

Bachelor of Clinical Pharmacy Program

Course	Code	Hours			Aim
		Theoretical	Practical or tutorial	Total	
Alternative Medicinal Therapy	PGE 8	2	1	3	A large percentage of Egyptians use CAM therapies. The major goal of this course is to help the student identify and use reliable, valid information resources and effectively communicate with patients and other health care providers about the safety and potential health benefits of these therapies. The course provides an understanding of the different approaches whether herbal or non herbal utilized in traditional medicine. It explains the proposed scientific basis for the majority of commonly used applications if any. It points out the virtues and shortcomings of using traditional medicines whether they have or o not have medicinal effects. In points the course material should allow the students to: 1- To recognize the frequent practices of complementary and alternative medicines. 2- To understand the potential risks and benefits associated with complementary and alternative medicines and to be able to evaluate their efficacy. 3- To provide a critical review of the literature supporting and opposing the use of alternative medication to treat atopic disorders.

Botany and Medicinal Plants	PG101	2	1	3	- The student will be able to determine the most popular medicinal plants from morphological and anatomical point of view. - The student should be able to use the microscope and identify the different key elements in powdered drugs. -The student will be familiar of metabolic cell contents , biological catalysts, enzyme structure , cofactor and coenzymes - The students will study the different physiological processes occur in the metabolic cell (photosynthesis, carbohydrate synthesis, anaerobic and aerobic respirations) - The student will be familiar of plant taxonomy - the student will be aware of general introduction of pharmacognosy. - The student will study detailed pharmacognostical aspect of medicinal leaves
Chromatography and separation techniques	PGE 10	2	1	3	Upon successful completion of this course, the students should efficiently identify the different separation techniques and how to use advanced instruments for analysis and separation of the active ingredients in pharmaceutical formulations, plant extracts or in biological fluids. Furthermore he will be able to apply this knowledge efficiently in choosing the suitable instrument professionally in analytical problems. The course is designed to provide analysts

					with theoretical foundation of and practical experience with modern chromatographic techniques. Students will learn to use state-of-the-art instrumentation to develop, optimize, validate and apply methods for qualitative and quantitative determinations.
Pharmacognosy1	PG 202	2	1	3	The course aims to give intensive precise background about the essential fundamentals of medicinal botanicals (medicinal herbs, flowers, barks, wood and galls) with special emphasis on their active constituents, medicinal uses and misuse of some herbals. In addition, to identify medicinal Pharmacopoeial crude drugs of natural origin. The course aims also at giving the students strong information about the recent concepts and approaches of modern phytomedicine, CAM, food drugs and recent and renewed interest in some old remedies.
Pharmacognosy-2	PG 303	2	1	3	The course aims to give intensive precise background about the essential fundamentals of botanicals (seeds, fruits, underground organs, unorganized and animal drugs) with special emphasis on their active constituents, medicinal uses and misuse of some herbals. In addition, to identify medicinal Pharmacopoeial crude drugs of natural origin. The course aims also at giving the students strong information about the recent concepts and approaches of modern phytomedicine, phytopharmaceuticals, food drugs and recent and renewed interest in some old remedies.
Phytochemistry-1	PG 404	2	1	3	The course provides an

					understanding of the chemistry of plant constituents and methods of screening for active constituents. The course covers the physico-chemical properties of different classes as volatile oils, carbohydrates, bitter principles, resins, resin combinations and tannins. The student will acquire adequate information about representative medicinally used examples.
Phytochemistry-2	PG 505	2	1	3	The course provides an understanding of the chemical constituents of crude drug (alkaloids, glycosides, hallucinating and anticancer drugs) focusing on extraction, separation, chemical structures, identification, quantitative determination, medicinal uses and structural activity relationship. The course also covers the basic principles of chromatography and other separation techniques.
Phytotherapy	PG807	2	1	3	The student will be able to provide scientific information on the safety, efficacy, and quality control/quality assurance of widely used medicinal plants in order to facilitate their appropriate use.
Production and Manufacture of Medicinal Plants	PG E 9	1	2	3	The course gives enough knowledge about commercial production of medicinal plants, recent methods used in cultivation of medicinal plants, collection, drying and preservation. Also this course gives knowledge about the value of natural drugs, different factors affecting drug activity and about genetic engineering and the production of important secondary metabolites. The

					course applies different methodology suitable for extraction, and final packing of entire or powdered forms or extracts.
Quality Control of Herbal Drugs	PG 606	2	1	3	- To enlighten the students about quality control methods used for the assessments of herbal (Botanical) products with special emphasis on compendial methods. -To develop in student professional responsibility (awareness) towards the manufacture, prescribing and dispensing of quality herbal products. -To acquaint students with the currently accepted international regulations and specifications for quality herbal products. - To familiarize students with international efforts to ensure safe use of herbal products.
Computer Sciences	CS 101	1	1	2	Our aim in this course is to give an introduction to computer technology to make the student understand the computer hardware, software, and operating system. At the end of this course the students learn different types of input/ output devices and computer categories. The course also make the student practice on major application software packages such as word processing, spreadsheets,, database, and presentation graphics.