

Course Specifications

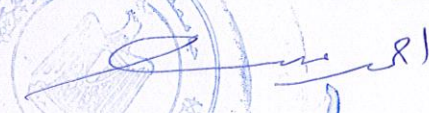
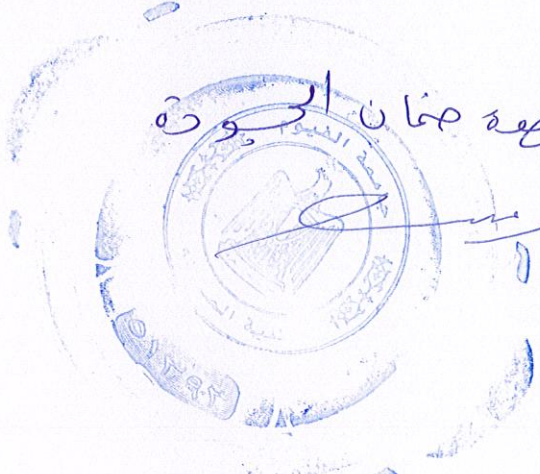
**Pharmaceutics III
3107**

**Level 3
Semester 5**

General Pharmacy Program

Course Specification

A-Basic Information	
Course code:	3107
Course name:	Pharmaceutics III
Credit hours of the course:	Lecture: 2 Practical: 1 Total: 3
Pre-requisite of the course:	Pharmaceutics-2
Department teaching the course:	Pharmaceutics
Program for which the course is given:	General Pharmacy Program
Course Co-coordinator:	Dr. Doaa Helal
Head of the Department:	Prof Dr.Mona Hetta
Date of specifications approval:	17/9/2016

مدرسة صبحان الجوق



B-Professional Information

1- Overall aims of the course:

At the end of the course, students will Differentiate a powder from a granule, explain how a drug's powder particle size affects the behavior of pharmaceutical dosage forms also to differentiate between the various types of tablet dosage forms, compare advantages and disadvantages of the various types of tablet dosage forms. The student will be able to compare various suppositories dosage forms.

2-intended learning outcomes (ILO'S)

a- knowledge and understanding

by the end of this course the student should be able to :

General Pharmacy Program

- Understand the factors that affect the rate of chemical reactions and determine the rate of reaction at given time and concentration. Recognize laboratory safety principles and their importance.
- Understand the form and meaning of a rate law including the ideas of reaction order and rate constant.
- Predict the rate law and rate constant for a reaction from a series of experiments given the measured rates for various concentrations of reactants.

Use the integrated form of a rate law to determine the concentration of a reactant at a given time

b) Intellectual Skills

- Analyze different unit operations in tablet and capsule production.
- Compare between various methods of granulation, drying, and size reduction.
- Evaluate process control and validation strategies in pharmaceutical manufacturing.

c) Professional and Practical Skills

- Apply safe laboratory practices in pharmaceutical environments.
- Operate and monitor tableting and capsule filling equipment.
- Demonstrate understanding of tablet compression, press operation, and coating processes.

d) General Skills

- Work effectively within a team in laboratory and factory settings.
- Communicate technical information related to pharmaceutical manufacturing.
- Develop problem-solving skills related to process control and equipment operation.

3- Course contents:

Topic	No. of hours		
	Lecture	Practical	Total
• Introduction about kinetics of drug decomposition	2	1	3
• Rate and orders of reaction	2	1	3
• Determination of Half-life, Expiry date and Shelf-life by different method	2	1	3
• Stability testing methods	2	2	3
• Stability Protocols and chambers	2	1	3
• n vitro drug/excipients interactions	2	1	3
• Degradation pathways	2	1	3
• Formulation and manufacturing of powders	2	1	3
Formulation and manufacturing of granules	2	1	3
Formulation and manufacturing of tablets New strategies in tablet manufacture (self learning)	2	1	3
Formulation and manufacturing of suppositories	2	1	3
Capsules (types- formulation)	2	1	3
Capsules (Quality control tests and applications)	2	1	3
Revision and quiz	2	1	3
Final written and oral exam			

4- Teaching and Learning Methods (lectures, open discussion, role plays,...etc.):

- Lectures, using Power point presentation
- Open discussion
- Practical labs.....



a- Assessment Methods and Weighing

- Class participation: 20 %
- Practical Exam: 30 %
- Oral Exam: 20 %
- Final Exam: 80 %

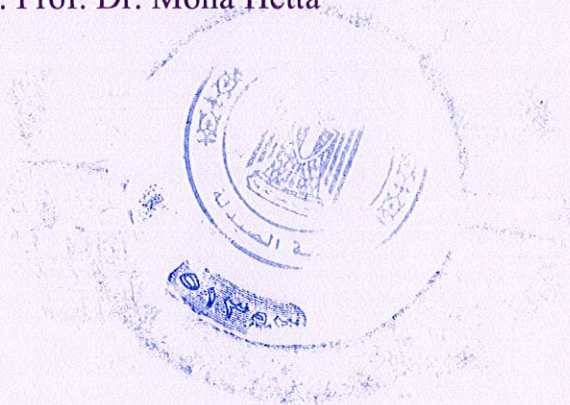
b- Assessment Schedule:

- Class participation: Quiz 1: Week 4-5
Quiz 2: Week 8-9
Other activities: throughout the semester
- Practical Exam: Week 13-14
- Oral Exam: According to semester timetable
- Final Exam: According to semester timetable

Course Coordinator: Dr. Doaa Helal

Head of Department: Prof. Dr. Mona Hetta

Date:





Course Specifications
(2015 – 2016)

Course: Pharmacology 1

Course code: 3303





Course Specifications **(2015 – 2016)**

A. Basic Information

Program(s) on which the course is given:	General
Department offering the course	Pharmacology & Toxicology department
Faculty offering the program	Pharmacy
Dept. responsible for teaching the course	Pharmacology & Toxicology department
Academic year / level	Third Level, semester 5
Course title	Pharmacology 1
Course code	3303
Contact hours (credit hours)	3
Pre-requisite of the course:	Physiology
Course coordinator	Dr/ Mona Mohamed El-Naa
Date of specification approval	17/09/2016

B. Professional Information

1. Overall Aims of Course

The aims of the course are to study the principle of pharmacokinetics and pharmacodynamics and to deliver deep knowledge about commonly used drugs affecting different biological systems and their proper use in the management of various diseases as well as improve the health state of the patient. In addition, the course aims to apply the basic information regarding the pharmacokinetics, pharmacological actions, contraindications and drug interactions of the major drug groups in order to utilize therapeutics in a rational way for the treatment of patients.

2. Intended Learning Outcomes of Course (ILOs)

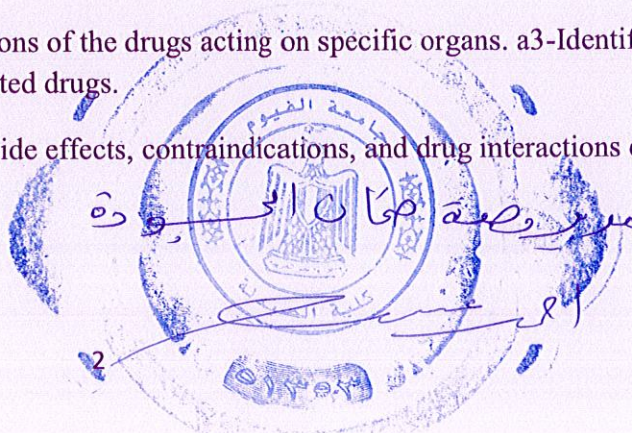
a-Knowledge and Understanding:

By the end of this course, the student should be able to:

a1-- Mention the basic principles of pharmacology such as pharmacokinetics, pharmacodynamics.

a2-Recognize the pharmacological actions of the drugs acting on specific organs. a3-Identify the basic pharmacokinetics of the selected drugs.

a4- Demonstrate the therapeutic uses, side effects, contraindications, and drug interactions of the selected drugs.





Course Specifications (2015 – 2016)

b-Intellectual Skills:

By the end of this course, the student should be able to:

b1-Explore the mechanism of action of the selected drugs and the relation to their pharmacological actions.

b2-Defind the proper pharmacological treatment of a specific pathological conditions

c-Professional and Practical Skills:

By the end of this course, the student should be able to:

c1-Develop laboratory skills in handling isolated organ preparations.

c2-Except the biological response to a specific dose of the drug.

c3- Handle laboratory animals in a correct and safe way to obtain optimum results without harmful effects on animals.

d-General Skills:

By the end of this course, the student should be able to:

d1-Communicate properly with professor and lab technicians

d2-Develop the students' skills in dealing with laboratory instruments

d3- Apply safety measures during her/his work in the lab

d4-work coherently and successfully as a part of a team. d5-Apply ethical guidelines in her/his professional carrier.

d6-- Develop online computer search and information technology skills.

3. Contents

Teaching week	TOPIC	No. of hours		
		lecture	Practical	Total
1	General Pharmacology	6	4	10
2	Pharmacology of ANS	8	3	11
3	Pharmacology of CVS	6	3	9



Course Specifications **(2015 – 2016)**

4	Pharmacology of renal system	2	1	3
5	Autacoid	2	1	3
	Total	24	12	36

4. Teaching and Learning Methods (lectures, open discussion, role plays, ..etc.):

4.1- Interactive Lectures

4.2- Laboratory classes

4.3- Student activates (Assignment, Seminars, Researches and Posters)

5. Student Assessment:

a-Assessment Methods and Weighing:

- Class participation: 20% (assess knowledge and understanding and Intellectual Skills)

Practical exam: 30% ((assess knowledge and understanding and Intellectual and practical Skills)

Oral exam: 20% (assess knowledge and understanding and Intellectual Skills)

Final exam: 80% (assess knowledge and understanding and Intellectual Skills)

b-Assessment Schedule:

Class participation: Quiz 1 Week 4-5

Quiz 2 week 8-9

Other----- throughout the semester

Practical exam: week 12

Oral exam: According to semester timetable

Final exam: According to semester timetable

6. List of References

Course Notes: Department notes prepared by instructors

Recommended Books: -Pharmacological Basis of Therapeutics (Goodman & Gilman) -Katzung (Clinical Pharmacology)

Web Sites: www.pubmed.com <http://www.biomedcentral.com/bmcpharmacol/>

Course Coordinator: Dr. Mona Mohamed El-Naa

Head of Department: Prof. Mona Hetta

Date: 17 /09/2016



Course Specifications
(2015 –2016)

Phytochemistry I

3205





Course Specifications **(2015 –2016)**

Pharmacognosy department

A- Basic information

Program(s) on which the course is given	Bachelor of Pharmacy
Department offering the course	Pharmacognosy department
Faculty offering the program	Faculty of Pharmacy, Fayoum University
Dept. responsible for teaching the course	Pharmacognosy department
Academic year / level	Third level, semester 5
Course title	Phytochemistry 1
Course code	3205
Contact hours (credit hours)	Lecture 2 (2) + Practical 2 (1): Total 4 (3)
Pre-requisite of the course:	Pharmacognosy 1
Course coordinator	Prof. Dr/ Mona Hetta
Major or Minor element of program	Major
Date of specification approval	17/01/2016

B-Professional Information

1-Overall aims of the course:

Upon successful completion of this course the students should be able to illustrate the biosynthetic pathways, chemical classes, chemical structures, methods of extractions and isolations, methods of identification and assays and chemical reactions of volatile oils, resin and carbohydrates.

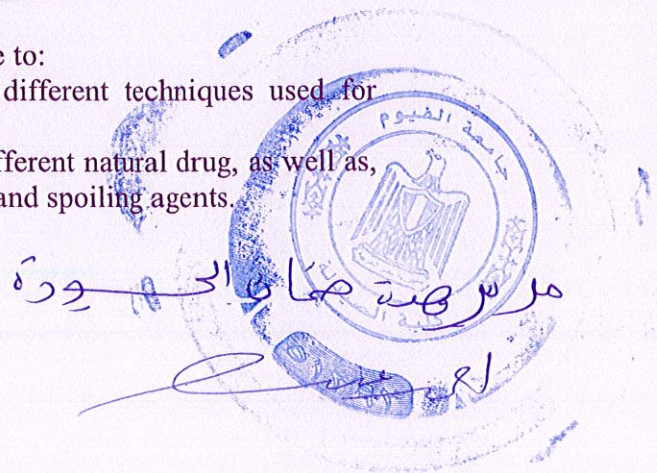
2-Intended learning outcomes (ILO's):

a- Knowledge & Understanding Skills

By the end of this course, the student must be able to:

- a1. Discuss principles of quality control and different techniques used for quality control of herbal drugs.
- a2. Confirm the purity, safety and efficacy of different natural drug, as well as, their common adulterants, diluents, deteriorating and spoiling agents.

b- Intellectual Skills





Course Specifications (2015 –2016)

By the end of this course, the student should be able to:

- b1-Solve problems encountered during extraction and isolation.
- b2- Design a suitable method for identification and assays.
- b3-Evaluate which of these constituents are biologically active.

c- Professional and/or Practical skills

By the end of this course, the student should be able to:

- c1- Apply the suitable technique for qualitative and quantitative determination.
- c2- Select the proper solvents and technique for extraction.
- c3- Estimate the percentage of these constituents in the plant and crude extract.

d- General & transferable Skills

By the end of this course, the student should be able to:

- d1-Have the power to work effectively in team.
- d2- Demonstrate written and oral skills.
- d3- Performing on-line computer search to developed information technology skills.

3. Contents

Teaching week	TOPIC	No. of lecture credit hours	No. of practical credit hours	Assessment of ILOs
1	Volatile oil introduction	2	1	
2	HydrocarbonsAlcohols and Phenols	2	1	
3	Aldehydes and ketones	2	1	
4	Esters- Oxides-peroxides	2	1	
5	Resin and resin combination	2	1	
6	Tannins	2	1	
7	Bitter principles	2	1	
8	Carbohydrates introduction	2	1	
9	Monosaccharides	2	1	



Course Specifications
(2015 –2016)

10	disaccharides and Oligosaccharides	2	1	
11	Polysaccharides	2	1	
12	Drug containing carbohydrates	2	1	
Total		24	12	

4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):

- 4.1 Lectures (Tools, board, data show).
- 4.2 Practical session (Tools, labs, boards, instruments, chemicals, glassware).
- 4.3 Assignments, seminars, researches and posters.

5- Student Assessment:

a-Assessment Methods and Weighing:

- Written exams to access knowledge and understanding and Intellectual Skills.
 - Practical exams to access practical Skills.
 - Periodic exams to access knowledge and understanding and Intellectual Skills.
 - Oral exams to access knowledge and understanding and Intellectual Skills.
- Class participation: 20 %
Practical exam: 30 % (Lab exam 20%, Semester Work 5%, Project presentation 5%)
Oral exam: 20 %
Final exam: 80 %

b-Assessment Schedule:

- Class participation: Quiz 1: Week 4-5
Quiz 2: Week 8-9
Other activities: throughout the semester
- Practical exam: Week 13-14
- Oral exam: According to semester timetable
- Final exam: According to semester timetable

6-List of References:

- Course Notes on ELS
- Required Books Lectures and practical notes prepared by instructors.
- Recommended Books Phytochemistry, Shafeek Balbaa
- Periodicals Natural Compounds, Shakhnoza S. Azimova, Editor Marat S. Yunusov
Co-Editor
- Web Sites Journal of Natural Products and Phytochemistry
<http://www.pubmed.com>

Course Coordinator: Prof. Mona H. Hetta

Head of the Department: Prof. Mona H. Hetta

Date: 17/01/2016

Course Specifications

Communications and Negotiation Skills (3113)

**Level 3
Semester 5**

General Pharmacy Program

Course Specification

A-Basic Information	
Course code:	3113
Course name:	Communications and Negotiation Skills
Credit hours of the course:	Lecture: 2 Practical: 0 Total: 2
Pre-requisite of the course:	Registration
Department teaching the course:	Pharmaceutics
Program for which the course is given:	General Pharmacy Program
Course Co-ordinator:	Dr. Doaa Helal
Head of the Department:	Prof. Dr. Mona Hetta
Date of specifications approval:	17/9/2016

B-Professional Information
1- Overall aims of the course:
The course aims to:
1 .Transfer necessary communication skills both oral and written to pharmacy students.
2 . Improve presentation skills of pharmacy students.
3 . Enhance inter- and intra-professional collaboration and communication with healthcare providers and patients.
2-intended learning outcomes (ILO'S)
By the end of this course, students will be able to:

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2

1. Explain the principles of effective communication and negotiation in professional and interpersonal contexts.
2. Identify the psychological factors influencing buying behavior and decision-making ("Why People Buy").
3. Describe the role of body language, vocal tone, and verbal clarity in building rapport and influencing others.
4. Recognize different types of questions (e.g., open, closed, high-gain, benefit) and their strategic use in conversation and negotiation.
5. Understand the key elements of negotiation, including variables, agreement space, and closing techniques.

c-Professional and Practical Skills

By the end of this course, the student should be able to:

- c1. Demonstrate different Pharmaceutical semi-solid dosage forms.
- c2. Prepare different types of suppositories on small scales.
- c3. Use chemical and physical tests on a dosage forms to determine their quality control
- c4. Analyze manufacturing requirements for parenteral formulations and ophthalmic dosage forms.

d-General Skills:

By the end of this course, the student should be able to:

- d1. Use internet in research and communications.
- d2. Work effectively in a team during applications of instrumental analysis of different pharmaceutical preparations.

General Pharmacy Program

3- Course contents:

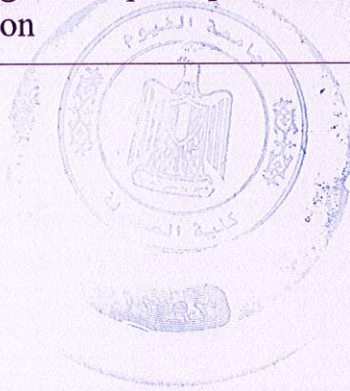
Topic	No. of hours		
	Lecture	Practical	Total
Basic concepts in human communication	2	0	2

Major Processes of Communication	2	0	2
Interpersonal communication skills	2	0	2
Communication Strategies	2	0	2
Non-verbal communication	2	0	2
A short guide to Presentation skills	2	0	2
Top characteristics of Oral Presentation	2	0	2
Top characteristics of Oral Presentation (cont.)	2	0	2
Communication of Pharmacists and Patients (self-learning)	2	0	2
Effective presentation design	2	0	2
Effective presentation delivery	2	0	2
Tips for making oral Presentation part 1	2	0	2
Total	24	0	24

General Pharmacy Program

4- Teaching and Learning Methods (lectures, open discussion, role plays,...etc):

- Lectures, using Power point presentation
- Open discussion



a- Assessment Methods and Weighing

- Class participation: 40%
- Final Exam: 60%

b- Assessment Schedule:

- Class participation: Quiz 1: Week 4-5
Quiz 2: Week 8-9
Other activities: throughout the semester
- Final Exam: According to semester timetable

Course Coordinator: Dr. Doaa Helal

Head of Department: Prof. Dr. Mona Hetta

Date: 17/9/2016





Course Specifications
(2015 – 2016)

Course title: Biochemistry-1

Course code: 3701

A. Basic Information:

Course Title:	Biochemistry-1		
Course Code:	3701		
Program on which the course is given:	General		
Department offering the course:	Biochemistry		
Academic year/ level:	1 st Semester 2015/2016	Level:3	
Prerequisite:	Organic chemistry		
Credit hours:	Lecture:2	Practical:1	Total:3

B. Professional Information

1. Course Aims:

The course aims to understand the basic principles of biochemistry and its importance for living organisms and integrates chemical structure of macromolecules (carbohydrates, proteins, lipids) with its functions. It describes the general characters of enzymes, functions, mechanisms of action, kinetics, and regulation. It explains concepts as vitamins, porphyrins and biological oxidation.

2. Intended Learning Outcomes (ILOs):

a. Knowledge and understanding:

At the end of this course, student should be able to:

A1	a1.	Identify the basic principles of biochemistry, including chemistry of carbohydrates and their classification, structure and function.
A4	a2.	List the chemical structures of proteins and lipids macronutrients and illustrate their functions.
	a3.	Enumerate the theories of enzyme action, enzymes inhibition and the role of enzymes in disease diagnosis.
	a4.	Describe vitamins; chemical structure, function, properties and deficiency problems, and recognize porphyrins, biological oxidation and electron transport chain.



Course Specifications
(2015 – 2016)

b. Intellectual Skills:

At the end of this course, student should be able to:

B18	b1.	Correlate basic biochemical facts of carbohydrates with its importance in the formation of nucleic acid and immune response in the body
	b2.	Evaluate the importance of lipids as precursor of prostaglandins, leukotrienes and thromboxane
	b3.	Integrate basic biochemical facts concerning body peptides, proteins, nucleoprotein and enzymes with its role in human body functions.
B21	b4.	Predict symptoms and effects of vitamins deficiencies in a given case study report

c. Professional and Practical Skills:

At the end of this course, student should be able to:

C2	c1.	Handle and dispose laboratory reagents safely using instruments in biochemistry laboratory
C11	c2.	Conduct research studies concerning important molecules (lipoproteins, porphyrins, mucopolysaccharides and enzymes) in the body including presentation, and interpretation of biochemical data.
C14	c3.	Employ different qualitative diagnostic tests for different types of carbohydrates, proteins and lipids.

d. General and Transferable Skills:

At the end of this course, student should be able to:

D3	d1.	Work effectively as a part of a team to perform the required tasks.
D4	d2.	Collect, evaluate and present data.
D6	d3.	Develop the skills required for continued self-professional development and self-learning.

3. Contents:

3.1. Lectures:

Study week	Topics	No. of Credit Hours
1.	Basic principles of carbohydrates chemistry; monosaccharides structure and function	2
2.	Disaccharides and poly saccharides chemistry	2
3.	Simple lipids chemistry	2
4.	Complex lipids chemistry ; lipoproteins+ Quiz 1	2
5.	Amino acids chemistry and function as precursors for neurotransmitter & nucleotides	2



Course Specifications
(2015 – 2016)

6.	Chemistry of protein (structure and function)	2
7.	Hemoglobin and myoglobin + Chemistry of porphyrins	2
8.	Introduction to enzymes+ Midterm	2
9.	Enzyme kinetics	2
10.	Role of biological oxidation and electron transport chain in metabolism	2
11.	Final Exam	Total: 2 credit hours
12.		

3.2. Practical:

Study week	Topics	No. of Credit Hours
1.	Introduction, handling processes and safety Qualitative determination of monosaccharides; glucose	1
2.	Qualitative determination of monosaccharides; fructose	1
3.	Qualitative determination of disaccharides; sucrose, lactose and maltose	1
4.	Qualitative-determination of polysaccharides; starch and dextrin	1
5.	Qualitative determination of albumin	1
6.	Qualitative determination of neutral proteins; peptone and gelatin	1
7.	Qualitative determination of alkaline proteins; metaprotein	1
8.	Qualitative determination of alkaline proteins; Caseinogen	1
9.	Qualitative determination of lipids (fats and cholesterol)	1
10.	Tutorial on enzyme kinetics	1
11.	Practical Exam	
12.	Final Exam	Total: 1 credit hour
13.		



Course Specifications (2015 – 2016)

4. Teaching and Learning Methods:

4.1.	Lectures
4.2.	Practical lab
4.3	Research in library and web (homework & assignments)
4.4	E-learning

5. Student Assessment Methods:

5.1. Assessment methods:

1. Written exam	to assess knowledge, understanding, intellectual and professional skills.
2. Practical exam	to assess professional and practical skills.
3. Course work	to assess knowledge, understanding, intellectual skills, general and transferable skills.
4. Oral exam	to assess knowledge, understanding, intellectual skills, general skills and confidence.
5. Quizzes	to assess knowledge, understanding and intellectual skills.

5.2 Assessment schedule:

Assessment 1	Quiz 1	4 th week
Assessment 2	Mid-Term	8 th week
Assessment 5	Practical exam	11 th week
Assessment 6	Oral exam	12 th & 13 th weeks
Assessment 7	Written exam	12 th & 13 th weeks

5.3 Weighing of Assessments:

1. Course work:	
- Quiz 1	10
- Mid-Term	10
2. Final-Term Exam	80
3. Oral Exam	20
4. Practical Exam	30
Total	150%



Course Specifications (2015 – 2016)

6. List of References:

No.	Reference	Type
1.	Biochemistry (Lippincott Illustrated Reviews Series) by Denise R. Ferrier (Lippincott Williams & Wilkins; 6 th Edition, 2013)	Textbook
2.	Medical biochemistry by M.D. Chatterjea and Shinde Rana (Jaypee Brothers Medical Pub; 8 th edition, 2011)	Textbook
3.	Biochemistry, Mary K. Campbell, Shawn O. Farrell. Thomson Brooks/Cole 8 th Edition, 2014.	Textbook
4.	Clinical Chemistry by W.J. Marshall, Márta Lapsley (8 th Edition, 2016).	Textbook
5.	Lehninger Principles of Biochemistry by D.L. Nelson, M.M. Cox (6 th edition, 2012)	Textbook
6.	Journal of Cellular Biochemistry (https://onlinelibrary.wiley.com/journal/10974644)	Periodical

7. Matrix of course contents versus ILOs:

7.1. Lectures:

Study week	Course Contents	ILOs			
		K&U	IS	P&PS	G&TS
1.	Basic principles of carbohydrates chemistry; monosaccharides, disaccharides and polysaccharides structure and function	a1	b1	c3	--
2.	Fatty acids chemistry	a1	b1	c3	--
3.	Simple lipids chemistry	a1	b1	c2	d1,d2
4.	Amino acids chemistry	a2	b2	--	d3
5.	Chemistry of protein (structure and function) Quiz 1	a2	b2	c2	d3
6.	Lipoproteins chemistry	a2	b3	c2	d2
7.	Introduction to enzymes	a2	b3	c3	d2 d3
8.	Enzyme kinetics	a2 a4	b3	c2	d1 d2



Course Specifications
(2015 – 2016)

9.	Role of biological oxidation and electron transport chain in metabolism	a3	b4	--	d3
10.	Hemoglobin and myoglobin + Chemistry of porphyrins	a3	b4	c2	d3

7.2. Practical:

Study week	Course Contents	ILOs			
		K&U	IS	P&PS	G&TS
1.	Introduction, handling processes and safety Qualitative determination of monosaccharides; glucose	a1	b1	c1	--
2.	Qualitative determination of monosaccharides; fructose	a1	b1	c1,c3	--
3.	Qualitative determination of disaccharides; sucrose, lactose and maltose	a1	b1	c3	d1
4.	Qualitative determination of polysaccharides; starch and dextrin	a1	b1	c3	d1,d2
5.	Qualitative determination of albumin	a1	b1	c2,c3	d1,d3
6.	Qualitative determination of neutral proteins; peptone and gelatin	a1	b3	c2,c3	d1,d3
7.	Qualitative determination of alkaline proteins; metaprotein	a2	b3	c1,c3	d1,d3
8.	Qualitative determination of alkaline proteins; Caseinogen	a2	b3	c3	d1,d3
9.	Qualitative determination of lipids (fats and cholesterol)	a2	b3	c3	d1,d3
10.	Revision	a1-2	b1-b2	c1-3	d1-3
11.	Practical exam				

	Name	Signature
Course Coordinator:	ASS. Prof. Soha Hamdy	
Head of Department:	Prof. Mona Hetta	
Approval Date		



Course Specifications
(2015 –2016)

Microbiology and Immunology

3402





Course Specifications
(2015 –2016)

Microbiology and Immunology Department

A. Basic Information

Program(s) on which the course is given	General program
Department offering the course	Microbiology and Immunology
Faculty offering the program	Pharmacy
Dept. responsible for teaching the course	Microbiology and Immunology
Academic year / level	Third Level, semester 5
Course title	Microbiology and Immunology
Course code	3402
Contact hours (credit hours)	3
Pre-requisite of the course:	No
Course coordinator	Dr. Mahmoud Khalil
Major or Minor element of program	Major
Date of specification approval	17/01/2016

B. Professional Information

1. Overall Aims of Course

(The course aim and intended learning outcomes are based on that mentioned in the program specifications, with more course-related specific details.)

The students should know different categories of microorganisms including bacteria, viruses & fungi. They should understand their classification, structure, growth characteristics & replication. Students should understand basics of microbial genetics, including DNA, RNA & proteins structure, gene transfer in bacteria and gene expression & control. They should also learn about human immune system, innate and acquired immune response.



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Course Specifications **(2015 –2016)**

2. Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

By the end of the course, the students should be able to:

- a1-Know and describe the classification, morphology, and physiology of different categories of microorganisms (bacteria, viruses & fungi).
- a2. Discuss the main information about bacterial metabolism and bacterial growth.
- a3. Discuss the basics of microbial genetics.
- a4. Explain basics of immunology and immunological response.

b- Intellectual Skills

By the end of this course, the student should be able to:

- b1. Differentiate between different microbial categories & Distinguish techniques for isolation and identification of microorganisms.
- b2. Understand basic microbial genetics
- b3. Realize how the immune system respond to exogenous and endogenous antigen

c- Professional and Practical Skills

By the end of the course, the student should be able to:

- c1- Perform different techniques for bacterial staining.
- c2. Learn how to work in a septic area to perform different microbiological tasks such as pour plate technique, Isolate and identify pure colonies of a mixture of micro-organisms viable count.

d- General and Transferable Skills

By the end of the course, the student should be able to:

- d1. Communicate clearly by verbal means through group discussions.
- d2. Retrieve and evaluate information from different sources.



Course Specifications (2015 –2016)

d3. Team work through working as groups in the practical part.

3. Contents

Teaching week	TOPIC	No. of lecture hours	Assessment of ILOs
1	Historical overview and Fungi	2	a1, a2, , b1,b2,c1,c2
2	Viruses	2	a1, a2,a3, b1,b2,c1, d1
3	Prokaryotic & bacterial cell structure	2	a1, a2,a3, b1,b2,c1,c2, d1
4	Microbial metabolism	2	a1, a2,a3, b1,b2,c1,c2, d1
5	Bacterial Structures and function Out Side cell wall	2	a1, a2,a3, b1,b2c1,c2, d1
6	Bacterial Structures and function inside cell wall	2	a1, a2,a3, b1,b2,c1,c2, d1
7	Microbial growth	2	a1, a2,a3, b1,b2,c1,c2, d1
8	Microbial genetics1	2	a1, a2,a3, b1,b2,c1,c2, d1
9	Microbial genetics2	2	a1, a2,a3, b1,b2,c1,c2, d1
10	Host parasite relationship & Innate (natural) immunity	2	a1, a2,a3, b1,b2,c1,c2, d1
11	Adaptive immunity& Active & passive immunization	2	a1, a2,a3, b1,b2,c1,c2, d1
12	Hypersensitivity reactions, Autoimmunity immunodeficiency and organ transplantation	2	a1, a2,a3, b1,b2,c1,c2, d1
Total no of hours		24	
13	FINAL Exam		

4. Teaching and Learning Methods



Course Specifications **(2015 –2016)**

4.1- Lectures (board, data show)

4.2- Assignments

4.3- Class discussion

5. Student Assessment Methods

5.1. Written exams to assess knowledge and understanding as well as intellectual skills.

5.2. Oral exams to assess all types of skills and mainly general and transferrable skills practice.

5.3. Practical exams

Assessment Schedule

Quiz 1	4 th or 5 th week
Quiz 2	8 th or 9 th week
Practical exam	 th week
Final exam	 th week
Oral exam	 th week

Weighting of Assessments

Periodical	20%
Practical	30%
Final exam	80%
Oral exam	20%
Total	150%

6. List of References

6.1- Course Notes Handouts will be given

6.2- Essential Books (Textbooks).

- Brown, A. E. (2005) Benson's Microbiological Applications. Laboratory Manual in General Microbiology. 9th edn.

. McGraw-Hill: Boston. W.B. Hugo & A.D. Russell, 2009, Pharmaceutical Microbiology (18th edition) Blackwell Scientific Publication



Course Specifications **(2015 –2016)**

6.3- Periodicals ...

6.4- Web Sites

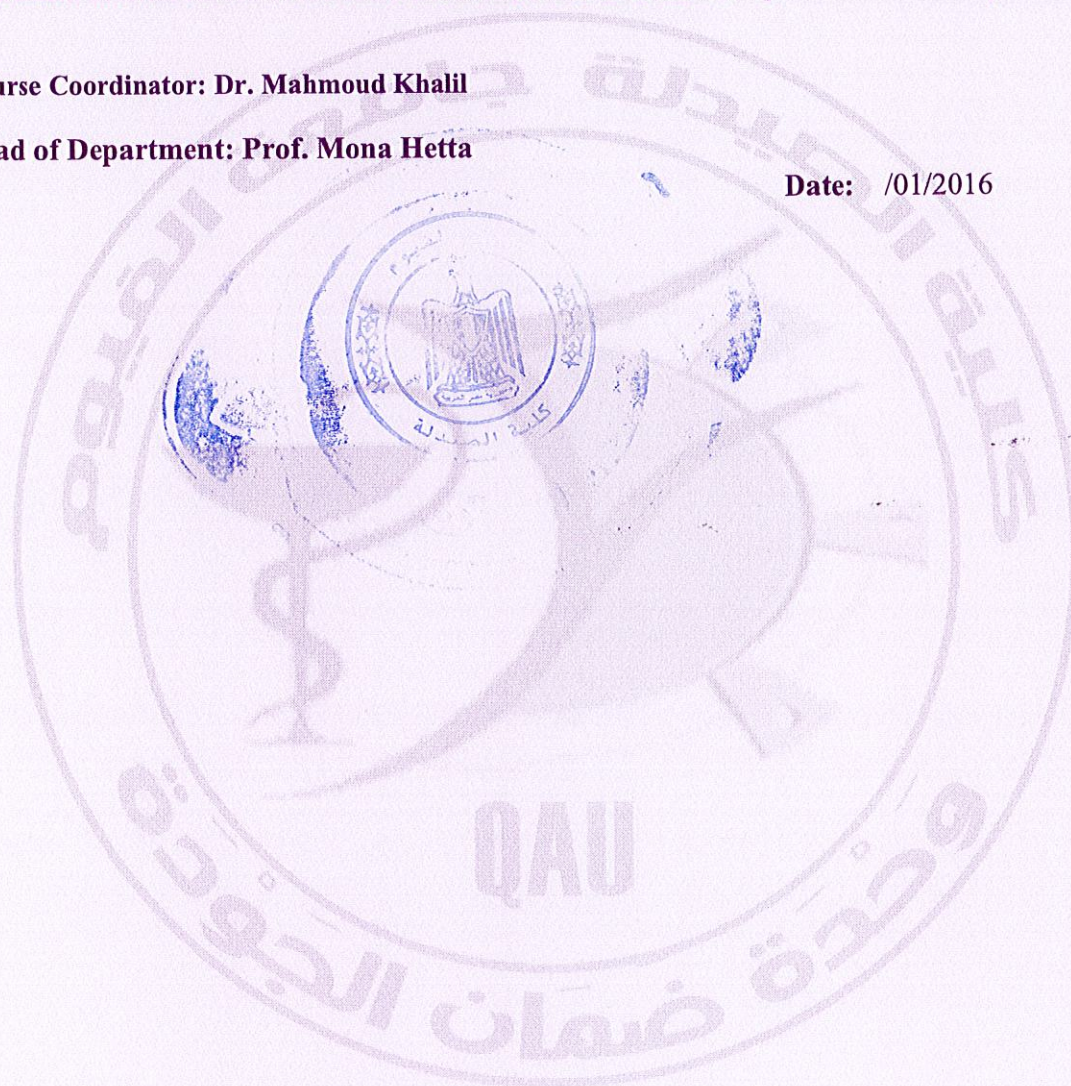
7. Facilities required for teaching and learning

1. Lecture rooms with data show
2. Procurement of latest edition of the above-mentioned texts and others to update the education process

Course Coordinator: Dr. Mahmoud Khalil

Head of Department: Prof. Mona Hetta

Date: /01/2016





Course Specifications
(2018 – 2017)

Course: Biosafety

Course code: 310





Course Specifications (2018 – 2017)

A. Basic Information

Program(s) on which the course is given:	General
Department offering the course	Pharmacology and Toxicology
Faculty offering the program	Pharmacy
Dept. responsible for teaching the course	Pharmacology and Toxicology
Academic year / level	Third Level, semester 6
Course title	Biosafety
Course code	310
Contact hours (credit hours)	2
Pre-requisite of the course:	No
Course coordinator	Dr. Mohamed Hamzawy
Major or Minor element of program	Minor
Date of specification approval	09/07/2018

B. Professional Information

1. Overall Aims of Course

Principles/concepts of biosafety, biological agent use, agent classification and safety levels, engineering controls, personal protection equipment, work practices, biomedical waste definitions, transport information and biosecurity..

2. Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

By the end of the course, the students should be able to:

- a1. Discuss different Principles/concepts of biosafety
- a2. Classify different biological agent use and biosafety levels
- a3. Enumerate personal protection equipment
- a4. Differentiate between biosafety and biosecurity

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Course Specifications (2018 – 2017)

b- Intellectual Skills

By the end of this course, the student should be able to:

b1 Correlate between different laboratory applications and biosafety levels

b2. Integrate basic biosafety levels and biomedical waste management

c- Professional and Practical Skills

By the end of the course, the student should be able to:

c1. Utilize proper method for biomedical waste management

c2. Apply professional biosafety work practices

c- General and Transferable Skills

By the end of the course, the student should be able to:

d1. Communicate professionally with other health care providers

3. Contents

Teaching week	TOPIC	No. of lecture hours	No. of Practical hours
1	Introduction	2	0
2	Personal protective equipments	2	0
3	Personal protective equipments	2	0
4	Biosafety cabinets	2	0
5	Biosafety level 1-2	2	0
6	Biosafety level 3-4	2	0
7	First periodic exam	2	0
8	Biomedical waste management	2	0
9	Biomedical waste transportation	2	0
10	Biosafety Work practices	2	0



Course Specifications **(2018 – 2017)**

11	Biosecurity.	2	0
12	Second periodic exam	2	0
Total no of hours	24		
13	FINAL Exam		

4. Teaching and Learning Methods

4.1- Lectures (board, data show)

4.2- Assignments

4.3- Class discussion

5. Student Assessment Methods

5.1. Practical exams to assess knowledge and understanding as well as intellectual skills.

5.2. Written exams to assess all types of skills and mainly general and transferrable skills practice.

Assessment Schedule

Quiz 1	7 th week
Quiz 2	12 th week
Final exam	13 th week; according to semester schedule

Weighting of Assessments

Periodical	20%
Final exam	80%
Total	100%

6. List of References

6.1- Course Notes: Lecture notes in English language

6.2- Essential Books (Textbooks)

1. Laboratory biosafety manual. – 3rd ed. Containment of biohazards - methods .Laboratories - standards .Laboratory infection - prevention and control WHO.



Course Specifications (2018 – 2017)

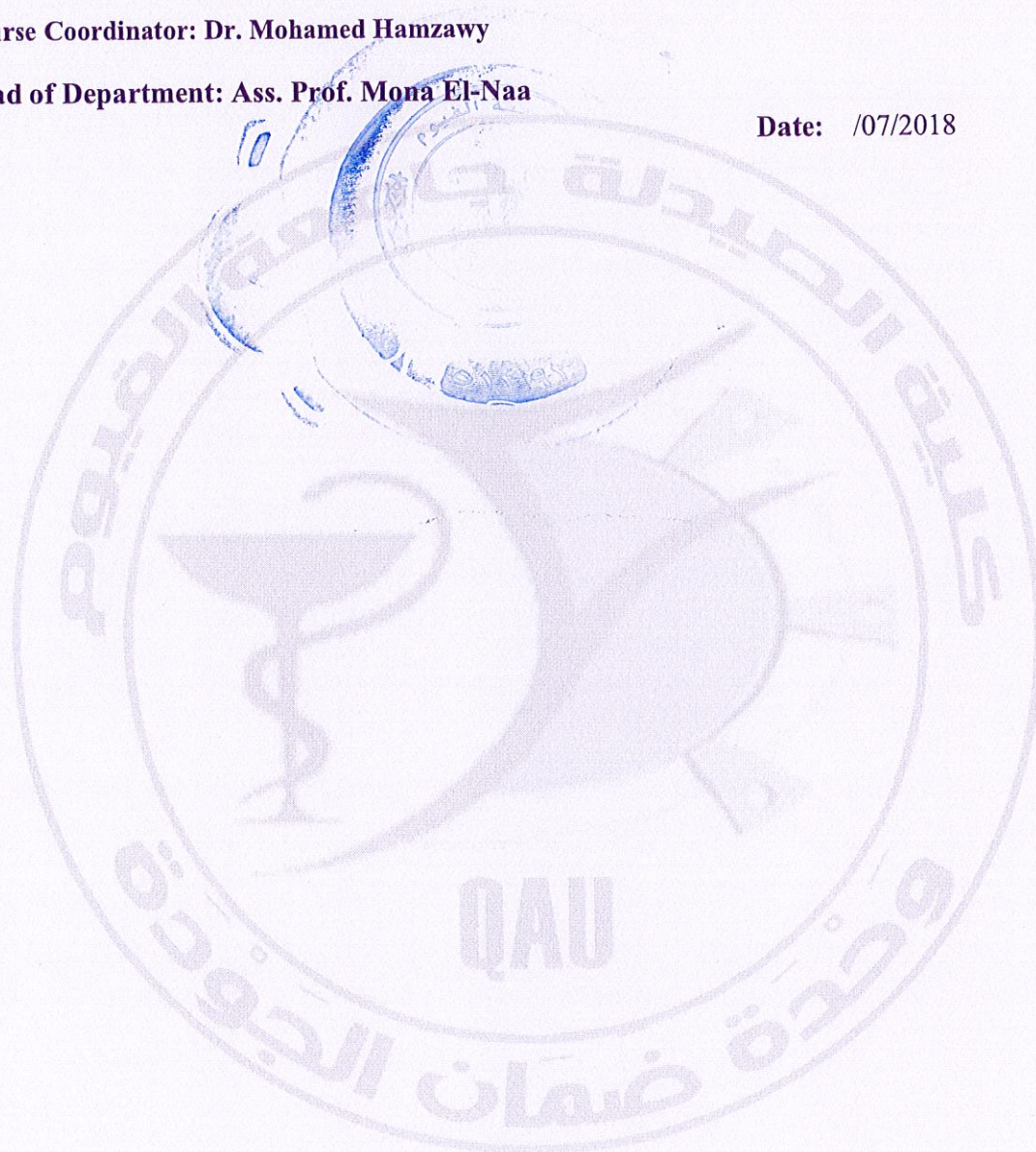
Facilities required for teaching and learning

1. Lecture rooms with data show
2. Procurement of latest edition of the above-mentioned texts and others to update the education process

Course Coordinator: Dr. Mohamed Hamzawy

Head of Department: Ass. Prof. Mona El-Naa

Date: /07/2018





Course Specifications
(2016 – 2017)

Biochemistry-2

3702

A. Basic Information

Course Title:	Biochemistry-2		
Course Code:	3702		
Program on which the course is given:	General program		
Department offering the course:	Biochemistry		
Academic year/ level:	2 nd term 2016-2017	Level 3	
Prerequisite:	Biochemistry-1 (PB 401)		
Credit hours:	Lecture:2	Practical:1	Total: 3

B. Professional Information

1. Course Aims:

This course explains how biochemistry relates to wellness and disease processes and its direct relationship to understanding pharmaceutical principles. The course describes the biosynthetic processes leading to the generation of macromolecules and the regulatory processes underlying its biosynthesis and their function in cellular systems. It identifies intermediary metabolism in terms of energy production and maintaining cellular homeostasis. Integration between metabolic control and biochemical disorders is also considered.





Course Specifications
(2016 – 2017)

2. Intended Learning Outcomes (ILOs):

a. Knowledge and understanding:

At the end of this course, student should be able to:

A1	a1.	Identify the principles of metabolism, recall the essential facts, and advanced concepts of digestion and absorption.
	a2.	Describe the functions and metabolic pathways of macromolecules (carbohydrates , lipids, proteins), and integration of metabolism during feeding and fasting cycle and their regulatory mechanisms
A4	a3.	Enumerate metabolic disorders that have biochemical and clinical implications, and describe biologically active compounds synthesized from amino acids
A11	a4.	Describe the biochemical basis of some diseases, including diabetes mellitus, glycogen storage diseases and outlines the fate of biological compounds.

b. Intellectual Skills:

At the end of this course, student should be able to:

B14	b1.	Evaluate evidence-based biomedical information and investigate the metabolic disturbance in a given case study report.
B17	b2.	Determine suitable methods of analysis of different levels of glucose, total proteins, ALT, AST, bilirubin, albumin, cholesterol, TG, creatinine and uric acid in biological fluids
	b3.	Formulate a systemic approach for the laboratory experimental diagnosis
B18	b4.	Correlate basic biochemical facts in cases of liver and kidney diseases with laboratory data.
B21	b5.	Interpret laboratory tests with the impact of signs and symptoms in case of metabolic disorders.

c. Professional and Practical Skills:

At the end of this course, student should be able to:

C2	c1.	Handle and dispose laboratory reagents and biological specimen safely utilizing instruments used in biochemistry laboratory
C4	c2.	Select appropriate methods for identification and analysis of active substances in biological fluids (colorimetric estimation, using spectrophotometer)
C14	c3.	Employ different quantitative diagnostic tests of some blood parameters (serum levels of glucose, total proteins, albumin, bilirubin, ALT, AST,



Course Specifications (2016 – 2017)

		cholesterol, TG, creatinine and uric acid).
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d. General and Transferable Skills:

At the end of this course, student should be able to:

D3	d1.	Work effectively as a part of a team to perform the required tasks.
D4	d2.	Collect, evaluate and present data.
D6	d3.	Develop the skills required for continued self-professional development and self-learning.

3. Contents:

3.1.Lectures:

Study week	Topics	No. of Credit Hours
1.	Introduction to metabolism; Carbohydrate digestion and absorption, ; Glycolysis	2
2.	Oxidation of glucose & kreb's cycle	2
3.	Glycogenesis & Glycogenolysis	2
4.	Gluconeogenesis and pentose phosphate pathway	2
5.	Fructose & galactose metabolism + Quiz 1	2
6.	Lipids digestion & absorption , Beta oxidation of fatty acids	2
7.	Fatty acids synthesis Ketogenesis and ketolysis	2
8.	Amino acids synthesis and degradation + Midterm	2
9.	Nitrogenous compounds metabolism and urea cycle	2
10.	Biologically active compound Integration of metabolism during feeding and fasting cycle s synthesized from amino acids	2
11.	Final Exam	Total: 2 credit hours
12.		

3.2.Practicals:



Course Specifications
(2016 – 2017)

Study week	Topics	No. of Credit Hours
1.	Introduction, handling processes and safety	1
2.	Determination of blood glucose level	1
3.	Liver function; albumin and total protein determination	1
4.	Liver function; Aspartate transaminase (AST) and alanine transaminase (ALT) Determination	1
5.	Bilirubin determination	1
6.	Urea and uric acid determination	1
7.	Kidney function; creatinine determination	1
8.	Lipid profile; Cholesterol	1
9.	Lipid profile; triglyceride determination	1
10.	Revision	1
11.	Practical Exam	1
12.	Final Exam	Total: 1 credit hour
13.		

4. Teaching and Learning Methods:

5.1.	Lectures
5.2.	Practical lab
5.3.	Research in library and web (homework and assignments)
5.4.	Cases study
5.5	E-learning

5. Student Assessment Methods:

5.1. Assessment methods:

1. Written exam	to assess knowledge, understanding, intellectual and professional skills.
2. Practical exam	to assess professional and practical skills.
3. Course work	to assess knowledge, understanding, intellectual skills, general and transferable skills.



Course Specifications
(2016 – 2017)

4. Oral exam	to assess knowledge, understanding, intellectual skills, general skills and confidence.
5. Quizzes	to assess knowledge, understanding and intellectual skills.

5.2. Assessment schedule:

Assessment 1	Quiz 1	4 th week
Assessment 2	Midterm	8 th week
Assessment 3	Practical exam	11 th week
Assessment 4	Oral exam	12 th & 13 th weeks
Assessment 5	Written exam	12 th & 13 th weeks

5.3. Weighing of Assessments:

1. Course work:	
- Quiz 1	10
- Midterm	10
2. Final-Term Exam	80
3. Oral Exam	20
4. Practical Exam	30
Total	150%

6. List of References:

No.	Reference	Type
1.	Biochemistry (Lippincott Illustrated Reviews Series) by Denise R. Ferrier (Lippincott Williams & Wilkins; 6 th Edition, 2013)	Textbook
2.	Biochemistry, Mary K. Campbell, Shawn O. Farrell. Thomson Brooks/Cole 2014, 8 th Edition	On line Textbook
3.	Medical biochemistry by M.D. Chatterjea and Shinde Rana (Jaypee Brothers Medical Pub; 8 th edition, 2011)	Textbook
4.	Clinical Chemistry, by W.J. Marshall, Márta Lapsley (8 th Edition, 2016).	Textbook
5.	BioEssays https://onlinelibrary.wiley.com/journal/15211878	Periodical



Course Specifications (2016 – 2017)

6.	Trends in Biochemical Sciences https://www.journals.elsevier.com/trends-in-biochemical-sciences	Periodical
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7. Matrix of course contents versus ILOs:

7.1. Lectures:

Study week	Course Contents	ILOs			
		K&U	IS	P&PS	G&TS
1.	Introduction to metabolism; Carbohydrate digestion and absorption, ; Glycolysis	a1	b1	--	--
2.	Oxidation of glucose & kreb's cycle	a2,a3	b2,b3	c2	d3
3.	Glycogenesis & Glycogenolysis	a2,a3, a4	b1,b2,b3	c2,c3	d2, d3
4.	Gluconeogenesis and pentose phosphate pathway	a2,a3	b1,b2	c3	d2
5.	Fructose & galactose metabolism + Quiz 1	a3,a4	b3,b4,b5	c2	d3
6.	Lipids digestion & absorption , Beta oxidation of fatty acids	a2	b2,b3,b4	c2	d1 d2
7.	Fatty acids synthesis Ketogenesis and ketolysis	a2,a3	b2,b3,b5	c3	d1 d2
8.	Amino acids synthesis and degradation + Midterm	a2,a3	b2,b3, b5	c3	d1,d3
9.	Nitrogenous compounds metabolism and urea cycle	a2,a3	b1	c2	d1
10.	Biologically active compound Integration of metabolism during feeding and fasting cycle s synthesized from amino acids	a3,a4	b3, b5	c3	d1

7.2. Practical:

Study week	Course Contents	ILOs			
		K&U	IS	P&PS	G&TS
1.	Introduction, handling processes and safety	a1	--	c1 c2	--
2.	Determination of blood glucose level	a4	b2	c2 c3	d1



Course Specifications
(2016 – 2017)

3.	Liver function; albumin and total protein determination	a3 a4	b2 b4	c2 c3	d1
4.	Liver function; Aspartate transaminase (AST) and alanine transaminase (ALT) Determination	a3	b2 b3	c3	d2
5.	Bilirubin determination	a3 a4	b2 b4	c3	d1,d2
6.	Urea and uric acid determination	a3 a4	b2 b4	c3	d1,d2
7.	Kidney function; creatinine determination	a3 a4	b2 b4	c2 c3	d1,d3
8.	Lipid profile; Cholesterol	a2 a3	b1 b2 b3	c3	d2,d3
9.	Lipid profile; triglyceride determination	a3 a4	b5	c3	d2,d3
10.	Revision	a4	b1	--	d2,d3

	Name	Signature
Course Coordinator:	Ass Prof/ Soha Hamdy	
Head of Department:	Prof. Mona Hetta	
Approval Date	/09/2016	



Course Specifications
(2016 –2017)

Phytochemistry II

3206





Course Specifications (2016 –2017)

Pharmacognosy department

A-Basic Information

Program(s) on which the course is given	Bachelor of pharmacy
Department offering the course	Pharmacognosy department
Faculty offering the program	Faculty of Pharmacy, Fayoum University
Dept. responsible for teaching the course	Pharmacognosy department
Academic year / level	Third level, semester 6
Course title	Phytochemistry II
Course code	3206
Contact hours (credit hours)	Lecture (2) + Practical (1): Total (3)
Pre-requisite of the course:	Pharmacognosy 1
Course coordinator	Prof. Dr/ Abd El-Salam Ibraheem
Major or Minor element of program	Major
Date of specification approval	17/09/2016

B-Professional Information

1-Overall aims of the course:

Upon successful completion of this course the students should be able to illustrate the biosynthetic pathways, chemical classes, chemical structures, methods of extractions and isolations, methods of identification and assays and chemical reactions of alkaloids and glycosides. The students should be also able to discuss the principles of different chromatographic methods for identifications and isolations of these constituents.

2-Intended learning outcomes (ILO's):

a-Knowledge and Understanding:

By the end of this course, the student should be able to:

- a1- Determine the chemical class of each constituents.
- a2- Give an idea about isolation, identification, quantitative determination and their chemical reactions.
- a3- Understand which of these constituents are biologically active and their structure activity

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Course Specifications (2016 –2017)

relationship (SAR).

b-Intellectual Skills:

By the end of this course, the student should be able to:

b1-Solve problems encountered during extraction and isolation.

b2-Design a suitable method for identification and assays.

b3-Evaluate which of these constituents are biologically active.

c-Professional and Practical Skills:

By the end of this course, the student should be able to:

c1-Apply the suitable technique for qualitative and quantitative determination.

c2-Select the proper solvents and technique for extraction.

c3-Estimate the percentage of these constituents in the plant and crude extract.

d-General Skills:

By the end of this course, the student should be able to:

d1-Have the power to work effectively in team.

d2- Demonstrate written and oral skills.

D3- Performing on-line computer search to developed information technology skills.

3. Contents

Teaching week	TOPIC	No. of lecture credit hours	No. of practical credit hours	Assessment of ILOs
1	Introduction to alkaloids	2	1	
2	Proto and pseudo-alkaloids	2	1	
3	Tropane, pyridine and piperidine alkaloids	2	1	
4	Phenanthrine and indole alkaloids	2	1	
5	Imidazole, quinoline and isoquinoline alkaloids	2	1	
6	Introduction to glycosides	2	1	
7	Simple phenolic glycosides	2	1	
8	Flavonoids and anthraquinones glycosides Cyanogenic, sulfur and saponin glycosides	6	3	
9	Tannins and catechins	4	2	
	Total	24	12	



Course Specifications **(2016 –2017)**

4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):

1. Lectures (Tools, board, data show).
2. Practical session (Tools, labs, boards, instruments, chemicals, glassware).
3. Assignments, seminars, researches and posters.

5- Student Assessment:

a-Assessment Methods and Weighing:

Methods

- Written exams to access knowledge and understanding and Intellectual Skills.
- Practical exams to access practical Skills.
- Periodic exams to access knowledge and understanding and Intellectual Skills.
- Oral exams to access knowledge and understanding and Intellectual Skills.

1. Class participation: 20 %
2. Practical exam: 30 % (Lab exam 20%, Semester Work 5%, Project presentation 5%)
3. Oral exam: 20 %
4. Final exam: 80 %

b-Assessment Schedule:

4. Class participation: Quiz 1: Week 4-5
Quiz 2: Week 8-9
Other activities: throughout the semester
5. Practical exam: Week 13-14
6. Oral exam: According to semester timetable
7. Final exam: According to semester timetable

6-List of References:

Course Notes

Required Books

Recommended Books

Lectures and practical notes prepared by instructors.

Phytochemistry, Shafeek Balbaa

Natural Compounds, Shakhnoza S. Azimova, Editor Marat S. Yunusov

Co-Editor

Periodicals

Journal of Natural Products and Phytochemistry

Web Sites

<http://www.pubmed.com>

Course Coordinator: Prof. Abd El-Salam Ibraheem

Head of Department: Prof. Mona H. Hetta

Date: 17/09/2016



Course Specifications
(2016 – 2017)

Course: First aid
Course code: 3308





Course Specifications (2016 – 2017)

A. Basic Information

Program(s) on which the course is given:	General Pharmacy Program
Department offering the course	Pharmacology & Toxicology
Faculty offering the program	Faculty of Pharmacy
Dept. responsible for teaching the course	Pharmacology & Toxicology
Academic year / level	Level 3, semester 6
Course title	Traumas and First Aid
Course code	3308
Contact hours (credit hours)	1
Pre-requisite of the course:	Registration
Course coordinator	Dr. Mohamed Hamzawy
Date of specification approval	17/01/2017

B. Professional Information

1. Overall Aims of Course

The course aims to address the different emergency situations and how to deal with different serious conditions beside transfer several skills in dealing with emergency.

2. Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

By the end of the course, the students should be able to

- a1- Know what is the basic life support & CPR.
- a2. Apply basic grammatical rules
- a2- Know types of bleeding types of injury
- a3- Understand the method of transportation of victims during emergency conditions.

b- Intellectual Skills

By the end of this course, the student should be able to:

- b1- Solve the problems that may oppose the students during care of victims
- b2- Design methods and solution for safe who involved in the crisis.



Course Specifications **(2016 – 2017)**

b3- Evaluate the degree of the disaster.

c- Professional and Practical Skills

By the end of the course, the student should be able to:

c1- Apply the information what attained in CPR training.

c2- Select the best approach for safe the victims during the crisis.

c3- Estimate the types of bleeding and fracture.

c- General and Transferable Skills

By the end of the course, the student should be able to:

d1- Have the power to help in providing first aid in critical situations.

d2- Show scientific and logical thinking approach in providing care during emergency conditions.

3. Contents

Teaching week	TOPIC	No. of lecture hours	No. of Practical hours
1	Introduction of First Aid	1	0
2	Soft Tissue Injuries	1	0
3	Soft Tissue Injuries	1	0
4	Injuries to Muscles, Bones, and Joints	1	0
5	Injuries to Muscles, Bones, and Joints	1	0
6	SUDDEN ILLNESS	1	0
7	First periodic exam	1	0
8	SUDDEN ILLNESS	1	0
9	Bites and Stings	1	0
10	chocking	1	0
11	Basic life support (BLS)	1	0
12	Second periodic exam	1	0
Total no of hours	12		
13	FINAL Exam		



Course Specifications **(2016 – 2017)**

4. Teaching and Learning Methods

- 4.1- Lectures (board, data show)
- 4.2- Assignments
- 4.3-practical sections
- 4.3- open Class discussion
- 4.4-play roles

5. Student Assessment Methods

Written exams evaluate the levels of knowledge and understanding and Intellectual Skills.

Periodic exams evaluate the levels of knowledge and understanding and Intellectual Skills.

Oral exams evaluate the levels of knowledge and understanding and Intellectual Skills.

Class participation: **10%**

Final exam: **40%**

6. Assessment Schedule

7. Class participation:

- a. Quiz 1: Week 4-5
- b. Quiz 2: Week 8-9
- c. Other activities: throughout the semester

8. Final exam: According to semester timetable

Weighting of Assessments

Periodical	10%
Final exam	40%
Total	50%

9. List of References

6.1- Course Notes: First Aid for Pharmacy Students

6.2- Essential Books (Textbooks);

Required Books

First Aid for Colleges and Universities (10th Edition).

Recommended Books

Rosen's Emergency Medicine [2-Volume Set] (7th Edition)



Course Specifications (2016 – 2017)

Facilities required for teaching and learning

1. Lecture rooms with data show
2. Procurement of the latest edition of the above-mentioned texts and others to update the education process

Course Coordinator: Dr. Mohamed Hamzawy

Head of Department: Prof. Mona Hetta

Date: 17/01/2017





Fayoum University



Faculty of Pharmacy

General Pharmacy Program

Course Specifications

A-Basic Information	
Course code:	3108
Course name:	Hospital pharmacy
Credit hours of the course:	Lecture:1 Practical:1 Total:2
Pre-requisite of the course:	Registration
Department teaching the course:	Department of Pharmacy Practice
Program for which the course is given:	General Pharmacy Program
Course Co-ordinator:	Dr. Azza Mancy
Head of the Department:	Prof. Dr. Mona Hetta
Date of specifications approval:	7-09-2017

B-Professional Information

1-Overall aims of the course:

By the successful end of this course, the students should have a sufficient background about the essentials of pharmacy practice and patient care activities inside different health care organisations, specially hospitals and pharmacy settings. Attention is also made to pharmaceutical manufacture inside these health care organizations and provision of pharmaceutical care to critically ill patients including parenteral nutrition and fluid management.



Fayoum University



Faculty of Pharmacy

General Pharmacy Program

2-Intended learning outcomes (ILO's):

a-Knowledge and Understanding:

By the end of this course, the student should be able to:

- a1-Know different clinical & supporting units of the hospital.
- a2-Know clinical & non-clinical services of hospital pharmacist.
- a3-Understand extra duties &/or resources of hospital pharmacy practice as compared to those practice in community
- a4- Recognized different types of hospitals.
- a5- Define the term hospital Pharmacy in comparison to clinical pharmacy term
- a6- Distinguish the different organizations of hospital pharmacy departments , services and procedures.

b-Intellectual Skills:

By the end of this course, the student should be able to:

- b1-Solve encountered problems of incompatibilities during dispensing or administration to the patient
- b2-Design individualized total parenteral nutrition regimens for critically ill patients
- b3-Evaluate exact fluid & electrolytes requirement of critically ill patients.
- b4-Apply their knowledge to prepare safe and effective parenteral infusions for individual patient use.

c-Professional and Practical Skills:

By the end of this course, the student should be able to:

- c1-Apply the rules of recruiting the most cost effective medications to create and maintain health institution drug formulary.
- c2-Select the most appropriate empirical antimicrobial regimen for nosocomial infections
- c3-Estimate the minimum facilities required to fulfill the pharmaceutical service component in hospital pharmacy
- c4- asses risk of contamination of sterile IV admixtures, cytotoxics and total parenteral nutrition



Fayoum University



Faculty of Pharmacy

General Pharmacy Program

d-General Skills:

By the end of this course, the student should be able to:

d1-Have the power to communicate & work effectively in a team in a variety of health care settings.

d2-Show appropriate methodologies of handling cytotoxic medications.

33- Perform according to professional and moral ethical codes

Topic	No. of hours		
	Lecture	Practical	Total
Orientation to hospital pharmacy practice	1	1	2
Sterile manufacturing in hospitals	1	1	2
Cytotoxic manipulations in hospitals	1	1	2
Parenteral fluids & administrations	1	1	2
Prevention of complications of critical Illness - nutrition in hospitalized patients	1	1	2
Total parenteral nutrition	1	1	2
Nosocomial infections inside hospital	1	1	2
Prevention of complications of critical Illness – correcting fluid & electrolyte imbalances	1	1	2
Pharmacy & therapeutic committee and hospital formulary	1	1	2
Total	9	9	18



Fayoum University



Faculty of Pharmacy

General Pharmacy Program

4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):

1. Self-Learning assignments
2. Interactive lectures & open discussions ((Tools; board, data show)
3. practical tutorials (tools; case studies, assignments)
4. Office hours for Probation Students

5- Student Assessment:

a-Assessment Methods and Weighing:

- Class participation (two quizzes, assignments/ presentations): 10 %
- Practical exam: 20 %
- Final exam: 70 %

b-Assessment Schedule:

- Class participation: Quiz 1: Week 4-5
Quiz 2: Week 8-9
Other activities: throughout the semester
- Practical exam: Week 13-14
- Oral exam: According to semester timetable
- Final exam: According to semester timetable

6-List of References:

Course Notes	Lectures and practical notes prepared by instructors
Required Books	N/A
Recommended Books	i. Comprehensive pharmacy revie; leon Shargeal; 7 th edition; 2017 ii. Concepts in Sterile Preparations and Aseptic Technique Book by Jose A. Vega and Pamella S.Ochoa; 2014
Periodicals	i. European journal of hospital pharmacy ii. Hospital pharmacy journal
Web Sites	www.hospitalpharmacyeurope.com



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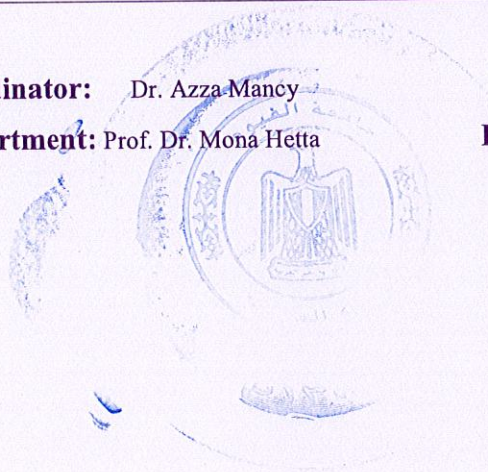
General Pharmacy Program

	www.cppe.ac.uk
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Course Coordinator: Dr. Azza Mancy

Head of Department: Prof. Dr. Mona Hetta

Date: 7-09-2017





Course Specifications
(2020 –2021)

Medical Microbiology

(3403)





Course Specifications
(2020 –2021)

Medical Microbiology

A. Basic Information

Program(s) on which the course is given	General
Department offering the course	Microbiology and immunology
Faculty offering the program	Faculty of Pharmacy, Fayoum University
Dept. responsible for teaching the course	Microbiology and immunology
Academic year / level	Level 3, semester 6
Course title	Medical Microbiology
Course code	3403
Contact hours (credit hours)	3 (Lecture 2+ practical 1)
Pre-requisite of the course:	Basic Microbiology and Immunology
Course coordinator	Dr/ Mahmoud Khalil
Major or Minor element of program	Major
Date of specification approval	17/09/2016

B. Professional Information

1. Overall Aims of Course

The course Provides concise information about most medically important infectious diseases related to different groups. It gives detailed information about the biology of the etiological agent(s), mode of transmission, pathogenesis and clinical symptoms, immunogenicity, laboratory diagnosis as well as prophylaxis, control and treatment for each disease.

2. Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

By the end of this course, the student should be able to:

a1-Know the sources of infectious diseases.

a2-Know the mode of transmission of infectious diseases.

a3-Understand the scientific basis for the relation between the disease and the virulence factors of the causative agent.

b- Intellectual Skills

مدير وحدة الصيدلانية
أ. م. محمد عبد الله
17/09/2016



Course Specifications (2020 –2021)

By the end of this course, the student should be able to:

- b1-Design the conceptual and methodological aspects of medical microbiology.
 - b2-Evaluate the relation between the disease and the virulence factors of the causative agent
- c- Professional and Practical Skills**

By the end of this course, the student should be able to:

- c1-Select the characteristic clinical symptoms of the diseases
- c2-apply the laboratory diagnosis of infectious diseases
- c3-Estimate the planning policies for treatment as well as prophylactic measures for each disease.

d-General and Transferable Skills

By the end of the course, the student should be able to:

By the end of this course, the student should be able to:

- d1-Have the power to differentiate between diseases with related symptoms
- d2-Show the measures for control of infectious diseases

3. Contents

Teaching week	TOPIC	No. of lecture hours	Assessment of ILOs	Practical
1	Introduction to microbial infection	2+1	a1, a2, a3	laboratory safety measures
2	Bacteriology- Gram positive cocci	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Laboratory diagnosis of clinical specimens
3	Gram negative cocci & Gram positive bacilli	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Gram positive cocci
4	Gram negative bacilli-1	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Staphylococci
5	Gram negative bacilli-2	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Gram positive cocci
6	Gram negative bacilli-3	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Streptococci
7	Gram negative bacilli-4	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Enterococci



Course Specifications (2020 –2021)

			c3, d1, d2	
8	Acid fast bacteria	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Gram negative cocci
9	Chlamydiae, Mycoplasma & Rickettsiae	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Neisseria
10	Virology-1	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Non-spore forming Gram positive bacilli
11	Virology-2	2+1	a3, b1, b2, c1, c2, c3, d1, d2	(C. diphtheriae)
12	Mycology	2+1	a3, b1, b2, c1, c2, c3, d1, d2	Spore forming Gram positive bacilli
Total no of hours	24+12			
13	FINAL Exam			

4. Teaching and Learning Methods

- 4.1- Lectures (board, data show) ✓
- 4.2- Assignments ✓
- 4.3- Class discussion ✓

5. Student Assessment Methods

- 5.1. Written exams to assess knowledge and understanding as well as intellectual skills.
- 5.2. Oral exams to assess all types of skills and mainly general and transferrable skills practice.
- 5.3. Practical exams

Assessment Schedule

- Quiz 1 4th week
- Quiz 2 9th week
- Practical exam 12th week



Course Specifications **(2020 –2021)**

Final exam	13 th week
Oral exam	13 th week

Weighting of Assessments

Periodical	20%
Practical	30%
Final exam	80%
Oral exam	20%
Total	150%

6. List of References

6.1- Course Notes: Clinical Microbiology, Microbiology and Immunology Department.

6.2 - Essential Books (Textbooks): Medical Microbiology, 8th Edition

Microbiology: A Clinical Approach by Anthony J.
Strelkauskas

7. Facilities required for teaching and learning

1. Lecture rooms with data show

Course Coordinator: Dr/ Mahmoud Khalil

Head of Department: Prof. Mona Hetta

Date: /09/2016



Fayoum University



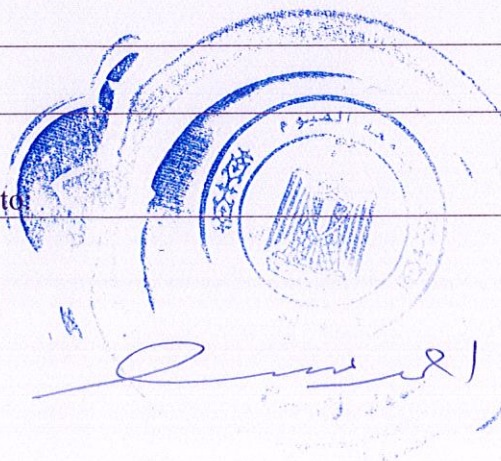
Faculty of Pharmacy

**General Pharmacy Program
(2016-2017)**

Course Specifications

A-Basic Information	
Course code:	3304
Course name:	Pharmacology-2
Credit hours of the course:	Lecture: 2 Practical:1 Total:3
Pre-requisite of the course:	Pharmacology 1
Department teaching the course:	Pharmacology & Toxicology
Program for which the course is given:	General Pharmacy Program
Course Co-ordinator:	Dr. Mohamed Hamzawy
Head of the Department:	Prof. Mona Hetta
Date of specifications approval:	17/01/2017

B-Professional Information
1-Overall aims of the course:
The course aims to address the use of different medication in treatment of cardiovascular disorders, cancerous lesions, and CNS diseases.
2-Intended learning outcomes (ILO's):
a-Knowledge and Understanding:
By the end of this course, the student should be able to





Fayoum University



Faculty of Pharmacy

**General Pharmacy Program
(2016-2017)**

a1-Know what is the basic treatment of infectious diseases.

a2-Know types of cardio vascular disorders.

a3-Understand criteria for selection of therapeutic medication of cancerous lesions.

b-Intellectual Skills:

By the end of this course, the student should be able to:

b1-Solve the problems that may oppose the pharmacologist in selection of proper therapeutic regimen for CNS disorders.

b2-Design methods and solution for safe and effect medication.

b3-Evaluate the drug efficacy against safety.

c-Professional and Practical Skills:

By the end of this course, the student should be able to:

c1-Apply the information what attained in practical classes.

c2-Select the best approach for using antibiotics in order to avoid the antibiotics drug resistance.

d-General Skills:

By the end of this course, the student should be able to:

d1-Have the power to help in providing recommendation for therapeutic medication.

d2-Show scientific and logical thinking approach.

3-Course contents:			
	No of Hours		
	Lecture	Practical	Total
Sedative and hypnotics	2	4	6
Antidepressant	2	2	4
Anti-parkinsonism + antiepileptic	3	2	5



Fayoum University



Faculty of Pharmacy

**General Pharmacy Program
(2016-2017)**

Antipsychotics	2	2	4
Anticancer	2	2	4
Anticancer	4	2	6
Hyperthyroidism, Cortisone+ contraception	4	2	6
Antibiotics	3	4	7
Antibiotics	2	4	6
Total	24	24	48

4-Teaching and Learning Methods (lectures, open discussion, role plays, ..etc):

- Lectures.
- Practical sections.
- Open discussion.
- Assignments.
- Role plays.

5- Student Assessment:

a-Assessment Methods and Weighing:

- Written exams evaluate the levels of knowledge and understanding and Intellectual Skills.
- Periodic exams evaluate the levels knowledge and understanding and Intellectual Skills.
- Oral exams evaluate the levels knowledge and understanding and Intellectual Skills.
- Class participation: 20. %
- Practical exam: 30 %
- Oral exam: 20 %
- Final exam: 80. %

b-Assessment Schedule:

- Class participation: Quiz 1: Week 4-5
Quiz 2: Week 8-9
Other activities: throughout the semester
- Oral exam: According to semester timetable
- Final exam: According to semester timetable



Fayoum University



Faculty of Pharmacy

**General Pharmacy Program
(2016-2017)**

6-List of References:	
Course Notes	Pharmacology II Pharmacy Students
Required Books	Harvey, A. R. (2012). Lippincott's Illustrated Review Pharmacology. Philadelphia, PA, Lippincott Williams & Wilkins, a Wolters Kluwer business.
Recommended Books	Basic & Clinical Pharmacology by Katzung, 14 th Edition.
Periodicals	European Journal of Pharmacology.
Web Sites	https://biologydictionary.net/pharmacology

Course Coordinator: Dr. Mohamed Hamzawy

Head of Department: Prof. Mona Hetta

Date: 17/01/2017

