



كلية الصيدلة جامعة الزيتونة الأردنية  
Faculty of Pharmacy  
Al-Zaytoonah University of Jordan  
" نحو تعليم صيدلاني متميز "

Toward Excellence in Pharmaceutical  
Education

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"Tradition and Quality"

Detailed Course Description - Course Plan Development and Updating Procedures/ Pharmacy Department	QF02/0408-3.0E
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Faculty	Pharmacy	Department	Pharmacy
Course number	0201441-0201442	Course title	Phytotherapy
Number of credit hours	3	Pre-requisite/co-requisite	Phytochemistry

### Brief course description

This course is a complimentary part for previous courses of pharmacology, phytochemistry and Pharmacognosy. It gives a basic idea about treatment using medicinal plants or what is known as phytotherapy. It includes: definition of phytotherapy, terminology; historical background, available dosage forms in the market, toxicity, precautions, regulation and legislation. Scientific evidence ascertaining some remedies or practices used in phytotherapy is also discussed, in addition herb-herb interaction and herb-drug interactions. All of those relationships are highlighted by introducing different clinical cases introduced to pharmacist with patient seeking for advice about the herbal medicinal; their efficacy, toxicity, precaution, and interaction with other herb or conventional drugs.

Course goals and learning outcomes	
<b>Goal 1</b>	To introduce students to the concepts of alternative/complementary medicine, general history of herbal medicine, be able to comment on the standardization of herbal products, describe the current regulatory status of herbal medicine, standardization & characterization of herbal formulation, herbal formulations, Familiar with Aromatherapy and Homeopathy
Learning outcomes	The student must be able to: 1. List common dosage forms of herbal preparations. 2. Recite some of the types of chemicals found in herbs. 3. List popular herbal medicines and other nutraceuticals according to their intended use.
<b>Goal 2</b>	Outline the active constituents, mechanism of action, clinical applications, recommended dosage, side effects and contraindications, as well as drug/herb interactions (when known) of selected herbals.
Learning outcomes	The student must be able to: 1. Provide scientific information, as describe in the <i>Who</i> monographs, regard selected herbs. With particular attention on the pharmacological aspects of each herb.
<b>Textbook</b>	1. Handbook of Herbs and Supplements and their Therapeutic Uses, Steven Bratman, Andrea M. Girman. ISBN 0-323-02015-1, 2003, Mosby, Inc. United States. 2. Herbal Medicines, Joanne Barnes, Linda A. Anderson and J. David Phillipson, Third Edition, ISBN 978 0 85369 623 0, 2007, RPS Publishing, UK. 3. Herbal Medicines , Charles W. Fetrow, Juan R. Avila, ISBN 1-58255-062-X, Springhouse Corporation, United States. 4. Rational Phytotherapy, Volker Schulz, Rudolf Hansel, A Physicians Guide to Herbal Medicine. ISBN 3-540-67096 Springer –Verlag Berlin Heidelberg New York



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Supplementary references	<ol style="list-style-type: none"> <li>1. Pharmacognosy and Phytochemistry. 2nd edition Bruneton Jean, Springer verlag, 2008, ISBN: 1898298637</li> <li>2. Drugs of natural Origin, 6<sup>th</sup> edition 2010 Gunnar Samuelsson: Swedish Pharmaceutical Press, ISBN 9186274813</li> <li>3. HBP – Pharmacopoeia</li> </ol>
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Course timeline				
Week	Number of hours	Course topics	Pages (textbook)	Notes
1	1 1 1	Complementary and Alternative Medicine. Herbal Medicine.		
2	1 1 1	Standardization and Regulation of Herbal Medicine. Pharmacokinetic Herb-Drug Interaction.		
3	1 1 1	Pharmacodynamic Herb-Drug Interaction. Herbal Formulation.		
4	1 1 1	Aromatherapy. Homeopathy.		
5	1 1 1	<b>Cardiovascular System.</b> Phytotherapy of Congestive Heart Failure and Coronary Insufficiency (Digitalis species, Strophanthus kombe, Scilla maritima ,Lily of the valley , Oleander and Hawthorn). Phytotherapy of Hypertension (Hawthorn ,Garlic, Valerian ,Dandelion and Olive leaves)		
6	1 1 1	Phytotherapy of Hypotension (Caffeine-containing herbs and beverages and Essential oils). Phytotherapy of Arteriosclerosis and Arterial Occlusive Disease (Artichoke ,Garlic , Ginseng , Silybum ,Ginkgo , Hawthorn, Psyllium ,Guar Gum , Bran and Red yeast rice) . Phytotherapy of Chronic Venous Insufficient (Horse chestnut seed extract) Phytotherapy of Chronic Venous Insufficiency. Horse chestnut seed extract Grape leaf and Arnica flower).		
7	1 1 1	<b>Central Nervous System.</b> Adaptogenic Herbal Remedies(Asian ginseng, Ginkgo biloba, Milk thistle seeds , Garlic bulb and Black current ) Sleep Disorders(Valerian roots, Hop cones, Balm		



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		<p>leaves, Passion flower herb, Lavender flower oil and Chamomile flower oil) Nervous Anxiety, Tension and Unease(Kava rhizome, Balm leaf, valerian root, Passion flower herb, Lavender flower and St. john's wort) Depression and Mood Swings (St. john wort) Primary Headache Disorders (Butterbur root, Peppermint oil and Guarana seeds.)</p>
8	<p>1 1 1</p>	<p><b>Genitourinary System.</b> Urinary Tract Infection (Bearberry leaves, Java Tea, Horse Tail, Betula pendula, Bean Pods and Ilex paraguariensis) Treatment of Water Retention(Juniper, Golden rod and Parsley) Treatment of Kidney Stones(Ammi visnaga fruits, Madder roots and Goldenrod) Erectile Dysfunction(Yohimbe) Herbs for Prostatioc Hypertrophy(Pumpkin seeds and Pygeum bark, )</p>
9	<p>1 1 1</p>	<p><b>Rheumatism and Pain.</b> Cayenne Fruit Local Irritants(Cayenne fruits, White mustard seed, Ginger root, Peppermint oil, Conifer oil, Camphor, Grass flowers and Arnica flowers) Herbal Remedies that Modulates Prostaglandines and Leukotrien Synthesis(Willow bark, Aspen leaf and bark and Meadowsweet flowers) Rheumatoid Arthritis(Devil's claw root, Aspen bark and leaf, Ash bark, Goldenrod and Stinging nettle leaf)</p>
10	<p>1 1 1</p>	<p><b>Gastrointestinal System.</b> Chamomile, Ginger, Milk Thistle, Turmeric, Anorexia(Gentian root, Cinchona bark and Bitter orange peel) Reflux, Gastritis and Gastroduodenal Ulcers(Chamomile flower, Licorice root and Fennel seeds) Demulcents(Flaxseed) Diseases of Mouth and Throat(Chamomile flower, Sage leaf, Slippery elm bark, Myrrh tincture, Bilberry fruits, Bayberry roots, rhatany and Arnica) Carminatives(Caraway seed, Fennel seed and Aniseed) Bitters(Wotmwood, Angelica root, Gentian root, chicory root, Dandelion root and yarrow herb)</p>



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		Aromatic Herbs(Aniseed, Caraway seed and oil, Cinnamon bark, Turmeric root Bitter orange peel, Coriander seed, Fennel seeds, Chamomile flower, Balm leaf, Peppermint leaf and Rosemary leaf) Digestive Enzymes(Papaya peel and Pineapple )
11	1 1 1	<b>Respiratory System.</b> Antiphlogistics(Chamomile flower) Cold Receptor Stimulators(Peppermint oil and Camphor oil) Immunostimulants(Purple echinacea herb and Paleflowered echinacea root) Diaphoretics(Elder flower, Yarrow flower and leaf and Linden flower) Vitamin C Supplements(Black currant and Rose hip peel) Chronic Infections of the Upper Respiratory Tract(Purple
12	1 1 1	echinacea herb and Siberian ginseng) Antiphlogistics(Ivy leaf, Primula root, Licorice and Iceland moss) Antibiotics and Immunomodulators(Thyme, Ivy, Nasturium and Horseradish root) Antitussives(Sundew herbs, Marshmallow root, mallow leaf and flower, Ephedra herb, Codeine and Iceland moss) Secretolytics and Expectorants(Ivy leaf, Primula root, Soap bark, Senega snake root, Licorice root and Essential oils)
13	1 1 1	<b>Dermatology.</b> Psoriasis(Aloe vera juice and Oregon grape root or bark) Eczema(Chamomile flower, Witch hazel leaf and bark and Oak bark) Acne and Seborrhea(Oregon grape Bark and Heartsease) Hair Loss(Stinging nettle) Excessive Perspiration(Sage leaf)
14	1 1 1	<b>Drugs Used for women health.</b> (Evening primrose oil and Black cohosh) Disturbances of the Menstrual Cycle(Silverweed herb and Shepherd's purse)
15	1	<b>Final exam</b>



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<b>Theoretical course evaluation methods and weight</b>	First exam 25% Second exam 25% Final exam 50%	<b>Practical (clinical) course evaluation methods</b>	N/A
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<b>Approved by head of department</b>		<b>Date of approval</b>	
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Extra information (to be updated every semester by corresponding faculty member)

<b>Name of teachers</b>	Dr. "Jamila Isabella" ALI	<b>Office Number</b>	220
<b>Phone number (extension)</b>	224	<b>Email</b>	<a href="mailto:jamilaisabella.ali@zuj.edu.jo">jamilaisabella.ali@zuj.edu.jo</a>
<b>Office hours</b>	Dr. "Jamila Isabella" ALI: Sunday, Tuesday, Thursday 13:00 am – 14:00 am Monday, Wednesday 9:30 am – 10:30 am		