

The University of Jordan

Faculty: Pharmacy

Department: Biopharmaceutics and Clinical Pharmacy

Program: Pharm D

Academic Year/ Semester: 2014-2015 First Semester

Pharmaceutical Nutrition and Diet Therapy (1203519)

Credit hours	3	Level	5	Pre-requisite	1203412
Coordinator/ Lecturer	Prof. Dr Talal Aburjai	Office number	23294	Office phone	0777424593
Course website	http://www2.ju.edu.jo/sites/Academic/aburjai/layout/viewlists.aspx	E-mail	aburjai@ju.edu.jo	Place	Med Pharma-Hall

Office hours					
Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday
	8.30-10		8.30-10		

Course Description

The basic principles of human nutrition are investigated, emphasizing the nutrients, food sources, and their utilization in the body for growth and health throughout life. This course also assesses contemporary nutrition issues. A comparative view of nutrition as it relates to the treatment of disease, this course emphasizes the evaluation of assessment data, the nutrition care process, methods of nutrition support, food and drug interactions and applications of nutrition interventions for diseases of the gastrointestinal tract, liver and biliary tract, pancreas, metabolic stress, anemia, heart failure and transplant, pulmonary disorders, cancer, HIV infections, renal disease and metabolic disorders. This course also covers the importance of

Nutraceuticals in diet regimen and the role of the pharmacist in clinical nutrition.

Learning Objectives

Intended Learning Outcomes (ILOs):

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

A. Knowledge and Understanding:

- A1- Students expected to acquire all the basic principles of human nutrition needs
- A2- Students expected to acquire all the basic principles of Nutraceuticals used in different disorders
- A3- to familiarize and engage the student in the steps and dynamics of policy making processes that address nutrition problems and issues
- A4- identifies food and nutrition problems amenable to policy intervention;
- A5- defines criteria of effective food or nutrition policies;
- A6- critique a specific food and/or nutrition policy with respect to its evidence-base, adequacy of implementation, nutritional impact and forces which hinder or help the implementation of the specific policy.

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

- B1- Students expected to define drug-food interaction
- B2- Students expected to acquire knowledge regarding the appropriate nutritional regimen for various diseases

C. Subject-Specific Skills: Student is expected to

- C1- Planning for diets either for healthy or patients
- C2- Recognize the role of nutrition as it relates to major diseases, including cardiovascular, diabetes, gastrointestinal, osteoporosis, obesity, and cancer.

D. Transferable Key Skills: Students is expected to

- D1- Team work
- D2- How to conduct literature survey and to get the information from different sources

ILOs: Learning and Evaluation Methods

ILO/s	Learning Methods	Evaluation Methods
A. Knowledge and Understanding:	Lectures and Discussions, Homework and Assignments, Projects, Presentation.	Exam, Quiz.
B. Intellectual Analytical and Cognitive Skills	Lectures and Discussions, Homework and Assignments, Projects, Presentation.	Presentation, project, assignments.
C. Subject-Specific Skills	Lectures and Discussions, Homework and Assignments, Projects, Presentation.	Presentation, project, assignments.
D. Transferable Key Skills	Homework and Assignments, Projects, Presentation.	Presentation, project, assignments.

Course Contents

Content	Reference	Week	ILO/s
<p>Part One: General</p> <ol style="list-style-type: none"> 1. An Overview of Nutrition 2. Planning a healthy Diets 3. CHO 4. Lipids and Fats 5. Proteins 6. Vitamins 7. Trace Minerals and Diseases 8. Waters and Major Minerals 		<i>Due date: 1-5th week</i>	
<p>Part Two: Nutraceuticals</p> <ol style="list-style-type: none"> 1. Foods or medicines? The relationship between nutraceuticals, foods and medicines 2. Monographs – general and specific Properties <ul style="list-style-type: none"> - Glucosamine - Chondroitin - Methylsulfonylmethane - Coenzyme Q10 - Melatonin - Carnitine - Acetyl-L-carnitine - Octacosanol/policosanol - Polyunsaturated fatty acids - n-3 Fatty acids from fish oils - -Linolenic acid, Flaxseed/-linolenic acid, Conjugated linoleic acid - Flax lignans 		<i>Due date: 5th - 10th week</i>	

<ul style="list-style-type: none"> - Pycnogenol - Pycnogenol - Grape seed proanthocyanidin extract - Lycopene - Lutein - Zeaxanthin and astaxanthin - Lipoic acid - Dehydroepiandrosterone - Soy isoflavones - Tea - Creatine 			
<p>Part Three: Nutraceuticals and Health</p> <ul style="list-style-type: none"> - Joint health - Cardiovascular health - Eye health - Mental health - Sleep enhancement - Cancer prevention - Nutraceuticals and bone health - Respiratory health - Women's health 		<p><i>Due date: 10th -12th week</i></p>	
<p>Part Four: QC of Food and Nutraceuticals</p> <ul style="list-style-type: none"> • Meta-analyses and systematic reviews of nutraceutical clinical trials • Synergism, beneficial interactions and combination products • Minor nutraceuticals and their therapeutic applications 		<p><i>Due date: 12th -16th week</i></p>	

<ul style="list-style-type: none">• Safety, adverse effects and interactions of nutraceuticals• Quality of nutraceuticals			
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Learning Methodology

1. **Lectures**
2. **Group Discussion**
3. **Seminars**

Projects and Assignments

Each student will present a seminar in related topic

Evaluation

Evaluation	Point %	Date
Midterm Exam	<u>30%</u>	<u>10-16/11/2013</u>
Quiz	<u>10%</u>	<u>22/10/2013</u>
Homework	<u>10%</u>	<u>1/12/2013</u>
Final Exam	<u>50%</u>	<u>1/1/2014</u>

Main Reference/s:

- 1. Understanding Normal and Clinical Nutrition. Sharon Rolfes, Kathryn Pinna and Allie Whitney. Seventh Edition 2012.**
- 2. Basic Nutrition and Diet therapy. S.R. Williams. Eleventh Edition 2010.**

References:

- 1. A-Z guide to drug-herb-vitamin interaction. Schuyler W. et al., healthnotes.2002.**