

Philadelphia University	 PHILADELPHIA UNIVERSITY <small>THE WAY TO THE FUTURE</small>	Approved Date:
Faculty: Pharmacy		Issue: 1
Department: -	Course Syllabus	Credit Hours: 2
Academic Year: 2021/2022		Bachelor:

Course Information

Course No.	Course Title	Prerequisite	
0521511	Phytotherapy	0521223	
Course Type		Class Time	Room No.
<input type="checkbox"/> University Requirement <input type="checkbox"/> Faculty Requirement <input type="checkbox"/> Major Requirement <input type="checkbox"/> Elective <input checked="" type="checkbox"/> Compulsory		Sun/Tue 11.15 – 12.45	414 Faculty of Nursing – 1st floor

Instructor Information

Name	Office No.	Phone No.	Office Hours	E-mail
Dr. Yousef Abusamra	408 Faculty of Nursing – 1st floor	2174	Sun/Tue 10 -11 Mon/Wed 11.15 -12.15	<input type="checkbox"/> yabusamra@philadelphia.edu.jo

Course Delivery Method

<input type="checkbox"/> Blended <input type="checkbox"/> Online <input checked="" type="checkbox"/> Physical			
Learning Model			
Percentage	Synchronous	Asynchronous	Physical
	0%	0%	100%

Course Description

This course builds upon and consolidates the knowledge gained from the courses of pharmacology, phytochemistry, and pharmacognosy. It gives a basic idea about treatment using medicinal plants and natural products from other natural sources; such as animals, algae, and fungi. It includes the definition of phytotherapy, terminology, historical background, available dosage form in the market, toxicity, precaution, regulation, and legislation. The effects of common food ingredients and standardized plant extracts directly pertinent to the pharmacological effects or overall safety of plant-based medicines are also discussed. Scientific evidence ascertaining clinical applications of herbs and natural products in medicine, from case histories to full clinical trials are also emphasized including herb-herb interaction and herb-drug interaction, and other aspects of the safety of herbal medicines.

Course Learning Outcomes

Number	Outcome	Corresponding Program Outcomes
Knowledge		
K1	Describe the chemistry of the active ingredients found in medicinal plants and the basic methods used in their extraction.	Kp1, C1
K2	Explain the efficacy of medicinal plants/extracts in certain disease state, along with their mechanism of action.	Kp1, Kp2, Kp3, C1, C2, C3
K3	Gain the knowledge about herb-drug interactions and herb-herb interactions.	Kp1, Kp2, KP3, C1, C2, C3
Skills		
S1	Able to identify the appropriate medicinal herb according to specific patient group and educate them about it.	Sp1, Sp2, Sp3, Sp6, C7, C8, C9, C12
S2	Able to identify different relationships between Phytotherapy and conventional medicines and educate them about possible herb-drug interactions.	Sp1, Sp2, Sp3, Sp6, C7, C8, C9, C12

Learning Resources

Course Textbook	<ol style="list-style-type: none"> Fundamentals of Pharmacognosy and Phytotherapy; by Michael Heinrich, Joanne Barnes, Simon Gibbons and Elizabeth M Williamson (2012), Elsevier Ltd ISBN: 978-0-7020-3388-9. Pharmacognosy; Trease and Evans. 16th Edition, 2009, Published by ELBS, London ISBN 978-0702029332
Supporting References	<ol style="list-style-type: none"> Herbal therapy for human diseases: Irfan Ali Khan and Atiya Khanum (2007), Ukaaz publications ISBN: 81-88279-43-9. Comprehensive pharmacy review; Leon Shargel Alan H. Mutnick et al; 4th edition ISBN:0-7817-2147-4.
Supporting Websites	<i>Natural Medicines Comprehensive Database</i> (www.naturaldatabase.com) www.pubmed.com www.fda.gov(Food & Drug Administration) www.uspharmacist.com(a pharmacy monthly publications that includes articles on herbals); www.altmed.od.nih.gov (National Centre for Complementary & Alternative Medicine); www.fda.gov/medwatch (Report an adverse effect due to an herb/herbal product); www.nccam.nih.gov (National Centre for Comp.)
Teaching Environment	<input checked="" type="checkbox"/> Classroom <input type="checkbox"/> laboratory <input type="checkbox"/> Learning Platform <input type="checkbox"/> Other

Meetings and Subjects Time Table

Week	Topic	Learning Method*	Task	Learning Material
1	Vision and Mission of Faculty of Pharmacy Course Syllabus General introduction for Glycosides	Lecture		Vision and Mission of Faculty of Pharmacy, Course Syllabus, Txt. B.1, Chapter 6 Txt. B.2 Chapter 20
2	Saponin glycosides: Introduction, Dioscoria, Ginseng, Glycyrrhiza, quillaia, ivy, horse chestnut,	Lecture Collaborative learning	Case study	Txt. B.1, Chapter 6, 11, 14, 15, 16, 25 Txt. B.2 Chapter 23
3	Flavonoid glycosides	Lecture		Txt. B.1, Chapter 6, 19, Txt. B.2 Chapter 21
4	Flavonoid glycosides	Lecture Problem solving based learning	Homework	Txt. B.1, Chapter 6, 19, Txt. B.2 Chapter 21
5	Anthocyanidins: pelargonidin, cyanidin, delphinidin, malvidin etc.	Lecture		Txt. B.1, Chapter 6, 15, Txt. B.2 Chapter 21
6	Cyanogenic / Cyanophore glycosides: amygdalin, prunasin Isothiocyanate glycosides: sinigrin, sinalbin	Lecture		Txt. B.1, Chapter 6 Txt. B.2 Chapter 25
7	Bitter principles: Coumarins and Furanocoumarins: scopoletin, psoralen, khellin, bergapten, aesculetin, xanthotoxin Terpenes	Lecture		Txt. B.1, Chapter 6, 10, 16 Txt. B.2 Chapter 21
8	Tannins Resin and lignans	Lecture Problem solving based learning	Short report Homework	Txt. B.1, Chapter 6, 10, 16 Txt. B.2 Chapter 21 Txt. B.1, Chapter 6, 11, 18
9	Phytotherapy for the CNS	Lecture		Txt. B.1, Chapter 17
10	Phytotherapy for the respiratory system	Lecture	Short presentation	Txt. B.1, Chapter 16
11	Midterm Exam			
12	Phytotherapy for the endocrine system Phytotherapy for the skin	Lecture	Short presentation	Txt. B.1, Chapter 19 Chapter 22
13	Phytotherapy as anti-infectious. Phytotherapy for the eye, nose and ear	Lecture	Short presentation	Txt. B.1, Chapter 18 Chapter 23 and 24
14	Phytotherapy for the musculoskeletal system	Lecture	Short presentation	Txt. B.1,

				Chapter 21
15	Phytotherapy for the cardiovascular	Lecture	Short presentation	Txt. B.1, Chapter 15
16	Final Exam			

Course Contributing to Learner Skill Development

Using Technology
<ul style="list-style-type: none"> Demonstrate ability to search and use the literature in both printed and electronic formats Using power point or any other relevant programs for preparing presentations.
Communication Skills
<ul style="list-style-type: none"> Demonstrate effective written and oral communication skills, especially the ability to transmit complex technical information in a clear and concise manner.
Application of Concept Learnt
<ul style="list-style-type: none"> To have the ability to communicate with the patients regarding the proper use of herbal products.

Assessment Methods and Grade Distribution

Assessment Methods	Grade	Assessment Time (Week No.)	Course Outcomes to be Assessed
Mid Term Exam	% 30	11 th week	K1, K2
Term Works*	% 30	Continuous	K1, K2, K3, S1, S2
Final Exam	% 40	16 th week	K1, K2, K3, S1, S2
Total	%100		

* Include: quizzes, in-class and out of class assignment, presentations, reports, videotaped assignment, group or individual project.

Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Corresponding competencies	Learning Method*	Assessment Method**
Knowledge				
K1	Describe the chemistry of the active ingredients found in medicinal plants and the basic methods used in their extraction.	C1	Lecture Collaborative learning Problem solving based learning	Subjective Quiz Exam/Objective questions Homework evaluation
K2	Explain the efficacy of medicinal plants/extracts in certain disease state, along with their mechanism of action.	C1, C2, C3	Lecture Problem solving based learning	Subjective Quiz Exam/Objective questions

				Short presentation evaluation
K3	Gain the knowledge about herb-drug interactions and herb-herb interactions.	C1, C2, C3	Lecture Problem solving based learning	Subjective Quiz Exam/Objective questions Short presentation evaluation
Skills				
S1	Able to identify the appropriate medicinal herb according to specific patient group and educate them about it.	C7, C8, C9, C12	Lecture Problem solving based learning	Exam/Objective questions Short presentation evaluation
S2	Able to identify different relationships between Phytotherapy and conventional medicines and educate them about possible herb-drug interactions.	C7, C8, C9, C12	Lecture Problem solving based learning	Exam/Objective questions Short presentation evaluation

*Include: lecture, flipped class, project based learning, problem solving based learning, collaboration learning.

** Include: quizzes, in-class and out of class assignments, presentations, reports, videotaped assignments, group or individual projects.

Course Polices

Policy	Policy Requirements
Passing Grade	The minimum pass for the course is (50%) and the minimum final mark is (35%).
Missing Exams	<ul style="list-style-type: none"> • Anyone absent from a declared semester exam without a sick or compulsive excuse accepted by the dean of the college that proposes the course, a zero mark shall be placed on that exam and calculated in his final mark. • Anyone absent from a declared semester exam with a sick or compulsive excuse accepted by the dean of the college that proposes the course must submit proof of his excuse within a week from the date of the excuse's disappearance, and in this case, the subject teacher must hold a compensation exam for the student. • Anyone absent from a final exam with a sick excuse or a compulsive excuse accepted by the dean of the college that proposes the material must submit proof of his excuse within three days from the date of holding that exam.
Attendance	The student is not allowed to be absent more than (15%) of the total hours prescribed for the course, which equates to six lecture days (n t) and seven lectures (days). If the student misses more than (15%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it.

**Academic
Integrity**

Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights.