# **COURSE SPECIFICATIONS**

# Faculty of Pharmacy

First level –Semester 2

2019-2020

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# COURSE SPECIFICATIONS

Pharmaceutical Organic chemistry II

First level –Semester 2 2019-2020

# Course specification of pharmaceutical organic chemistry II

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University: Zagazig Faculty: Pharmacy

#### **A- Course specifications:**

Program (s) on which the course is given: Bachelor of Pharmacy (Pharm

D)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Pharmaceutical Organic Chemistry

Academic year Level: First level/ semester2

Date of specification approval: Dec 2020

#### **B- Basic information:**

Title: Pharmaceutical Organic Chemistry II Code: PR202

Credit Hours: ---

Lectures: 2hr/week

Practical: 1hr/week

Tutorials: ---

Total: 3 hrs/week

#### **C- Professional information:**

#### 1-Overall aim of the course:-

On completion of the course, the student will be able to explain the aromatic, anti- aromatic and non aromatic compounds, chemistry of aromatic compounds as benzene and electrophilic substitution ex. nitration, sulphonation, halogenations & Friedel-Craft alkylation and acylation. Also nomenclature, synthesis and chemical reaction of arenes, sulphonic acids ,alkyl and aryl halides, alcohols ,thiols,phenols ,aldehydes ,ketones,carboxylic acids and their derivatives and nitrogen containing compounds.

# 2- Key elements of Pharmaceutical Organic Chemistry 2.

DOMAIN 1- FUNDAMENTAL KNOWLEDGE											
and clinica	<b>PETENCY:</b> Integrate knowledge from basic and applied pharmaceutical l sciences to standardize materials, formulate and manufacture products, population and patient-centered care.										
1.C1.1.	Illustrate the chemical character of aromatic compounds										
1.C1.2.	Define the systematic nomenclature of different aromatic organic compounds										
1.C1.3.	Demonstrate the principles of chemistry of alcohols, thiols, ethers, epoxide phenols, aldehydes, ketones, carboxylic acids/derivatives.										
1.C1.4	Outline different synthetic routes of alcohols, thiols ethers    ,epoxide, phenols, aldehydes, ketones, carboxylic acids    and pharmaceutically related compounds.										
DOMAIN	2: PROFESSIONAL AND ETHICAL PRACTICE										
Standardi pharmace	APETENCY ze pharmaceutical materials, formulate and manufacture outical products, and participate in systems for dispensing, and distribution of medicines.										
2. C2.1.	Identify qualitatively phenols, aldehydes, ketones, carboxylic acids and carbohydrate.										
2. C2.2.	Perform laboratory experiments concerning synthesis and identification chemical compounds.										
2. C2.3	Synthesize/purify different target compounds using the previous precursors.										
2. C2.4.	Interpret laboratory results effectively										
	PETENCYL: Handle and dispose biologicals and synthetic/natural tical materials /products effectively and safely with respect to relevant										

laws and le	laws and legislations.										
2. C3.1.	Handle basic laboratory equipments and chemicals effectively										
2. C3.1.	and safely.										
2.C3.2	Apply GLP guidelines in handling of chemicals										
DOMAIN	4: PERSONAL PRACTICE										
4-1- COMI	PETENCY										
	dership, time management, critical thinking, problem solving,										
independen	at and team working, creativity and entrepreneurial skills.										
4.C1.1.	Work effectively as a member of a team.										
4.01.0	Demonstrate problem solving and time management										
4.C1.2.	skills.										

# **D- Contents:**

Week	Lecture contents (2hr/week)	Practical session (1hr/week)
No.		
1	- Aromaticity and aromatic compounds	-Laboratory safety rules
2	- Benzene & electrophilic substitution	-Identification of benzene
	-Aliphatic aromatic hydrocarbon(arenes)	- Preparation of nitrobenzene
3	Alkyl halides SN <sup>1</sup> ,SN <sup>2</sup> ,E <sup>1</sup> ,E <sup>2</sup>	-Identification of benzoic acid
		-Preparation of m-nitro benzoic
		acid
4	-Alcohols and thiols nomenclature,	-Identification of ethanol
	synthesis and Chemical reactions.	-Preparation of Iodoform
5	- Phenols nomenclature, synthesis and	-Identification of phenol
	Chemical reactions.	- Preparation of Tribromophenol
6	-Ethers, epoxide.	-Identification of benzaldehyde
	-Nomenclature of aldehydes & ketones.	and aniline
7	Midterm e	exam
8	-Synthesis and chemical reactions of	Preparation of Schiff's base
	aldehydes and ketones.	
9	-Chemical reactions of aldehydes and	-Identification of acetophenone
	ketones.	-Preparation of acetophenone
		hydrazone
10	-Carboxylic	
	acids, classification, nomenclature &	-identification of salicylic acid
	Synthesis.	
11	-Carboxylic acids chemical reactions.	Preparation of aspirin(acetyl
		salicylic acid)
12	-Carboxylic acid derivatives.	-Revesion

13	- Sulphonic acids.	-Practical exam
14	- Nitrogen containing compounds.	-Practical exam
15	final written exam	

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

- Lectures
- Practical session
- Group discussion

#### **F- Student Assessment methods:**

- Written exams to assess: 1.C1.1. ,1.C1.2,1.C1.3,1.C1.4
- Practical exams **to assess:** 2.C2.1, 2.C2.2, 2.C2.3, 2.C2.4, 2. C3.1, 2.C3.2, 4.C1.1, 4.C1.2
- Oral exam to assess: 1.C1.1. ,1.C1.2,1.C1.3,1.C1.4

#### **Assessment schedule**

<b>Assessment (1):</b> Written exams	Week 15
<b>Assessment (2):</b> Practical exams	Week 13, 14
<b>Assessment (3):</b> Oral exams	Week 15
Assessment (4): Activity	participation each lab
<b>Assessment (5):</b> Periodical exams	Week 7

#### Weighting of Assessment

Assessment method	Marks	Percentage
Midterm exam	10	10%
Final written exam	50	50%
Activity	5	5%
Practical practice & exam	25	25%
Oral exam	10	10%
TOTAL	100	100%

### **G- Facilities required for teaching and learning:**

• For lectures: Black (white) boards, data show.

For Labs: Chemicals, glassware, instruments, Digital balances

#### **H- List of References:**

- **1- Course Notes:** Student book of pharmaceutical organic chemistry approved by pharmaceutical organic chemistry department **2019-2020**
- **2- Essential Books:** Organic Chemistry; Solomons T.W.G. & Fryhle C.B.; John Wiley and Sons Inc., USA (2010).
- **3-Organic Chemistry**, Second Edition, Bhupinder Mehta and Manju Mehta (2015).
- **4-Organic synthesis**. Chauhan jaidev, Organic spectroscopy: delhi (2018).

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Course Coordinator: Prof. dr/ Hanan Abdel-Razik

Head of Department: Prof. dr/ Hanan Abdel-Razik

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ

	Matrix I of pharmaceutical organic chemistry II course													
		Key elements of pharmaceutical organic chemistry II course												
	<b>Course Contents</b>	1-1- COMPETENCY			2-2- COMPETENCY				2-3- COMPETENCY		4.1. COMPETENCY			
	Lectures	1.C1.1	1.C1.2	1.C1.3	1.C1.4	2.C2.1	2.C2.2	2.C2.	2.C2.4	2.C3.1	2.C3.2	4.C 1.1	4.C1.2	
1	Aromaticity and aromatic compounds	Х												
2	- Benzene & electrophilic substitution -Aliphatic aromatic hydrocarbon(arenes)	Х												
3	Alkyl halides SN1 ,SN2,E1,E2	X												
4	-Alcohols and thiols nomenclature, synthesis and Chemical reactions.	X	Х	X	Х									
5	- Phenols nomenclature, synthesis and Chemical reactions.	X	X	Х	X									
6	-Ethers , epoxideNomenclature of aldehydes & ketones.	X	х											
7	Synthesis and chemical reactions of aldehydes and ketones.	X		X	X									
8	-Chemical reactions of aldehydes and ketones.	X		Х	X									
9	Carboxylic acids, classification, nomenclature & Synthesis.	X	X	Х	X									
10	-Carboxylic acids chemical reactions.	X		X	X									
11	Carboxylic acid derivatives.	X		X	X									

12	Sulphonic acids.	X	X	X								
13	Sulphonic acids.	X	X	X								
	Practical session											
1	-Laboratory safety rules								X			
2	-Identification of benzene								X			
2	- Preparation of nitrobenzene				X	X	X	X		X	X	
3	-Identification of benzoic acid								X			
3	-Preparation of m-nitro benzoic acid				X	X	X	X		X	X	
4	-Identification of ethanol								X			
*	-Preparation of Iodoform				X	X	X	X		X	X	
5	Identification of phenol								X			
3	- Preparation of Tribromophenol				X	X	X	X		X	X	
6	-Identification of benzaldehyde and aniline								X			
•					X				**	X	X	
7	Preparation of Schiff's base					X	X	X	X	X	X	
8	Identification of acetophenone								X			
· ·	-Preparation of acetophenone hydrazone				X	X	X	X		X	X	
1	-identification of salicylic acid								X			
0					X			X		X	X	

# Matrix II of pharmaceutical organic chemistry II course

	National Academic					Teach	ing and l method	_	Weighting of assessment				
Star	Reference  ndards NARS	Program key elements	Course key elements	Course contents	Sources	lecture	practical session	case study/ think- pair- share self learning	written exam	practical exam & activity	oral exam	Midterm exam	
	Demonstrat e understanding of		1.C1.1	Aromaticity and aromatic compounds - Benzene & electrophilic substitution -Aliphatic aromatic	Student book Essential books	x			х		х	х	
		rstanding of edge of acceutical, dical, social, oral, istrative, and	1.C1.2	hydrocarbon(arene s) Alkyl halides SN1 ,SN2,E1,E2 -Alcohols and thiols nomenclature, synthesis and Chemical reactions Phenols nomenclature, synthesis and Chemical reactionsEthers , epoxideNomenclature of aldehydes & ketones.	s) Alkyl halides SN1 ,SN2,E1,E2 -Alcohols and thiols nomenclature, synthesis and	s) Alkyl halides SN1 ,SN2,E1,E2 -Alcohols and thiols nomenclature, synthesis and	Student book Essential books	x			x		х
1.1.1	pharmaceutical, biomedical, social, behavioral, administrative, and		1.C1.3				nomenclature, synthesis and Chemical	Student book Essential books	х			х	
	administrative, and clinical sciences.		1.C1.4		Student book Essential books	х			x		x	Х	

				Synthesis and chemical reactions of aldehydes and ketonesChemical reactions of aldehydes and ketones. Carboxylic acids, classification ,nomenclature & SynthesisCarboxylic acids chemical reactions. Carboxylic acid derivatives.					
	Isolate, design, identify, synthesize,		2.C2.1 2.C2.2	-Identification of benzene - Preparation of nitrobenzene -Identification of benzoic acid	Practical notes  Practical notes	x	x	x	
2.2.1	purify, analyze, and standardize synthetic/ natural pharmaceutical materials.	2.C2.1	2.C2.3	-Preparation of m- nitro benzoic acid -Identification of ethanol	Practical notes	Х	Х	Х	
			2.C2.4	-Preparation of Iodoform Identification of phenol	Practical notes	х	х	х	
2.3.1	Handle, identify, and dispose biologicals, synthetic/natural materials, biotechnology-based and radio-labeled products, and other materials/products used in	2.C3.1	2.C3.1	- Preparation of Tribromophenol -Identification of benzaldehyde and aniline Preparation of Schiff's base Identification of acetophenone	Practical notes	х	X	x	

	pharmaceutical field.			-Preparation acetophenone	of					
2.3.2	Recognize and adopt ethical, legal, and safety guidelines for handling and disposal of biologicals, and pharmaceutical materials/products.	2.C3.2	2.C3.2	hydrazone -identification salicylic acid	of		x	X	x	
4.1.1	Demonstrate responsibility for team performance	4.C1.1	4.C1.1				х	х		
4.1.2	Retrieve and critically analyze information, identify and solve problems, and work autonomously and effectively in a team.	4.C1.5	4.C1.2				x	x		

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# COURSE SPECIFICATIONS

Pharmaceutical Analytical chemistry II

First level –Semester 2 2019-2020

# Course specification of Pharmaceutical Analytical Chemistry-2

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University: Zagazig Faculty: Pharmacy

#### **A- Course specifications:**

Program (s) on which the course is given: Bachelor of Pharmacy (Pharm D)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Analytical chemistry department

Academic year /Level: 2019-2020 first level/ second semester

Date of specification approval: 8/10/2019

#### **B- Basic information:**

Title: Pharmaceutical Analytical Chemistry-2 Code: PA 202

Credit Hours:

• Lectures : 2 hrs/week

• Practical: 1 hr/week

• Tutorials: ---

• Total: 3 hrs/week

#### **C- Professional information:**

#### 1-Overall Aims of the Course

On completion of the course, students will be able to

- Illustrate the principles and the application of oxidation-reduction reactions, potentiometry, conductometry and polarography.
- Apply studied quantitative methods for determination of different pharmaceutical compounds.

• Outline the proper steps of statistical analysis and analytical method validation.

# 2-Key elements of Pharmaceutical Analytical Chemistry-2

DOMAIN	1 - FUNDAMENTAL KNOWLEDGE									
1-1- CO	OMPETENCY:									
_	Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize									
materials, formulate and manufacture products, and deliver population and patient-centered care.										
1.C1.1.	Describe principles of redox reactions, potentiometry, conductometry and									
polarography.										
1.C1.2.	Illustrate the use of these titration reactions in pharmaceutical assay.									
1.C1.3.	Explain the required validation parameters for analytical procedures.									
DOMAIN	N 2: PROFESSIONAL AND ETHICAL PRACTICE									
	APETENCY:									
	ize pharmaceutical materials, formulate and manufacture pharmaceutical									
	and participate in systems for dispensing, storage, and distribution of medicines.									
2.C2.1.	Perform redox titration.									
2.C2.2.	Select the most appropriate standardization method for different									
2.02.2.	compounds.									
	Solve different problems on potentiometric, conductometric,									
2.C2.3.	polarographic techniques and calculate different validation parameters in									
	pharmaceutical analysis.									
2-3- CON	MPETENCY:									
Handle an	nd dispose biologicals and synthetic/natural pharmaceutical materials /products									
effectively	y and safely with respect to relevant laws and legislations.									
2.C3.1.	Handle and dispose chemicals safely.									
DOMAIN	N 4: PERSONAL PRACTICE									
4-1- CON	4-1- COMPETENCY									
Express leadership, time management, critical thinking, problem solving, independent and										
team working, creativity and entrepreneurial skills.										
4.C1.1.	Work as member of team.									
4 C1 2	Develop problem solving skills.									

# **D- Contents:**

Week	Lecture	Practical Session
No.	(2hrs/week)	(1 hr/week)
	-Introduction to oxidation-reduction	- Safety guidelines
1	reactions( definition, oxidation	Determination of oxalic acid oxalates.
1	number-balancing redox equation)	
	Electrode potential E.	
2	Oxidation potential	Determination of ferrocyanide.
_		Determination of Sodium nitrite
	-Titration curves.	Determination of glucose
3	-Detection of end-point in redox	
	titration -Redox reactions involving	
	iodine	
4	- Application of redox reactions	Determination of arsenite, potassium
	Application of nodey needing	dichromate  Determination Of narryidas zine
5	- Application of redox reactions	Determination Of peroxides, zinc
	- Electrochemical method	metal Determination of aldehydes
	<ul><li>Potentiometry</li></ul>	Determination of aldenydes
6	Reference electrodes, NHE. SCE,	
	silver/silver chloride	
7	Midterm exam	
		Problem solving on:
0	Indicator electrodes	-Potentiometry
8	Application of potentiometry	- Conductometry
		-Polarography
9	Conductometric titrations	Problem solving on method validation
10	Polarography and its principles	Problem solving on method validation
11	Application of polarography	Activity
12	- Statistical analysis:	Practical exam
14	Types of errors, sampling	
13	<ul> <li>Validation parameters</li> </ul>	Practical exam
14	- General discussion and revision	
15	Final Exam	

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

- Lectures (data show, board)
- Practical sessions
- Problem solving

#### **F- Student Assessment Methods:**

1- Written exam to assess 1.C1.1,1.C1.2,1.C1.3

2- Practical exam to assess 2.C2.1, 2.C2.2, 2.C2.3, 2.C3.1

3- Oral exam to assess 1.C1.1,1.C1.2,1.C1.3

4- Periodical exam to assess 1.C1.1,1.C1.2,1.C1.3

5- Activities to assess 4.C1.1, 4.C1.2

#### **Assessment schedule:**

Assessment (1): Written exam	Week 15
Assessment (2): Practical exam	Weeks 12,13
Assessment (3): Oral exam	Week 15
Assessment (5): Mid-term exam	Weeks 7
Assessment (11): Activity	Weeks 11

#### **Weighting of Assessment:**

Assessment method	Marks	Percentage
Written exam + Midterm exam	50+10=60	60%
Practical exam	25	25%
Oral exam	10	10%
activity	5	5%
TOTAL	100	100%

#### **G- Facilities Required for Teaching and Learning:**

- Lectures (Computer, board)
- Practical sessions (Chemicals and Glassware)
- Activity

#### • Open discussion

#### **H- List of References:**

#### 1- Course Notes

Student book "Pharmaceutical analytical chemistry II" approved by the analytical chemistry department book ,2019

#### **2- Essential (textbooks)**

- 1. J. Mendham, et al., Vogel's Textbook of Quantitative Chemical Analysis (6<sup>th</sup> edition);, Addison Wesley Publishing Co., 2000
- 2. ii-Daniel C. Harris, Quantitative Chemical Analysis (6<sup>th</sup>Edition); (2002).

#### **3- Recommended books:**

- 1. D. C. Harris, Quantitative Analytical Chemistry (9<sup>th</sup> edition), W. H. Freeman and Co. (2015)
- 2. D. Chowrasia, N. Sharma, Analytical Chemistry. A Qualitative & Quantitative Approach (General Techniques) Knoc education (2015).

#### 4- Periodicals, Web Sites, etc

https://www.ekb.eg/

http://chemwiki.ucdavis.edu/

http://en.wikipedia.org/

www.Pubmed.Com and

www.sciencedirect.com

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Course Coordinator: Prof. Dr. Magda Elhenawee

**Head of Department:** 

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ 8 2019/10/8

	Matrix I of Pharmaceutical Analytical Chemistry-2											
	Course Contents	Key elements of Pharmaceutical Analytical Chemistry-2										
	Course Contents	1-1- COMPETENCY			2-2-			2-3-		-1-		
	Lectures	1.C1.1	1.C1.2	1.C1.3	2.C2.1	2.C2.2	2.C2.3	2.C3.1	4.C1.1	4.C1.2		
1	-Introduction to oxidation-reduction reactions( definition, oxidation number-balancing redox equation) Electrode potential E.	X										
2	Oxidation potential	X										
3	-Titration curvesDetection of end-point in redox titration - Redox reactions involving iodine	X										
4	- Application of redox reactions	X	X			X				X		
5	- Application of redox reactions	X	X			X				X		
6	<ul> <li>Electrochemical method</li> <li>Potentiometry</li> <li>Reference electrodes, NHE. SCE, silver/silver chloride</li> </ul>	X										
7	Indicator electrodes Application of potentiometry	X	X			X				X		
8	Conductometry Introduction and Instruments Application of conductivity	X	X			X				X		
9	Polarography and its principles	X										
10	Application of polarography	X	X			X				X		
11	- Statistical analysis: Types of errors, sampling			X						X		

12	Validation parameters		X				X		
	Practical sessions								
1	- Safety guidelines Determination of oxalic acid oxalates.		X		X	X	X		
2	Determination of ferrocyanide.  Determination of Sodium nitrite		X		X	X	X		
3	Determination of glucose		X		X	X	X		
4	Determination of arsenite, potassium dichromate		X		X	X	X		
5	Determination Of peroxides, zinc metal		X		X	X	X		
7	Determination of aldehydes		X			X	X		
8	Problem solving on: -Potentiometry - Conductometry -Polarography			X		X	X		
9	Problem solving on method validation			X		X	X		
10	Problem solving on method validation			X		X	X		
11	Activity					X			

#### Matrix II of Pharmaceutical Analytical Chemistry-2 **Teaching and National Academic** learning Weighting of assessment Reference **Program** methods Course Course key Sources key practical oral exam self learning practical contents lecture session written exam Midterm exam **elements elements Standards NARS** -Introduction to oxidationreduction reactions -Electrode potential E. Oxidation Demonstrate potential understanding of -Titration curves. -Detection of endknowledge of point in redox Student book pharmaceutical, titration -Essential books 1.C1.1 1.1.1 1.C1.1. -Electrochemical Recommended X X X X biomedical, social, method books -Potentiometry behavioral, Reference administrative, and electrodes. clinical sciences. Indicator electrodes Conductometry Introduction and Instruments Polarography and its principles -Redox reactions Student book Integrate knowledge 1.1.3 1.C1.2 involving iodine Essential books 1.C1.9. X X X from fundamental 1.C1.3 -Application of Recommended

books

redox reactions

		sciences to handle, identify, extract, design, prepare, analyze, and assure quality of synthetic/ natural pharmaceutical materials/products.			- Application of potentiometry - Application of conductivity Application of polarography Introduction to statistical analysis: Types of errors statistical analysis: sampling •validation parameters							
2	.2.1	Isolate, design, identify, synthesize, purify, analyze, and standardize synthetic/ natural pharmaceutical materials.	2.C2.1.	2.C2.1	<ul> <li>Redox         <ul> <li>Titration</li> <li>curves</li> </ul> </li> <li>Application of redox         <ul> <li>reactions</li> </ul> </li> </ul>	Student book Essential books Recommended books Practical note	X	×	X	x	x	x
2	.2.3	Recognize the principles of various tools and instruments, and select the proper techniques for synthesis and analysis of different materials and production of pharmaceuticals.	2.C2.5.	2.C2.2 2.C2.3	Redox reactions involving iodine -Application of redox reactions - Application of potentiometry - Application of conductivity Application of polarography	Student book Essential books Recommended books Practical note	x	x	х	x	x	X

2.2.4	Adopt the principles of pharmaceutical calculations, biostatistical analysis, bioinformatics, pharmacokinetics, and bio-pharmaceutics and	2.C2.8	2.C2.3	-Introduction to statistical analysis: -validation parameters Problem solving on: -Potentiometry	Student book Essential books Recommended books	X	х		х	X	
	their applications in new drug delivery systems, dose modification, bioequivalence studies, and pharmacy practice.			- Conductometry -Polarography Problem solving on method validation	Practical note						
2.3.1	Handle, identify, and dispose biologicals, synthetic/natural materials, biotechnology-based and radio-labeled products, and other materials/products used in pharmaceutical field.	2.C3.1.	2.C3.1	• Safety guidelines	Practical notes		X			x	
4.1.1	Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills	4.C1.1.	4.C1.1	• All practical sessions Activity	Practical notebook		X	X		x	

4.1.2	Retrieve and critically analyze information, identify and solve problems, and work autonomously and effectively in a team	4.C1.5.	4.C1.2	<ul> <li>Application of redox reactions</li> <li>Application of potentiometry</li> <li>Application of conductivity</li> <li>Application of polarography</li> <li>Introduction to statistical analysis: Types of errors</li> <li>Statistical analysis: sampling</li> <li>Validation parameters</li> <li>All practical sessions</li> </ul>	Student book activity Practical notebook	X	X	X	X	X		X
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Course Coordinator: Prof. Dr. Magda Elhenawee

**Head of Department:** 

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ 2019/10/8

# COURSE SPECIFICATIONS

PharmacognosyI

First level –Semester 2 2019-2020

# **Course Specification of Pharmacognosy 1**

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University: Zagazig Faculty: Pharmacy

# **A- Course specifications:**

Program(s) on which the course is given: Bachelor of Pharmacy (Pharm D).

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Pharmacognosy

Academic year/ Level: First level/Second semester

Date of specification approval: 25 September 2019

#### **B- Basic information:**

Title: Pharmacognosy 1 Code: **PG202** 

Credit Hours:

Lectures: 2 hrs/week

Practical:1 hrs/week

Tutorials: ---

Total: 3 hrs/week

#### **C- Professional information:**

#### 1. Overall Aims of the Course:

On completion of the course, students will be able to illustrate microscopical and macroscopical characters and uses of medicinal flowers, barks, woods and seeds as well as identification of their different active constituents and adulteration.

# 2- Key elements of Pharmacognosy 1

DOMAI	N 1- FUNDAMENTAL KNOWLEDGE							
clinical so	<b>1-1- COMPETENCY:</b> Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize materials, formulate and manufacture products, and deliver population and patient-centered care.							
1.C1.1.	Describe morphological and histological characters of medicinal flowers, barks, woods and seeds.							
1.C1.2.	Identify different active constituents of medicinal uses of, flowers, barks, woods and seeds.							
1.C1.3.	1.C1.3. Outline adulteration of different medicinal flowers, barks, woods and seeds.							
DOMAI	N 2: PROFESSIONAL AND ETHICAL PRACTICE							
	<b>MPETENCY:</b> Standardize pharmaceutical materials, formulate and manufacture utical products, and participate in systems for dispensing, storage, and distribution nes.							
2.C2.1.	Handle microscope efficiently and design protocols to examine							
2.C2.2.	Use equipments effectively.							
2.C2.3.	Examine plant organs in entire and powdered form.							
2.C2.4	Determine the active constituents of the studied drugs qualitatively.							
DOMAII	N 4: PERSONAL PRACTICE							
Express le	MPETENCY eadership, time management, critical thinking, problem solving, independent and king, creativity and entrepreneurial skills.							
4.C1.1.	Work effectively as part of a team.							
4.C1.2.	4.C1.2. Manage time and plan for work.							
	IPETENCY: Effectively communicate verbally, non-verbally and in writing with ls and communities.							
4.C2.1								
4.C2.2	Write and present reports							

# **D- Contents:**

Week	Lecture (2 hrs/week)	Practical session (1hr/week)
No 1	Overview on the course in pharmacognosy I and Introduction to medicinal flowers.	Laboratory safety measures. Examination of Identification of Clove,
2	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of clove	Identification of Clove, Chamomile and Santonica in entire and powdered form.
3	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form, German and Roman chamomile.	Identification of Calendula, Lavander, and Tilia in powdered form.
4	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Pyrethrum and Santonica. Unofficial flowers.	Activity (report on pharmaceutical flowers)
5	Introduction to medicinal barks.	Identification of Cinnamon in entire and powdered form.
6	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Cinnamon, Cassia,	Identification of Cassia in entire and powdered form.
7	Midterm	
8	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Cascarilla, Canella and Quillaia.	Activity (report on pharmaceutical bark )
9	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Pomegranate, Cinchona, Cascara and Frangula.	Identification of Galls in powdered form. Identification of Quassia wood in entire and powdered form.
10	Introduction to medicinal Wood. Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Quassia wood and Galls	Identification of Linseed and Black mustard in entire and powdered form.
11	Introduction to medicinal seeds.  Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Linseed, Cardamom and Nutmeg.	Identification of Fenugreek in entire and powdered form. Identification of Cardamom in powdered form. Revision

12	Study morphological and histological characters,	Practical exam
	constituents, uses, chemical tests and detection of	
	adulteration in entire and powdered form of	
	Foenugreek, Colchicum and Nux vomica.	
13	Study morphological and histological characters,	Practical exam
	constituents, uses, chemical tests and detection of	
	adulteration in entire and powdered form of	
	Strophanthus and Mustard.Study other medicinally	
	importance seeds (unofficial seeds).	
14	Revision	
15	Written and oral exam	

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

- Lectures (interactive lecture, data show and board)
- Practical sessions
- Self-learning (Group discussion, Group assignment)

#### F- Student Assessment Methods

- 1- Written exams to assess 1.C1.1, 1.C1.2, 1.C1.3
- 2- Practical exam to assess 2.C2.1, 2.C2.2, 2.C2.3 and 2.C2.4
- 3- Oral exam to assess 1.C1.1, 1.C1.2, 1.C1.3
- 4- Activities (group discussion, presentation, net search and pamphlets' of natural drugs) to assess 4.C1.1, 4.C1.2, 4.C2.1

#### **Assessment schedule:**

Assessment (1): midterm	Week 7
Assessment (2):Final Written exam	Week 15
Assessment (3): Activity(group	
discussion, presentation, net search	Week 6
and pamphlets' of natural drugs)	
Assessment (4): Activity(group	Week 11
discussion, presentation, net search	
and pamphlets' of natural drugs)	
Assessment (4): Practical exam	Week 13
Assessment (5): Oral exam	Week 15

#### **Weighting of Assessment:**

Assessment method	Marks	Percentage
Written exams	50	50%
Mid term	10	10%
Activity	5	5%
Practical exam	20	20%
Oral exam	15	15%
TOTAL	100	100%

# **G- Facilities Required for Teaching and Learning:**

- For lectures: Black (white) boards, data show, air conditioned classroom
- For practical: Well-equipped labs
- Chemicals e.g. Hcl, KoH, glycerin and phloroglucinol, glassware, slides, covers, digital balances, flame and water baths

#### **H-List of References:**

**1- Student's book** approved by Pharmacognosy Department on 2020.

#### 2- Essential Books:

- pharmacognosy , fundmentals, applications and strategies by simone Badal and Rupika Delgoda (2017)
- -Trease and Evans, Pharmacognosy, 15<sup>th</sup>ed., Saunders company, Nottingham, U.K. Willium Charles Evans (2003).

#### 3- Recommended Books

Leung A.Y. and Faster" Encyclopedia of Common Natural Ingredients Used in Food, Drugs and Cosmetics".

- Janice, Glimn-Lacy and Peter B. Kaufman, Botany Illustrated, Introduction to plants, major groups, flowering plants families, 2nd ed. Springer **2006**.
- Martindale, "The extrapharmacopeia". 31<sup>st</sup> Edn., by James, E.F Reynolds. And Kathleen Parfitt, Royal Pharmaceutical Society, London (2007).

#### 4- Periodicals, web sites, etc

Amer. J. Nat. Prod., Phytochemistry, Planta Medica, Fitoterapia.

- A. Fahan, Plant Anatomy, Pergamon Press. 2002.
- http://www.scribd.com/doc/75980088/Atlas-of-Medicinal-Plants-II
- <a href="http://pharmacystudent-prep.blogspot.com">http://pharmacystudent-prep.blogspot.com</a>
- <a href="http://www.pharma-board.com/board/fopgal/index.php">http://www.pharma-board.com/board/fopgal/index.php</a>

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Course Coordinators: Prof. Dr. Afaf abd El-Ghany

Head of department: Prof. Dr. Amal Al-Gendy

تم مناقشة و إعتماد توصيف المقرر من مجلس القسم بتاريخ /2019/9

	Matrix I of Pharmacognosy-I course											
	C			K	ey eler	nents	of Pha	rmaco		course		
	Course Contents	CON	1-1- MPETE	NCY	2	-2- CON	<b>1PETE</b> N	NCY	4-1- COMPETENCY COMPET		ETENCY	
	Lectures	1.C1.1	1.C1.2	1.C1.3	2.C2.1	2.C2.2	2.C2.3	2.C2.4	4.C1.1	4.C1.2	4.C2.1	4.C2.2
1	Overview on the course in pharmacognosy I and Introduction to medicinal flowers.	*										
2	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of clove	*	*	*								
3	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form, German and Roman chamomile.	*	*	*								
4	Study morphological and histological characters, constituents, uses, chemical tests and	*	*	*								

	detection of adulteration in entire and powdered form of Pyrethrum and Santonica. Unofficial flowers.							
5	Introduction to medicinal barks.	*						
6	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Cinnamon, Cassia,	*	*	*				
7	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Cascarilla, Canella and Quillaia.	*	*	*				
8	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and	*	*	*				

	powdered form							
	of Pomegranate,							
	Cinchona,							
	Cascara and							
	Frangula.  Introduction to							
9	medicinal Wood. Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Quassia	*	*	*				
	wood and Galls							
10	Introduction to medicinal seeds. Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Linseed, Cardamom and Nutmeg.	*	*	*				
11	Study morphological and histological characters, constituents, uses, chemical tests and detection of	*	*	*				

	adulteration in entire and powdered form of Foenugreek, Colchicum and Nux vomica.									
12	Study morphological and histological characters, constituents, uses, chemical tests and detection of adulteration in entire and powdered form of Strophanthus and Mustard.Study other medicinally importance seeds (unofficial seeds).	*	*	*						
	<b>Practical sess</b>	ion								
1	Laboratory safety measures. Examination of Identification of Clove,				*					
2	Identification of Clove, Chamomile and Santonica in entire and powdered form.					*				
3	Identification of Calendula, Lavander, and Tilia in powdered					*				

	form.								
4	Activity (report on pharmaceutical		*			*			
5	flowers) Identification of Cinnamon in entire and powdered form.		*						
6	Identification of Cassia in entire and powdered form.		*			*			
7	Activity 1 discussion						*	*	*
8	Identification of Galls in powdered form. Identification of Quassia wood in entire and powdered form.			*	*	*			
9	Identification of Linseed and Black mustard in entire and powdered form.			*	*				
10	Identification of Fenugreek in entire and powdered form. Identification of Cardamom in powdered form. Revision			*	*		*	*	*
11	Activity 2 discussion						*	*	*

	Matrix II of Pharmacognosy-I course											
Nat	tional Academic					Teachi	ng and lea	rning methods	W	eighting of	assessn	nent
St	elements elements Standards NARS		Sources	lecture	practical session	Activities ( reports and presentations) and Field visit	written exam	practical exam & activity	oral exam	Midterm exam		
			1.C1.1	- Overview on the course in pharmacognosy I	Student book Essential books	*			*		*	*
1.1.1	biomedical, social, behavioral,	1.C1.2	1.C1.2	-Morphological and histological studies for plant flowers,barks,wood and seed in entire and powdered forms, active constituents, uses and chemical test.	Student book Essential books	*			*		*	*
	clinical sciences.	dministrative, and clinical sciences.  and chemical te adulteration different medicinal flowers, bark woods and		Student book Essential books	*			*		*	*	
1.1.3	Integrate knowledge from fundamental sciences to handle, identify, extract, design, prepare,	1.C1.9	1.C1.2	- Morphological and histological studies for plant flowers,barks,wood and seed in entire and powdered forms, active	Student book Essential books	*	*	*	*	*	*	*

	analyze, and assure quality of			constituents, uses and chemical test.	Self learning				
	synthetic/ natural pharmaceutical materials/products.				8				
			1.C1.3	adulteration of different medicinal flowers, barks, woods and seeds					
			2.C2.1	Uses of microscopes	Practical notes	*		*	
	Isolate, design, identify,		2.C2.2	Microscopical examination of different flowers	Practical notes	*		*	
2	synthesize, purify, analyze, and standardize synthetic/ natural	synthesize, purify, analyze, and standardize synthetic/ natural	2.C2.3	Morphological and histological studies for plant barks and seeds in entire and powdered forms	Practical notes	*		*	
	pharmaceutical materials.		2.C2.4	Morphological and histological studies for wood in entire and powdered forms	Practical notes	*		*	
	Demonstrate responsibility		4.C1.1	Activity 1 (researches and			*	*	
4.	for team performance and peer evaluation of other team members, and express time management	4.C1.1 4.C1.3	4.C1.2	reports on flowers and barks with pharmaceutical preparations Activity 2 (researches and presentation on pharmaceutical preparations	Self learning		*	*	

	skills			containing seeds)				
	Use contemporary technologies and		4.C2.1			*	*	
4.2.2	media to demonstrate effective presentation skills.	4.C2.2	4.C2.2			*	*	

Course Coordinators: Prof. Dr. Afaf abd El-Ghany

**Head of department:** Prof. Dr. Amal Al-Gendy

Date:

تم مناقشة و إعتماد توصيف المقرر من مجلس القسم بتاريخ /2019/9

# COURSE SPECIFICATIONS

**Anatomy & Histology** 

First level –Semester 2 2019-2020

# **Course Specification of Histology**

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University: Zagazig Faculty: Pharmacy

# **A- Course specifications:**

Program(s) on which the course is given: Bachelor of Pharmacy (PharmD)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Faculty of Medicine, Medical histology & cell

biology department

Academic year/ Level: First level /Semester 2

Date of specification approval: Dec. 2019

#### **B- Basic information:**

Title: Anatomy & Histology (1.Histology) Code: MD 202

Credit Hours: ---

Lectures: 1hr/week

Practical: 0.5 hr/week

Tutorials: ---

Total: 1.5 hrs/week + 1.5 hours for Anatomy

# **C- Professional information:**

#### 1-Overall Aims of the Course:

On completion of the course, students will be aware of the description of the different types of human body cells and their functions. Also, the student should be able to identify and describe the structure of normal human tissues, and organs and to correlate their structure to their function.

# 2- Key elements of Histology:

_						
<b>DOMA</b>	IN 1- FUNDAMENTAL KNOWLEDGE					
1-1- CO	MPETENCY					
	knowledge from basic and applied pharmaceutical and clinical sciences to					
	ize materials, formulate and manufacture products, and deliver population and					
•	entered care.					
1.C1.1	Outline the methods used to study the histological structure of the					
	human body, types of microscopes and the principles of staining					
1.C1.2	Distinguish the general characteristics and types of epithelial tissue and					
	connective tissue					
1.C1.3	Identify the different types of cell organelles, cell inclusions,					
	main components of blood and their functions					
1.C1.4	Describe the general characteristics and types of bones, cartilage,					
	muscles, neuron, skin, lymphatic organs as well as arteries, veins and					
	blood cappilaries					
DOMA	IN 3: PHARMACEUTICAL CARE					
3-1- CO	MPETENCY					
	e principles of body functions to participate in improving health care services using					
	-based data.					
3.C1.1	Identify different tissues and organs on histological slides by using the					
	ordinary light microscope					
3.C1.2	Apply different types of stains specific for different types of cells and					
	tissues.					
3.C1.3	Identify the ultra structural details of cells through electron microscope					
	pictures					
DOMA	IN 4: PERSONAL PRACTICE					
4-1- COI	MPETENCY					
Express	leadership, time management, critical thinking, problem solving, independent and					
team wo	rking, creativity and entrepreneurial skills.					
4.C1.1	Justify the interpersonal relationships and to work effectively in a					
	team.					
	MPETENCY					
	Effectively communicate verbally, non-verbally and in writing with individuals and					
commun						
4.C2.1	Improve communication capabilities					

# **D- Contents:**

Week No.	Lecture (1 hr/week)	Practical session (0.5 hr/week)							
1	Microtechniques and microscopy Introduction to	Microtechniques and microscopy Introduction to cytology							
2	Cytology	Cytology							
3	Epithelium								
4	Connective tissue								
5	Blood								
6	Bone								
7	Midterm exam								
8	Vascular								
9	Cartilage								
10	Muscular T - assignment								
11	Nervous T - assignment								
12	Lymph								
13	Skin								
14	-Revision & Assignments delivery	Practical exam							
15	Final exam								

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

Lectures

**Demonstrations** 

**Interactive Learning** 

Presentation

Laboratory training

# **F- Student Assessment Methods:**

1- Written exams to assess 1.C1.1, 1.C1.2, 1.C1.3, 1.C1.4

2- Assignments to assess 4.C1.1, 4.C2.1

3- Practical exam to assess 3.C1.1, 3.C1.2, 3.C1.3

#### **Assessment schedule:**

<b>Assessment (1):</b> Final Written exam	Week 15
Assessment (2): assignment	Week 10, 11
Assessment (3): Practical exams	Week 14
Assessment (4): midterm exam	Week 7

## **Weighting of Assessment:**

Assessment method	Marks	Percentage
Final Written exam	30	30%
Midterm exam	5	5 %
assignments	2.5	2.5%
Practical exam	12.5	12.5%
TOTAL	50	50%

# **G- Facilities Required for Teaching and Learning:**

• Black (white) board, Data show, laboratory microscopes, slides, stains

## **H-List of References:**

**1- Course Notes:** Student book of Histology approved by Histology Department (2020)

#### 2- Essential Books:

Ross M.H.& Pawlina W.: <u>Histology: A Text and Atlas (Histology (Ross))</u> (2010).

#### **3- Recommended books**

Leslie Gartner, Textbook of Histology, Elsevier, 4<sup>th</sup> edition, 2016.

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**Course Coordinator:** Prof. Khaled El Mesalamy

				Matrix	x I of H	Iistolo	gy cou	rse				
		Key elements of Histology										
	<b>Course Contents</b>	DOMAIN 1- FUNDAMENTAL KNOWLEDGE				DOMAIN 3: PHARMACEUTICAL CARE			DOMAIN 4: PERSONAL PRACTICE			
						3.C1.1	3.C1.2	3.C1.3				
	Lectures	1.C1.1	1.C1.2	1.C1.3	1.C1.4				4.C1.1	4.C	2.1	
1	Microtechniques and microscopy Introduction to cytology	X										
2	Cytology	х										
3	Epithelium		X									
4	Connective tissue		X									
5	Blood			X								
6	Bone				X							
7	Vascular				X							
8	Cartilage				X							
9	Muscular T				X							
10	Nervous T				X							
11	Lymph				X							
12	Skin				X							

		Practical	l session:	8						
1	Microtechniques and microscopy Introduction to cytology					Х	X	X	Х	
2	Cytology					X	X	X	X	
3	Epithelium					X	X	X	X	
4	Connective tissue				X	X		X	X	
5	Blood				X	X	X	X	X	
6	Bone				X	X	X	X	X	
7	Vascular				X	X	X	X	X	
8	Cartilage				X	X	X	X	X	
9	Muscular T							X	X	X
10	Nervous T							X	X	X
11	Lymph									
12	Skin				X	X	X	X	X	

			Matrix II o	f histology	ours cours	e				
National Academic	Program	C	Teaching and learning methods			Method of assessment				
Reference Standards (NARS)	key elements	key elements	contents	Sources	lecture	practical session	Course assignments	written exam	practical exam	Course assignments

	Demonstrate understanding of knowledge of pharmaceutical, biomedical,	1.C1.3	1.C1.1	Microtechniques and microscopy Introduction to cytology Cytology	student book	X		X		
	social, behavioral, administrative, and clinical		1.C1.2	Epithelium Connective tissue	student book	X		X		
1.1.1	sciences.		1.C1.3	Blood	student book, essential books	X		X		
			1.C1.4	Bone Vascular Cartilage Muscular T Nervous T Lymph Skin	student book	X		X		
	Monitor and		3.C1.1	Microtechniques and microscopy Introduction to cytology						
3.1.3	control microbial growth and carry out laboratory tests for identification of	3.C1.1 3.C1.3	3.C1.2	Cytology Epithelium Connective tissue Blood Bone	Practical notes		X		X	
	infections/ diseases.		3.C1.3	Vascular Cartilage Muscular T Nervous T Lymph Skin						

4.1.1	Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills	4.C1.1	4.C1.1	Microtechniques and microscopy Introduction to cytology Cytology Epithelium Connective tissue Blood	Practical notes		X		x
4.2.1	Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities.	4.C2.1	4.C2.1	Bone Vascular Cartilage Muscular T Nervous T Lymph Skin	Practical notes				

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# **Course Coordinator:**

**Prof. Khaled El Mesalamy** 

# **Course Specification of Anatomy**

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University: Zagazig Faculty: Pharmacy

# **A- Course specifications:**

Program(s) on which the course is given: Bachelor of Pharmacy (PharmD)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Faculty of Medicine, Human Anatomy and

embryology department

Academic year/ Level: First level /Semester 2

Date of specification approval: Dec. 2019

#### **B- Basic information:**

Title: Anatomy & Histology (2. anatomy) Code: MD 202

Credit Hours: ---

Lectures: 1hr/week

Practical: 0.5 hr/week

Tutorials: ---

Total: 1.5 hrs/week + 1.5 hours for Anatomy

# **C- Professional information:**

#### 1-Overall Aims of the Course:

On completion of the course, students will be able to outline the anatomy of major body systems and its organs as well as apply the anatomical information in identification of different diseases.

## 2- Key elements of anatomy:

### **DOMAIN 1- FUNDAMENTAL KNOWLEDGE**

1-1- CO	MPETENCY								
Integrate	knowledge from basic and applied pharmaceutical and clinical sciences to								
standardi	ze materials, formulate and manufacture products, and deliver population and								
patient-c	entered care.								
1.C1.1	1.C1.1 Recognize the principles of anatomy, including anatomical terms,								
	anatomical positions and anatomical movements								
1.C1.2	Describe surface anatomy of body organs.								
1.C1.3	Use the anatomical terms in describing the anatomy of body structure.								
DOMA	IN 3: PHARMACEUTICAL CARE								
3-1- CO	MPETENCY								
Apply th	e principles of body functions to participate in improving health care services using								
evidence	-based data.								
3.C1.1	Interpret the radiological pictures of body structures								
3.C1.2	Apply the anatomical information in identification of different								
	diseases, including joints and nerve injuries as well as occlusion of								
	blood vessels.								
DOMA	IN 4: PERSONAL PRACTICE								
	MPETENCY								
Express	leadership, time management, critical thinking, problem solving, independent and								

Express leadership, time management, critical thinking, problem solving, independent and team working, creativity and entrepreneurial skills.

4.C1.1 Develop team working skills

# 4-2- COMPETENCY

Effectively communicate verbally, non-verbally and in writing with individuals and communities.

4.C2.1 Write and present reports

# **D- Contents:**

Week No.	Lecture (1 hr/week)	Practical session (0.5 hr/week)
1	Introduction (anatomical terms- anat	·
	movements)	
2	Joints and muscular system	
3	Cardiovascular system	
4	Respiratory system	
5	Lymphatic system	
6	Digestive system	
7	Midterm exam	
8	Urinary system	
9	Male genital system	
10	Female genital system	
11	Endocrine glands	
12	Nervous system	presentation
13	Special senses and skin	presentation
14	Skeletal system and vertebral column	Final practical exam
15	Final exam	

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

Lectures

**Demonstrations** 

**Interactive Learning** 

Self learning

# **F- Student Assessment Methods:**

1- Written exams to assess 1.C1.1, 1.C1.2, 1.C1.3

2-Presentation to assess 4.C1.1, 4.C1.2

3- Practical exam to assess 3.C1.1, 3.C1.2

#### **Assessment schedule:**

<b>Assessment</b> (1): Final Written exam	Week 15
Assessment (2): presentation	Week 12, 13
Assessment (3): Practical exams	Week 14
Assessment (4): midterm exam	Week 7

## **Weighting of Assessment:**

Assessment method	Marks	Percentage
Final Written exam	30	30%
Midterm exam	5	5 %
presentation	2.5	2.5%
Practical exam	12.5	12.5%
TOTAL	50	50%

# **G- Facilities Required for Teaching and Learning:**

• Black (white) board, Data show, laboratory bones and models of organs.

# **H-List of References:**

**1- Course Notes:** Student book of Anatomy approved by Anatomy Department (2020)

#### 2- Essential Books:

Kindersley D.& Medi-Mation: The Concise Human Body Book: An Illustrated Guide to Its Structure, Function and Disorders (2009).

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**Course Coordinator:** Prof. Mohey ElSayed Hulial

**Date:** 9/2019

#### **Matrix I of Anatomy course Key elements of anatomy DOMAIN 1-DOMAIN 4: DOMAIN 3: Course Contents PERSONAL FUNDAMENTAL PHARMACEUTICAL KNOWLEDGE PRACTICE CARE** 3.C1.2 3.C1.1 Lectures 1.C1.1 | 1.C1.2 | 1.C1.3 4.C1.1 4.C1.2 Introduction (anatomical termsanatomical positionsanatomical X X X movements) Joints and muscular system X X X X X Cardiovascular system X Respiratory system X X Х Lymphatic system Х X X Digestive system X X X Urinary system X X X Male genital system X X Female genital system X X X Endocrine glands Х X X Nervous system X X X

			I	I			I	
12	Special senses and skin	X	X	X				
13	Skeletal system and vertebral column	X	X	X				
		Practi	cal sessio	ons				
1	Introduction (anatomical terms- anatomical positions- anatomical movements)				х	X		
2	Joints and muscular system				X	X		
3	Cardiovascular system				X	X		
4	Respiratory system				X	X		
5	Lymphatic system				Х	X		
6	Digestive system				X	X		
7	Urinary system				Х	X		
8	Male genital system				Х	X		
9	Female genital system				Х	X		
10	Endocrine glands				Х	X		
11	Nervous system				Х	X		
12	Special senses and skin & presentation				X	X	X	х
13	Skeletal system and vertebral column & presentation				х	X	X	х

Matrix II of anatomy course **National Teaching and learning Method of assessment Academic Program Course** methods Course Reference key key **Sources** contents **Standards elements** practical Self written practical **elements** lecture presentation session learning exam exam (NARS) Demonstrate 1.C1.1 1.C1.3 - Introduction student book X understanding of (anatomical termsknowledge of anatomical pharmaceutical, positionsbiomedical, anatomical social, behavioral, movements) 1.C1.2 student book Х X administrative, - Joints and and clinical muscular system sciences. - Cardiovascular system - Respiratory system - Lymphatic 1.1.1 system - Digestive system - Urinary system - Male genital student book. 1.C1.3 system essential X X - Female genital books system - Endocrine glands - Nervous system - Special senses and skin - Skeletal system and vertebral column

3.1.1	Apply the principles of body function and basis of genomics in health and disease states to manage different diseases.	3.C1.1	3.C1.1	- Introduction (anatomical terms- anatomical positions- anatomical movements) - Joints and muscular system - Cardiovascular system - Respiratory system - Lymphatic system - Digestive system - Urinary system - Male genital system - Female genital system - Endocrine glands - Nervous system - Special senses and skin - Skeletal system and vertebral	Practical notes	X		X	
4.1.1	Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills.	4.C1.1	4.C1.1	Special senses and skin & presentation Skeletal system and vertebral column & presentation	Practical notes		X		x

4.2.1	Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities.	4.C2.1	4.C2.1		Practical notes							
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**Course Coordinator:** Prof. Mohey ElSayed Hulial

# COURSE SPECIFICATIONS

Physical pharmacy

First level –Semester 2 2019-2020

#### **Course Specification of Physical Pharmacy**

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University: Zagazig Faculty: Pharmacy

#### **A- Course specifications:**

Program (s) on which the course is given: Bachelor of Pharmacy (pharmD)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Pharmaceutics Dept.

Academic year Level: First level –Semester 2

Date of specification approval:

#### **B- Basic information:**

Title: Physical pharmacy Code: **PT202** 

Credit Hours: ---

Lectures: 2 hrs/week
Practical: 1 hrs/week

Tutorials: ---

Total: 3 hrs/week

#### **C- Professional information:**

#### 1-Overall aim of the course

This course provides students with knowledge of physical and chemical principles essential for the design and formulation of pharmaceutical products. Students are introduced to the fundamental concepts of states of matter, Phase equilibrium, colligative properties, isotonicity, buffer, solubility, dissolution, partition coefficient, surface and interfacial phenomena, surface active agents, adsorption and its application in pharmacy and rheological behavior of dosage form. Drug reaction rate, stability and stabilization of drugs.

# 2- Key elements of physical pharmacy:

DOMA	IN 1- FUNDAMENTAL KNOWLEDGE
1-1- CO	MPETENCY: Integrate knowledge from basic and applied pharmaceutical and
clinical	sciences to standardize materials, formulate and manufacture products, and deliver
populati	on and patient-centered care.
1.C1.1	Enumerate types of (flow, surfactants and adsorption)
1.C1.2	Define buffer, isotonicity, kinetic molecular theory, solubility and colligative properties of solution, partition coefficient and dissolution
1.C1.3	Outline the state of matter, application of viscosity and surface tension in pharmacy
DOMA	AIN 2: PROFESSIONAL AND ETHICAL PRACTICE
2-2- CO	MPETENCY
Standard	lize pharmaceutical materials, formulate and manufacture pharmaceutical products,
and part	cipate in systems for dispensing, storage, and distribution of medicines.
2.C2.1	Measure the viscosity, surface tension of different solutions and adsorption of active
2.C2.1	agent on adsorbate
2.C2.2	Determine the solubility of pharmaceutical materials
	Perform different pharmaceutical calculations related to buffer, isotonicity, drug
2.C2.3	stability kinetics
2-3- CO	MPETENCY
Handle	and dispose biologicals and synthetic/natural pharmaceutical materials /products
effective	ely and safely with respect to relevant laws and legislations.
2.C3.2	Apply GLP guidelines for safe handling of chemicals
DOMA	IN 4: PERSONAL PRACTICE
4-1- CO	MPETENCY
_	leadership, time management, critical thinking, problem solving, independent and
team wo	rking, creativity and entrepreneurial skills.
4.C1.1	Develop team working skills

## **D- Contents**

Week No.	Lecture contents (2hrs/week)	Practical session (1 hrs/week)
1	State of matter and intermolecular forces	Introduction to Lab safety and equipment
2	Phase equilibrium and phase rule	
3	Surface and Interfacial Phenomena	Determination of surface tension of liquids
4	Surface Active Agents (Surfactant)	Solubilization
5	Adsorption Isotherms	Determination of percentage of adsorbed substances
6	Rheology	Determine of viscosity of certain liquid
7	Midterm e	exam
8	Rheology	Determine of viscosity of certain liquid
9	Rate of chemical reaction (reaction Kinetics) Stability testing	Solve problems about reaction kinetics
10	Solution and solubility	Solubility expression and determine of solubility of certain pharmaceutical agent
11	Collegative properties of solution and isotonic solution	Problems on isotonicity
12	Buffer solution and buffer capacity	Problems on Buffer
13	Partition coefficient	Practical Exam
14	Dissolution	Students presentation
15	final written exam	

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

- Lectures
- Practical session
- Think/pair/share

#### F- Student Assessment methods:

1-Written exams to assess: 1.C1.1, 1.C1.2, 1.C1.3

2- Practical exams to assess: 2.C2.1, 2.C2.2, 2.C2.3, 2.C3.2

3- Activity within labs: 4.C1.1

3- Oral exam to assess: 1.C1.1, 1.C1.2, 1.C1.3

#### **Assessment schedule**

Assessment (1): Periodical exams	Week 7
Assessment (2): Final written exams	Week 15
Assessment (3): Activity within labs & presentation	Week 14
Assessment (4):Practical exams	Week 13
Assessment (5):Oral exams	Week 15

#### **Weighting of Assessment**

Assessment method	Marks	Percentage
Periodical exam	10	10%
Final Written exam	50	50%
Activities	5	5%
Practical exams	25	25%
Oral exam	10	10%
TOTAL	100	100%

#### **G-** Facilities required for teaching and learning:

For lectures: Black (white) boards, data show

For labs: Chemicals, glass ware, digital balance, water bathes, viscometer and stallagmometer

#### **H- List of References:**

**1- Course Notes:**Student book of physical pharmacy approved by pharmaceutics department 2019-2020

#### 2- Essential Books:

- i- Attwood, D & Florence, A. T. 2012. Fast Track Physical Pharmacy, pharmaceutical press.
- ii- Aulton, Michael E. Pharmaceutics: The Science of Dosage Form Design. 2 nded.Churchill, 2002

### **3- Recommended Books**

i- Applied physical pharmacy, Mansoor M. Amiji, Beverly J. Sandmann, McGraw-Hill,(2003).

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Course Coordinator: Nagia Ahmed El-megrab

**Head of Department: Nagia Ahmed El-megrab** 

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ: 20//

			Matri	x I of P	hysical	pharma	acy cou	ırse				
				Key	eleme	nts of	Physic	al Ph	armacy	Course		
	Course Contents	1-1 COMPETENCY		2-2CC	2-2COMPETENCY			APETENCY 2-3	4-1 CO	4-1 COMPETENCY		
	Lectures	1.C1 .1	1.C1. 2	1.C1 .3	2.C2 .1	2.C2 .2	2.C2 .3	2.C3.2		4.C1.1		
1	State of matter and intermolecular forces		x	х								
2	Phase equilibrium and phase rule		х	X								
3	Surface and Interfacial Phenomena		X	X								
4	Surface Active Agents											
	(Surfactant)	X										
5	Adsorption Isotherms	X										
6	Rheology	X										
7	Rate of chemical reaction (reaction Kinetics) Stability testing	x	X									
8	Solution and solubility	X	х									
9	Collegative properties of solution and isotonic solution	v	v									
10	Buffer solution and buffer capacity	X	X									
11	Partition coefficient	X	X									
12	Dissolution											
]	Practical Session  Determination of											
1	surface tension of liquids				х			<mark>x</mark>		X		
2	Solubilization					X		X		X		
3	Determination of percentage of adsorbed substances				X			X		X		
4	Determine of viscosity of certain liquid				X			X		x		
5	Solve problems about reaction kinetics						x			X		

6	Solubility expression and determine of solubility of certain pharmaceutical agent			X	x X		X	
7	Problems on isotonicity			X			X	
8	Problems on Buffer			X			X	
9	Presentation						Х	

		M	latrix II of pl	hysical p	harma	acy cou	rse				
National Academic					Teaching and learnin methods			Weighting of assessment			
Reference Standards NARS	Program key elements	Course key elements	Course contents	Sources	lecture	practical session	Labe activity and presentation	writte n exam	practical exam	oral exa m	Midterm exam
Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.2	1.C1.1	Surface Active Agents (Surfactant) Adsorption Isotherms Rheology Rate of chemical reaction (reaction Kinetics) Stability testing Solution and solubility Collegative properties of solution and isotonic solution Buffer solution and buffer capacity	Student book Essential books	x			x		X	x

Partition coefficient Dissolution  State of matter and						
intermolecular forces Phase equilibrium and phase rule Surface and Interfacial Phenomena Rate of chemical reaction (reaction Kinetics) Stability testing Solution and solubility Collegative properties of solution and isotonic solution Buffer solution and buffer capacity Partition	Student book Essential books	X		X	x	X

			1.C1.3	State of matter and intermolecular forces Phase equilibrium and phase rule Surface and Interfacial Phenomena	Student book Essential books	x			X		x	x
2.2.1	Isolate, design, identify, synthesize, purify, analyze, and standardize synthetic/natural pharmaceutical materials	2-C2-1	2.C2.1	Determination of surface tension of liquids Determination of percentage of adsorbed substances Determine of viscosity of certain liquid	Practical notes		X	X		x		

				_				-	-	
			2.C2.2	Solubilization	Practical notes	x	x		x	
			2.C2.3	Solve problems about reaction kinetics Solubility expression and determine of solubility of certain pharmaceutical agent Problems on isotonicity Problems on Buffer	Practical notes	х	X		x	
2.3.2	Recognize and adopt ethical, legal, and safety guidelines for handling and disposal of biologicals, and pharmaceutical materials/products.	2.C3.2	2.C3.2	Determination of surface tension of liquids Determination of percentage of adsorbed substances Determine of viscosity of certain liquid Solubilization	Practical notes	X	X		x	
4.1.1	Demonstrate responsibility for team performance and peer evaluation	4.C1.1	4.C1.1	Practical sessions Oral presentation	self learning	х	X			

	of other team					Î	
	members, and						
	express time						
	management skills.						

Course Coordinator: Nagia Ahmed El-megrab

**Head of Department: Nagia Ahmed El-megrab** 

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ : 28/10 / 2019

# COURSE SPECIFICATIONS

**Psychology** 

First level –Semester 2 2019-2020

# **Course Specification of Psychology**

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University: Zagazig Faculty: Pharmacy

# **A- Course specifications:**

Program(s) on which the course is given: Bachelor of Pharmacy (PharmD)

Major or Minor element of programs: Minor

Department offering the program: ------

Department offering the course: Psychology department (Faculty of Education)

Academic year/ Level: First level /Semester 2

Date of specification approval: Jan. 2020

#### **B- Basic information:**

Title: Psychology Code: UR 203

Credit Hours: ---

Lectures: 1hr/week

Practical: 0 hr/week

Tutorials: ---

Total: 1 hr/week

## **C- Professional information:**

#### 1-Overall Aims of the Course:

The course introduces different principles, theories and vocabulary of psychology as a science. The course also aims to provide students with basic concepts of social psychology, medical sociology and interpersonal communication which relate to the pharmacy practice system that involves patients, pharmacists, physicians, nurses and other health care professionals.

## 2- Key elements of Psychology:

DOMA	IN 1- FUNDAMENTAL KNOWLEDGE
1.C1.1	يلم بمباديء علم النفس
1.C1.2	يحدد مفهوم التنشئة الاجتماعية و دينامكيات السلوك و أنواع العلاقات الاجتماعية

1.C1.3	يحدد القواعد الأساسية للتعلم الشرطي و تطبيقاته						
1.C1.4	يذكر مفاهيم الصحة النفسية و العقلية						
DOMA	DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE						
2.C1.1	يستخدم النظريات و المفاهيم السابقة في التوجيه و الاختيار بناء على الفروق الفردية						
DOMA	DOMAIN 4: PERSONAL PRACTICE						
4.C1.1	ينمي مهارات التفكير النقدي و اتخاذ القرارات و حل المشكلات						

# **D- Contents:**

Week No.	Lecture (1 hr/week)
1	مدخل إلى علم النفس
2	ما هو التعلم؟
	التعلم الشرطي و الوقائع التجريبية و تفسيره
3	القواعد الأساسية للتعلم الشرطي و تطبيقاته
4	الدافعية و تعريفاتها و أهمية الدوافع و خصائصها
5	أنواع الدوافع و خصائصها و أهميتها في التعلم
6	الشخصية و تعريفاتها و محدداتها و مكوناتها
	الشخصية و نظرياتها و طرق قياسها
	7. Midterm exam
8	الذاكرة و تعريفاتها و نماذجها وأنواعها
9	معنى التنشئة الاجتماعية و ديناميات السلوك و أنواع العلاقات الاجتماعية
10	الجماعة و خصائصها و أهميتها للفرد و المجتمع و أنواع الجماعات
11	التوجيه و الاختيار المهني و الفروق الفردية
12	الذكاء و حل المشكلات
13	العمليات العقلية النفسية (الإحساس- الانتباه- الإدر اك- التذكر - التفكير)
	خطواتها و خصائصها و ُأنواعها
14	الصحة النفسية و الأمراض النفسية و العقلية
15	Final exam

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

Lectures

## **F- Student Assessment Methods:**

1- Written exams to assess 1.C1.1, 1.C1.2, 1.C1.3, 1.C1.4, 2.C1.1,

4.C1.1

#### **Assessment schedule:**

<b>Assessment</b> (1): Final Written exam	Week 15
Assessment (2): midterm exam	Week 7

## **Weighting of Assessment:**

Assessment method	Marks	Percentage
Final Written exam	75	75%
Midterm exam & activity	25	25%
TOTAL	100	100%

# **G- Facilities Required for Teaching and Learning:**

• Black (white) board, Data show

### **H-List of References:**

1- Course Notes:

كتاب محاضرات في علم النفس

#### 3- Recommended books

قائمة المراجع في كتاب محاضرات علم النفس للاستزادة في موضوعات المقرر

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Course Coordinator: Prof. Adel Khedr, 2020

	Matrix I of Psychology course								
		Key elements of Psychology							
	Course Contents		DOMA UNDAN KNOW	MENTA!		DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE	DOMAIN 4: PERSONAL PRACTICE		
	Lectures	1.C1.1	1.C1.2	1.C1.3	1.C1.4	2.C1.1	4.C1.1		
1	مدخل إلى علم النفس	X							
2	ما هو التعلم؟ التعلم الشرطي و الوقائع التجريبية و تفسيره	X		X					
3	تفسيره القواعد الأساسية للتعلم الشرطي و تطبيقاته	Х		X					
4	الدافعية و تعريفاتها و أهمية الدوافع و خصائصها	Х	Х						
5	أنواع الدوافع و خصائصها و أهميتها في التعلم	X	x						
6	الشخصية و تعريفاتها و محدداتها و مكوناتها الشخصية و نظرياتها و طرق قياسها	x	X						
7			]	Midterm ex	xam				
8	الذاكرة و تعريفاتها و نماذجها وأنواعها	Х	X						
9	معنى التنشئة الاجتماعية و دينامكيات السلوك و أنواع العلاقات الاجتماعية	X	X			Х			
10	الجماعة و خصائصها و أهميتها للفرد و المجتمع و أنواع الجماعات	Х	X			Х			
11	التوجيه و الاختيار المهني و الفروق الفردية	X	х			х			

12	الذكاء و حل المشكلات	X	X		x
13	العمليات العقلية النفسية (الإحساس- الانتباه- الإدراك- التذكر - التفكير) خطواتها و خصائصها و أنواعها	X	X		
14	الصحة النفسية و الأمراض النفسية و العقلية	x		Х	

	Matrix II of Psychology course										
National Academic		Program Course		Ollinge	C	Teacl	hing and method	learning ds	Meth	od of ass	sessment
	Reference key key contents (NARS)		Sources	lecture	practical session	Course assignments	written exam	practical exam	Course assignments		
1.1.1	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.4	1.C1.1	مدخل إلى علم النفس ما هو التعلم؟ ما هو التعلم؟ التعلم الشرطي و الوقائع القواعد الأساسية للتعلم الشرطي و تطبيقاته و الدافعية و تعريفاتها و خصائصها أهميتها في الشخصية و تعريفاتها و محدداتها و مكوناتها الشخصية و نظرياتها و معنى التنشئة الاجتماعية الجماعة و خصائصها و المواع المحمية الفرد و المجتمع التوجيه و الفروق الفردية المهني و الفروق الفردية	student book	X			X		

			الذكاء و حل المشكلات					
			العمليات العقلية النفسية					
			(الإحساس- الانتباه-					
			ُ ألإدراك- التذكر-					
			التفكير) خطواتها و					
			خصائصها و أنواعها					
			الصحة النفسية و					
			الأمراض النفسية و					
			العقلبة العقلبة					
		1 (71.0						
		1.C1.2	الدافعية و تعريفاتها و					
			أهمية الدوافع و					
			خصائصها					
			أنواع الدوافع و					
			خصائصها و أهميتها في					
			التعلم					
			الشخصية و تعريفاتها و					
			محدداتها و مكوناتها					
			الشخصية و نظرياتها و					
			طرق قياسها					
			الذاكرة و تعريفاتها و					
			نماذجها وأنواعها					
			معنى التنشئة الاجتماعية					
			و دينامكيات السلوك و					
			أنواع العلاقات					
			الاجتماعية					
			الجماعة و خصائصها و					
			أهميتها للفرد و المجتمع					
			اهمينها للعرد و المجلمع و أنواع الجماعات					
			و الواع الجماعات التوجيه و الاختيار					
			المهني و الفروق الفردية					
			الذكآء و حل المشكلات					
			العمليات العقلية النفسية					
			(الإحساس- الانتباه-					
			الإدراك- التذكر-					
			التفكير) خطواتها و					
			خصائصها و أنواعها					
	ļ	1.C1.3	ما هو التعلم؟	student book	X		X	
			التعلم الشرطي و الوقائع					
			التجريبية و تفسيره					
			القواعد الأساسية للتعلم					
			1					

			1.C1.4	الشرطي و تطبيقاته لصحة النفسية و الأمراض النفسية و العقلية	student book	х		х	
2.1.2	Adopt ethics of health care and pharmacy profession respecting patients' rights and valuing people diversity	2.C1.4 2.C1.6	2.C1.1	معنى التنشئة الاجتماعية و دينامكيات السلوك و أنواع العلاقات الاجتماعية الجماعة و خصائصها و أهميتها للفرد و المجتمع و أنواع الجماعات التوجيه و الاختيار المهني و الفروق الفردية	student book	x		х	
4.1.2	Retrieve and critically analyze information, identify and solve problems, and work autonomously and effectively in a team.	4.C1.5	4.C1.1	الذكاء و حل المشكلات	Student book	х		X	

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Course Coordinator: Prof. Adel Khedr, 2020

# **COURSE SPECIFICATIONS**

**Cell Biology** 

First level –Semester 2 2019-2020

# **Course specification of Cell biology**

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University: Zagazig Faculty: Pharmacy

## **A- Course specifications:**

Program (s) on which the course is given: Bachelor of Pharmacy (Pharm D)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Biochemistry Department

Academic year Level: First level/ semester2

Date of specification approval:

## **B- Basic information:**

Title: Cell biology Code: PB201

Credit Hours: ---

Lectures: 1hr/week

Practical: 1hr/week

Tutorials: ---

Total: 2 hrs/week

### **C- Professional information:**

#### 1-Overall aim of the course

On completion of the course, students will be able to:

- Outline the principles of cell biology and molecular genetics.
- Use the proper terms of cell biology, cell division, cell cycle
- Differentiate between mitotic and meiosis as well as atrophy and hyperplasia.
- Illustrate uses and applications of laser.

# 2- Key elements of Cell biology

DOMAIN 1- FUNDAMENTAL KNOWLEDGE						
and clinic	<b>1-1- COMPETENCY:</b> Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize materials, formulate and manufacture products, and deliver population and patient-centered care.					
1.C1.1.	Identify the principles of cell biology including cell theory and different types of cells, cell cycle, hypertrophy, hyperplasia, apoptosis and necrosis.					
1.C1.2	illustrate different cell organelles including endoplasmic reticulum, mitochondria, Golgi apparatus, etc					
DOMAIN	N 3: PHARMACEUTICAL CARE					
	<b>MPETENCY:</b> Apply the principles of body functions to participate in g health care services using evidence-based data.					
3.C1.1.	Explain the functions of different cellular organelles, the different phases and types of cell division and their correlation with various disorders and apoptosis in physiologic and pathologic situations and outline the basis of genetics, nucleic acids and protein synthesis, as well as mutations.					
DOMAIN 4: PERSONAL PRACTICE						
<b>4-2- COMPETENCY</b> Effectively communicate verbally, non-verbally and in writing with individuals and communities.						
4.C2.1.	Write and present reports					

Week	Lecture (1hr/week)	Practical session (1hr/week)
No.		

# **D- Contents:**

1	- Cell theory - Animal cell - Plant cell - Prokaryotic cell - Eukaryotic cell	Lab safety
2	<ul> <li>Structure of cell membrane</li> <li>Cytoplasm</li> <li>Transport across membrane</li> <li>Nucleus (Chromatin and chromosomes)</li> </ul>	<ul><li>Introduction</li><li>Types and parts of microscope</li><li>Micrographs of plant and animal cells at E.M level</li></ul>
3	<ul><li>- Endoplasmic reticulum</li><li>- Golgi apparatus</li><li>- Lysosomes</li></ul>	- Micrograph of cell membrane at E.M level
4	- Chloroplasts - Mitochondria - Cytoskeleton - Micro-bodies	- Micrograph of nucleus at E.M level
5	- Cell growth - Cell division (Mitotic)	- Micrograph of smooth and rough endoplasmic reticulum
6	-Cell division (Meiosis) - Cell cycle regulation	<ul><li>Micrograph of Golgi apparatus at E.M level</li><li>Micrograph of lysosomes at E.M level</li></ul>
7	- Periodical exam	- Periodical exam
8	<ul><li>Molecular genetics</li><li>DNA and RNA synthesis</li></ul>	<ul><li>Micrograph of mitochondria at E.M level</li><li>Micrograph of chloroplasts at E.M level</li></ul>
9	- Protein synthesis - Mutation points	- Micrograph of cytoskeleton (microtubules)
10	- Apoptosis-mechanism of apoptosis	- Micrograph of different stages of cell division
11	- Necrosis	- Activity(DNA mutations and diseases, Cell cycle disorders and cancer)
12	- Apoptosis and its relation to cancer	- Revision
13	- Apoptosis and its relation to AIDs and atherosclerosis	- Practical exam
14	- Revision and open discussion	
15	Written exam	

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

- Lectures
- Practical sessions
- Think/pair/share
- Case study

## F- Student Assessment methods:

1- Written exams to assess:1.C1.1, 1.C1.2

2- Practical exams to assess: 3.C1.1

3- Activities to assess: 3.C1.1, 4.C2.1

4- Periodical exam to assess: 1.C1.1, 1.C1.2

### **Assessment schedule**

Assessment (1): Activity	Week 11
Assessment (2): Periodical exam	Week 7
Assessment (3): Practical exam	Week 13
Assessment (4): Written exam	Week 15
Assessment (5): Oral exam	Week 15

# Weighting of Assessment

<b>Assessment method</b>	Marks	Percentage
Activity	5	5%
Periodical exam	10	10%
Practical exam	25	25%
Written exam	50	50%

Oral exam	10	10%
TOTAL	100	100%

# **G-** Facilities required for teaching and learning:

• Black (white) board, Data show and software.

#### **H- List of References:**

#### 1- Course Notes:

- Student book of cell biology approved by biochemistry department 2019.
- Practical notes of cell biology approved by biochemistry department 2019.

#### 2- Essential books:

- Cell biology, 3rd edition 2017, Thomas D. Pollard, William C. Earnshaw, Jennifer Lippincott-Schwartz, Graham Johnson.
- Encyclopedia of cell biology, 1st edition 2015, Ralph A.Bradshaw, Philip D. Stahl.
- Molecular cell biology (8th edition); Harvey Lodish, Arnold Berk, S
   Lawrence Zipursky, Paul Matsudaira, David Baltimore, and James Darnell.

   New York: W. H. Freeman (2016).

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Course Coordinator: Prof.Dr.Hoda Elsayed

Head of Department: Assistant professor Dr. Nahla Younis

#### Date:

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ 23-9-2019

	Matrix I of Cell biology course							
		Key elements of Cell biology course						
<b>Course Contents</b>		1-1- COM	PETENCY	3-1- COMPETENCY	4-3- COMPETENCY			
	Lectures	1.C1.1	1.C1.2	3.C1.1	4.C2.1			
1	Cell theory- Animal cell-Plant cell Prokaryotic cell- Eukaryotic cell	х						
2	Structure of cell membrane Cytoplasm- Transport across membrane Nucleus (Chromatin and chromosomes)			X				
3	Endoplasmic reticulum - Golgi apparatus Lysosomes			X				
4	Chloroplasts -Mitochondria- Cytoskeleton- Micro-bodies			х				
5	Molecular genetics- DNA and RNA synthesis			X				
6	Protein synthesis- Mutation points			X				
7	Periodical exam	X		X				
8	Cell growth- Cell division (Mitotic)	X		X				
9	Cell division (Meiosis) -Cell cycle regulation	X		X				
10	Apoptosis-mechanism of apoptosis	X		X				
11	Necrosis	Х		Х				
12	Apoptosis and its relation to cancer	X		X				
13	Apoptosis and its relation to AIDs and atherosclerosis	X		X				

Pra	Practical session					
1	Introduction (General terms of cell biology) Types and parts of microscope	x				
2	Micrographs of plant and animal cells at E.M level	x				
3	Micrograph of cell membrane at E.M level	x				
4	Micrograph of nucleus at E.M level	x				
5	Micrographs of smooth and rough endoplasmic reticulum	x				
6	Micrograph of Golgi apparatus at E.M level Micrograph of lysosomes at E.M level	x				
7	Micrograph of mitochondria at E.M level Micrograph of chloroplasts at E.M level	x				
8	Micrograph of cytoskeleton (microtubules) Micrograph of cytoskeleton (microfilaments)	x				
9	Micrograph of different stages of cell division	x				
10	Activity (Report)		Х			

Matrix II of Cell Biology course											
Reference		Program key	n Course key	Course contents	Sources	Teaching and learning methods			Weighting of assessment		
		elements	elements		Bources	Lecture	Practical session	Self learning	Written exam	Practical exam	Periodical exam
	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, 1.C1.1		Cell theory- Animal cell-Plant cell Prokaryotic cell- Eukaryotic cell	Student book Essential books	X			X		х	
			1.C1.1 1.C1.2	Cell growth- Cell division (Mitotic)	Student book Essential books	X			X		X
		tanding of vledge of acceutical, ical, social, avioral, strative, and		Cell division (Meiosis) Cell cycle regulation	Student book Essential books	X					
pharmaceutic biomedical, so behavioral administrative,				Apoptosis- mechanism of apoptosis	Student book Essential books	X			X		
	behavioral, administrative, and clinical sciences.			Necrosis	Student book Essential books	X			X		
				Apoptosis and its relation to cancer	Student book Essential books	x			x		
			Apoptosis and its relation to AIDs and atherosclerosis	Student book Essential books	х			X			
3.1.1	Apply the principles of body function and basis of genomics in health and disease states to manage different diseases.	3.C1.1	3.C1.1	Structure of cell membrane Cytoplasm- Transport across membrane Nucleus (Chromatin and chromosomes)	Student book Essential books	X			x		X

Endoplasmic	1				1	ĺ	
reticulum - Golgi	Student book						
apparatus-	Essential	X			X		X
Lysosomes-	books	^			^		^
Chloroplasts	COOKS						
Mitochondria-							
Cytoskeleton- Micro-	Student book						
bodies	Essential	X			X		X
boules	books						
Molecular genetics-	Student book						
DNA and RNA	Essential	X		X	X		X
synthesis	booksInternet						
-	Student book						
Protein synthesis-	Essential	X			X		X
Mutation points	books						
Call amounth Call	Student book						
Cell growth- Cell division (Mitotic)	Essential	X			X		X
division (Mitotic)	books						
Cell division	Student book						
(Meiosis)	Essential	X					
Cell cycle regulation	books						
Apoptosis-	Student book						
mechanism of	Essential	X			X		
apoptosis	books						
	Student book						
Necrosis	Essential	X			X		
	books						
Apoptosis and its	Student book						
relation to cancer	Essential	X			X		
	books						
Apoptosis and its	Student book						
relation to AIDs and	Essential	X			X		
atherosclerosis	books						
Micrograph of cell							
membrane at E.M			X			X	
level	]						
Micrographs of							
smooth and rough			X			X	
endoplasmic			^			^	
reticulum				1			

				Micrograph of nucleus at E.M level		<b>)</b>	<b>c</b>	x	
				Micrograph of Golgi apparatus at E.M level		)	(	х	
				Micrograph of lysosomes at E.M level		)	(	х	
				Micrograph of mitochondria at E.M level		>	(	x	
				Micrograph of cytoskeleton (microtubules)		>	(	x	
				Micrograph of cytoskeleton (microfilaments)		>	(	x	
				Micrograph of chloroplasts at E.M level		>	(	x	
				Micrograph of different stages of cell division		>	(	x	
4.2.2	Use contemporary technologies and media to demonstrate effective presentation skills.	4.C2.2	4.C2.1	Activity (report)	Internet		X	x	

**Course Coordinator:** 

**Head of Department:** 

Date:

# **COURSE SPECIFICATIONS**

Principles of Quality Assurance

First level –Semester 2 2019-2020

# **Course Specification of Principles of Quality Assurance**

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University: Zagazig Faculty: Pharmacy

## **A- Course specifications:**

Program(s) on which the course is given: Bachelor of Pharmacy (PharmD)

Major or Minor element of programs: Minor

Department offering the program: ------

Department offering the course: Prof. Asem ElShazly & Assis. Prof. Gehan Balata

Academic year/ Level: First level /Semester 2

Date of specification approval: Jan. 2020

## **B- Basic information:**

Title: Principles of Quality Assurance Code: UR 204

Credit Hours: ---

Lectures: 1hr/week

Practical: 0

Tutorials: ---

Total: 1 hr/week

## **C- Professional information:**

#### 1-Overall Aims of the Course:

On completion of the course, students will be able to recognize quality definitions, origin, importance and types. Definition of accreditation, importance and types. Basic concepts of quality in education: program, course, intended learning outcomes and competency. Moreover, principles of quality in healthcare including: Team skills, quality tools and continuous improvement are included.

# 2- Key elements of Principles of Quality Assurance:

<b>DOMA</b>	IN 1- FUNDAMENTAL KNOWLEDGE
1.C1.1	Define different terminologies related to quality in education including
	accreditation, accreditation standards, vision, mission, academic
	guidance, survey, feedback, program and course specification, ILOs
	and others
1.C1.2	Outline accreditation standards, responsibilities of quality assurance
	unit as well as elements of strategic plan
1.C1.3	Illustrate the importance of implementation of quality assurance in
	education, steps of accreditation process as well as different tools of
	quality including process flow chart, fishbone diagram and different
	graph types
1.C1.4	Explain the importance of healthcare quality, quality perspectives,
	quality aspects and healthcare quality pillars
1.C1.5	Describe different models of quality improvement, leadership types,
	steps of team formation and determination of customer needs
DOMA	IN 2: PROFESSIONAL AND ETHICAL PRACTICE
2.C6.1	Illustrate the elements of healthcare quality system and performance
	indicators related to each element
<b>DOMA</b>	IN 4: PERSONAL PRACTICE
4.C1.1	Deliver different assignments within due time
4.C1.2	Demonstrate good critical thinking and problem solving skills

# **D- Contents:**

Week No.	Lecture (1 hr/week)
1	المفاهيم الأساسية والمصطلحات:
	ضمان جودة التعليم
	الاعتماد & معايير الاعتماد
	الزيارات الميدانية
	رؤية و رسالة الكلية الارشاد الاكاديمي
	الارشاد الاعاديمي الاستبيان
	التغذية الراجعة الراجعة
2	المفاهيم الأساسية والمصطلحات:
-	توصيف المقرر في البرنامج
	مخرجات التعلم المستهدفة
	المجالس الحاكمة
2	المجتمع المحلي الخطة الاستراتيجية
3	
	الهيئة القومية لضمان جودة التعليم و الاعتماد
4	سؤال وجواب في جودة التعليم
5	معايير الإعتماد ـ القدرة المؤسسية
	• التخطيط الاستراتيجي للمؤسسة .
	<ul> <li>القيادة والحوكمة.</li> </ul>
	• الجهاز الإداري.
	<ul> <li>الموارد المالية والمادية</li> </ul>
	• المشاركة المجتمعية
	e. Ne lil
	• إدارة الجودة
6	معايير الإعتماد - الفاعلية التعليمية
	<ul> <li>الطلاب والخريجون.</li> </ul>
	<ul> <li>المعايير الأكاديمية. &amp; البرامج التعليمية / المقررات الدراسية.</li> </ul>
	<ul> <li>التعليم والتعلم والتسهيلات المادية للتعلم.</li> </ul>
	• أعضاء هيئة التدريس.
	• البحث العلمي.
	• الدراسات العليا.
	7. Midterm exam

8	مبادئ الجودة في المؤسسات الصحية
	• تعريف الجودة
	<ul> <li>أهمية تطبيق الجودة في المؤسسات الصحية</li> </ul>
	• مكونات النظام في المؤسسات الصحية
	• منظور الجودة
	• أشكال الجودة
	• الركائز الستة للجودة
9	إدارة الجودة الشاملة TQM)) في المؤسسات الصحية
	• ثلاثية جوران
	• الركائز الستة للجودة
	• الحيود الستة (Six sigma )
10	متطلبات تطبيق إدارة الجودة الشاملة في المؤسسات الصحية
	أولا: القيادة
	ثانيا: تكوين فريق عمل لتحسين الجودة ثالثا: التركيز على العميل
11	ا فالله التركير على العميل أدوات إدارة الجودة الشاملة في المؤسسات الصحية
11	ادوات إداره الجودة المساملة في الموسسات المصحية او لا: خريطة التدفق Flow chart
10	
12	أدوات إدارة الجودة الشاملة في المؤسسات الصحية
	ا ثانيا: مخطط السبب والأثر ( Fishbone Diagram /Ishikawa's cause and ) ثانيا: مخطط السبب والأثر
	effect diagrafii ) ثالثا: العصف الذهني Brainstorming
	رابعا: بطاقة الأداء المتوازن La Balanced Score Card BSC
13	أدوات إدارة الجودة الشاملة في المؤسسات الصحية
	خامسا: أدوات الرقابة الاحصائية
14	-Revision
15	Final exam

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

- Lectures
- Solving different assignments

#### **F- Student Assessment Methods:**

1- Written exams to assess 1.C1.1, 1.C1.2, 1.C1.3, 1.C1.4, 1.C1.5, 2.C6.1

2- Assignments to assess 4.C1.1, 4.C1.2

#### **Assessment schedule:**

<b>Assessment</b> (1): Final Written exam	Week 15
Assessment (2): assignments	Each Week
Assessment (4): midterm exam	Week 7

## **Weighting of Assessment:**

Assessment method	Marks	Percentage
Final Written exam	75	75%
Midterm exam & assignments	25	25%
TOTAL	100	100%

# **G- Facilities Required for Teaching and Learning:**

• Black (white) board, Data show

## **H-List of References:**

- دليل الإعتماد لمؤسسات التعليم العالى الإصدار الثاني الهيئة القومية لضمان جودة التعليم والإعتماد
  - أغسطس 2009.
  - دليل الطالب سؤال وجواب في جودة التعليم الإصدار الأول الهيئة القومية لضمان جودة التعليم والإعتماد أبريل 2009
    - لائحة بكالريوس الصيدلة فارم دى كلية الصيدلة جامعة الزقازيق 2019.

- يسري السيد يوسف جوده ". مبادئ إدارة الجودة الشاملة، مدخل لتحسين جودة اداء الخدمات الصحية". مجلة البحوث الإدارية. المجلد الرابع والعشرون. جامعة الزقازيق. العدد الأول يناير 2002. عبد الله ساعاتي. " مبادئ إدارة المستشفيات". دار الفكر العربي. القاهرة. 1998.
- عبد العزيز مخيمر، محمد الطمامنة، الاتجاهات الحديثة في إدارة المستشفيات" المفاهيم والتطبيقات"، المنظمة العربية للتنمية الإدارية بحوث ود راسات 2003.
  - محمد عدمان مريزق، مداخل في الإدارة الصحية، دار الراية، عمان، 2012.

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**Course Coordinator: Prof. Asem ElShazly** 

	Matrix 1	of pri	nciples	of qua	lity ass	uranc	e course			
		Key elements of principles of quality assurance								
	Course Contents			- FUNDA OWLEDO		DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE	DOMAIN 4: PERSONAL PRACTICE			
						1.C1.5				
	Lectures	1.C1.1	1.C1.2	1.C1.3	1.C1.4		2.C6.1	4.C1.1	4.C1.2	
2	المفاهيم الأساسية والمصطلحات: ضمان جودة التعليم الاعتماد & معايير الاعتماد الزيارات الميدانية الزيارات الميدانية الارشاد الاكاديمي الاستبيان التغذية الراجعة المفاهيم الأساسية والمصطلحات: توصيف المقرر & البرنامج مخرجات التعلم المستهدفة المجالس الحاكمة	x		X				x X		
3	المجتمع المحلي الخطة الاستراتيجية النبئة القريرة لن مردة القرار الاحقاد	X	X					X		
4	الهيئة القومية لضمان جودة التعليم و الاعتماد سؤال وجواب في جودة التعليم	X	X	X				X	X	
5	معابير الإعتماد - القدرة المؤسسية التخطيط الاستراتيجي للمؤسسة . القطيط الاستراتيجي للمؤسسة . القيادة والحوكمة . الجهاز الإداري. الموارد المالية والمادية		x	x				X		

	11.22.13.11					ı			
	• المشاركة المجتمعية								
	x• إدارة الجودة								
	معايير الإعتماد - الفاعلية التعليمية								
	<ul> <li>الطلاب والخريجون.</li> <li>السلاب والخريجون.</li> </ul>								
	• المعايير الأكاديمية. & البرامج التعليمية /								
6	المقررات الدراسية.		X					X	
	<ul> <li>التعليم والتعلم والتسهيلات المادية للتعلم.</li> <li>أعضاء هيئة التدريس.</li> </ul>								
	• البحث العلمي. • البحث العلمي.								
	· الدر اسات العليا. • الدر اسات العليا.								
	مبادئ الجودة في المؤسسات الصحية								
	<ul> <li>أهمية تطبيق الجودة في المؤسسات</li> </ul>								
_	الصحية							37	
7	• مكونات النظام في المؤسسات الصحية	X			X		X	X	
	• منظور الجودة								
	• أشكال الجودة								
	• الركائز الستة للجودة								
	إدارة الجودة الشاملة ((TQM في المؤسسات					X			
	الصحية								
8	<ul> <li>ثلاثیة جوران</li> </ul>							X	
	11 mm 11 mm 11								
	<ul> <li>الركائز الستة للجودة</li> </ul>								
	المنات المناسع								
	الحيود الستة (Six sigma)     متطلبات تطبيق إدارة الجودة الشاملة في المؤسسات					X			
	منصبات تطبيق إدارة الجودة الشاملة في المؤسسات الصحية					Λ			
9	، صحصي أو لا: القيادة							X	
	ر ثانيا: تكوين فريق عمل لتحسين الجودة							11	
	ثالثًا: التركيز على العميل								
	ثالثا: التركيز على العميل أدوات إدارة الجودة الشاملة في المؤسسات								
10	الصحية								
10	•			X				X	X
	او لا: خريطة التدفقFlow chart								
10	·			Х				X	Х

	أدوات إدارة الجودة الشاملة في المؤسسات				
11	الصحية ثانيا: مخطط السبب والأثر Fishbone) Diagram /Ishikawa's cause and effect diagram)	x		х	Х
	ثالثا: العصف الذهنيBrainstorming				
	رابعا: بطاقة الأداء المتوازن La Balanced				
	Score Card BSC				
	أدوات إدارة الجودة الشاملة في المؤسسات				
12	الصحية	X		X	
	خامسا: أدوات الرقابة الاحصائية				

	Matrix II of principles of quality assurance course												
A	National Academic	Program	Course	Course	<b>C</b>	Teaching and learning methods			Meth	thod of assessment			
Reference Standards (NARS)		key elements	key elements	contents	Sources	lecture	practical session	Course assignments	written exam	· .			
1.1.1	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.5	1.C1.1	ضمان جودة التعليم الاعتماد & معابير الاعتماد الميدانية الزيارات الميدانية روية و رسالة الكلية الارشاد الاكاديمي التغذية الراجعة توصيف المقرر & البرنامج	student book	X			X				

		مخرجات التعلم					
		المستهدفة					
		: c1 t1 t1 t1					
		المجالس الحاكمة					
		المجتمع المحلى					
		المجتمع المحلي الخطة الاستراتيجية					
		الهيئة القومية لضمان					
		الهيف القوامية للعمال					
		جودة التعليم و الاعتماد					
	1.C1.2	الخطة الاستراتيجية	student book	X		X	
	1.01.2	الهيئة القومية لضمان	student book	Λ		Λ.	
		الهيئه القومية تصمال					
		جودة التعليم و الاعتما <b>د</b>					
		معايير الإعتماد ـ القدرة	student book	X		X	
		المؤسسية					
		• التخطيط					
		الاستداتيج المؤسسة					
		الاستر اتيجي للمؤسّسة . • القيادة					
		• القياده					
		والحوكمة.					
		• الجهاز					
		الإداري.					
		ءٍ رَفٍ. • الموارد					
		ול ול : ול ו. :					
		المالية والمادية					
		• المشاركة					
		المجتمعية					
		x• إدارة الجودة					
		معايير الإعتماد ـ					
		النابات التالتات					
		الفاعلية التعليمية • الطلاب					
		• الطلاب					
		والخريجون.					
		<ul> <li>الطلاب</li> <li>والخريجون.</li> <li>المعايير</li> <li>الأكارين قـ ع الدار.</li> </ul>					
		الأكاديمية. & البرامج التعليمية / المقررات					
		التان بران قرارات					
		التعليمية / المعررات					
		الدراسية.					
		• التعليم					
		والتعلم والتسهيلات					
		المادية للتعلم.					
		• أعضاء هيئة					
		اعصاء میت					
		التدريس.					
		• البحث					
		• البحث العلمي.					

		• الدراسات			1		
		العليا.					
		المفاهيم الأساسية					
		والمصطلحات:					
		ضمان جودة التعليم الاعتماد & معابير					
		الاعتماد					
		الزيارات الميدانية	student book,				
	1.C1.3	رؤية و رسالة الكلية	essential	X		X	
		الرشاد الاكاديمي الاستبيان التغذية الراجعة	books				
		الاستبيان التحدة					
		التعديد الراجعة أدوات إدارة الجودة					
		الشاملة في المؤسسات					
		الصحية					
		مبادئ الجودة في					
		المؤسسات الصحية • تعريف	,				
		الْجو دة					
		• أهمية تطبيق					
		الجودة في المؤسسات الصحية					
		الصحية • مكونات					
	1.C1.4	النظام في المؤسسات	student book	X		X	
		الصحية					
		• منظور					
		الجودة • أشكال					
		المجودة					
		٠ــــــــــــــــــــــــــــــــــــ					
		الستة للجودة					
		إدارة الجودة الشاملة					
		TQM)) في المؤسسات الصحية					
		الموسسات الصحيه • ثلاثية					
	1.C1.5	جوران	student book	X		X	
		<ul> <li>الركائز</li> </ul>					
		الستة للجودة					
		• الحيود الستة					

				(Six sigma) متطلبات تطبيق إدارة الجودة الشاملة في المؤسسات الصحية أو لا: القيادة ثانيا: تكوين فريق عمل لتحسين الجودة ثالثا: التركيز على العميل مبادئ الجودة في المؤسسات الصحية					
2.C6.1	Apply the principles of business administration and management to ensure rational use of financial and human resources.	2.C6.1	2.C6.1	• تعریف الجودة • أهمیة تطبیق الجودة فی المؤسسات • مكونات النظام فی المؤسسات • منظور الجودة • أشكال الجودة • أشكال الجودة • الركائز	Student book	X	X		Х
4.1.1	Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills.	4.C1.1	4.C1.1	All topics	Student book		x		X

4.1.2	Retrieve and critically analyze information, identify and solve problems, and work autonomously and effectively in a team.	4.C1.5	4.C1.2	أدوات إدارة الجودة الشاملة في المؤسسات الصحية او لا: خريطة التدفق Flow chart ثانيا: مخطط السبب و الأثر Fishbone Diagram /Ishikawa's cause and effect diagram)	Student book			X			X	
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**Course Coordinator:** Prof. Asem ElShazly

# COURSE SPECIFICATIONS

**English language II** 

First level –Semester 2 2019-2020

# **Course specification of English Language 2**

University: Zagazig Faculty: Pharmacy

**A- Course specifications:** 

Program(s) on which the course is given: Bachelor of Pharmacy (pharmD)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: English Department/ Faculty of Education

Academic year/ Level: First level /semester 2

Date of specification approval: Dec 2019

**B- Basic information:** 

Title: English language-2 Code: UR 205

Credit Hours: ---

Lectures: 1 hr/week

Practical: ---

Tutorials: ---

Total: 1 hr/week

## **C- Professional information:**

#### 1-Overall Aims of the Course:

On completion of the course, students will be able to recognize the fundamentals of effective scientific writing. It covers methods of paraphrasing, common mistakes in scientific writing, different writing styles, how to write a scientific report, proposal and manuscript.

# 2-Key elements of English language 2:

DOMAIN	I 1- FUNDAMENTAL KNOWLEDGE							
1-1- COMPETENCY Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize materials, formulate and manufacture products, and deliver population and patient-centered care.								
1.C1.1	1.C1.1 Enumerate different writing styles as well as paraphrasing techniques							
1C1.2	Outline the components and essential steps of writing scientific reports, proposal and manuscript							
1.C1.3	Identify common mistakes in writing scientific reports							
DOMAIN	I 4: PERSONAL PRACTICE							
	IPETENCY eadership, time management, critical thinking, problem solving,							
-	ent and team working, creativity and entrepreneurial skills.							
4.C1.1	Deliver assignments in due time							
<b>4-2- COMPETENCY</b> Effectively communicate verbally, non-verbally and in writing with individuals and communities.								
4.C2.1	Develop students' oral and written English language skills							
	necessary to communicate in basic social and professional							
	interactions related to their field of specialization							

# **D- Contents:**

Week No.	Lecture (1hr/week)
1	Components of an Effective Paragraph: Topic
	Sentences & Supporting details
2	Components of an Effective Paragraph: Concluding
	Sentences
3	methods & Techniques of paraphrasing
4	common mistakes in scientific writing
5	different writing styles
6	how to write a scientific report
7	Midterm exam
8	how to write proposals and manuscripts
9	labels, abbreviations and acronyms Grammar, Spelling
	and Punctuation in scientific writing

10	writing a practical research paper
11	Optimizing paragraph and sentence structure in
	scientific writing
12	Coherence in scientific writing
13	Cohesion in scientific writing
14	Transitions in scientific writing
15	Final exam

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

- Lectures
- Self learning (exercises....)
- Journal reflections
- Internet resources are used as an integral part of the instruction.
- Electronic Mail which allows learners to freely interact on an individual or group level with other learners and the instructor.
- e- portfolio that includes all their activities during the semester. By the end of the semester, the students will send their e-portfolios via the instructor's e-mail to be evaluated.

## **F- Student Assessment Methods:**

Written exam to assess 1.C1.1, 1.C1.2, 1.C1.3

Assignments & portfolio to assess 4.C1.1, 4.C2.1

## **Assessment schedule:**

Assessment (1): Midterm exam	Week 7
<b>Assessment (1):</b> Written exams	Week 15

## **Weighting of Assessment:**

Assessment method	Marks	Percentage
Midterm exam &	25	25%
assignments		
Final Written exam	75	75%

## **G- Facilities Required for Teaching and Learning:**

• Black (white) board, Data show.

#### H- List of References:

1- Course Notes: Student book of English approved by English department 2019

#### 2- Essential Books (Text Books)

- Page, M., E., P. (2006). ESL Intermediate/Advanced Writing (English as a Second Language Series), Research & Education Association
- Gallagher, C. (2016). Writing in English is Easy!, CreateSpace Independent Publishing Platform
- Scholastic (2010). Scholastic Success with Reading Comprehension, Teaching;
   Illustrated edition (March 1, 2010)
- Thomas N. Huckin, Leslie A. Olsen (1983) English for science and technology: a handbook for nonnative speaker: McGraw-Hill, 1983 - Language Arts & Disciplines
- Beare, K. (2002) Speaking English for Medical Purposes
- Parkinson, J. (1998). English for Science and Technology
- Paltridge, B., Starfield, S. and Parkinson, J. (2012). English for Science and Technology; Published Online: 13 SEP 2012
- Orr, T (2012). English for Science and Technology; by Published Online: 5 NOV 2012
- Trimble, L. and Swan, M. (Editor). English for Science and Technology: A
  Discourse Approach, Cambridge University Press
- Master, P. A. Science, Medicine, and Technology: English Grammar and Technical Writing, Publisher: Prentice Hall
- Ram Krishna Singh, R. K. (1998) Using English in Science and Technology

## D. Periodicals, Journals, Web Sites, etc

Medical English for Pharmacist
<a href="http://www.englishmed.com/pharmacists/">http://www.englishmed.com/pharmacists/</a>
Learn English Vocabulary for the Pharmacy
<a href="https://www.canlearnenglish.com/english-at-the-pharmacy/">https://www.canlearnenglish.com/english-at-the-pharmacy/</a>
English at the Pharmacy

https://www.canlearnenglish.com/english-at-the-pharmacy/

**English for Pharmacist** 

https://competencyrx.com/images/pdf/English\_for\_Pharmacist.pdf

Medical English

https://www.medicalenglish.com/

English as a Second Language

https://learn.saylor.org/course/index.php?categoryid=29&utm\_source=google&utm\_medium=keyword&utm\_campaign=google\_keyword\_ad\_esl

International Dental Journal

http://www.fdiworlddental.org/resources/journals/international-

dental-journal

The English Journal

http://www.ncte.org/journals/ej

**TESOL Quarterly** 

http://www.tesol.org/read-and-publish/journals/tesol-quarterly

**ESL Journal** 

http://www.esljournal.org/

ESP journal

http://www.esp-world.info/

Grammarly: Great Writing, Simplified

https://www.grammarly.com/?utm\_source=google&utm\_medium=cpc&utm\_campaign=searchgroupewriting&utm\_content=0&utm\_term=&matchtype=&placement=&network=&gclid=EAIaIQobChMIvbvH0pyt6wIViPdRCh18lwIOEAMYASAAEgJQw\_D\_BwE

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**Course Coordinator:** Dr. Mohamed Hassan; Dr. Micheal Abd EL-Messih; Dr. Ahmed Abd El-Salam Edries

**Date:** /9/2019

Matrix I of English language 2 course										
		Key elements of English 2 course								
<b>Course Contents</b>			wledge lerstand		DOMAIN 4: PERSONAL PRACTICE					
		1.C1.1	1.C1.2	1.C1.3	4.0	C <b>1.1</b>	4.	.C2.1		
1	Components of an Effective Paragraph: Topic Sentences & Supporting details		X		X		X			
2	Components of an Effective Paragraph: Concluding Sentences		X		X		X			
3	methods & Techniques of paraphrasing	X			X		X			
4	common mistakes in scientific writing			X	X		X			
5	different writing styles	х			X		X			
6	how to write a scientific report		X		X		X			
7	how to write proposals and manuscripts		X		X		X			
8	labels, abbreviations and acronyms Grammar, Spelling and Punctuation in scientific writing		X		X		X			
9	writing a practical research paper		X		X		X			
10	Optimizing paragraph and sentence structure in scientific writing		X		X		X			
11	Coherence in scientific writing		X		X		X			
12	Cohesion in scientific writing		X		X		X			
13	Transitions in scientific writing		X		X		X			

	Matrix II of English language 2 course										
National Academic Reference		Program key	Course key	( 'Allrea	Sources	Teac	Method of assessment				
	tandards NARS	elements	elements	contents		Lecture	portfolio	assignments	Written exam		
			1.C1.1	methods & Techniques of paraphrasing different writing styles	Student book	X			x		
1-1-1-	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.1	1.C1.2	Components of an Effective Paragraph: Topic Sentences & Supporting details Components of an Effective Paragraph: Concluding Sentences how to write a scientific report how to write proposals and manuscripts labels, abbreviations and acronyms Grammar, Spelling and Punctuation in scientific writing writing a practical research paper Optimizing paragraph and sentence structure in scientific writing	Student book	x			X		

			1.C1.3	Coherence in scientific writing Cohesion in scientific writing Transitions in scientific writing common mistakes in scientific writing	Student book	x			x
4.1.1	Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills.	4.C1.3	4.C1.1	Components of an Effective Paragraph: Topic Sentences & Supporting details Components of an Effective Paragraph: Concluding Sentences methods & Techniques of paraphrasing	Student book		x	X	
4.2.1	Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities.	4.C2.1	4.C2.1	common mistakes in scientific writing different writing styles how to write a scientific report how to write proposals and manuscripts labels, abbreviations and acronyms Grammar, Spelling and Punctuation in scientific writing writing a practical research paper Optimizing paragraph and sentence structure in scientific writing Coherence in	Student book				

	scientific writing Cohesion in scientific writing		
	Transitions in		
	scientific writing		

Course Coordinators: Course Coordinator: Dr. Mohamed Hassan; Dr. Micheal Abd EL-Messih; Dr. Ahmed Abd El-Salam Edries

**Date:** /9/2019