

The University of Jordan

Faculty: Pharmacy
Program: PharmD

Department: Pharmaceutical Sciences
Academic Year/ Semester: 2014-2015

Complementary And Alternative Medicine (1201414)

Credit hours	3	Level	4	Pre-requisite	1201390
Coordinator/ Lecturer	Dr Mayadah Shehadeh	Office number	207	Office phone	23313
Course website	http://eacademic.ju.edu.jo/m.shehadeh/default.aspx	E-mail	m.shehadeh@ju.edu.jo		

Office hours					
Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday
	11-12	1-2	11-12	1-2	

Course Description

This course is intended to introduce pharmacy students to the concept of complementary medicine (CAM) and the different types of medicines commonly used by patients and complementary therapies recognized by international health authorities with emphasis on modern herbal remedies. The course highlights the role of pharmacist in delivering information and advice for both patients and health care providers either in community or clinical setting. Lectures will focus on the concept of homeopathy, aromatherapy, medical herbalism, ayurvedic medicine, chiropractic, reflexology and traditional Chinese medicine including acupuncture and Chinese traditional herbal medicine.

Learning Objectives

1. To understand the concept of holistic approach
2. To understand the definition, classification, principle and applications of different CAMs
3. To be acquainted with different nutraceuticals, phytochemicals and other natural products available in the local and global market products
4. To study examples of commonly used herbal products and the impact of such use on disease and treatment status
5. To acquire knowledge on what and how to use different references to collect CAM-related scientific information

6. To appreciate the importance and the value of pharmacist in patient education and advise on CAM

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Student is expected to

A1- select the most appropriate reference for information regarding natural products use and administration.

A2- be able to provide patients with science-based information regarding WHO-recognized CAM modalities.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- recognize benefits and risks regarding the use of a specific CAM modality

B2- consult the patient regarding the effective CAM to prevent, alleviate or complement palliative medicine.

C. Subject-Specific Skills: Student is expected to

C1- be able to recognize benefits and risks associated with the use of different CAM modalities

C2- be able to recommend suitable CAM therapy for a specific illness

D. Transferable Key Skills: Students is expected to

D1- know how to conduct literature survey for scientific information related to CAM

D2- consult the pharmaceutical industry on natural product

ILOs: Learning and Evaluation Methods

ILO/s	Learning Methods	Evaluation Methods
Knowledge and Understanding	Lectures and	Exam, Quiz
Intellectual Analytical and Cognitive Skills	Homework and Assignments	project, assignments
Subject-Specific Skills	Discussions, , Projects, Presentation	presentation,

Course Contents

Content	Reference	Week	ILO/s
1. Introduction to complementary and alternative medicine 1.1. Concept of healing 1.2 Classification 1.3 Practice and delivery of CAM and regulatory affairs 1.4 Clinical studies and recent advances in CAM 1.5 CAM in the pharmacy environment	1	1	A & B
2. Homeopathy 2.1 Definition, concept, evidence, indications and safety 2.2 Materia medica and other references 2.3 Examples of homeopathic preparations and indications	1	2	A , B & C
3. Aromatherapy 3.1 Definition, concept, evidence, indications and safety 3.2 Aromatherapy in practice 3.3 Common oils and their uses	1	3	A , B & C
4. Manual Therapies 4.1 Chiropractic & Osteopathy (Definition, concept, evidence, indications and safety) 4.2 Reflexology, Reiki (Definition, concept, evidence, indications and safety)	1	3-4	A , B & C
5. Traditional Chinese Medicine (TCM) 5.1 Definition, theory, evidence and practice, concept of meridians, yin and yang 5.2 Acupuncture (Definition, concept, evidence, indications and safety) 5.3 Chinese Herbal Medicine (Definition, concept, evidence, indications and safety)	1	5	A , B & C
Rational Phytotherapy 6.1 Pharmaceutical preparation of phytomedicines (extraction, standardization, quality of herbal material, production methods and analytical quality control) 6.2 Medicinal Teas (medicinal and non medicinal teas, actions, forms, soluble, guidelines for preparations and use in infants and children)	2	6	A , B & C

6.3 Phytomedicine for CNS diseases (ginkgo, St. John's Wort, sleeping and restlessness remedies)	2	7	A , B & C
6.4 Phytomedicine for cardiovascular diseases (heart failure, coronary insufficiency, hypotension & hypertension, atherosclerosis, chronic venous insufficiency)	2	8-9	A , B & C
6.5 Phytomedicines for respiratory system diseases (cold syndrome, cough, expectorants and sinusitis)	2	10	A , B & C
6.6 Phytomedicine for digestive system diseases (anorexia, dyspepsia, bloating, irritable bowel syndrome, acute diarrhoea, constipation and liver diseases)	2	10	A , B & C
7 Phytomedicine for urinary tract diseases (inflammatory disease, benign prostate hyperplasia, bladder and kidney)	2	11	A , B & C
6.8 Phytomedicine for gynecological diseases (dysmenorrhoea, menopause)	2	12	A , B & C
6.9 Phytomedicine for skin and rheumatic diseases (inflammatory skin conditions, postoperative conditions, rheumatic and degenerative joint diseases)	2	13	A , B & C
6.10 Phytomedicine for enhancing immune system	2	14	A , B & C
7. Drug-Herb Interactions 8. Discussion sessions	2	14	C & D

Learning Methodology

- 1) Lectures: 3 credit hours/week
- 2) Case study
- 3) Products samples presentations and discussions
- 4) Assignments and discussions

Projects and Assignments

Students should submit assignments intended to use textbooks, references and electronic databases to search for information regarding an assign topic during lectures. Students should be able to defend the acquired information during discussion sessions.

Evaluation

Evaluation	Point %	Date
Midterm Exam	40	Will be announced in due time week 6-8 th week
Project	5	10 th week
Assignments	3	3 rd , 12 th and 8th
Homework	2	4 th and 14 th week
Final Exam	50	Will be announced in due time Week 15- 16 th week

Main Reference/s:

1. **Complementary therapies for pharmacists**, 2002. Steven B. Kayne, Pharmaceutical Press, UK.
2. **Rational phytotherapy, a physicians' guide to herbal medicine**, fourth edition 2001. V Schulz, R Hansel, V.E. Tyler

References:

1. **Complementary and Alternative Medicine**, 2008, 2nd, Steven B. Kayne, Pharmaceutical Press, UK
2. **Dietary Supplements**, 20007, 3rd edition, Pamela Mason, Pharmaceutical Press, UK