

# COURSE SPECIFICATIONS

## Faculty of Pharmacy

**First Level –Semester 1**

**Bachelor of Pharmacy  
(Clinical Pharmacy Pharm D)**

**2019-2020**

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**COURSE  
SPECIFICATION**

**Pharmaceutical  
Analytical Chemistry I**

**First Level –Semester 1**

**2019-2020**

## Course Specification of Analytical chemistry (I)

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University: **Zagazig** Faculty: **Pharmacy**

### A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -----

Department offering the course: Analytical Chemistry

Academic year / Level: First level / First semester

Date of specification approval:

### B- Basic information:

Title: Analytical Chemistry (I) Code: PA101

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 outline theoretical bases and applications of acid-base, precipitometric, complexometric and gravimetric reactions.

#### 2-Key elements of Analytical Chemistry (1):

**DOMAIN 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** Illustrate different types of volumetric analysis.

**1.C1.2** Explain theories and mechanisms of neutralization, precipitometric, complexometric and gravimetric reactions.

**1.C1.3** Describe suitable methods and optimum conditions for separation, and determination of different compounds.

**DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE****2-2- COMPETENCY**

Standardize pharmaceutical materials, formulate and manufacture pharmaceutical products, and participate in systems for dispensing, storage, and distribution of medicines.

**2.C2.1** perform neutralization, precipitometric, complexometric and gravimetric reactions in determination of some inorganic and organic compounds and their mixtures with interpretation of results

**2.C2.2** Calculate pH of different systems and during titration

**2.C2.3** Select the most appropriate procedures for determination of different compounds and their mixtures

**2-3- COMPETENCY**

Handle and dispose biologicals and synthetic/natural pharmaceutical materials/products effectively and safely with respect to relevant laws and legislations.

**2.C3.1** Handle and dispose chemicals safely.

**2.C3.2** Adopt safety guidelines.

**DOMAIN 4: PERSONAL PRACTICE****4-1- COMPETENCY**

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

**4.C1.1** Perform tasks within time limit.

## D- Contents:

Week No.	Lecture (2 hrs/week)	Practical session (1 hr /week)
<b>1</b>	- Theoretical basis of volumetric analysis -Acid base reactions and pH calculations	- Safety guidelines - Standardization of strong acids and bases
<b>2</b>	- Buffer solutions and neutralization indicators -Types of acid base indicators	- Determination of NaOH/Na <sub>2</sub> CO <sub>3</sub>
<b>3</b>	- Acid –base titration curve	- Determination of HCl/HAC mixture
<b>4</b>	- Application of neutralization reactions	- Determination of NH <sub>4</sub> Cl (indirect) - Determination of boric acid/borax mixture
<b>5</b>	- Non-aqueous titrations and their application	-Determination of Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>
<b>6</b>	- Theory of precipitometry and solubility product rule	-Determination of Cu SO <sub>4</sub>
<b>7</b>	Midterm exam	
<b>8</b>	- determination of different compounds and their mixtures.	- Determination of Cl <sup>-</sup> by Mohr's method
<b>9</b>	- Theory of complexometry and complexometric indicators	- Determination of Ca <sup>2+</sup> /Mg <sup>2+</sup> mixture.
<b>10</b>	- Types of complexometric titrations and their applications	- Determination of Al <sup>3+</sup> . - Determination of Cu <sup>2+</sup> .
<b>11</b>	- Theory of gravimetry, contamination and purification of precipitate	Activity
<b>12</b>	- Application of gravimetric analysis	- Determination of Ni <sup>2+</sup> (gravimetry)
<b>13</b>	Application of gravimetric analysis	<b>- Practical exam</b>
<b>14</b>	<b>-Revision</b>	
<b>15</b>	<b>Final exam</b>	

## E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- 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.C3.1, 2.C3.2
- 3- Oral exam to assess: 1.C1.1, 1.C1.2, 1.C1.3
- 4- Activity to assess: 4.C1.1

### **5- Assessment schedule**

<b>Assessment (1):</b> Midterm exam	Week 7
<b>Assessment (2):</b> Final written exam	Week 15
<b>Assessment (3):</b> activity	Week 11
<b>Assessment (4):</b> Practical exams	Week 13
<b>Assessment (5):</b> Oral exams	Week 15

### **Weighting of Assessment**

<b>Assessment method</b>	<b>Marks</b>	<b>Percentage</b>
<b>Midterm exam</b>	10	10%
<b>Activity</b>	5	5%
<b>Final written exam</b>	50	50%
<b>Practical practice &amp; exam</b>	25	25%
<b>Oral exam</b>	10	10%
<b>TOTAL</b>	100	100%

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

- For lectures: Black (white) boards, data show, air-conditioned classroom
- For practical: Well-equipped labs

## H- List of References:

**1- Course Notes:** Student book of Analytical chemistry (1) approved by Analytical chemistry department (2019).

- Practical notes of Analytical chemistry (1) approved by Analytical chemistry department (2019).

### 2- Essential (textbooks):

i- J. Mendham, et al., Vogel's Textbook of Quantitative Chemical Analysis (6<sup>th</sup> edition), Addison Wesley Publishing Co., 2000

ii- Daniel C. Harris, Quantitative Chemical Analysis (6<sup>th</sup> Edition);. (2002).

### 3- Recommended books:

i. D. C. Harris, Quantitative Analytical Chemistry (9<sup>th</sup> edition), W. H. Freeman and Co. (2015)

ii. 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/>

[www.Pubmed.Com](http://www.Pubmed.Com)

[www.sciencedirect.com](http://www.sciencedirect.com)

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**Course Coordinator: Prof. Dr.**

**Head of Department:**

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



## Matrix I of Pharmaceutical Analytical Chemistry-1

<b>Course Contents</b>		<b>Key elements of Pharmaceutical Analytical Chemistry-1</b>									
		1-1- COMPETENCY			2-2- COMPETENCY			2-3- COMPETENCY		4-1- COMPETENCY	
<b>Lectures</b>		<b>1.C1.1</b>	<b>1.C1.2</b>	<b>1.C1.3</b>	<b>2.C2.1</b>	<b>2.C2.2</b>	<b>2.C2.3</b>	<b>2.C3.1</b>	<b>2.C3.2</b>	<b>4.C1.1</b>	
		<b>1</b>	-Theoretical basis of volumetric analysis -Acid base reactions and pH calculations	<b>X</b>	<b>X</b>			<b>X</b>			
<b>2</b>	- Buffer solutions and neutralization indicators -Types of acid base indicators		<b>X</b>			<b>X</b>					
<b>3</b>	- Acid –base titration curve		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>					
<b>4</b>	- Application of neutralization reactions		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>					
<b>5</b>	- Non-aqueous titrations and their application		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>				
<b>7</b>	- Theory of precipitometry and solubility product rule		<b>X</b>	<b>X</b>	<b>X</b>						
<b>8</b>	- Select the most appropriate procedures for determination of different compounds and their mixtures.		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>				
<b>9</b>	- Theory of complexometry and complexometric indicators		<b>X</b>	<b>X</b>	<b>X</b>						
<b>10</b>	- Types of complexometric titrations and their applications		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>				
<b>11</b>	- Theory of gravimetry, contamination and purification of precipitate		<b>X</b>	<b>X</b>	<b>X</b>						
<b>12</b>	- Application of gravimetric analysis		<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>				

<b>1</b>	- Safety guidelines - Standardization of strong acids and bases				<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	
<b>2</b>	- Determination of NaOH/Na <sub>2</sub> CO <sub>3</sub>				<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	
<b>3</b>	- Determination of HCl/HAC mixture - Determination of NH <sub>4</sub> Cl				<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	
<b>4</b>	- Determination of boric acid/borax mixture.				<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	
<b>5</b>	- Determination of Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> -Determination of Cu SO <sub>4</sub>				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	
<b>7</b>	- Determination of Cl <sup>-</sup> by Mohr's method				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	
<b>8</b>	- Determination of Ca <sup>2+</sup> /Mg <sup>2+</sup> mixture.				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	
<b>9</b>	- Determination of Al <sup>3+</sup> . - Determination of Cu <sup>2+</sup> .				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	
<b>10</b>	Activity				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	
<b>11</b>	- Determination of Ni <sup>2+</sup> (gravimetry)				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	
<b>12</b>	- Revision				<b>X</b>			<b>X</b>	<b>X</b>	<b>X</b>	

## Matrix II of Pharmaceutical Analytical Chemistry-1

National Academic Reference Standards NARS		Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Weighting of assessment				
						lecture	practical session	self learning	written exam	practical exam	oral exam	Midterm exam	
<b>1.1.1</b>	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.1	1.C1.1 1.C1.2	<ul style="list-style-type: none"> <li>- Basis of volumetric analysis.</li> <li>- Acid base reactions and pH calculations.</li> <li>- Buffer solutions and neutralization indicators</li> <li>-Types of acid base indicators.</li> <li>- Acid –base titration curve.</li> <li>- Theory of precipitometry and solubility product rule.</li> <li>- Theory of complexometry and complexometric indicators.</li> <li>- Theory of gravimetry, contamination and purification of</li> </ul>	Student book Essential books Recommended books	<b>X</b>			<b>X</b>		<b>X</b>		<b>X</b>

				precipitate								
<b>1.1.3</b>	Integrate knowledge from fundamental sciences to handle, identify, extract, design, prepare, analyze, and assure quality of synthetic/ natural pharmaceutical materials/products.	<b>1.C1.9</b>	1.C1.3	<ul style="list-style-type: none"> <li>- Application of neutralization reactions.</li> <li>- Non-aqueous titrations and their application.</li> <li>- Select the most appropriate procedures for determination of mixtures.</li> <li>- Types of complexometric titrations and their applications.</li> <li>- Application of gravimetric analysis</li> </ul>	Student book Essential books Recommended books	<b>X</b>			<b>X</b>		<b>X</b>	
<b>2.2.1</b>	Isolate, design, identify, synthesize, purify, analyze, and standardize synthetic/ natural pharmaceutical materials.	<b>2.C2.1.</b>	2.C2.1 2.C2.2	<ul style="list-style-type: none"> <li>- Application of neutralization reactions.</li> <li>- Non-aqueous titrations and their application.</li> <li>- Select the most appropriate procedures for determination of mixtures.</li> <li>- Types of complexometric titrations and their applications.</li> </ul>	Student book Essential books Recommended books Practical note	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

				- Application of gravimetric analysis - All practical sessions.								
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.C2.8.	2.C2.3	-Application of neutralization reactions. -Non-aqueous titrations and their application. -Select the most appropriate procedures for determination of mixtures. -Types of complexometric titrations and their applications. -Application of gravimetric analysis - All practical sessions.	Student book Essential books Recommended books Practical note	X	X		X	X	X	X
2.3.1	Handle, identify, and dispose biologicals, synthetic/natural materials, biotechnology-based and radio-labeled products, and other materials/products used	2.C3.1.	2.C3.1 2.C3.2	• Safety guidelines	Practical notes		X			X		

	in pharmaceutical field.											
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	<ul style="list-style-type: none"> <li>Application of neutralization reactions.</li> <li>-Non-aqueous titrations and their application.</li> <li>-Select the most appropriate procedures for determination of mixtures.</li> <li>-Types of complexometric titrations and their applications.</li> <li>-Application of gravimetric analysis</li> <li>- All practical sessions.</li> </ul>	Practical notebook		X	X		X		

**Course Coordinator: Dr.**

**Head of Department: Dr hisham Ezzat**





**COURSE  
SPECIFICATION**

**Pharmaceutical  
Organic Chemistry-1**

**First Level –Semester 1**

**2019-2020**



# Course Specification of Pharmaceutical organic chemistry I

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University: **Zagazig** Faculty: **Pharmacy**

## A- Course specifications:

Program(s) on which the course is given: Bachelor of Pharmacy (clinical 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– First Semester**

Date of specification approval: Sep 2019

## B- Basic information:

Title: Pharmaceutical organic Chemistry I Code: PR 101

Credit Hours: ---

Lectures: 2 hrs/week

Practical: 1 hrs/week

Tutorials: ---

Total: 3 hrs/week

## C- Professional information:

### 1-Overall Aims of the Course:

The objective of this course is to provide students with the basic knowledge in pharmaceutical organic chemistry, which will serve as fundamentals for other courses offered during subsequent semesters. This course involves electronic structure of atom, alkanes [nomenclature, synthesis and reactions (free radical reactions)], and cycloalkanes. Alkenes, alkadienes and alkynes. Alkyl halides (nomenclature, preparation and chemical reactions (SN1, SN2, E1, E2). Alcohols (nomenclature, synthesis and chemical reactions. Carbonyl compounds

(Aldehydes ,ketones, carboxylic acids & derivatives) nomenclature  
,synthesis and chemical reactions.

**2-Key elements of pharmaceutical organic Chemistry I:**

**DOMAIN 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	Recognize the atomic structures, hybridization of atoms and their bonding, electron displacement, classification, acidity/basicity, IUPAC nomenclature and stereochemistry of organic compounds
1.C1.2	Give a systematic nomenclature to a given organic compound
1.C1.3	Outline different synthetic pathways and reactions of saturated and unsaturated aliphatic hydrocarbons, alcohols, alkyl halides and aliphatic carbonyl compounds.
1.C1.4	Classify organic compounds according to their chemical properties with assessment of their polarity, reactivity and stability

**DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE****2-2- COMPETENCY**

Standardize pharmaceutical materials, formulate and manufacture pharmaceutical products, and participate in systems for dispensing, storage, and distribution of medicines.

2.C2.1	Identify qualitatively the main functional groups of organic raw materials of drugs.
2.C2.2	Write systematic laboratory reports including experimental procedures, observations and conclusions

**2-3- COMPETENCY**

Handle and dispose biologicals and synthetic/natural pharmaceutical materials/products effectively and safely with respect to relevant laws and legislations.

2.C3.1	Handle basic laboratory equipments and organic raw materials of drugs effectively and safely.
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**DOMAIN 4: PERSONAL PRACTICE****4-1- COMPETENCY**

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

4.C1.1	Set realistic targets and manage time to meet targets within deadlines
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## D- Contents:

Week No.	Lecture contents (2 hrs/lec.)	Practical session (2hrs/lab)
1	Atomic structure, covalent bonding, hybridization of carbon and elements of organic compounds and molecular orbital theory	Lab safety
2	Electronegativity, molecular polarity and dipole moment and hydrogen bonding between molecules. Representation and classification of organic compounds.	Physical properties & solubility
3	IUPAC nomenclature of organic compounds.	General chemical tests: 1. Action of 30% NaOH
4	Free radical halogenation of alkanes	2. Action of FeCl <sub>3</sub>
5	Preparation and reactions of alkenes	3. Action of conc. H <sub>2</sub> SO <sub>4</sub>
6	Alkynes	Test of unsaturation
7	Periodic exam	
8	Reactions of alkyl halides	Test of function group 1
9	Reactions of alcohols	Test of function group 2
10	Reactions of aldehydes	Test of function group 3
11	Reaction of aldehydes continued	Test of function group 4
12	Reaction of ketones	Test of function group 5
13	Reaction of carboxylic acids	Practical exam
14	Reaction of carboxylic acid derivatives	
15	Final written exam	

## E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- Think/pair/share

## F- Student Assessment methods:

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

8- Activity (Report writing) to assess: 4.C1.1

**9- Assessment schedule**

<b>Assessment (1):</b> Midterm exam	Week 7
<b>Assessment (2):</b> Final written exam	Week 15
<b>Assessment (3):</b> report	Each lab
<b>Assessment (4):</b> Practical exams	Week 13
<b>Assessment (5):</b> Oral exams	Week 15

**Weighting of Assessment**

<b>Assessment method</b>	<b>Marks</b>	<b>Percentage</b>
<b>Midterm exam</b>	10	10%
<b>Activity</b>	5	5%
<b>Final written exam</b>	50	50%
<b>Practical practice &amp; exam</b>	25	25%
<b>Oral exam</b>	10	10%
<b>TOTAL</b>	100	100%

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

- For lectures : Black ( white ) boards, data show, air conditioned classroom
- For practical: Well-equipped labs

**H- List of References:**

**1- Course Notes:** Student book of Pharmaceutical Organic chemistry approved by the department 2019.

**2- Essential (textbooks):**

- ✓ Francis A. Carey, 2009, Organic Chemistry; 9th Edition, McGraw-Hill
- ✓ T. W. Graham Solomons and Craig B. Fryhle, 2010, Organic Chemistry; 11th Edition, John willy & Sons Inc, USA.

**4- Periodicals, Web Sites, etc**

<https://www.ekb.eg/>

<http://chemwiki.ucdavis.edu/>

[www.Pubmed.Com](http://www.Pubmed.Com)

[www.sciencedirect.com](http://www.sciencedirect.com)

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**Course Coordinator: Prof. Dr. Zakaria Abdelsamii**

**Head of Department: Prof. Dr. Hanan Abdelfatah**

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ 2019 / 8 / 26 م

## Matrix I of Pharmaceutical organic Chemistry-1

Course Contents		Key elements of Pharmaceutical organic Chemistry-1									
		1-1- COMPETENCY				2-2- COMPETENC Y		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.C3.1		4.C1.1	
		1	Atomic structure, covalent bonding, hybridization of carbon and elements of organic compounds and molecular orbital theory	X							
2	Electronegativity, molecular polarity and dipole moment and hydrogen bonding between molecules. Representation and classification of organic compounds.	X									
3	IUPAC nomenclature of organic compounds.	X	X								
4	Free radical halogenation of alkanes		X	X	X						
5	Preparation and reactions of alkenes		X	X	X						
7	Alkynes		X	X	X						
8	Reactions of alkyl halides		X	X	X						
9	Reactions of alcohols		X	x	X						
10	Reactions of aldehydes		X	X	X						
11	Reaction of aldehydes continued		X	X	X						
12	Reaction of ketones		x	X	x						

13	Reaction of carboxylic acids		x	x	X					
14	Reaction of carboxylic acid derivatives		x	x	x					
1	Laboratory safety measures					X	X	X	X	
2	Physical properties & solubility					X	X	X	X	
3	General Chemical tests Action of 30% NaOH.					X	X	X	X	
4	Action of ferric chloride.					X	X	X	X	
5	Action of conc. H <sub>2</sub> SO <sub>4</sub>					X	X	X	X	
7	Test of unsaturation					X	X	X	X	
8	Test for functional groups (1).					X	X	X	X	
9	Tests for functional groups (2).					X	X	X	X	
10	Tests for functional groups (3).					X	X	X	X	
11	Tests of functional groups (4).					x	X	X	X	
12	Tests of functional groups (5).					x	x	x	x	



## Matrix II of Pharmaceutical organic chemistry-1

National Academic Reference Standards NARS		Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Weighting of assessment			
						lecture	practical session	self learning	written exam	practical exam	oral exam	Midterm exam
1.1.1	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.1	1.C1.1	Atomic structure, covalent bonding, hybridization of carbon and elements of organic compounds and molecular orbital theory Electronegativity, molecular polarity and dipole moment and hydrogen bonding between molecules. Representation and classification of organic compounds. IUPAC nomenclature of organic compounds.	Student book Essential books Recommended books	X			X		X	X
			1.C1.2	Free radical halogenation of alkanes								

			1.C1.3	Preparation and reactions of alkenes Alkynes								
			1.C1.4	Reactions of alkyl halides Reactions of alcohols Reactions of aldehydes Reaction of aldehydes continued Reaction of ketones Reaction of carboxylic acids Reaction of carboxylic acid derivatives								
2.2.1	Isolate, design, identify, synthesize, purify, analyze, and standardize synthetic/ natural pharmaceutical materials.	2.C2.1.	2.C2.1 2.C2.2	Laboratory safety measures Physical properties & solubility General Chemical tests Action of 30% NaOH. Action of ferric chloride. Action of conc. H <sub>2</sub> SO <sub>4</sub>	Student book Essential books Recommended books Practical note		X			X		
2.3.1	Handle, identify, and dispose biologicals, synthetic/natural materials, biotechnology-based and radio-labeled products, and other	2.C3.1.	2.C3.1	Test of unsaturation Test for functional groups (1). Tests for functional groups (2). Tests for functional groups (3).	Practical notes		X			X		

	materials/products used in pharmaceutical field.			Tests of functional groups (4). Tests of functional groups (5).							
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		Practical notebook		X			X	

**Course Coordinator: Prof. Dr. Zakaria Abdelsamii**

**Head of Department: Prof. Dr. Hanan Abdelfatah**

تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ 2019 / 8 / 26م





**COURSE  
SPECIFICATION**

**Pharmacy Orientation**

**First Level –Semester 1**

**2019-2020**

## Course specification of pharmacy orientation

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University: Zagazig

Faculty: Pharmacy

### A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -----

Department offering the course: Pharmaceutics Department

Academic year Level: First level / semester 1

Date of specification approval: October 2019

### B- Basic information:

Title: Pharmacy orientation

Code: **PT 101**

Credit Hours: ---

Lectures: 1 hr/week

Practical: NA

Tutorials: NA

Total: 1 hrs/week

### C- Professional information:

#### 1-Overall aim of the course

On completion of the course, the student will be able to recognize the multiple aspects of the profession of pharmacy, including the mission of pharmacy, role of pharmacist in society and pharmacy careers, classification of medications, interpretation of prescriptions and medication orders, general dispensing procedure and factors affecting drug dosage, sources of drugs, different dosage forms and various routes of administration. In addition to the history of pharmacy practice in various civilizations

#### 2- Key elements of Pharmacy Orientation:

DOMAIN 1- FUNDAMENTAL KNOWLEDGE	
<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-centred care.	
<b>1.C1.1.</b>	Define different concepts related to pharmacy profession, duties of pharmacist at various pharmacy sittings, drug information sources and various pharmaceutical and medical terms

1.C1.2.	Identify the pharmacy careers and educational requirements
1.C1.3.	Describe drug, medicine and excipients
1.C1.4.	Enumerate different types of dosage forms and their routes of administration
1.C1.5	Summarize the history of pharmacy
1.C1.6	Use the proper pharmaceutical, medical terms, abbreviations and symbols in pharmacy practice.
<b>DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE</b>	
<b>2-1- COMPETENCY:</b> Work collaboratively as a member of an inter-professional health care team to improve the quality of life of individuals and communities, and respect patients' rights Dispense different pharmaceutical dosage forms safely and effectively with application	
2.C1.1	Interpret the pharmaceutical order and follow the dispensing procedure
<b>DOMAIN 4: PERSONAL PRACTICE</b>	
<b>4-2- COMPETENCY:</b> Effectively communicate verbally, non-verbally and in writing with individuals and communities.	
4.C2.1.	Communicate effectively with patients and other health care professionals, including both written and oral communication

### **D-Course Content of Pharmacy Orientation:**

<b>Week No.</b>	<b>Lecture contents (1 hrs/lec.)</b>
<b>1</b>	<b>Introduction to pharmacy:</b> -Pharmacy profession, pharmaceuticals, pharmacists, pharmacy education, Pharmaceutical organizations
<b>2</b>	<b>Drug information sources (Pharmacopeias and Formularies)</b>
<b>3</b>	<b>Pharmacy careers and role of pharmacists</b>
<b>4</b>	<b>Drug and medicine:</b> Definition of drugs, medicines and excipients, drug characteristics, sources, nomenclatures,
<b>5</b>	<b>Drug classifications</b>
<b>6</b>	<b>Medical and pharmaceutical terminology</b>
<b>7</b>	<b>Periodical exam</b>
<b>8</b>	<b>Routes of drug administration</b>
<b>9</b>	<b>Introduction to pharmaceutical dosage forms</b>
<b>10</b>	<b>Introduction to pharmaceutical dosage forms</b>
<b>11</b>	<b>Drug Dosage, Factors affecting dose</b>
<b>12</b>	<b>Medical Prescription and medication order and their interpretation</b>
<b>13</b>	<b>General procedure of dispensing</b>
<b>14</b>	<b>History of pharmacy -</b> الدواء وبلاد ما بين النهرين- المصريين القدماء فضل العرب والمسلمين على الدواء والمداواة
<b>15</b>	<b>Final written exam</b>

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

- Lectures
- General Discussion
- Think/pair/share

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

Midterm & final written exam to assess: 1.C1.1, .1.C1.2, 1.C1.3, 1.C1.4,1.C1.5, 1.C1.6, 2.C1.1, 4.C2.1

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### **Assessment schedule:**

<b>Assessment (1):Midterm exam</b>	Week 7
<b>Assessment (2):Final written exam</b>	Week 15

### **Weighting of Assessment**



Assessment method	Marks	Percentage
Midterm exam	25	25%
Final written exam	75	75%
<b>TOTAL</b>	100	100%

## G- Facilities required for teaching and learning:

- For lectures : Black ( white ) boards, data show, air conditioned classroom

## H- List of References:

### 1. Course Notes:

- ✓ Student handout of pharmacy orientation approved by pharmaceutics department (2019).

### 2- Essential Books (Textbooks)

- ✓ Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems (2017):By Loyd Allen, 11<sup>th</sup> edition
- ✓ Remington: the Science and Practice of Pharmacy” (2000), By Genars, Alfonso R. 20<sup>th</sup> edition
- ✓ Pharmaceutical Calculations (2010), By Howard C. Ansel and Mitchell J. Stoklosa 13th Edition

### 3-Periodicals and websites:

- ✓ Essential Medicines and Health Products Information Portal A World Health Organization resource **Ensuring good dispensing practices Part II: Pharmaceutical managemen, chapter 30. March 2012 .**

<http://www.msh.org/>

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**Course Coordinator: Nagia Ahmed El-megrab:**

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

**The course description was discussed and approved by the department council on 28/10/2019**

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

## Matrix I of pharmacy orientation course

Course contents		Key elements of orientation course												
		COMPETENCY 1.1						COMPETENCY 2.1		COMPETENCY 4.2				
Lectures		1.C1.1	1.C1.2	1.C1.3	1.C1.4	1.C1.5	1.C1.6	2.C1.1		4.C2.1				
1	<b>Introduction to pharmacy:</b> -Pharmacy profession, pharmaceuticals, pharmacists, pharmacy education, Pharmaceutical organizations	x										x		
2	<b>Drug information sources (Pharmacopeias and Formularies)</b>	x										x		
3	<b>Pharmacy careers and role of pharmacists</b>		x									x		
4	<b>Drug and medicine:</b> Definition of drugs, medicines and excipients, drug characteristics, sources, nomenclatures,			x								x		
5	<b>Drug classifications</b>			x								x		
6	<b>Medical and pharmaceutical terminology</b>	x					x					x		
7	<b>Routes of drug administration</b>	x			x							x		
8	<b>Introduction to pharmaceutical dosage forms</b>				x			x				x		
9	<b>Drug Dosage, Factors affecting dose</b>				x			x				x		
11	<b>Medical Prescription and medication order and their interpretation</b>							x	x			x		
12	<b>General procedure of dispensing</b>							x		x		x		
13	<b>History of pharmacy-</b>					x								

## Matrix II of pharmacy orientation course

National Academic Reference Standards (NARS)		Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Weighting of assessment			
						Lecture	Practical session	Self learning	Written exam	Practical exam	Oral exam	Midterm exam
1-1-1	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.2	1.C1.1	<b>Introduction to pharmacy:</b> -Pharmacy profession, pharmaceuticals, pharmacists, pharmacy education, Pharmaceutical organizations	Student book	x			X			X
				<b>Drug information sources (Pharmacopeias and Formularies)</b>	Student book	x			X		X	
			1.C1.2	<b>Pharmacy careers and role of pharmacists</b>	Student book Essential books	x			X		X	
			1.C1.3	<b>Drug and medicine:</b> Definition of	Student book	x			X		x	

				drugs, medicines and excipients, drug characteristics, sources, nomenclatures,	Essential books								
				<b>Drug classifications</b>	Student book	x			x			X	
			1.C1.4	<b>Routes of drug administration</b>	Student book	x			x				
				<b>Introduction to pharmaceutical dosage forms</b>	Student book	x			x				
				<b>Drug Dosage, Factors affecting dose</b>	Student book	x			x				
1.C1.5	<b>History of pharmacy</b>	Student book	x			x							
<b>1-1-2</b>	- Utilize the proper pharmaceutical and medical terms, abbreviations and symbols in pharmacy practice	1.C1.8	1.C1.6	<b>Medical and pharmaceutical terminology</b>	Student book	x			x				x
<b>2-1-1</b>	Perform responsibilities and authorities in compliance with the legal and professional structure and role of all members of	2.C1.1	2.C1.1	<b>Medical Prescription and medication order and their interpretation</b>	Student book	x			x				
				<b>General procedure of</b>	Student book	x			x				

	the health care professional team. Dispense different pharmaceutical dosage forms safely and effectively with application			<b>dispensing</b>								
<b>4-2-1</b>	Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities	4.C2.1	4.C2.1	<b>Routes of drug administration</b>	Student book	x						
				<b>Introduction to pharmaceutical dosage forms</b>								
				<b>Medical and pharmaceutical terminology</b>								
				<b>Medical Prescription and medication order and their interpretation</b>								
				<b>General procedure of dispensing</b>								

**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 / 2019م





**COURSE  
SPECIFICATION**

**Medicinal plants**

**First Level –Semester 1**

**2019-2020**

## Course specification of Medicinal plants

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University: Zagazig

Faculty: Pharmacy

### A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -----

Department offering the course: Pharmacognosy Department

Academic year Level: First level/ semester 1

Date of specification approval: September 2019

### B- Basic information:

Title: Medicinal plants Code: PG 101

Credit Hours: ---

Lectures: 2hrs/week

Practical: 1hr/week

Tutorials: ---

Total: 3 hrs/week

### C- Professional information:

#### 1-Overall aim of the course

On completion of the course, students will be able to identify and prepare a crude drug from the farm to the firm, describe dusting powders, plant cell and cell contents as well as importance of natural products, preparation of natural products-derived drugs including collection, drying, storage, preservation and adulteration. Additionally, students will be able to describe different classes of secondary metabolites, the variability in occurrence of pharmacologically active substances in certain official medicinal leafy plants according to their WHO monographs as well as examples of botanical drugs of leaves in their



entire and powdered forms.

## 2- Key elements of Medicinal Plants

<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>	
<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 different plant cells and contents..
1.C1.2.	Identify the different natural drugs and their productions.
1.C1.3.	Describe Morphological and Histological characters medicinal leaves.
1.C1.4	Identify different active constituents and uses of medicinal leaves.
1.C1.5	Outline adulteration of different medicinal leaves.
<b>DOMAIN 2: PROFESSIONAL AND ETHICAL PRACTICE</b>	
<b>2-2- COMPETENCY:</b> Standardize pharmaceutical materials, formulate and manufacture pharmaceutical products, and participate in systems for dispensing, storage, and distribution of medicines.	
2.C2.1	Use microscope and design protocols to examine medicinal plants
2.C2.2.	Differentiate between different plant tissues and plant cells.
2.C2.3	Examine different medicinal leaves in entire and powdered form.
<b>2-3- COMPETENCY</b> Handle and dispose biologicals and synthetic/natural pharmaceutical materials /products effectively and safely with respect to relevant laws and legislations	
2.C3.1	Handel and dispose chemicals in a safe way.
<b>DOMAIN 4: PERSONAL PRACTICE</b>	
<b>4-1- COMPETENCY</b> Express leadership, time management, critical thinking, problem solving, independent and team working, creativity and entrepreneurial skills.	
4.C1.1.	Work as a member in a team.

## D- Contents:

Week No.	Lecture contents (2hrs/lecture)	Practical session (1 hr/lab)
1	<b>Introduction on the course and giving the students the possible references, web sites, text books.</b>	<b>Laboratory safety measures Dealing with microscope.</b>
2	<b>Study of plant cell structure, types of cell walls and types of plant cells (parenchyma, collenchyma, sclerenchyma cells)</b>	<b>Identification of different types of plant cells</b>
3	<b>Study of Meristems and Tissues, permanent, complex secretory.</b>	<b>Identification of different types of plant tissues Activity (Net search on plant tissues).</b>
4	<b>Study of tissues and tissue systems.</b>	<b>Microscopical examination of different starches powders and their chemical tests.</b>
5	<b>Study of cell contents</b>	<b>Microscopical examination of dusting powder and their chemical tests.</b>
6	<b>Study of dusting powders</b>	<b>Macroscopical and microscopical examination of Hyoscyamos leaf in entire and powdered form.</b>
7	<b>Midterm Exam</b>	
8	<b>Study of crude drugs production, cultivation, collection and preparation</b>	<b>Macroscopical and microscopical examination of Datura and Belladonna leaves in entire and powdered form.</b>
9	<b>Study of Drying, packing, storage and adulteration of drugs</b>	<b>Practical examination for senna leaf including morphology and histology for entire and powdered forms.</b>
10	<b>General introduction for medicinal leaf. Identification of morphological and histological studies for Senna in entire</b>	<b>Practical examination for Neem leaf including morphology and histology for entire and powdered</b>

	and powdered forms, active constituents, uses and chemical test and adulteration.	forms. <b>Activity</b> (report on pharmaceutical leaves).
11	Identification of morphological and histological studies for Digitalis and Squill, Buchu, Uva ursi, Witch- Hazel in entire and powdered forms, active constituents, uses and chemical test and adulteration.	Practical examination for Mentha leaf including morphology and histology for entire and powdered forms.
12	Identification of morphological and histological studies for, Neem leaves in entire and powdered forms, active constituents, uses and chemical test and adulteration in addition to Laurel, Oregano, Basil, Rosemary and peppermint as non-official leaves.	Practical exam
13	<b>Morphological and histological studies for Hyoscyamus, Datura and Belladonna leaves in entire and powdered forms, active constituents, uses and chemical test and adulteration. In addition to Jaborandi, Boldo and Coca leaves.</b>	practical exam.
14	Revision	
15	<b>Written and oral exam</b>	

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

- Lectures
- Practical sessions
- Self learning (Activities, internet search).

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

Periodical exam to assess: 1.C1.1, 1.C1.2, 1.C1.3, 1.C1.4, 1.C1.5

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

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

Oral exam to assess: 1.C1.1, 1.C1.2, 1.C1.3, 1.C1.4, 1.C1.5

Activities to assess: 4.C1.1

### Assessment schedule

<b>Assessment (1):</b> Final Written exam	Week 15
<b>Assessment (2):</b> Activity	Week 3, 8
<b>Assessment (3):</b> Practical exams	Week 12. 13
<b>Assessment (4):</b> Oral exams	Week 15
<b>Assessment (5):</b> midterm exam	Week 7

### Weighting of Assessment

Assessment method	Marks	Percentage
Written exams	50	50%
Mid term	10	10%
Activity	5	10%
Practical exam	25	25%
Oral exam	10	15%
<b>TOTAL</b>	100	100%

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

- For lectures: Black (white) boards, data show.
- For Labs: Chemicals, glassware, instruments, digital balances and water baths.

### H- List of References:

**1- Student's book** approved by Pharmacognosy Department on 2019.

#### 2- Text Books:

- Trease and Evans, Pharmacognosy, 15<sup>th</sup> Ed., Saunders Company, Nottingham, U.K., William Charles Evans (2003).
- The Cambridge Illustrated Glossary of Botanical Terms, M. Hickey and C. King, Cambridge Univ. press (2000).
- Plant Systematic, Judd, W.; Kellogg, E.; Stevens P. and Campbell, C. , Sinauer Associates' Inc. (2000).
- Plant Anatomy, Fahan, A., Pergamon Press (2002).
- Natural products as sources of new drugs over the last 25 years. Newman D.J and Cragg, G.M., Journal of Natural Products 70, 461-477 (2007).
- Chinese Herbal Medicine: Dan Bensky, Steven Clavey, Erich Stoger and Andrew

Gamble Materia Medica, Third Edition (2004).

### 3- Recommended Books:

- "Encyclopedia of Common Natural Used in Food, Drugs and Cosmetics", Leung A.Y. and FASTER.
- Pflanzenanatomischer, Grundkurs, Module für die differenzierte Gestaltung
- ISBN 978-3-662-47345-0 ISBN 978-3-662-47346-7 (eBook)  
DOI 10.1007/978-3-662-47346-7
- National Research Council (US) Panel on Neem. *Neem: A Tree For Solving Global Problems*. Washington (DC): National Academies Press (US); 1992. 3, The Tree. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK234651/>

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

1. [BIOLOGY4ISC](#)
2. <https://biology4isc.weebly.com/b-anatomy-of-flowering-plants.html>
3. [https://www.researchgate.net/figure/SEM-micrographs-of-leaf-epidermis-a-b-Striated-cuticle-on-the-adaxial-surface-a\\_fig1\\_225594871](https://www.researchgate.net/figure/SEM-micrographs-of-leaf-epidermis-a-b-Striated-cuticle-on-the-adaxial-surface-a_fig1_225594871)
4. [https://mmegias.webs.uvigo.es/02-english/1-vegetal/v-imagenes-grandes/proteccion\\_tricomas.php](https://mmegias.webs.uvigo.es/02-english/1-vegetal/v-imagenes-grandes/proteccion_tricomas.php)
5. [https://www.researchgate.net/figure/Different-types-of-trichomes-in-Salvia-nemorosa-Glandular-trichomes-A-short-stalked\\_fig1\\_326247506](https://www.researchgate.net/figure/Different-types-of-trichomes-in-Salvia-nemorosa-Glandular-trichomes-A-short-stalked_fig1_326247506)
6. <https://www.easybiologyclass.com/collenchyma-cells-in-plants-structure-classification-and-functions-with-ppt/>
7. <http://www.pharmacy180.com/article/study-of-different-tissue-systems-19/>
8. <http://tropical.theferns.info/viewtropical.php?id=Datura+stramonium>
9. <https://www.sciencedirect.com/topics/chemistry/azadirachtin>.
10. <https://www.bebeautiful.in/all-things-skin/everyday/7-reasons-why-neem-is-a-power-leaf>.
11. <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/ocimum-basilicum>.
12. <http://herbal-medicine.imedpub.com/rosmarinus-officinalis-rosemary-a-novel-therapeutic-agent-for-antioxidant-antimicrobial-anticancer-antidiabetic-antidepressant-neu.php?aid=20651>.

13. <https://www.medicalnewstoday.com/articles/265214.php>.

14. <https://lavoirebeauty.wordpress.com/2014/01/03/four-herbs-mix-for-hair-and-skin/>

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**Course Coordinator :** Prof. Dr. Ehsan Abu Zaid

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

**Date:** / 9 / 2019 تم مناقشة وإعتماد توصيف المقرر من مجلس القسم بتاريخ

<b>Matrix I of Medicinal plants course</b>													
<b>Course Contents</b>		<b>Key elements of Medicinal plants course</b>											
		<b>1-1- COMPETENCY</b>					<b>2-2- COMPETENCY</b>			<b>2-3- COMPETENCY</b>		<b>4-1- COMPETENCY</b>	
<b>Lectures</b>		<b>1.C1.1</b>	<b>1.C1.2</b>	<b>1.C1.3</b>	<b>1.C1.4</b>	<b>1.C1.5</b>	<b>2.C2.1</b>	<b>2.C2.2</b>	<b>2.C2.3</b>	<b>2.C3.1</b>		<b>4.C1.1</b>	
<b>1</b>	Introduction of pharmacognosy.	*											
<b>2</b>	Preparation and production of natural drugs. Sources of natural drugs.	*											
<b>3</b>	Continue: Preparation and production of natural drugs.	*											
<b>4</b>	Cell and Cell differentiation.		*										
<b>5</b>	Types and nature of plant cell contents.		*										
<b>6</b>	Chemical tests for identification of different cell contents.		*										
<b>7</b>	Introduction to medicinal leaves			*	*	*							
<b>8</b>	Morphological and histological studies for leaves containing alkaloids			*	*	*							

<b>9</b>	Morphological and histological studies for leaves containing glycosides			*	*	*								
<b>Practical session</b>														
<b>1</b>	- Laboratory safety measures Uses of microscopes						*							
<b>2</b>	Microscopical examination of starches.							*						
<b>3</b>	Microscopical examination of dusting powders.							*						
<b>4</b>	Microscopical examination of different cells. Activity 1 (researches and reports on cell differentiation, cell contents and different stages of production of natural drugs like drying).							*				X		
<b>5</b>	Examination of different cell content.							*						
<b>6</b>	Activity 1 discussion											X		
<b>7</b>	Practical examination for hyoscyamus leaf including morphology and histology for entire and powdered								*		*			



	forms.													
<b>8</b>	Practical examination for datura leaf including morphology and histology for entire and powdered forms <b>Activity 2 (researches and presentation on pharmaceutical preparations containing leaves)</b>							*	*	X				
<b>9</b>	Practical examination for belladonna leaf including morphology and histology for entire and powdered forms.							*	*					
<b>10</b>	Morphological and histological study of senna in entire form <b>Activity 2 discussion</b>							*	*	X				
<b>11</b>	<b>Field visit</b> to the experimental faculty farm							*						



## Matrix II of Medicinal plants course

National Academic Reference		Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Weighting of assessment			
						lecture	practical session	Activities (reports and presentations) and Field visit	written exam	practical exam & activity	oral exam	Midterm exam
Standards NARS												
1.1.1	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.2	1.C1.1	- Preparation and production of natural drugs	Student book Essential books	*			*		*	*
			1.C1.2	- Cell and Cell differentiation. - Types and nature of plant cell contents. - Chemical tests for identification of different cell contents	Student book Essential books	*			*		*	*
			1.C1.3	Morphological and histological studies for plant leaves in entire and powdered forms, active constituents, uses and chemical test.	Student book Essential books	*			*		*	*
			1.C1.4			*			*		*	*
			1.C1.5			*			*		*	*
1.1.3	Integrate knowledge from fundamental sciences to handle, identify, extract,	1.C1.9	1.C1.2	- Preparation and production of natural drugs	Student book Essential books	*	*	*	*	*	*	*

	design, prepare, analyze, and assure quality of synthetic/ natural pharmaceutical materials/products.		1.C1.3	Morphological and histological studies for plant leaves in entire and powdered forms, active constituents, uses and chemical test.	Self learning							
			1.C1.4									
			1.C1.5									
2.2.1	Isolate, design, identify, synthesize, purify, analyze, and standardize synthetic/ natural pharmaceutical materials.	2.C2.1	2.C2.1	Uses of microscopes	Practical notes		*			*		
			2.C2.2	Microscopical examination of starches, dusting powder and different types of cells	Practical notes		*			*		
			2.C2.3	Morphological and histological studies for plant leaves in entire and powdered forms	Practical notes		*			*		
			2.C3.1	Morphological and histological studies for plant leaves in entire and powdered forms	Practical notes		*			*		
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	Activity 1 (researches and reports on cell differentiation, cell contents and different stages of production of natural drugs like drying). Activity 2 (researches	Self learning							
								*		*		

				<b>and presentation on pharmaceutical preparations containing leaves)</b>									
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**Course Coordinator :** Prof. Samih El-Dahmy

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

**Date:** / 9 / 2019 تم مناقشة وإعتماد توصيف المقرر من مجلس القسم بتاريخ



**COURSE  
SPECIFICATION**

**Medical Terminology**

**First Level –Semester 1**

**2019-2020**

## Course Specification of Medical Terminology MD101

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University: **Zagazig** Faculty: **Pharmacy**

### A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -----

Department offering the course: Pharmacology and Toxicology  
department

Academic year/Level: Level 1, semester 1

Date of specification approval: October 2019

### B- Basic information:

Title: Medical Terminology

Code: MD101

Credit Hours: ---

Lectures : 1

Practical: -----

Tutorials: ---

Total: 1 hr

### C- Professional information:

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

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

- Illustrate the basics of medical terminology required in pharmaceutical studies
- Identify medical abbreviations, medical idioms, prefixes, suffixes and medical terms pertaining to major body systems



## 2-Key elements of Medical terminology course:

<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>	
<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.	
<b>1.c1.1</b>	Outline the basic structure of a medical term
<b>1.c1.2</b>	Explain the level of organization of the human body
<b>1.C1.3</b>	Recognize the standard abbreviations for the different systems of the human body and common pathological conditions and correlate them to their expanded forms.
<b>1.c1.4</b>	Illustrate medical terms of each body system

## D- Contents:

<b>Week No.</b>	<b>Lecture (1hr/week)</b>
<b>1</b>	Analysis of term components
<b>2</b>	Fields of medical practice.
<b>3</b>	Medical records, patient records
<b>4</b>	Nervous system
<b>5</b>	Endocrine system
<b>6</b>	Integumentary system
<b>7</b>	Periodic exam
<b>8</b>	Musculoskeletal System
<b>9</b>	Respiratory Systems
<b>10</b>	Cardiovascular system
<b>11</b>	Blood system
<b>12</b>	Lymphatic and immune system
<b>13</b>	Eye
<b>14</b>	Revision
<b>15</b>	Final exam

## E- Teaching and Learning Methods:

- Lectures

## F- Student Assessment Methods:

Written exam to assess 1.c1. 1, 1.c1.2, 1.c1.3,1.C1.4

### Assessment schedule:

<b>Assessment (1):</b> Periodic exam	Week 7
<b>Assessment (2):</b> Final written exam	Week 15

### **Weighting of Assessment:**

<b>Assessment method</b>	<b>Marks</b>	<b>Percentage</b>
<b>Periodic exam</b>	15	15%
<b>Activity</b>	10	10%
<b>Final written exam</b>	75	75%
<b>TOTAL</b>	100	100%

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

- Black (white) board, computer and data show.

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

#### **1- Essential books: Text book reference:**

Marjorie C. Willis (1996): Medical Terminology, the basic language of health care, first edition. Williams & Wilkins Press, Baltimore

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

Andrew R. Hutton (2002): An introduction to medical terminology for health care, A self-teaching package, third edition. Churchill-Livingstone-Elsevier Press, Edinburgh

#### **4- Periodicals and websites:**

<http://www.youtube.com>

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**Course Coordinator: Prof.Dr. Rasha Abdel Ghany**

**Head of Department: Prof. Dr. Mona Fouad**

**Date:** تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ / 10 / 2019 م

<b>Matrix I of Medical Terminology course</b>						
<b>Course Contents</b>		<b>Key elements competencies</b>				
		<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>				
<b>Lectures</b>		<b>1.c1. 1</b>	<b>1.c1.2</b>	<b>1.c1.3</b>	<b>1.C1.4</b>	
<b>1</b>	Analysis of term components	x			x	
<b>2</b>	Fields of medical practice	x			x	
<b>3</b>	Medical records, patient records	x			x	
<b>4</b>	Nervous system		x	x	x	
<b>5</b>	Endocrine system		x	x	x	
<b>6</b>	Integumentary system		x	x	x	
<b>7</b>	Musculoskeletal System		x	x	x	
<b>8</b>	Respiratory Systems		x	x	x	
<b>9</b>	Cardiovascular system		x	x	x	
<b>10</b>	Blood system		x	x	x	
<b>11</b>	Lymphatic and immune system		x	x	x	
<b>13</b>	Revision	x	x	x	x	

## Matrix II of Medical Terminology course

<b>Matrix II of Medical Terminology course</b>							
<b>National Academic Reference Standards (NARS)</b>		<b>Program Domain in competency</b>	<b>Course key element</b>	<b>Course contents</b>	<b>Sources</b>	<b>Teaching and learning methods</b>	<b>Method of assessment</b>
						Lecture	Written exam
1-1-1	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.2	1.C1.1	Fields of medical practice	Text book	x	x
				Medical records, patient records	Text book	x	x
				Analysis of term components	Text book	x	x
1-1-2	Utilize the proper pharmaceutical and medical terms, abbreviations and symbols in pharmacy practice	1.c1.8	1.c1.2 1.c1.3 1.C1.4	Nervous system	Text book	x	x
				Endocrine system	Text book	x	x
				Integumentary system	Text book	x	x
				Musculoskeletal System	Text book	x	x
				Respiratory Systems	Text book	x	x
				Cardiovascular system	Text book	x	x

				Blood system	Text book	x	x
				Lymphatic and immune system	Text book	x	x
					Text book	x	x





**COURSE  
SPECIFICATION**

**Information Technology**

**First Level –Semester 1**

**2019-2020**



## Course Specification of Information Technology

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**University:** Zagazig **Faculty:** Pharmacy

### A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -----

Department offering the course: Faculty of engineering, computer science  
department

Academic year/ Level: First level /Semester 1

Date of specification approval: Sep. 2019

### B- Basic information:

Title: Information Technology Code: NP 101

Credit Hours: ---

Lectures : 1hr/week

Practical: 1 hr/week

Tutorials: ---

Total: 2 hrs/week

### C- Professional information:

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

On completion of the course, students will be able to recognize the concept of information technology including: number systems and data representation, computer system components: hardware & software, storage and input/output systems, Operating systems and Utility Systems, software applications. Also it gives an overview about computer networks and internet: data communication, transmission modes, transmission media, computer networks, internet protocol, and internet services. It practices

some computer applications in the laboratory such as Internet Access, word processing, excel and power point. It gives students a practical experience on developing projects related to the specialty of each faculty.

## 2- Key elements of information technology:

<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>	
1.C1.1	Define different terminologies related to computer industry, its uses and generations
1.C1.2	Describe computer hardware and software
1.C1.3	Illustrate different methods of data representation
1.C1.4	Demonstrate advantages of computer networks, uses, types and structure
<b>DOMAIN 4: PERSONAL PRACTICE</b>	
4.C1.1	Deliver different assignments within due time
4.C2.1	Demonstrate good IT skills including internet search and data presentation
4.C2.2	Use word, excel and power point programs effectively

## D- Contents:

Week No.	Lecture (1 hr/week)	Practical session (1 hr/week)
1	Course orientation Chapter 1: introduction to computers Computer definition Computer uses Computer industry	Microsoft word (Basics)
2	Chapter 1: introduction to computers (Cont.) Computer generations Classification of computers	Microsoft word
3	Chapter 2: computer hardware	MS-Excel (Basics)
4	Chapter 3: computer software Operating systems GUI components	MS-Excel (charts)
5	Chapter 3: computer software (Cont.) Utilities programs	Internet search
6	Chapter 3: computer software (Cont.) Application programs	Power point
7	<b>Midterm exam</b>	
8	Chapter 4: Data representation How computers store data Number representation	Assignment 1: Word: Design your CV
9	Chapter 4: Data representation (Cont.) Character representation How the computer works	Assignment 2: Word: Table Design
10	Chapter 4: Data representation (Cont.) Introduction to high levels languages	Assignment 3: Excel <b>Assignment 4: Excel charts</b>
11	Chapter 5: introduction to computers networks Introduction advantages	Assignment 5: internet search
12	Chapter 5: introduction to computers networks (Cont.) Uses of computer networks Types of computer networks	Assignment 6: powerpoint
13	Chapter 5: introduction to computers networks (Cont.) Structure of computer networks Basic definitions	<b>Practical exam</b>
14	-Revision	
15	<b>Final exam</b>	

## E- Teaching and Learning Methods:

- Lectures
- Computer applications
- Solving different assignments

## 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.C2.2
- 3- Practical exam to assess 4.C2.1, 4.C2.2

### Assessment schedule:

<b>Assessment (1):</b> Final Written exam	Week 15
<b>Assessment (2):</b> assignments	Week 8-13
<b>Assessment (3):</b> Practical exams	Week 14
<b>Assessment (4):</b> midterm exam	Week 7

### Weighting of Assessment:

Assessment method	Marks	Percentage
Final Written exam	60	60%
Midterm exam	10	10%
assignments	5	5%
Practical exam	25	25%
<b>TOTAL</b>	100	100%

## G- Facilities Required for Teaching and Learning:

- Black (white) board, Data show, computer lab

## H- List of References:

**1- Course Notes:** Student book of Information Technology approved by Computer science department 2019.

### 2- Essential Books:

Sharma V. Essentials Of Information Technology As Per Cce Guidelines Vol 2, Pb, Dhanpat Rai & Co.(P) Ltd-Delhi (2015)

### **3- Recommended books**

“Information Technology Essentials: Basic Foundations for Information Technology Professionals” by Eric Frick, 2011

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**Course Coordinator:** Dr. Khaled Hosni



## Matrix I of Information Technology course

<b>Course Contents</b>		<b>Key elements of information technology</b>						
		<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>				<b>DOMAIN 4: PERSONAL PRACTICE</b>		
		<b>1.C1.1</b>	<b>1.C1.2</b>	<b>1.C1.3</b>	<b>1.C1.4</b>	<b>4.C1.1</b>	<b>4.C2.1</b>	<b>4.C2.2</b>
<b>Lectures</b>								
<b>1</b>	Course orientation Chapter 1: introduction to computers Computer definition Computer uses Computer industry	x						
<b>2</b>	Chapter 1: introduction to computers (Cont.) Computer generations Classification of computers	x						
<b>3</b>	Chapter 2: computer hardware		x					
<b>4</b>	Chapter 3: computer software Operating systems GUI components		x					
<b>5</b>	Chapter 3: computer software (Cont.) Utilities programs		x				x	x
<b>6</b>	Chapter 3: computer software (Cont.) Application programs		x				x	x

7	Chapter 4: Data representation How computers store data Number representation			x			x	
8	Chapter 4: Data representation (Cont.) Character representation How the computer works			x			X	
9	Chapter 4: Data representation (Cont.) Introduction to high levels languages			x				
10	Chapter 5: introduction to computers networks Introduction advantages				X			
11	Chapter 5: introduction to computers networks (Cont.) Uses of computer networks Types of computer networks				X			
12	Chapter 5: introduction to computers networks (Cont.) Structure of computer networks Basic definitions	x			x			
<b>Practical sessions</b>								
1	Microsoft word (Basics)  Microsoft word  MS-Excel (Basics)  MS-Excel (charts)		x	x			x	x



	Internet search Power point							
2	Assignment 1: Word: Design your CV Assignment 2: Word: Table Design Assignment 3: Excel Assignment 4: Excel charts Assignment 5: internet search Assignment 6: powerpoint		x	x		x	x	x



## Matrix II of information technology course

National Academic Reference Standards (NARS)	Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Method of assessment		
					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.C1.1	1.C1.1 <b>Chapter 1: introduction to computers</b> Computer definition Computer uses Computer industry Computer generations Classification of computers	student book	x			x		
			1.C1.2 <b>Chapter 2: computer hardware</b>	student book	x			x		
			<b>Chapter 3: computer software</b> Operating systems GUI components Utilities programs Application programs	student book	x			x		

			1.C1.3	<b>Chapter 4: Data representation</b> How computers store data Number representation Character representation How the computer works Introduction to high levels languages	student book, essential books	x			x		
			1.C1.4	<b>Chapter 5: introduction to computers networks</b> Introduction advantages Uses of computer networks Types of computer networks Structure of computer networks Basic definitions	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	Assignment 1: Word: Design your CV Assignment 2: Word: Table Design Assignment 3: Excel Assignment 4: Excel charts Assignment 5: internet search Assignment 6: powerpoint	Practical notes			x			x
4.2.2	Use contemporary technologies and media to demonstrate effective presentation skills.	4.C2.3	4.C2.1 4.C2.2	Microsoft word (Basics) Microsoft word MS-Excel (Basics) MS-Excel (charts) Internet search Power point Assignment 1: Word: Design your CV Assignment 2: Word: Table Design Assignment 3: Excel Assignment 4: Excel charts Assignment 5: internet search Assignment 6: powerpoint	Practical notes		x	x		x	x

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**Course Coordinator:** Dr. Khaled Hosni



**COURSE  
SPECIFICATION**

**Mathematics**

**First Level –Semester 1**

**2019-2020**

## **Course Specification of Mathematics**

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**University:** Zagazig **Faculty:** Pharmacy

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

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

Major or Minor element of programs: Minor

Department offering the program: -----

Department offering the course: Faculty of science, Mathematics  
department

Academic year/ Level: First level /Semester 1

Date of specification approval: Sep. 2019

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

Title: Mathematics Code: NP 102

Credit Hours: ---

Lectures : 1hr/week

Practical: 0 hr/week

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 definition of Number, Variable, Function, composition of functions, different types of functions. Definition of Limits of one variable functions, continuity, differentiability and applications of these concepts. Definition of the definite and indefinite integrals. The fundamental theorem of calculus and applications of definite integral. Determined the area arc length, volumes and surfaces of revolutions. Differentiation and integrations of



exponential, logarithmic, trigonometric and transcendental functions.  
 Techniques of integrations, trigonometric and transcendental functions.  
 Techniques of integrations. Matrix Algebra and system of linear equations

**2- Key elements of Mathematics:**

<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>	
<b>1.C1.1</b>	Define Number, Variable, Function, Limits of one variable functions, continuity, differentiability as well as definite and indefinite integrals
<b>1.C1.2</b>	Describe different types of functions, techniques of integration, matrices, partial fractions as well as applications of derivatives and definite integral
<b>DOMAIN 4: PERSONAL PRACTICE</b>	
<b>4.C1.1</b>	Find effective solutions for a given problem

## D- Contents:

<b>Week No.</b>	<b>Lecture (1 hr/week)</b>
<b>1</b>	Course orientation <b>Numbers and Variables- Functions of one variable operations on the functions</b>
<b>2</b>	matrices
<b>3</b>	Matrices (Cont.)
<b>4</b>	partial fractions
<b>5</b>	<b>derivative of functions:</b> derivative of exponential functions, natural logarithm functions, Trigonometric functions, derivative of inverse Trigonometric functions, Higher-order derivatives,
<b>6</b>	<b>derivative of functions: (Cont.)</b>
<b>7. Midterm exam</b>	
<b>8</b>	<b>Application of derivatives:</b> increasing functions, decreasing function, concavity and inflection points, relative maximum, relative minimum, absolute maximum, absolute minimum, critical pints,
<b>9</b>	<b>Application of derivatives: (cont.)</b>
<b>10</b>	Integration, indefinite integral, rules of integration, Techniques of integration
<b>11</b>	Integration, indefinite integral, rules of integration, Techniques of integration (cont.)
<b>12</b>	Integration applications (Area – Arc length- Volumes)
<b>13</b>	Integration applications (Cont.)
<b>14</b>	-Revision
<b>15</b>	<b>Final exam</b>

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

- Lectures
- Problem Solving

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

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

#### **Assessment schedule:**

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

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

<b>Assessment method</b>	<b>Marks</b>	<b>Percentage</b>
<b>Final Written exam</b>	75	75%
<b>Midterm exam &amp; activity</b>	25	25%
<b>TOTAL</b>	100	100%

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

- Black (white) board, Data show

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

**1- Course Notes:** Student book of Mathematics 2019.

## **2- Essential Books:**

Dumas and McCarthy, Transition to Higher Mathematics: Structure and Proof - Second Edition.

## **3- Recommended books**

Loe Moser, An Introduction to the Theory of Numbers, The Trillia Group.

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**Course Coordinator:** Prof. Yasser abd elaziz

## Matrix I of Mathematics course

<b>Course Contents</b>		<b>Key elements of mathematics</b>		
		<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>		<b>DOMAIN 4: PERSONAL PRACTICE</b>
		<b>1.C1.1</b>	<b>1.C1.2</b>	<b>4.C1.1</b>
<b>Lectures</b>				
<b>1</b>	<b>Numbers and Variables- Functions of one variable operations on the functions</b>	X	X	
<b>2</b>	<b>matrices</b>	X	X	X
<b>3</b>		X	X	X
<b>4</b>	<b>partial fractions</b>	X	X	X
<b>5</b>	<b>derivative of functions:</b>	X	X	X
<b>6</b>	<b>derivative of exponential functions, natural logarithm functions, Trigonometric functions, derivative of inverse Trigonometric functions, Higher-order derivatives,</b>	X	X	X
<b>7</b>	Midterm exam			
<b>8</b>	<b>Application of derivatives: increasing functions, decreasing function, concavity and inflection points, relative maximum, relative minimum, absolute maximum, absolute minimum, critical pints,</b>		X	x
<b>9</b>			X	X
<b>10</b>		X	X	X
<b>11</b>	<b>Integration, indefinite integral, rules of integration, Techniques of integration</b>	x	X	X
<b>12</b>			x	X
<b>13</b>	<b>Integration applications (Area – Arc length- Volumes)</b>		x	x

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## Matrix II of Mathematics course

National Academic Reference Standards (NARS)	Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Method of assessment		
					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.C1.1	Numbers and Variables- Functions of one variable operations on the functions matrices partial fractions derivative of functions: derivative of exponential functions, natural logarithm functions, Trigonometric functions, derivative of inverse Trigonometric functions, Higher-order derivatives, Application of derivatives: increasing functions, decreasing function, concavity and inflection points,	student book	x			x		
		1.C1.2		student book	x			x		
		student book		x			x			

				<p>relative maximum, relative minimum, absolute maximum, absolute minimum, critical pints,</p> <p>Integration, indefinite integral, rules of integration, Techniques of integration</p> <p>Integration applications (Area – Arc length- Volumes)</p>							
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	<p>Numbers and Variables- Functions of one variable operations on the functions matrices partial fractions derivative of functions: derivative of exponential functions, natural logarithm functions, Trigonometric functions, derivative of inverse Trigonometric functions, Higher-</p>	Student book	x			x		



				<p>order derivatives, Application of derivatives: increasing functions, decreasing function, concavity and inflection points, relative maximum, relative minimum, absolute maximum, absolute minimum, critical pints,</p> <p>Integration, indefinite integral, rules of integration, Techniques of integration</p> <p>Integration applications (Area – Arc length- Volumes)</p>							
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**Course Coordinator: Prof. Yasser abd elaziz**



**COURSE  
SPECIFICATION**

**English language I**

**First Level –Semester 1**

**2019-2020**

## Course specification of English Language 1

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**University:** Zagazig **Faculty:** Pharmacy

### A- Course specifications:

Program(s) on which the course is given: Bachelor of Pharmacy (Clinical 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 1

Date of specification approval: September 2019

### B- Basic information:

Title: English language-1 Code: UR 102

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 fundamental knowledge of the English language in the following areas: grammar, reading, writing, listening, and speaking.

## 2-Key elements of English language 1:

<b>DOMAIN 1- FUNDAMENTAL KNOWLEDGE</b>	
1.C1.1	Define general terms and use vocabulary items in meaningful sentences
1.C1.2	Outline the structures of English language (e.g. English Tenses; Interrogative; Punctuation...etc) correctly
1..C1.3	Recognize the appropriate uses of Affixes (prefixes; suffix; combining form) as well as antonyms and synonyms
1.C1.4	Enumerate vocabulary items related to everyday life
1.C1.5	Identify the role of contextual references
1.C1.6	Distinguish the different meanings of homonymic words
<b>DOMAIN 4: PERSONAL PRACTICE</b>	
4.C2.1	Answer oral questions using accurate and appropriate scientific English
4.C2.2	Talk about scientific topics accurately and fluently
4.C2.3	Read aloud a given scientific text coherently with ease and understanding.
4.C2.4	Listen to oral scientific and general English with recognition of the main idea
4.C2.5	Present authentic scientific and General English materials relevant to given topics
4.C2.6	Speak scientific English correctly and appropriately for academic and general purposes

## D- Contents:

<b>Week No.</b>	<b>Lecture (1hr/week)</b>
<b>1</b>	Unit 1: pharmacy apps: a new frontier on the digital landscape Oral communication activities Reading activities
<b>2</b>	Unit 1: pharmacy apps: a new frontier on the digital landscape Grammar: present simple & present continuous

	Writing activities
<b>3</b>	Unit 2:The changing role of the pharmacist in the 21st century Oral communication activities Reading activities
<b>4</b>	Unit 2:The changing role of the pharmacist in the 21st century Grammar: present perfect & present perfect continuous & writing activities
<b>5</b>	Unit 3:Online pharmacy Oral communication activities Reading activities
<b>6</b>	Unit 3:Online pharmacy Grammar: past simple, past continuous, writing activities
<b>7</b>	Midterm exam
<b>8</b>	Unit 4:Integrated technology is the key to success in hospital pharmacies Oral communication activities Reading activities
<b>9</b>	Unit 4:Integrated technology is the key to success in hospital pharmacies Grammar: past perfect, past perfect continuous, writing activities
<b>10</b>	Unit 5:Pharmacy informatics Oral communication activities Reading activities
<b>11</b>	Unit 5:Pharmacy informatics Grammar: future simple, future continuous, writing activities
<b>12</b>	Unit 6:The Future of Pharmacy Oral communication activities Reading activities
<b>13</b>	Unit 6:The Future of Pharmacy Grammar: future perfect, future perfect continuous, writing activities
<b>14</b>	Unit 7:Pharmacy Terms & abbreviations

	Grammar: interrogative, punctuation, writing activities
<b>15</b>	Final exam

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

- Lectures
- Self learning (exercises....)
- Group discussion

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

Written exam to assess 1.C1.1, 1.C1.2, 1.C1.3, 1.C1.4, 1.C1.5, 1.C1.6, 4.C2.1

Assignments to assess 4.C2.2, 4.C2.3, 4.C2.4, 4.C2.5, 4.C2.6

### **Assessment schedule:**

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

### **Weighting of Assessment:**

<b>Assessment method</b>	<b>Marks</b>	<b>Percentage</b>
<b>Midterm exam &amp; assignments</b>	25	25%
<b>Final Written exam</b>	75	75%
<b>TOTAL</b>	100	100%

### **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)**

- Miriam Diaz-Gilbert (2008) English for Pharmacy Writing and Oral Communication: 1st Edition, LWW
- Buchler M., Jaehnig K., Matzig G. and Weindler T. (2010) English for the Pharmaceutical Industry, Oxford University Press
- English for science and technology: a handbook for nonnative speaker: Thomas N. Huckin, Leslie A. Olsen; McGraw-Hill, 1983 - Language Arts & Disciplines
- Speaking English for Medical Purposes; by Kenneth Beare
- English for Science and Technology; by JEAN PARKINSON
- English for Science and Technology; By Brian Paltridge<sup>2</sup> and Sue Starfield 3 Jean Parkinson; Published Online: 13 SEP 2012
- English for Science and Technolog; by Thomas Orr; Published Online: 5 NOV 2012
- English for Science and Technology : A Discourse Approach (Cambridge Language Teaching Library) by Louis Trimble, Michael Swan (Editor), Paperback: 192 pages, Publisher: Cambridge University Press
- Science, Medicine, and Technology: English Grammar and Technical Writing by Peter Antony Master, Paperback: 320 pages, Publisher: Prentice Hall
- Using English in Science and Technology; by RAM KRISHNA SINGH

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

Medical for Pharmacist

<http://www.englishmed.com/pharmacists/>

Medical English for Pharmacist

<http://www.englishmed.com/pharmacists/>

Learn English Vocabulary for the Pharmacy

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

English at the Pharmacy

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



English for Pharmacist

[https://competencyrx.com/images/pdf/English for Pharmacist.pdf](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](https://learn.saylor.org/course/index.php?categoryid=29&utm_source=google&utm_medium=keyword&utm_campaign=google_keyword_ad_esl)

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/>

International Dental Journal

<http://www.fdiworlddental.org/resources/journals/international-dental-journal>

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**Course Coordinator: Dr. Ahmed Abdel Salam Edries**

**Date: /9/2019**

## Matrix I of English language 1 course

<b>Course Contents</b>		<b>Key elements of English 1 course</b>											
		DOMAIN1: Knowledge and understanding						DOMAIN 4: PERSONAL PRACTICE					
		1.C1.1	1.C1.2	1.C1.3	1.C1.4	1.C1.5	1.C1.6	4.C2.1	4.C2.2	4.C2.3	4.C2.4	4.C2.5	4.C2.6
		<b>1</b>	Unit 1: pharmacy apps: a new frontier on the digital landscape Oral communication activities Reading activities	x			x	x	x				x
<b>2</b>	Unit 1: pharmacy apps: a new frontier on the digital landscape Grammar: present simple & present continuous Writing activities		x	x								x	
<b>3</b>	Unit 2: The changing role of the pharmacist in the 21st century Oral communication activities Reading activities	x			x	x	x				x		x
<b>4</b>	Unit 2: The changing role of the pharmacist in the 21st century Grammar: present perfect & present perfect continuous & writing activities		x									x	
<b>5</b>	Unit 3: Online pharmacy Oral communication activities Reading activities	x			x	x	x				x		x
<b>6</b>	Unit 3: Online pharmacy Grammar: past simple, past continuous, writing activities		x									x	
<b>7</b>	Unit 4: Integrated technology is the key to success in hospital pharmacies	x			x	x	x				x		x

	Oral communication activities Reading activities											
<b>8</b>	Unit 4: Integrated technology is the key to success in hospital pharmacies Grammar: past perfect, past perfect continuous, writing activities			<b>x</b>								<b>x</b>
<b>9</b>	Unit 5: Pharmacy informatics Oral communication activities Reading activities				<b>x</b>	<b>x</b>	<b>x</b>				<b>x</b>	<b>x</b>
<b>10</b>	Unit 5: Pharmacy informatics Grammar: future simple, future continuous, writing activities	<b>x</b>		<b>x</b>						<b>x</b>	<b>x</b>	
<b>11</b>	Unit 6: The Future of Pharmacy Oral communication activities Reading activities				<b>x</b>	<b>x</b>	<b>x</b>					
<b>12</b>	Unit 6: The Future of Pharmacy Grammar: future perfect, future perfect continuous, writing activities	<b>x</b>		<b>x</b>								<b>x</b>
<b>13</b>	Unit 7: Pharmacy Terms & abbreviations Grammar: interrogative, punctuation, writing activities			<b>x</b>								<b>x</b>

## Matrix II of English language 1 course

National Academic Reference Standards NARS		Program key elements	Course key elements	Course contents	Sources	Teaching and learning methods			Method of assessment
						Lecture	Self learning	assignments	Written exam
1-1-1-	Demonstrate understanding of knowledge of pharmaceutical, biomedical, social, behavioral, administrative, and clinical sciences.	1.C1.1	1.C1.1 1.C1.4 1.C1.5 1.C1.6	Unit 1: pharmacy apps: a new frontier on the digital landscape Oral communication activities Reading activities Unit 2: The changing role of the pharmacist in the 21st century Oral communication activities Reading activities Unit 3: Online pharmacy Oral communication activities Reading activities Unit 4: Integrated technology is the key to success in hospital pharmacies Oral communication activities Reading activities	Student book	x			x

		Unit 5:Pharmacy informatics Oral communication activities Reading activities Unit 6:The Future of Pharmacy Oral communication activities Reading activities				
	1.C1.2 1.C1.3	Unit 1: pharmacy apps: a new frontier on the digital landscape Grammar: present simple &present continuous Writing activities Unit 2:The changing role of the pharmacist in the 21st century Grammar: present perfect & present perfect continuous & writing activities Unit 3:Online pharmacy Grammar: past simple, past continuous, writing activities Unit 4:Integrated technology is the key to success in hospital pharmacies Grammar: past perfect, past perfect	Student book		x	

<b>4.2.1</b>	Demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities.	4.C2.1	4.C2.1	continuous, writing activities Unit 5:Pharmacy informatics Grammar: future simple, future continuous, writing activities Unit 6:The Future of Pharmacy Grammar: future perfect, future perfect continuous, writing activities Unit 7:Pharmacy Terms & abbreviations Grammar: interrogative, punctuation, writing activities Unit 1: pharmacy apps: a new frontier on the digital landscape	Student book	x	x
			4.C2.2	Oral communication activities			
			4.C2.3	Reading activities			
			4.C2.4	Unit 2:The changing role of the pharmacist in the 21st century			
			4.C2.6	Oral communication activities Reading activities Unit 3:Online pharmacy Oral communication			

				<p>activities</p> <p>Reading activities</p> <p>Unit 4: Integrated technology is the key to success in hospital pharmacies</p> <p>Oral communication activities</p> <p>Reading activities</p> <p>Unit 5: Pharmacy informatics</p> <p>Oral communication activities</p> <p>Reading activities</p> <p>Unit 6: The Future of Pharmacy</p> <p>Oral communication activities</p> <p>Reading activities</p>				
4.2.2	Use contemporary technologies and media to demonstrate effective presentation skills.	4.C2.3	4.C2.5	<p>Unit 1: pharmacy apps: a new frontier on the digital landscape</p> <p>Grammar: present simple &amp; present continuous</p> <p>Writing activities</p> <p>Unit 2: The changing role of the pharmacist in the 21st century</p> <p>Grammar: present perfect &amp; present perfect continuous &amp; writing activities</p> <p>Unit 3: Online pharmacy</p> <p>Grammar: past</p>	Student book, essential book		x	x

			<p>simple, past continuous, writing activities</p> <p>Unit 4: Integrated technology is the key to success in hospital pharmacies</p> <p>Grammar: past perfect, past perfect continuous, writing activities</p> <p>Unit 5: Pharmacy informatics</p> <p>Grammar: future simple, future continuous, writing activities</p> <p>Unit 6: The Future of Pharmacy</p> <p>Grammar: future perfect, future perfect continuous, writing activities</p> <p>Unit 7: Pharmacy Terms &amp; abbreviations</p> <p>Grammar: interrogative, punctuation, writing activities</p>			
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**Course**      **Coordinators:**      **Dr.**      **Ahmed**      **Abdel**      **Salam**      **Edries**      **Date:**      **/9/2019**





**COURSE  
SPECIFICATION**

**Human Rights and  
Fighting of Corruption**

**First Level –Semester 1**

**2019-2020**

## توصيف مقرر حقوق الإنسان و محاربة الفساد

كلية الصيدلة

جامعة الزقازيق

### أ- مواصفات المقرر:

البرنامج أو البرامج التي يقدم من خلالها المقرر: بكالوريوس الصيدلة – صيدلة اكلينيكية فارم دي المقرر يمثل عنصرا رئيسيا أو ثانويا بالنسبة للبرامج: ثانوياً  
القسم العلمي المسئول عن البرنامج: -----  
المسئول عن تدريس المقرر: أ. د. محمد محمد بركة د. ياسمين أحمد شرف  
السنة الدراسية: المستوى الأول – التيرم الأول.  
تاريخ اعتماد التوصيف:

### (ب) البيانات الأساسية:

الكود: UR101

العنوان: حقوق الإنسان و مكافحة الفساد  
الساعات المعتمدة: ساعة واحدة معتمدة  
المحاضرات: ساعة واحدة أسبوعياً  
العملي: ---  
الدروس العملية: ---  
المجموع: ساعة واحدة في الأسبوع

### (ج) البيانات المهنية:

#### 1) الأهداف العامة للمقرر:

- عند إتمام المقرر سوف يكون الطلاب قادرين على
- معرفة أهمية حقوق الإنسان وواجباته نحو المجتمع وكيفية حماية تلك الحقوق.
  - معرفة الفساد و انواعه و اسبابه و اثاره و كيفية مجابهة الفساد

#### 2) النتائج التعليمية المستهدفة لمقرر حقوق الإنسان:

المجال 1 – المعرفة الأساسية	
اختصاص 1-1	
دمج المعرفة من العلوم الصيدلانية و السريرية الأساسية و التطبيقية لتوحيد المواد و صياغة المنتجات و تصنيعها و تقديم رعاية تركز على السكان و المرضى	
يعرف المقصود بحقوق الإنسان و مصدرها و أنواع حقوق الإنسان الفردية و الجماعية و كيفية حمايتها	1.C1.1
يفهم الفساد و انواعه و اسبابه و اثاره	1.C1.2
يعرف كيفية مجابهة الفساد و دور الاجهزة الرقابية في مجابهة الفساد داخل الدولة	1.C1.3

## د- المحتويات:

المحاضرة (2ساعة/ الأسبوع)	الأسبوع
- مقدمة -التطور التاريخي لفكرة حقوق الإنسان	1
- التعريف بحقوق الإنسان - خصائص و مبادئ حقوق الإنسان	2
مصادر حقوق الإنسان	3
أنواع حقوق الإنسان الفردية والجماعية	4
- مكافحة الفساد -مفهوم الفساد -أنواع وصور الفساد	5
- أسبابو اثار الفساد	6
الامتحان نصف الفصل	7
- وسائل مجابهة الفساد الإطار التشريعي لمكافحة الفساد	8
- دور الأجهزة الرقابية الوطنية في مكافحة الفساد الإداري -هيئة الرقابة الإدارية ودورها في مكافحة الفساد الإداري.	9
- الجهاز المركزي للمحاسبات ودوره في مكافحة الفساد الإداري	10
- الجهاز المركزي للتنظيم والإدارة ودوره في مكافحة الفساد الإداري	11
- هيئة النيابة الإدارية ودورها في مكافحة الفساد الإداري	12
- اللجان الأخرى المعنية بمكافحة للفساد فجمهورية مصر العربية:	13
- مراجعة عامة و مناقشة حره	14
- الامتحان النهائي	15

## هـ- أساليب التعليم و التعلم:

- المحاضرة
- المناقشة
- المقرر الالكتروني Internet

## و-أساليب تقييم الطلبة:

- 1- الامتحان التحريري يقيم: 1.1.1 و 1.1.2 و 1.1.3
- 2- الامتحان نصف الفصل يقيم: 1.1.1 و 1.1.2 و 1.1.3

## الجدول الزمني للتقييم:

تقييم (1): امتحان نصف الفصل	الأسبوع السابع
تقييم (2): الامتحان التحريري	الأسبوع الخامس عشر

## ترجيح التقييم:

النسب المئوية	الدرجات	طريقة التقييم
%75	75	الامتحان التحريري
%25	25	امتحان نصف الفصل
%100	100	الإجمالي

## ز- التسهيلات اللازمة للتعليم و التعلم:

- 1- للمحاضرات: اللوحات (البيضاء) و السوداء و جهاز العرض المرئي (داتا شو) والانترنت.

## ي- قائمة المراجع:

- 1- الانترنت : المقرر الالكتروني

## 2- كتب مقترحة

القانون الدولي الإنساني

- 4- مجلات دورية، مواقع انترنت، الخ

مجلات حقوق الإنسان

منسق المقرر: د. ياسمين أحمد شرف

التاريخ:

مصفوفة 1 مقرر حقوق الإنسان و مكافحة الفساد					
المهارات المكتسبة لمادة حقوق الإنسان			محتويات المقرر		
التخصص 1-1					
1.1.3		1.1.2	1.1.1		
			x	مقدمة	1
			x	-التطور التاريخي لفكرة حقوق الإنسان	2
			x	- التعريف بحقوق الإنسان	3
			x	- خصائص و مبادئ حقوق الإنسان	4
			x	مصادر حقوق الإنسان	5
			x	أنواع حقوق الإنسان الفردية والجماعية	6
		x		- مكافحة الفساد(مفهوم الفساد-أنواع وصور الفساد)	7
		x		- أسباب الفساد	8
		x		- آثار الفساد	9
	x			- وسائل مجابهة الفساد(الإطار التشريعي لمكافحة الفساد)	10
	x			- دور الأجهزة الرقابية الوطنية في مكافحة الفساد الإداري	11
	x			-هيئة الرقابة الإدارية ودورها في مكافحة الفساد الإداري.	12
	x			- الجهاز المركزي للمحاسبات ودوره في مكافحة الفساد الإداري	13
	x			- الجهاز المركزي للتنظيم والإدارة ودوره في مكافحة الفساد الإداري	14
	x			- هيئة النيابة الإدارية ودورها في مكافحة الفساد الإداري	15
	x			- اللجان الأخرى المعنية بمكافحة للفساد فجمهورية مصر العربية:	16
	x	x	x	مراجعة عامة و مناقشة حره	17

## مصنوفة 2 مقرر حقوق الإنسان و مكافحة الفساد

أسلوب التقييم	أساليب التعليم و التعلم			المصدر	محتويات المقرر	مفاتيح العناصر للمقرر	مفاتيح العناصر للبرنامج	المعايير الأكاديمية المرجعية القومية (NARS)	
	الامتحان التحريري	التعلم الذاتي	الدروس العملية					المحاضرة	
x			x	المقرر الالكتروني	- مقدمة -التطور التاريخي لفكرة حقوق الإنسان	1.1.1	1.C1.4	اظهار فهم المعرفة بالعلوم الصيدلانية والطبية الحيوية والاجتماعية والسلوكية والإدارية والإكلينيكية.	1-1-1
x			x	المقرر الالكتروني	- التعريف بحقوق الإنسان - خصائص و مبادئ حقوق الإنسان				
x			x	المقرر الالكتروني	مصادر حقوق الإنسان				
x			x	المقرر الالكتروني	أنواع حقوق الإنسان الفردية والجماعية				
x			x	المقرر الالكتروني	- مكافحة الفساد(مفهوم الفساد-أنواع وصور الفساد)	1.1.2	1.C1.4	اظهار فهم المعرفة بالعلوم الصيدلانية والطبية الحيوية والاجتماعية والسلوكية والإدارية والإكلينيكية.	1-1-1
x			x	المقرر الالكتروني	- أسباب الفساد				
x			x	المقرر الالكتروني	- آثار الفساد				
x			x	المقرر الالكتروني	- وسائل مجابهة الفساد(الإطار التشريعي لمكافحة الفساد)	1.1.3			

x			x	المقرر الالكتروني	- دور الأجهزة الرقابية الوطنية في مكافحة الفساد الإداري -هيئة الرقابة الإدارية ودورها في مكافحة الفساد الإداري.
x			x	المقرر الالكتروني	- الجهاز المركزي للمحاسبات ودوره في مكافحة الفساد الإداري
x			x	المقرر الالكتروني	- الجهاز المركزي للتنظيم والإدارة ودوره في مكافحة الفساد الإداري
x			x	المقرر الالكتروني	- هيئة النيابة الإدارية ودورها في مكافحة الفساد الإداري
x			x	المقرر الالكتروني	- اللجان الأخرى المعنية بمكافحة للفساد فجمهورية مصر العربية:

**منسق المقرر: د. ياسمين أحمد شرف**  
**رئيس القسم:**  
**التاريخ:**

