and quality control of drugs

Assay of different drugs in Libyan market in different dosage form

Clinical Pharmacy I (Ph 549) 3 Units

مقدمة في الصيدلة السريرية

الطب السريري

متابعة التأثير العلاجي للأدوية

تفاعلات الأدوية مع بعضها, مع الأغذية

Clinical cases

Pharmaceutical Industry II (Ph 539) 3 Units

Structure of pharmaceutical factory

Sterile dosage form preparations

Aerosols

Pilot-plant scale-up

Industrial safety and industrial hazards.

Formulation and filling of capsules

Preparations of cosmetics such as cold cream, vanishing cream, shaving cream, toothpaste, shampoo, face powders etc. Evaluation of the quality of these products.

Preparation of non-staining iodine ointment

Preparation of prolonged release formulations such as microspheres

Determination of bulk properties of granules such as bulk density, true density, compressibility, flow properties (angle of repose)

Pharmacy Practice I (Ph 519) 3 Units

الرعاية الصيدلانية كجزء أساسي من الرعاية الصحية
الإستشارات الدوائية
دورة الإمدادات الدوائية
السياسات الوطنية للأدوية
أخلاقيات مهنة الصيدلة
أسس الممارسة الصيدلانية الجيدة
اليقظة الدوائية
مفاهيم جديدة للممارسة الصيدلانية
مفاهيم جديدة للممارسة الصيدلانية
السياسة الوطنية للأدوية بليبيا

Pharmaceutical Analysis II (Ph 530) 3 Units

Functional group analysis

Determination of medicaments in formulation

Quality control and quality assurance of multicomponent system

Assay of drugs and other trace compounds in biological fluids

Advanced methods for drug analysis

Automation in pharmaceutical analysis

Assay of different drugs in Libyan market

Clinical Pharmacy II (Ph 550) 3 Units

تفاعلات الأدوية الضارة
الصيدلة الإشعاعية
غسيل الكلى
مهارات التواصل
الأمراض ومسبباتها, خصائصها السريرية, فحوصاتها وطرق علاجها

Clinical Cases

Emergency Medicine (Ph 540) 3 Units

Introduction

Bleeding

Fractures

Heat cramps, heat exhaustion and heat stroke

Burns

Water drowning

Foreign bodies (Eye, ear, skin, nose, stomach & respiratory tract)

Animal bites (Bee, spiders, scorpion, snake and dog)

Complications and management of

- Acute respiratory arrest
- Acute cardiac arrest
- Shock, Anaphylactic shock
- Coma and convulsions
- Hypertensive emergencies

Techniques in

- Injection (various routes), Gastric lavage, Nasogastric feeding, Enema and Bandages

Dental care – Loosening teeth, Toothache

Management of acute asthmatic attack

Choking

Demonstration on different ways of emergencies cases

Toxicology (Ph 560) 3 Units

General Principles of toxicology

General methods of treatment of poisoning

Mechanisms of toxicity

Absorption, Distribution, Metabolism and Excretion of Toxicants

Organ toxicology

Toxic agents

Environmental toxicology and Air pollution

Signs and symptoms of some toxicants and overdoses

Pharmacy Practice II (Ph 520) 3 Units

الحالات المرضية البسيطة
مفهوم الرعاية الصحية الأولية
مقدمة عن الأدوية التي تصرف بدون وصفة
الاستجابة للأعراض المرضية
أدوية بدون وصفة لحالات الجهاز الهضمي
أدوية بدون وصفة لحالات الجهاز التنفسي
أدوية بدون وصفة للمشاكل الجلدية
أدوية بدون وصفة للسيدات الحوامل
أدوية بدون وصفة للأطفال الرضع وكبار السن
إستخدام بعض الأجهزة والتحاليل داخل البيت
المشاكل البسيطة للعين والأذن
أدوية بدون وصفة لإدارة الألم
أدوية بدون وصفة للمشاكل النسائية

Graduation Project (Ph 570) 4 Units

The project is a theoretical or practical study or combination of them for a specific topic in the field of pharmaceutical sciences in order to identify the problems and topics related to the various purely pharmaceutical

research or clinical sciences, the student required to present methods and to address such problems and topics to verify the research feasibility.

الخاتمة

وفي ختام هذا الدليل الذي يهدف إلى تعريف الطالب بأهم تفاصيل البرنامج الأكاديمي للعلوم الصيدلانية وحيث احتوى هذا الدليل على الكثير من التفاصيل التي تهم الطالب ونأمل أن يجد فيه الكثير من الاستفادة وفق الله الجميع.

اعتماد

مجلس إدارة الجامعة