





# ( Pharm D – عالوريوس الصيدلة ( فارم د

# **Course Specification**

Academic year: 2020/2021

Course name: Pharmacognosy -2	اسم المقرر : عقاقير 2
Academic Level: 2 <sup>nd</sup> level	المستوى الأكاديمي: الثاني
Scientific department:Pharmacognosy	القسم العلمي : العقاقير
Head of Department: Prof. Mona G. Zaghlol	رئیس القسم: ا.د/ منی جوده ز غلول
Course Coordinator: Prof. Hassan-Elrady A. Saad	منسق المقرر: أ.د/ حسن الراضى على سعد





University	Mansoura
Faculty	Pharmacy
Department offering the course	Pharmacognosy Dept.
Department supervising the course	
Program on which the course is given	Bachelor in Pharmacy- Pharm D
Academic Level	second level
Date of course specification approval	/11/2020

#### 1- Basic Information: Course data:

Course Title	Pharmacognosy -2
Course Code	PG213
Prerequisite	Registration
Teaching Hours: Lecture	2
Practical:	1
Total Credit Hours	3

#### 2- Course Aims:

1- This course will encompass the studying of the drugs derived from medicinal fruits, herbs, subterranean organs as well as unorganized and animal derived drugs. After completion of the course the student should have the knowledge and skills to differentiate between previous organs and identify the active constituents, adulterants, precautions of their medicinal uses, side effects, contraindications and their presence in pharmaceutical Egyptian markets.

## **3- Course Learning Outcomes:**

Upon completing the course, the student will be able to dominate the following key elements

#### **Domain 1- Fundamental Knowledge**

(1.1.1)	Outline general macroscopical and microscopical characters of given medicinal fruits, and herbs, subterranean organs, unorganized drugs.
(1.1.2)	Memorize the geographical and botanical origin of the studied plants such as, fruits, herbs and subterranean organs as well as unorganized and derived drugs.





(1.1.4)	Recognize the main active constituents of the studied drugs.
(1.1.5)	Distinguish the uses of a given medicinal fruits, and herbs, subterranean organs, unorganized and animals derived drugs.

#### **Domain 2: Professional and Ethical Practice**

(2.2.1)	Analyze the different morphological and microscopical features of the studied medicinal fruits, herbs, subterranean organs, unorganized and animals drugs.
(2.2.2)	Evaluate the incompatibilities and contraindications of a given medicinal items from plant and animal origin.
(2.3.4)	Distinguish the appropriate chemical tests to identify the active constituents of the target plants and detect its purity.

## **Domain 3: Pharmaceutical Care**

(3.2. 1)	Categorize chemical structure, pharmacological activity, therapeutic uses, proper dosage, side effects and drug- drug interactions of medicinal fruits, herbs, subterranean organs, unorganized and animals drugs.	
(3.2.8)	Perform physical, microscopical and chemical identification for certain medicinal fruits, herbs, subterranean organs, unorganized and animals drugs.	

## **Domain 4: Personal Practice**

(4.1.1)	Demonstrate effectively by verbal and written means.
(4.2.1)	Communicate with other practioners in the field of medicinal plants regarding the studied topics.
(4.3.2)	Continuous self-learning.

## **4- Course Contents**

Week No.	Topics	Hours
1	Introduction of medicinal Fruits	2
2	Medicinal Fruits such as Umbelliferous fruits (Anise, Fennel, Coriander, Ammi visnaga, Ammi majus), Capsicum, Colocynth fruit.	2
3	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)	2
4	Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng and Liquorice roots.	2





5	Medicinal subterranean drugs such as Rhubarb root & Rhizome,	2
	Ginger rhizome, Curcuma rhizome, Galangal rhizome and Jalap root.	
6	Medicinal subterranean drugs such as Colchicum corm Senega root,	2
	Squill bulb, Gentiana, Valeriana andetc.	
7	Mid term exam	
8	Introduction of unorganized drugs.	2
9	Medicinal unorganized drug such as gums (gum tragacanth and gum Arabic), dried extracts (gelatin and agar-agar).	2
10	Resin and resin combinations such as colophony, myrrh, asafoetida and mastic.	2
11	Balsams (benzoine, perueetc.), Dried latex (Opium), Dried juices (Aloe)	2
12	Animal derived drugs. drugs such as Cochineal, Cantharides, Honey, Cod liver oil, Spermaceti and Musk.	2
*** 1 2 7		
Week No.	Practical topics	hours
1	Introduction of medicinal Fruits and Umbelliferous fruits.	2
2	Medicinal Fruits such as Umbelliferous fruits (Anise, Fennel, Coriander, Ammi visnaga, Ammi majus), Capsicum, Colocynth fruit.	2
2	, <u>, , , , , , , , , , , , , , , , , , </u>	
3	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus,	2
4	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean	2
	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng root and Liquorice root.  Medicinal subterranean drugs such as Rhubarb root & Rhizome,	
4	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng root and Liquorice root.	2
5	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng root and Liquorice root.  Medicinal subterranean drugs such as Rhubarb root & Rhizome, Ginger rhizome, Curcuma rhizome, Galangal rhizome and Jalap root.	2
4 5 6	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng root and Liquorice root.  Medicinal subterranean drugs such as Rhubarb root & Rhizome, Ginger rhizome, Curcuma rhizome, Galangal rhizome and Jalap root.  Mid term exam  Medicinal unorganized drug such as gums (gum tragacanth and gum	2 2 2
4 5 6 7 8 9	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng root and Liquorice root.  Medicinal subterranean drugs such as Rhubarb root & Rhizome, Ginger rhizome, Curcuma rhizome, Galangal rhizome and Jalap root.  Mid term exam  Medicinal unorganized drug such as gums (gum tragacanth and gum Arabic), dried extracts (gelatin and agar-agar).  Resise and resin combinations such as colophony, myrrh, asafoetida.  Case study	2 2 2 2 2 2
4 5 6 7 8	Introduction of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymus, hyoscynmusetc.)  Introduction of subterranean drugs and some medicinal subterranean drugs such as Ginseng root and Liquorice root.  Medicinal subterranean drugs such as Rhubarb root & Rhizome, Ginger rhizome, Curcuma rhizome, Galangal rhizome and Jalap root.  Mid term exam  Medicinal unorganized drug such as gums (gum tragacanth and gum Arabic), dried extracts (gelatin and agar-agar).  Resise and resin combinations such as colophony, myrrh, asafoetida.	2 2 2 2 2

# **5- Teaching and Learning Methods:**

5.1	Lectures using Power point (PPT) presentations
5.2	Lectures using whiteboard
5.3	Practical Training / Laboratory





5.4	Tutorial / Interactive Sessions
5.5	Class Activity Discussion / Brain storming
5.6	Case study

## **6- Student Assessment:**

#### a- Assessment Methods:

1-Written exam	To assess understanding, intellectual, professional skills
2-Practical exam	To assess professional and practical skills
3-Oral	To assess Knowledge, understanding, intellectual skills, Personal skills
4-Case study	To assess the skills of problem-solving and data presentation
Other Assessment	

## a- Assessment schedule

Assessment 1	Mid-term	7 <sup>th</sup> week
Assessment 2	Practical	11 <sup>th</sup> week
Assessment 3	Written	15 <sup>th</sup> week
Assessment 4	Oral	15 <sup>th</sup> week

## b- Weighing of assessments

1	Mid-term examination	15%
	Practical examination & Semester work	25%
2	Final-term examination	50%
3	Oral examination	10%
Total		100%

# 7- Facilities required for teaching and learning

-Class room	Data show- Computers, Internet.
- Laboratory facilities	Microscopes- white board





# 8- Matrix of knowledge and skills of the course

No.		Outcomes Demoins / V. elements											
	Course contents	W	Domains / K elements Domain: 1 Domain 2			Domain 3		Domain: 4					
1	Introd. of medicinal Fruits	1		1.1.2									
2	Medicinal Fruits such as Umbelliferous fruits (Anise,Fennel,Coriander , Ammi visnaga, Ammi majus), Capsicumetc.	2	1.1.1		1.1.4	1.1.5	2.2.1	2.2.2	2.3.4	3.2.1		4.2.1	
3	Introd. of medicinal herbs and some example of it such as (Ephedra, lobelia, cannabis, ergot, menthe, thymusetc.)	3		1.1.2	1.1.4	1.1.5	2.2.1	2.2.2	2.3.4	3.2.1		4.2.1	
4	Introd. of subterranean drugs	4		1.1.2									
5	Medicinal subterranean drugs such as Ginseng, Liquorice, Rhubarb, Ginger, Curcuma, Galangal and Jalap root.	5	1.1.1		1.1.4	1.1.5	2.2.1	2.2.2	2.3.4	3.2.1		4.2.1	
7	Medicinal subterranean drugs such as Colchicum Senega, Squill, Gentiana, Valerianaetc	6	1.1.2		1.1.4	1.1.5	2.2.1	2.2.2	2.3.4	3.2.1		4.2.1	
8	Mid term exam  Introd. of unorganized	8		1.1.2									
9	drugs.  Medicinal unorganized drug such as gums (gum tragacanth and gum Arabic), dried extracts (gelatin and agar-agar).	9	1.1.1		1.1.4	1.1.5		2.2.2	2.3.4	3.2.1			
10	Resins as colophony, myrrh, asaphoteida, Balsams, Dried latex (Opium), Dried juices (Aloe)	10	1.1.2		1.1.4	1.1.5		2.2.2	2.3.4	3.2.1	3.2.8		
11	Animal drugs such as Cochineal, Cantharides , Honey, Cod liver oil, Spermaceti and Musk.	11	1.1.2		1.1.4	1.1.5		2.2.2	2.3.4	3.2.1	3.2.8		
12	Some medicinal plant drug from different organs for self- learning(Ipeca, Kramaria,etc	12		1.1.2	1.1.4	1.1.5		2.2.2					4.3.2





## 9- List of References

No	Reference	Туре
1.	Lectures note written by Faculty members	Course notes
2.	<ul> <li>Tease and Evens, "General Pharmacognosy", saunders, London, New York, Sydney, Toronto, 2002.</li> <li>Wallis, T. E. and Churchill, J. A. "Text book of pharmacognosy", 5<sup>th</sup> ed., London, 1962.</li> <li>Jackson, B.P. and Snowdon, D.W. "Powdered vegetable drugs" 14<sup>th.</sup> Ed, W.B. Saunders Company Ltd., London, 1996.</li> </ul>	Essential Book
3.	<ul> <li>- Down, D., "Encyclopedia of Herbs and their uses, London, 1995.</li> <li>- Goodwin, T.W. and El Mercer, "Intoduction to plant biochemistry", pergamon press, Oxford, 1990.</li> <li>- Egyptian Pharmacopoeia "The English Text", 3<sup>rd</sup> Ed., Vol. 1, Cairo, General organization for Government Printing Office, 1984.</li> </ul>	Supplementary Textbooks
4.	www.thebotanyplace.com	websites

Course Coordinator	Dr. Prof. Hassan-Elrady A. Saad
Head of Department	Prof: Mona G. Zaghlol

Date: / 11 / 2020