COURSE SPECIFICATIONS

Faculty of Pharmacy

Bachelor of Pharmacy

Fifth Year – Second Term

2017-2018

CONTENTS:

1. Applied Pharmacognosy (2) ……... 3

2. Industrial Pharmacy (2)…… 22

3. Medicinal Chemistry (4)…… 35

4. Quality Control…….....……. 49

5. Business Administration…….....……... 63

Course Specification

Applied Pharmacognosy 2

Fifth Year-Second Term

2017-2018

Course Specification of Applied Pharmacognosy 2

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -------

Department offering the course: Pharmacognosy

Academic year Level: Fifth year /second term

Date of specification approval: October 29, 2017

B- Basic information:

Title: Applied Pharmacognosy II code: 751

Credit Hours: ---

Lectures: 2 hrs/week

Practical: 3.5hrs/week

Tutorials: ---

Total: 5.5 hrs/week

C- Professional information:

1-Overall aim of the course:

On completion of the course, the student will be able to illustrate the fundamental knowledge about complementary medicine; in particular herbal medicine and its relation to conventional medicine. In addition, the student will be able to formulate and use herbal medications in some common health problems, and will know its toxicological aspects, regulatory laws of production and forensic pharmacognosy.

2-Intended Learning Outcome s Applied Pharmacognosy II (ILOs):

A- Knowledge and Understanding	
a1	Illustrate the principles of alternative medicine (history and forms) and its relation to conventional medicine.
a2	Outline the principles of herbal medicine preparation and efficacy
a3	Summarize the principles of using some herbal medications to relief some common health problems e.g. GIT, cardiovascular, respiratory, urinary, CNS, ….etc
a4	Demonstrate principles and approaches about narcotic drugs, toxicological aspects of herbal medicines, its concomitant use with conventional medicine, regulations of its production and forensic pharmacognosy.
a5	Identify pharmacological properties, adverse reactions and contraindications of some herbal medications used in some specific health problems
B- Professional and Practical skills	
b1	Suggest the appropriate herbal remedy for treatment of common health problems.
b2	Practice patient counselling in cases related to use of herbal remedy
b3	Detect natural poisons in biological samples using forensic pharmacognosy (microscopically- alkaloid crystals).
C- Intellectual skills	
c1	Apply different protocols of alternative medicine for treatment of health problems.
c2	Apply previously gained knowledge about medicinal plants in alternative medicine
c3	Analyze information using scientific and library based knowledge for using herbal medicine as an alternative medicine.
D- General and Transferable skills	
d1	Retrieve information from different herbal medicine sources.
d2	Work effectively as a member of a team
d3	Write reports and present it**.**
d4	Demonstrate decision making and problem solving in using of herbal medicine as an alternative medicine.

D-Course Content:

Week No.	Lecture contents (2hrs/lec.)	Practical session (3.5 hrs/lab)
1	-Definition, history and forms of alternative medicine -Herbal medicine versus conventional medicine	-An introduction for use of herbal medicine for treatment of simple health problems. -Herbal remedies used for digestive and gastric disorders - Activity for next week: Search for herbal market preparations used as laxative and astringent.
2	- Herb-drug interaction -Preparation of herbal medications	-Herbal remedies used as laxatives -Herbal remedies used as astringent Activity for next week: Search for herbal market preparations used as anthelmintic
3	-Herbal remedies for GIT disorders (mouth disorder, peptic ulcer, diarrhea, constipation	-Herbal remedies used as anthelmintic -Herbal remedies used for hemorrhoids Activity for next week: Search for herbal market preparations used for hepatic disorders
4	-Herbal remedies for GIT disorders (intestinal worms, hemorrhoids…..etc) - Herbal medications for hepatic disorders	-Drugs used for hepatic disorders Activity for next week: Search for herbal market preparations used for cardiovascular disorders
5	-Herbal medications for cardiovascular disorders	-Herbal medications for cardiovascular disorders Activity for next week: Search for herbal market preparations used for renal disorders

6	-Herbal medications for renal problems	- Drugs used for renal disorders Activity for next week: Search for herbal market preparations used for diabetes and obesity
7	-Herbal medications for diabetes - Herbal medications for obesity	-Herbal medications for diabetes and obesity Activity for next week: Search for herbal market preparations used as sedatives
8	- Herbal medications for CNS disorders	-Drugs used for anxiety and as tranquilizers Activity for next week: Search for herbal market preparations used for respiratory disorders
9	-Herbal remedies for respiratory tract problems	-Drugs used for cold and other respiratory disorders Activity for next week: Herbal market preparations used for dermatological and skeletal disorders
10	-Herbal remedies for dermatologic use	- Herbal drugs used for dermatological and skeletal disorders
11	-Herbal medications for skeletal system	-Applications on forensic pharmacognosy (detection of alkaloid poisonous in solutions microscopically)
12	-Narcotic drugs. -Toxicological aspects of herbal medicine	-Applications on forensic pharmacognosy (detection of alkaloid poisonous in solutions microscopically) - revision
13	-Regulatory laws for production of herbal remedies	Practical exam
14	Forensic Pharmacognosy	Practical exam
15	-Revision & Open discussion	

E-Teaching and Learning Methods:

- Lectures
- Practical session
- Self learning (Internet search)

F-Student Assessment methods:

1-Written exams **to assess:** a1, a2 , a3, a4, a5, b1, b3.

2- Activity **to assess:** b2, c2, c3, d1, d2, d3, d4

3-Practical exams **to assess:** a3, a4, a5, b1, b2, b3, c1.

4-Oral exam **to assess:** a1, a2 , a3, a4, a5, b1, b3.

Assessment schedule:

Assessment (1): Written exams	Week 16
Assessment (2): Activity	Week 1, 11
Assessment (3): Practical exams	Week 13, 14
Assessment (4): Oral exams	Week 16

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	60	60%
Practical exam and activities	25	25%
Oral exam	15	15%
TOTAL	**100**	**100%**

G-Facilities required for teaching and learning:

- **For lectures:** Black (white) boards, data show.
- **For Labs:** Chemicals, glassware, instruments, Digital balances, water bathes.

H-List of references:

1-Couse Notes:

- Student book of applied pharmacognosy II approved by Pharmacognosy department (2016).

2-Essential Books (Text Books):

- Murray, M.T., (2004). The Healing Power of Herbs; Randorn House.
- Robson, T. (2003). An Introduction to Complementary Medicine, First edition, Griffin Press, South Australia
- Barnes, J.; Anderson, L. and Phillipson, D. (2007). Herbal Medicines, Third edition, Pharmaceutical Press
- Hoffmann, D. (1997). Herbs for a Good Night's Sleep, NTC Contemporary
- Yance, D. R.; Valentine, A. (1999). Herbal Medicine, Healing & Cancer, NTC Contemporary.

3-Recommended Books:

- Varror, T. and Foster, S. (1999) The Honest Herbal, Haworth Herbal Press ,Binghamton, NY.
- Miller, L. and Murray, W. (1998). Herbal Medicine: a clinical guide; Pharmaceutical Products Press, Binghamton, NY.

4-Periodicals and websites:

- Fitoterapia**,** Die Pharmazie , Journal of Natural Products, Phytochemistry ,Planta medica , J. Ethnopharmacology, Phytoterapia, Phytomedicine.

http:// www.elsevier.com/phytochem

http:// www.elsevier.com/phytomed

http:// www.wiley.co.uk.

http:// www.sciencedirect.com

Wikipedia, the free encyclopedia and other related botanical and natural medicinal plants web sites.

Course Coordinator: Prof. Assem Mohamed Mohamed El-Shazly

Head of Department: Prof. Azza Mohommed E-Shafaie

Date: م 2017/ 10 / 29 تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ

Matrix I of Applied Pharmacognosy-2 Course

Course Contents		ILOs of Applied Pharmacognosy-2 course														
		Knowledge and understanding					Professional and practical skills			Intellectual skills			Transferable and general skills			
		a1	a2	a3	a4	a5	b1	b2	b3	c1	c2	c3	d1	d2	d3	d4
Lectures																
1	-Definition, history and forms of alternative medicine -Herbal medicine versus conventional medicine	x														
2	- Herb-drug interaction - Preparation of herbal medications		x			x										
3	-Herbal remedies for GIT disorders (mouth disorder, peptic ulcer, diarrhea, constipation			x		x	x			x	x					
4	-Herbal remedies for GIT disorders (intestinal worms, hemorrhoids…..etc) - Herbal medications for hepatic disorders			x		x	x			x	x					
5	-Herbal medications for cardiovascular disorders			x		x	x			x	x					
6	-Herbal medications for renal problems			x		x	x			x	x					

7	-Herbal medications for diabetes - Herbal medications for obesity			x		x	x			x	x					
8	- Herbal medications for CNS disorders			x		x	x			x	x					
9	Herbal remedies for respiratory tract problems			x		x	x			x	x					
10	Herbal remedies for dermatologic use			x		x	x			x	x					
11	-Herbal medications for skeletal system			x		x	x			x	x					
12	-Narcotic drugs. -Toxicological aspects of herbal medicine				x		x									
13	-Regulatory laws for production of herbal remedies				x		x									
14	Forensic Pharmacognosy				x		x									
	Practical sessions															
15	- An introduction for use of herbal medicine for treatment of simple health problems. -Herbal remedies used for digestive and gastric disorders			x			x	x				x				
16	- Herbal remedies used as laxatives - Herbal remedies used as astringent			x			x	x		x	x	x				
17	- Herbal remedies used as anthelmintic - Herbal remedies used for hemorrhoids			x			x	x		x	x	x				

18	- Drugs used for hepatic disorders			x			x	x		x	x	x				
19	- Herbal medications for cardiovascular disorders			x			x	x		x	x	x				
20	- Drugs used for renal disorders			x			x	x		x	x	x				
21	Herbal medications for diabetes and obesity			x			x	x		x	x	x				
22	Drugs used for anxiety and as tranquilizers			x			x	x		x	x	x				
23	Drugs used for cold and other respiratory disorders			x			x	x		x	x	x				
24	Herbal drugs used for dermatological and skeletal disorders			x			x	x		x	x	x				
25	Applications on forensic pharmacognosy (detection of alkaloid poisonous in solutions microscopically)				x				x			x				
26	- Activity (Herbal remidies for different diseases)										x	x	x	x	x	x

Matrix II of Applied Pharmacognosy-2

National Academic Reference Standards (NARS)		Program ILOs	Course ILOs	Course contents	Sources	Teaching and learning methods			Methods of assessment		
						Lecture	Practical session	Self learning	Written exam	Practical exam	Oral exam
Lectures											
2.1	Principles of basic, pharmaceutical, medical, social, behavioral, management, health and environmental sciences as well as pharmacy practice.	A1	a1	• Definition, history and forms of alternative medicine • Herbal medicine versus conventional medicine	Student book	x			x		x
			a2	• Preparation of herbal medications	Student book	x			x		x
		A8	a3	• Herbal remedies for digestive disorders • Herbal remedies for colds and flue • Herbal remedies for respiratory tract problems • Herbal remedies for dermatologic use. • Herbal medications for circulatory disorders • Herbal medications and nutraceuticals for renal problems • Herbal medications and	Student book	x			x		x

				nutraceuticals for hepatic disorders • Herbal medications and nutraceuticals for diabetes • Herbal medications and nutraceuticals for arthritis							
			a4	• Narcotic drugs. • Toxicological aspects of herbal medicine • Concomitant use of alternative medicine and conventional medicine • Regulatory laws for production of herbal remedies • Forensic Pharmacognosy	Student book	x			x		x
2.13	Pharmacological properties of drugs including mechanisms of action, therapeutic uses, dosage, contra-indications, ADRs and drug interactions.	A30	a5	• Herbal remedies for digestive disorders • Herbal remedies for colds and flue • Herbal remedies for respiratory tract problems • Herbal remedies for dermatologic use. • Herbal medications for circulatory disorders • Herbal medications and nutraceuticals for renal problems • Herbal medications and nutraceuticals for hepatic disorders • Herbal medications and nutraceuticals for diabetes	Student book	x			x		x

				• Herbal medications and nutraceuticals for arthritis • Narcotic drugs. • Toxicological aspects of herbal medicine • Concomitant use of alternative medicine and conventional medicine							
3.5	Select medicines based on understanding etiology and path physiology of diseases.	B7	b1	• Herbal remedies for digestive disorders • Herbal remedies for colds and flue • Herbal remedies for respiratory tract problems • Herbal remedies for dermatologic use. • Herbal medications for circulatory disorders • Herbal medications and nutraceuticals for renal problems • Herbal medications and nutraceuticals for hepatic disorders • Herbal medications and nutraceuticals for diabetes • Herbal medications and nutraceuticals for arthritis	Student book	x			x		x
3.7	Assess toxicity profiles of different xenobiotics and detect poisons in biological specimens	B12	b3	• Forensic Pharmacognosy	Student book	x			x		x

3.9	Maintain public awareness on rational use of drugs and social health hazards of drug abuse and misuse	B14	b2	• Herbal remedies for digestive disorders • Herbal remedies for colds and flue • Herbal remedies for respiratory tract problems • Herbal remedies for dermatologic use. • Herbal medications for circulatory disorders • Herbal medications and nutraceuticals for renal problems • Herbal medications and nutraceuticals for hepatic disorders • Herbal medications and nutraceuticals for diabetes • Herbal medications and nutraceuticals for arthritis	Student book	x			x		x
4.9	Utilize the pharmacological basis of therapeutics in the proper selection and use of drugs in various disease conditions.	C12	c1	• Herbal remedies for digestive disorders • Herbal remedies for colds and flue • Herbal remedies for respiratory tract problems • Herbal remedies for dermatologic use. • Herbal medications for circulatory disorders	Student book	x			x		x

			c2	• Herbal medications and nutraceuticals for renal problems • Herbal medications and nutraceuticals for hepatic disorders • Herbal medications and nutraceuticals for diabetes • Herbal medications and nutraceuticals for arthritis							
4.14	Analyze and evaluate evidence-based information needed in pharmacy practice.	C17	c3	• Herbal remedies for some diseases	Internet, essential and recommended books.			x			
5.2	Retrieve and evaluate information from different sources to improve professional competencies	D3	d1	• Herbal remedies for some diseases	Internet, essential and recommended books.			x			
5.3	Work effectively in a team	D4	d2	• Herbal remedies for some diseases	Internet, essential and recommended books.			x			
5.4	Use numeracy, calculation and statistical methods as well as information technology tools	D6	d3	• Herbal remedies for some diseases	Internet, essential and recommended books.			x			
5.5	Demonstrate critical thinking, problem-solving and decision-making abilities	D12	d4	• Herbal remedies for some diseases	Internet, essential and recommended books.			x			

Practical sessions											
2.1	Principles of basic, pharmaceutical, medical, social, behavioral, management, health and environmental sciences as well as pharmacy practice.	A8	a3	• Drugs used as laxatives • Drugs used for digestive disorders • Drugs used for cold and flue • Drugs used for renal disorders • Drugs used for hepatic disorders • Drugs used for anxiety and as tranquilizers	Practical notes		x			x	
2.1	Principles of basic, pharmaceutical, medical, social, behavioral, management, health and environmental sciences as well as pharmacy practice.	A8	a4	• Applications on forensic pharmacognosy	Practical notes		x			x	
2.13	Pharmacological properties of drugs including mechanisms of action, therapeutic uses, dosage, contra-indications, ADRs and drug interactions.	A30	a5	• Drugs used as laxatives • Drugs used for digestive disorders • Drugs used for cold and flue • Drugs used for renal disorders • Drugs used for hepatic disorders • Drugs used for anxiety and as tranquilizers	Practical notes		x			x	
3.1	Use the proper pharmaceutical and	B1	b1	• Drugs used as laxatives • Drugs used for digestive	Practical notes		x				

	medical terms and abbrevations and symbols in pharmacy practice.			disorders • Drugs used for cold and flue • Drugs used for renal disorders • Drugs used for hepatic disorders • Drugs used for anxiety and as tranquilizers • Applications on forensic pharmacognosy							
3.9	Maintain public awareness on rational use of drugs and social health hazards of drug abuse and misuse	B2	b2	Drugs used as laxatives • Drugs used for digestive disorders • Drugs used for cold and flue • Drugs used for renal disorders • Drugs used for hepatic disorders • Drugs used for anxiety and as tranquilizers • Applications on forensic pharmacognosy	Practical notes		x			x	
3.7	Assess toxicity profiles of different xenobiotics and detect poisons in biological specimens	B12	b3	• Applications on forensic pharmacognos	Practical notes		x			x	
4.9	Utilize the pharmacological basis of therapeutics in the proper selection and use of drugs in various	C12	c1	Drugs used as laxatives • Drugs used for digestive disorders • Drugs used for cold and flue • Drugs used for renal	Practical notes		x			x	

	disease conditions.		c2	disorders • Drugs used for hepatic disorders • Drugs used for anxiety and as tranquilizers • Applications on forensic pharmacognosy							

Course Coordinator: Prof. Assem Mohamed Mohamed El-Shazly

Head of Department: Prof. Azza Mohommed E-Shafaie

Date: 2017/ 10 / 29 م تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ

Course Specification

Industrial Pharmacy-2

Fifth Year-Second Term

2017-2018

Course specification of Industrial pharmacy-2

University: Zagazig **Faculty: Pharmacy**

A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -------

Department offering the course: Pharmaceutics Department

Academic year Level: Fifth year/Second term

Date of specification approval: December 2017

B- Basic information:

Title: Industrial pharmacy-2 Code: 651

Credit Hours: ---

Lectures: 2 hrs/week

Practical: 2 hrs/week

Tutorials: ---

Total: 3 hrs/week

C- Professional information:

1-Overall aim of the course

On completion of the course, the student will be able to illustrate the properties and manufacturing of different types of tablets and packaging materials. In addition, the student will be able to describe mixing process as well as the requirements for GMP and quality control.

2- Intended Learning Outcomes of Industrial pharmacy-2 (ILOs)

A- Knowledge and Understanding	
a1	Outline different types of tablets
a2	Describe the composition of each type of tablet
a3	Enumerate instruments used in preparation of tablets and particle size reduction
a4	Define the requirements for GMP
B- Professional and Practical skills	
b_1	Apply different quality control tests for tablets evaluation
b_2	Detect pharmaceutical applications of particle size reduction& GMP
C- Intellectual skills	
c1	Employ GMP guidelines for quality management
c2	Suggest the appropriate tablet type based on physicochemical properties of the drug
c3	Interpret results of quality control tests
D- General and Transferable skills	
d1	work effectively as a member of a team
d_2	Demonstrate both oral and written communication skills

D- Contents:

Week No.	Lecture contents (2 hrs/lec.)	Practical session (2hrs/lab)
1	- Types and classes of tablets	- Revision on types and classes of tablets and tablets used to prepare solutions
2	- Manufacturing of compressed tablet	- Revision on manufacturing of compressed tablet
3	- Methods of tablet manufacturing	- Revision on methods of tablet manufacturing
4	- Evaluation of tablets	- Revision on evaluation of tablets
5	- Types of tablet coating film, coating solution and film coating process	- Revision on types of tablet coating film and coating solution
6	- Requirements for a satisfactory packaging materials	film coating process
7	- Containers and closures	Quiz
8	- Requirements of GMP and quality management	- Revision on containers and closures - **Activity**
9	- Guides to GMP for medicinal products	- Revision on requirements of GMP and quality management
10	- Quality control	- Revision on guides to GMP for medicinal products
11	- Particle size reduction and analysis	- Revision on quality control - Revision on particle size reduction and analysis
12	- Particle size reduction and analysis	Revision on quality control
13	- Particle size reduction and analysis	Revision on particle size reduction and analysis
14	- Revision	Mixers and emulsifiers drawing
15	-Open Discussion	**- Practical exam**

E- Teaching and Learning Methods:

- Lectures
- Practical session
- Self learning (Activities, open discussion)

F- Student Assessment methods:

1-Written exams to assess: a1, a2, a3, a4, c1, c2, c3, d1, d2

2- Activity to assess: b2

2-Practical exams to assess: b1, b2, c1, c2

3-Oral exam to assess: a1, a1, a2, a3, a4, c1, c2, c3, d1, d2

Assessment schedule

Assessment (1): Written exams	Week 7, 16
Assessment (2): Activity	Week 8
Assessment (3): Practical exams	Week 14
Assessment (4): Oral exams	Week 16

Weighting of Assessment

Assessment method	Marks	Percentage
Written exam	60	60%
Practical exam and activities	25	25%
Oral exam	15	15%
TOTAL	100	100%

G- Facilities required for teaching and learning:

Black (white) boards, data show.

H- List of References:

1- Course Notes: Student book of industrial pharmacy-2 approved by pharmaceutics department (2017)

2- Essential Books:

- A. O. Bentley, E. A. Rawlins. Bentley's textbook of pharmaceutics. 8th edition. London: Baillière Tindall. 2010.
- L .V. Allen. Ansels Pharmaceutical Dosage forms and drug delivery systems, 8th edition. 2010.

3- Recommended Books

- Aulton, M.E. Pharmaceutics: the Science of Dosage Form Design. 2012.
- Lachman, L., Lieberman, H.A., Kanig, J. L. and Febiger. The theory and Practice of Industrial Pharmacy. Philidelphia, USA. 2008.
- Nally, Joseph, D. Good manufacturing practice for pharmaceuticals. Informa Healthcare. 2007.

4- Periodicals and websites:

Journal of pharmaceutical sciences

www.Pubmed.com

www.Sciencedirect.com

Course Coordinators: Prof. Dr. Fakhr El-Din Ghazy

Head of Department: Prof. Dr. Nagia Ahmed El-megrab

Date: م 2018 / 12 / تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ

Matrix I of industrial pharmacy 2 course

Course Contents		ILOs of industrial pharmacy 2 course										
		Knowledge and understanding				Professional and practical skills		Intellectual skills			Transferable and general skills	
Lectures		a1	a2	a3	a4	b1	b2	c1	c2	c3	d1	d2
1	Types and classes of tablets	x		x								
2	Tablets used to prepare solutions		x									
3	Manufacturing of compressed tablet		x		x							
4	Methods of tablet manufacturing			x								
5	Evaluation of tablets	x	x					x			x	
6	Types of tablet coating	x	x	x								
7	Film coating solution	x	x		x							
8	Film coating process	x	x									
9	Requirements for asatisfactory package				x							
10	Pakaging materials				x							
11	Containers and closures				x							
12	Requirements of GMP and quality management				x				x			
13	Guides to GMP for medicinal products				x					x		
14	Quality control				x							x

15	Particle size reduction and analysis	x		x								
16	Particle size reduction and analysis-continue	x	x									
17	Particle size reduction and analysis-continue		x									
Practical session												
1	Revision on types and classes of tablets and tablets used to prepare solutions	x	x			x						
2	Revision on manufacturing of compressed tablet					x						
3	Revision on methods of tablet manufacturing						x					
4	Revision on evaluation of tablets							x			x	
5	Revision on types of tablet coating ,film coating solution and film coating process			x	x							
6	Practical exam-1											
7	Revision on containers and closures						x		x			x
8	Revision on requirements of GMP and quality management						x		x			
9	Revision on guides to GMP for medicinal products							x		x		
10	Revision on quality control						x	x				x
11	Revision on particle size reduction and analysis						x	x				
12	Revision on particle size reduction and analysis						x	x				
13	Activity						x					

Matrix II of industrial pharmacy course

NARS		Program ILOS	Course ILOS	Course content	Sources	Teaching and learning methods			Method of assessment		
						Lecture	Practical session	Self learning	written exam	Practical exam	Oral exam
2.1	Principles of basic, pharmaceutical, medical, social, behavioral, management, health and environmental sciences as well as pharmacy practice.	A2	a_1	Types and classes of tablets Evaluation of tablets Types of tablet coating Film coating solution Film coating process Particle size reduction and analysis Particle size reduction and analysis- continue	Student book Essential books	x			x		x
			a_3	Methods of tablet manufacturing Types of tablet coating Particle size reduction and analysis	Student book Essential books	x			x		x

2.7	Principles of various instruments and techniques including sampling, manufacturing, packaging, labeling, storing and distribution processes in pharmaceutical industry	A18	a_2	Tablets used to prepare solutions Manufacturing of compressed tablet Evaluation of tablets Types of tablet coating Film coating solution Film coating process Particle size reduction and analysis- continue	Student book Essential books	x			x		x
			a_4	Manufacturing of compressed tablet Film coating solution Requirements for asatisfactory package Pakaging materials Containers and closures Requirements of GMP and quality management Guides to GMP for medicinal products Quality control	Student book Essential books	x	x		x		x
3.2	Handle and dispose chemicals and pharmaceutical preparations safely	B4	b1	Manufacturing of compressed tablet	Student book Essential books and practical notes	x			x		x

				Revision on manufacturing of compressed tablet	Student book Essential books and practical notes		x			x	
			b2	Methods of tablet manufacturing	Student book Essential books Internet	x			x		x
				Revision on methods of tablet manufacturing Methods of tablet manufacturingFilm coating solution Activity	Student book Essential books		x			x	
4.3	Apply qualitative and quantitative analytical and biological methods for QC and assay of raw materials as well as pharmaceutical preparations.	C4	c1	Evaluation of tablets	Student book Essential books	x			x		x
				Revision on evaluation of tablets	Student book Essential books		x			x	
			c2	Requirements of GMP and quality management	Student book Essential books	x			x		x

				Revision on requirements of GMP and quality management	Student book Essential books		x			x	
			c3	Guides to GMP for medicinal products	Student book Essential books Internet	x			x		x
				Revision on guides to GMP for medicinal products	Student book Essential books		x			x	
5.1	Communicate clearly by verbal and means	D1	d2	Evaluation of tablets	Student book Essential books	x			x		x
				Revision on evaluation of tablets	Student book Essential books		x			x	
5.3	Work effectively in a team.	D4	d1	Quality control	Student book Essential books	x			x		x
				Revision on quality control	Student book Essential books Internet		x			x	

Course Coordinators: Prof. Dr. Fakhr El-Din Ghazy

Head of Department: Prof. Dr. Nagia Ahmed El-megrab

Date: تم مناقشة و اعتماد توصيف المقرر من مجلس القسم بتاريخ / 12 / 2018 م

COURSE SPECIFICATIONS

Medicinal Chemistry (4)

Fifth Year-Second Term
2017-2018

Course Specification of Medicinal chemistry (4)

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -------

Department offering the course: Medicinal chemistry Department

Academic year/ Level: Fifth year /Second term

Date of specification approval: 3 September 2017

B- Basic information:

Title: Medicinal chemistry (4) Code: 351

Credit Hours: ---

Lectures : 2 hrs/week

Practical: 2 hrs/week

Tutorials: ---

Total: 4 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to outline synthesis, estimation, mechanism of action, structure-activity relationships, adverse reactions & specific medicinal uses of steroids, antihistaminic & anti -ulcer drugs& vitamins as well as drug design and metabolism.

2-Intended Learning Outcomes of Medicinal Chemistry (4) (lLOs):

A- Knowledge and Understanding	
a1	Illustrate proper analytical methods for assay of hormones, antihistaminic drugs, anti-ulcers & vitamins.
a2	Define the basis of drug design, drug development & drug latentiation.
a3	Describe suitable methods for synthesis of hormones, antihistaminic drugs, anti-ulcers & vitamins.
a4	Explain drug metabolism & pathway of the drug in the body.
a5	Demonstrate physicochemical parameters of drugs.
B- Professional and Practical skills	
b1	Apply colorimeter methods for measuring light absorption in UV-VIS region.
b2	Analyze the results obtained from colorimetric assay of drugs.
C- Intellectual skills	
c1	Apply GLP guidelines in handling chemicals & laboratory equipments (colorimeter).
c2	Evaluate quantitative and qualitative methodology and assay of pharmaceutical preparations.
D- General and Transferable skills	
d1	Work effectively as apart of team with the students in the lab during experiments.
d2	Adopt safety guidelines during lab work.
d3	Implement writing lab reports and presenting the results.

D- Contents:

Week No.	Lecture (2hrs/week)	Practical session (2hrs/week)
1	-Hormones (estrogens, progesterones)	-Measurement of light absorption in UV-Visible region(Beer-Lambert`s law)
2	-Androgens, anabolic agents	-Determination of lamda max of a colored solution and study of the factors affecting the optimization of the method
3	-Corticosteroids	-Colorimetric assay of cortisone
4	-Drug Metabolism -Functionalization reaction (phase I)	-Colorimetric assay of sulfacetamide
5	-Conjugation reactions (phase II)	-Colorimetric assay of procaine **-Activity1(case study/report)**
6	-Factors affecting drug metabolism) -Introduction in Drug design	-Colorimetric assay of captopril
7	-Development of drugs -Drug Latentiation	**-Practical exam (1)**
8	-Physicochemical factors & Drug receptor-interaction	-Colorimetric assay of saliclylic acid
9	-Antihistaminics (H1-antagonists)	-Assay of prescription No.1 Diphenhydramine hydrochloride,zinc sulphate
10	-Antiulcer Drugs (H2-antagonists,proton pump inhibitors & prostaglandins)	-Colorimetric assay of Patoprazole **-Activity2(case study/report)**
11	-Vitamins Lipid-soluble vitamins (A,D,E&K)	-Assay of prescription No.2 Vitamin C & calcium gluconate -Colorimetric assay of Iron containing capsules (Fefol)®
12	-Water-soluble vitamins (vitamin B_1,B_2,B_3)	**-Practical exam (2)**
13	-Folic acid , Vitamin B_{12} &Vitamin C	
14	-Revision	----------
15	-Open discussion	----------

E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- Self learning (activity, internet search)

F- Student Assessment Methods:

1- Written exam to assess a1, a2, a3, a4, a5, c2

2- Activity to assess d1, d3

3- Practical exam to assess b1, b2, c1, c2, d1, d2, d3

4- Oral exam to assess a1, a1, a3, a4, a5, c2

Assessment schedule:

Assessment (1): Written exams	Week 16
Assessment (2): Activity	Week 5, 10
Assessment (3): Practical exams	Week 7,12
Assessment (4): Oral exams	Week 16

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	60	60%
Practical exam and activities	25	25%
Oral exam	15	15%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

- Black (white) board, Data show, laboratory equipments and chemicals.

H- List of References:

1- Course Notes: Student book of Medicinal chemistry (4) approved by medicinal chemistry department 2017.

- Practical notes of Medicinal chemistry (4) approved by medicinal chemistry department 2017.

2- Essential Books:

i- Wilson & Griswold's Textbook of Organic: Medicinal and Pharmaceutical Chemistry; Wilson, Charles Owens; Beale, John Marlowe; Block, John H.; Block, John H.; Griswold, Ole; Wiley-Interscience (2009).

ii- Foye's Principles of Medicinal Chemistry; Williams, David A., William O. Foye, and Thomas L. Lemke; Lippincott Williams and Wilkins (2009).

iii- B.p. &U.S Pharmacopia (1988-2007)

3- Recommended books

i- An Introduction to Medicinal Chemistry; Patrick, Graham L, Oxford (2009)

4- Periodicals, Web Sites, etc

http://www.ncbi.nlm.nih.gov/sites/entrez

http://journals.tubitak.gov.tr/chem/index.php

http://www.pharmacopoeia.co.uk/

www.Pubmed.Com

www.sciencedirect.com

Course Coordinator: Prof. Mohamed El-husseiny El-sadek

Head of department: Prof. Mohamed Baraka

Date: 2017/9/ 3 تم مناقشة واعتماد توصيف المقرر من مجلس القسم المقرر بتاريخ

Matrix I of Medicinal chemistry4 Course

Course Contents		ILOs of Medicinal chemistry 4 course											
		Knowledge and understanding					Professional and practical skills		Intellectual skills		General and transferable skills		
Lectures		a1	a2	a3	a4	a5	b1	b2	c1	c2	d1	d2	d3
1	Hormones(estrogens&progestrons)	x		x						x			
2	Androgens&Anabolic agents	x		x						x			
3	corticosteroids	x		x						x			
4	Drug metabolism,phaseI(functionalization reaction)				x								
5	Conjugation reaction(phaseII). Factors affecting drug metabolism.				x								
6	Introduction in drug design, development of drugs, drug latentiation		x										
7	Development of drugs Drug Latentiation												
8	Physicochemical factors&Drug-Receptor interaction					x							
9	Antihistaminics(H1-antagonist)	x		x						x			
10	Antiulcer drugs(H2-antagonist,proton pump inhibitor,prostaglandins)	x		x						x			

11	Vitamins;lipid-soluble vitamins(A,D,E&K)	x		x						x			
12	water-soluble vitamins(vitamin B1,B2&B3)	x		x						x			
13	Folic acid,Vitamin B12&Vitamin C	x		x						x			
Practical sessions													
1	Measurment of light absorption in UV-Visible region (Beer-Lambert`s law)						x		x		x	x	
2	Determination of lamda max of a coloured solution &study of factors affecting the optimization of the method.						x		x		x	x	
3	Colorimetric assay of cortisone,sulfacetamide,procaine,captopril,saliclylic acid,Patoprazole,Iron containing capsules (Fefol)®							x		x	x	x	
4	Assay of prescription No.1(Diphenhydramine hydrochloride,zinc sulphate) Assay of prescription No.2(Vitamin C & calcium gluconate)							x		x	x	x	
5	Activities										x		x

Matrix II of Medicinal chemistry 4 course

National Academic Reference Standards (NARS)		Program ILOs	Course ILOs	Course contents	Sources	Teaching and learning methods			Methods of assessment		
						Lecture	Practical session	Self learning	Written exam	Practical exam	Oral exam
2.3	Principles of different analytic techniques using GLP guidelines and validation procedures.	A11	a1	Hormones	student book	x			x		x
				Antihistaminics , Antiulcer Drugs	student book	x			x		x
				Vitamins	student book	x			x		x
2.5	Principles of drug design, development and synthesis	A14	a2	Introduction in Drug design Development of drugs Drug Latentiation	student book	x			x		x
									x		x
		A15	a3	Hormones	student book	x			x		x
				Antihistaminics , Antiulcer Drugs	student book	x			x		x
				Vitamins	student book	x			x		x

2.8	Principles of pharmacokinetics and biopharmaceutics with applications in therapeutic drug monitoring, dose modification and bioequivalence studies.	A19	a4	Drug Metabolism, Functionalization reaction,	student book,essential books	x			x		x
				Conjugation reactions,Factors affecting drug metabolism	student book	x			x		X
2.17	Methods of biostatistical analysis and pharmaceutical calculations	A36	a5	Physicochemical factors & Drug receptor-interaction	student book	x			x		X
3.8	Apply techniques used in operating pharmaceutical equipment and instruments	B13	b1	Measurment of light absorption in UV-Visible region(Beer-Lambert`s law)	Practical notebook		x			x	
				Determination of lamda max of a coloured solution &study of factors affecting the optimization of the method.	Practical notes		x			x	
3.11	Conduct research studies and analyze the	B17	b2	Colorimetric assay of cortisone	Practical notes		x			x	

	results			Colorimetric assay of sulfacetamide	Practical notes		x			x	
				Colorimetric assay of procaine	Practical notes		x			x	
				Colorimetric assay of captopril	Practical notes		x			x	
				Colorimetric assay of saliclylic acid	Practical notes		x			x	
				Assay of prescription No.1 Diphenhydramine hydrochloride,zinc sulphate	Practical notes		x			x	
				Colorimetric assay of Patoprazole	Practical notes		x			x	
				Assay of prescription No.2 Vitamin C & calcium gluconate	Practical notes		x			x	
				Assay of iron containing capsules	Practical notes		x			x	
4.2	Comprehend and apply GLP,GPMP, GSP and GCP guidelines in pharmacy practice	C3	c1	Measurment of light absorption in UV-Visible region(Beer-Lambert`s law)	Practical notes		x			x	
				Determination of lamda max of a colored solution and study of the factors affecting the optimization of the method	Practical notes		x			x	

4.3	Apply qualitative and quantitative analytical and biological methods for QC and assay of raw materials as well as pharmaceutical preparations	C4	c2	Colorimetric assay of cortisone	Practical notes		x			x	
				Colorimetric assay of sulfacetamide	Practical notes		x			x	
				Colorimetric assay of procaine	Practical notes		x			x	
				Colorimetric assay of captopril	Practical notes		x			x	
				Colorimetric assay of saliclylic acid	Practical notes		x			x	
				Assay of prescription No.1 Diphenhydramine hydrochloride,zinc sulphate	Practical notes		x			x	
				Colorimetric assay of Patoprazole	Practical notes		x			x	
				Assay of prescription No.2 • Vitamin C & calcium gluconate	Practical notes		x			x	
				Colorimetric assay of Iron containing capsules (Fefol)®	Practical notes		x			x	
				Hormones, Antihistaminics, Antiulcer Drugs & Vitamins	studentbook	x			x		X
5.3	Work effectively in a team	D4	d1	Measurment of light absorption in UV-Visible region(Beer-Lambert`s law)	Practical notes		x			x	

				Determination of lamda max of a coloured solution &study of factors affecting the optimization of the method.	Practical notes		x			x	
				Colorimetric assay of cortisone,sulfacetamide,procaine,captopril,saliclylic acid,Patoprazole,Iron containing capsules (Fefol)®	Practical notes		x			x	
				Assay of prescription No.1(Diphenhydramine hydrochloride,zinc sulphate) Assay of prescription No.2(Vitamin C & calcium gluconate)	Practical notes		x			x	
				Activity	Practical notes/Internet		x	x		x	
5.6	Adopt ethical, legal and saftey guidelines	D8	d2	Measurment of light absorption in UV-Visible region(Beer-Lambert`s law)	Practical notes		x			x	
				Determination of lamda max of a coloured solution &study of factors affecting the optimization of the method.							
				Colorimetric assay of cortisone,sulfacetamide,procaine,captopril,saliclylic acid,Patoprazole,Iron containing capsules (Fefol)®							

				Assay of prescription No.1(Diphenhydramine hydrochloride,zinc sulphate) Assay of prescription No.2(Vitamin C & calcium gluconate)							
5.9	Implement writing and presentation skills	D11	d3	Activity	Practical notes/ internet/essential books		x	x		x	

Course Coordinator: **Prof. Mohamed El-husseiny El-sadek**

Head of department: **Prof. Mohamed Baraka**

Date: **2017/9/ 3** **تم مناقشة واعتماد توصيف المقرر من مجلس القسم المقرر بتاريخ**

COURSE SPECIFICATIONS

Quality Control

Fifth Year-Second Term
2017-2018

Course Specification of Quality Control

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

Major or Minor element of programs: Major

Department offering the program: -------

Department offering the course: Medicinal chemistry Department

Academic year/ Level: Fifth year /Second term

Date of specification approval: 3 September 2017

B- Basic information:

Title: Quality Control Code: 352

Credit Hours: ---

Lectures : 2 hrs/week

Practical: 2 hrs/week

Tutorials: ---

Total: 4 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to explain various analytical techniques for drug analysis and methods of pharmaceutical calculation.

2-Intended Learning Outcomes of Quality Control (lLOs):

A- Knowledge and Understanding	
a1	Demonstrate properties of radiopharmaceuticals & their applications.
a2	Illustrate various analytical techniques for drug analysis.
a3	Outline principles of identification of tables, semisolids, eye drops, injection, suppositories and aerosols inhalation.
a4	Describe appropriate methods of pharmaceutical calculation for pharmaceutical samples.
B- Professional and Practical skills	
b1	Handle basic laboratory equipments & chemicals effectively and safely.
b2	Identify active ingredients quantitatively.
C- Intellectual skills	
c1	Apply GMP guidelines in pharmacy practice.
c2	Choose quantitative and qualitative methodology and assay of raw materials.
c3	Select quantitative and qualitative methodology and assay of pharmaceutical preparations including: (tables, semisolids, eye drops, injection, suppositories and aerosols inhalation).
c4	Apply analytical technology to determine the characteristics of biopharmaceutical products.
D- General and Transferable skills	
d1	Develop communications skills with public, patients and other health care professionals.
d2	Improve professional abilities by evaluation information from different sources.
d3	Work effectively as a member of a team.
d4	Write reports and present it.

D- Contents:

Week No.	Lecture (2hrs/week)	Practical session (2hrs/week)
1	-Drug registration and assessment	-Assay of Paracetamol tablets
2	-Analytical Problem: sampling and experimental errors	-Assay of Isoniazid tablets
3	-Analytical Problem: choice of methods of an analysis and validation	-Assay of glycerol suppositories
4	-Drug stability and degradation product (1)	-Assay of chloramphenicol capsules
5	-Drug stability and degradation product (2)	-Assay of Chloramphenicol eye drops **-Activity(Report)**
6	-Function group analysis -Classical analysis	-Revision
7	- Function group analysis -Instrumental analysis	**-Practical exam (1)**
8	-Automation in pharmaceutical analysis	-Assay of lidocaine injection
9	-Automation in pharmaceutical analysis	-Assay of Furosemide
10	- Determination of active ingredients in tablets,semisolid and eye drops	-Assay of Sodium chloride intravenous infusion
11	-Determination of active ingredients in injection and suppositories	-Assay of salicylic acid ointment -Assay of phenylephrine eye drops **-Activity (Report)**
12	-Determination of active ingredients in aerosols inhalation	**-Practical exam (2)**
13	-Quality assurance of pharmaceuticals G.M.P, ISO and BSI	
14	-Revision	
15	-Open discussion	

E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- Self learning (activity, internet search)

F- Student Assessment Methods:

1- Written exam to assess a1,a2,a3,a4,c2,c3

2- Activity to assess c4, d1, d2, d3, d4

3- Practical exam to assess b1,b2,c1,c2,c3,d1,d2,d3,d4

4- Oral exam to assess a1,a2,a3,a4,c2,c3

Assessment schedule:

Assessment (1): Written exams	Week 16
Assessment (2): Activity	Week 5,11
Assessment (3): Practical exams	Week 7,12
Assessment (4): Oral exams	Week 16

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	60	60%
Practical exam and activities	25	25%
Oral exam	15	15%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

- Black (white) board, Data show, laboratory equipments and chemicals.

H- List of References:

1- Course Notes: Student book of Quality Control approved by medicinal chemistry department 2017.

- Practical notes of Quality Control approved by medicinal chemistry department 2017.

2- Essential Books:

i- Wilson & Griswold's Textbook of Organic: Medicinal and Pharmaceutical Chemistry; Wilson, Charles Owens; Beale, John Marlowe; Block, John H.; Block, John H.; Griswold, Ole; Wiley-Interscience (2009).

ii- Foye's Principles of Medicinal Chemistry; Williams, David A., William O. Foye, and Thomas L. Lemke; Lippincott Williams and Wilkins (2009).

iii- B.p. &U.S Pharmacopia (1988-2007)

iv- Chemical stability of pharmaceuticals; Connors K.A., Amidon G.L., Stella V.J.

v- Pharmaceutical process validation; Robert A. Nash, Alfred H. Wachter (2006)

vi- Photostability of drugs and drug formulations; Hanne Hjorth Tønnesen (2004)

3- Recommended books

i- An Introduction to Medicinal Chemistry; Patrick, Graham L, Oxford (2009)

3- Periodicals, Web Sites, etc

http://www.ncbi.nlm.nih.gov/sites/entrez

http://journals.tubitak.gov.tr/chem/index.php

http://www.pharmacopoeia.co.uk/

www.Pubmed.Com

www.sciencedirect.com

Course Coordinator: Prof. Abd allah ElShanawani

Head of department: Prof. Mohamed Baraka

Date: 2017/9/ 3 تم مناقشة واعتماد توصيف المقرر من مجلس القسم المقرر بتاريخ

Matrix I of Quality Control course

Course Contents		ILOs of Quality Control course													
		knowledge and understanding				professional and practical skills		intellectual skills				General and transferable skills			
Lectures		a1	a2	a3	a4	b1	b2	c1	c2	c3	c4	d1	d2	d3	d4
1	Drug registration and assessment												x		
2	Analytical Problem: sampling and experimental errors				x										
3	Analytical Problem: Choice of methods of an analysis and validation				x										
4	Drug stability and degradation product	x							x						
5	Function group analysis (Classical analysis)		x												
6	Function group analysis(Instrumental analysis)		x												
7	Automation in pharmaceutical analysis		x												

8	Determination of active ingredients in Tablets semisolid and eye drops, injection, suppositories and aerosols inhalation			x						x						
9	Quality assurance of pharmaceuticals G.M.P ,ISO and BSI							x								
Practical sessions																
1	Assay of : Paracetamol tablets, Isoniazid tablets, Glycerol suppositories, Chloramphenicol capsules, Chloramphenicol eye drops, Lidocaine injection, Furosemide,Sodium chloride intravenous infusion, Salicylic acid ointment Phenylephrine eye drops.					x	x			x						
2	Activity (reports)										x	x	x	x	x	

Matrix II of Quality Control course

National Academic Reference Standards (NARS)		Program ILOs	Course ILOs	Course contents	Sources	Teaching and learning methods			Method of assessment		
						lecture	practical session	self learning	written exam	practical exam	oral exam
2.2	Physico-chemical properties of various substances used in preparation of medicines including inactive and active ingredients as well as biotechnology and radio-labeled products.	A9	a1	Drug stability and degradation product	student book	x			x		x
2.3	Principles of different analytic techniques using GLP guidelines and validation procedures.	A11	a2	Function group analysis Classical analysis	student book	x			x		x
				Function group analysis Instrumental analysis	student book	x			x		x
				Automation in pharmaceutical analyesis	student book	x			x		x

2.4	Principles of isolation, synthesis, purification, identification, and standardization methods of pharmaceutical compounds.	A12	a3	Determination of active ingredients in Tablets semisolid and eye drops	student book, essential books	x			x		x
				Determination of active ingredients in injection and suppositories	student book, essential books	x			x		x
				Determination of active ingredients in aerosols inhalation	student book, essential books	x			x		x
2.17	Methods of biostatistical analysis and pharmaceutical calculations	A36	a4	Analytical Problem: sampling and experimental errors	student book	x			x		x
				Analytical Problem: Choice of methods of an analysis and validation	student book	x			x		x
3.2	Handle and dispose chemicals and pharmaceutical preparations safely	B2	b1	.Assay of : Paracetamol tablets,Isoniazid tablets,Glycerol suppositories,Chloramphenicol capsules, Chloramphenicol eye drops, Lidocaine injection,Furosemide,Sodium chloride intravenous infusion,Salicylic acid ointment&Phenylephrine eye drops.	Practical notes		x			x	

3.4	Extract, isolate, synthesize, purify, identify, and/or standardize active substances from different origins.	B5	b2	.Assay of : Paracetamol tablets,Isoniazid tablets,Glycerol suppositories,Chloramphenicol capsules, Chloramphenicol eye drops, Lidocaine injection,Furosemide,Sodium chloride intravenous infusion,Salicylic acid ointment&Phenylephrine eye drops.	Practical notes		x			x	
4.2	Comprehend and apply GLP,GPMP, GSP and GCP guidelines in pharmacy practice	C3	c1	Quality assurance of pharmaceuticals G.M.P ,ISO and BSI	student book	x			x		x

4.3	Apply qualitative and quantitative analytical and biological methods for QC and assay of raw materials as well as pharmaceutical preparations	C4	c2	Drug stability and degradation product	student book	x					
		C5	c3	Determination of active ingredients in Tablets semisolid and eye drops	student book	x			x		
				Determination of active ingredients in injection and suppositories	student book	x			x		
				Determination of active ingredients in aerosols inhalation		x			x		

				.Assay of : Paracetamol tablets,Isoniazid tablets,Glycerol suppositories,Chloramphenicol capsules, Chloramphenicol eye drops, Lidocaine injection,Furosemide,Sodium chloride intravenous infusion,Salicylic acid ointment&Phenylephrine eye drops.	Practical notebook		x			x	
4.7	Apply various principles to determine the characteristics of biopharmaceutical products.	C10	c4	Activity	essential books/Internet		x	x		x	
5.1	Communicate clearly by verbal and written means	D1	d1	.Activity (reports)	Internet		x	x		x	
5.2	Retrieve and evaluate information from different sources to improve professional competencies	D3	d2	Drug registration and assessment	student book	x			x		x
				Activities(reports)	essential books/Internet		x	x		x	

5.3	Work effectively in a team	D4	d3	Activities(reports)	essential books/Internet		x	x		x	
5.9	Implement writing and presentation skills	D11	d4	Activities(reports)	essential books/Internet		x	x		x	

Course Coordinator: **Prof. Abd allah ElShanawani**

Head of department: **Prof. Mohamed Baraka**

Date: **2017/9/ 3** **تم مناقشة واعتماد توصيف المقرر من مجلس القسم المقرر بتاريخ**

COURSE SPECIFICATIONS

Business Administration

Fifth Year-Second Term
2017-2018

توصيف مقرر المحاسبة وإدارة الأعمال الصيدلية

جامعة الزقازيق **كليــة الصـيدلة**

أ- مواصفات المقرر:

البرنامج أو البرامج التى يقدم من خلالها المقرر: بكالوريوس الصيدلة

المقرر يمثل عنصرا رئيسيا أو ثانويا بالنسبة للبرامج: ثانوياً

القسم العلمي المسئول عن البرنامج: ----------

القسم الذي يدرس المقرر: كلية التجارة–قسم إدارة الأعمال

مستوى العام الأكاديمي: الفرقة الخامسة/ التيرم الثاني

تاريخ اعتماد التوصيف: سبتمبر 2017

(ب) البيانات الأساسية:

العنوان : محاسبة و إدارة أعمال صيدلية الكود : ABA

الساعات المعتمدة : ---

المحاضرات : ساعتان أسبوعيا

العملي: ---

الدروس العملية : ---

المجموع : 2 ساعة في الأسبوع

(ج) البيانات المهنية:

1) الأهداف العامة للمقرر:

عند إتمام المقرر سوف يكون الطالب قادر على الالمام بالمفاهيم والاتجاهات المختلفة للإدارة.

2) النتائج التعليمية المستهدفة لمقرر المحاسبة و إدارة الأعمال الصيدلية:

أ – المعرفة والفهم	
أ1	يعرف نظريات الإدارة الحديثة وأسس تطبيقها في ظل العولمة.
أ2	يلم بالمعارف والمهارات المتعلقة بالتخطيط، التنظيم ،اتخاذ القرارات ،القيادة ،الرقابة والاتصال.
أ3	يوضح طرق إدارة المشروعات الصغيرة (الصيدلية) وتحديد الأهداف والموارد وتوزيع الوظائف.
أ4	يعرف كيفية عمل دراسة جدوى اقتصادية لإنشاء صيدلية.
ج- المهارات الذهنية	
ج1	يقيم بعض النماذج لشركات الأدوية الناجحة ومعرفة أسباب نجاحها والاستفادة منها.
ج2	يطبق المباديء الاقتصادية في إدارة الصيدلية، وفي دراسة الجدوى الاقتصادية للمشروعات الصيدلية.
د- المهارات العامة والمنقولة	
د1	يعمل بكفاءة كأحد أفراد الفريق.
د2	يستخدم المصادر الالكترونية ونظم المعلومات في الإدارة.
د3	يختار الشكل القانوني المناسب للمنظمة.
د4	يكتسب مهارات التفكير الإبداعي واتخاذ القرارات الذكية وتبسيط إجراءات العمل.
د5	ينمي مهارة إدارة الوقت والتخطيط الاستراتيجي.
د6	يطور مهارات التفكير النقدي و اتخاذ القرارات و معالجة المشكلات التي تواجه مديري الصيدليات وشركات الأدوية.

د- المحتويات:

الأسبوع	المحاضرة (2 ساعة/ الأسبوع)
1	مفاهيم الإدارة والأعمال.
2	المتغيرات العالمية التي تؤثر على الصيدلي بعض المفاهيم الحديثة لمواجهتها.
3	ثقافة المنظمة الملتزمة بالجودة.
4	أخلاقيات الأعمال والمسئولية الإجتماعية للمنظمات.
5	التنبؤ وبناء القدرة على الرؤيا المستقبلية.
6	التخطيط: طرق إعداد الخطط الاستراتيجية.
7	أسس اتخاذ القرارات الذكية للصيدلي المتميز.
8	إدارة الوقت كأداة لتحقيق التميز.
9	إدارة الازمات وطرق مواجهتها.
10	دراسة جدوى إنشاء المشروع الجديد.
11	طرق إدارة الصراع ومواجهتها.
12	طرق الإدارة ضمن فريق العمل.

13	مهارات الاتصال داخل المنظمة.
14	التنسيق وتنظيم الأعمال
15	الرقابة كأداة لتحقيق الخطط المحددة. -مناقشة حرة

هـ- أساليب التعليم و التعلم:

- المحاضرات

و-أساليب تقييم الطلبة:

1- الامتحان التحريري يقيم: أ1و أ2و أ3و أ4و ج1وج2 د1ود2ود3ود4ود5و د6

الجدول الزمني التقييم:

تقييم (1): الامتحان التحريري	**الأسبوع السادس عشر**

ترجيح التقييم:

طريقة التقييم	الدرجات	النسب المئوية
الامتحان التحريري	50	%100
الإجمالي	50	%100

ز- التسهيلات اللازمة للتعليم و التعلم:

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

ي- قائمة المراجع:

1- مذكرات: مذكرة القسم

2- كتب مقترحة

أصول ومبادئ إدارة الأعمال

3- دوريات علمية أو نشرات .... الخ

التنظيم والإدارة

منسق المقرر: أ.د / عزة أحمد الشربيني

التاريخ:

مصفوفة 1 إدارة أعمال

	محتويات المقرر	نتائج التعلم المنشودة											
		المعرفة والفهم				المهارات الفكرية		مهارات عامة وتواصلية					
		أ1	أ2	أ3	أ4	ج1	ج2	د1	د2	د3	د4	د5	د6
1	مفاهيم الإدارة والأعمال	x											
2	المتغيرات العالمية التي تؤثر على الصيدلي بعض المفاهيم الحديثة لمواجهتها	x							x				
3	ثقافة المنظمة الملتزمة بالجودة	x							x				
4	أخلاقيات الأعمال والمسئولية الإجتماعية للمنظمات	x								x			
5	التنبؤ وبناء القدرة على الرؤيا المستقبلية		x			x							x
6	التخطيط: طرق إعداد الخطط الاستراتيجية		x									x	
7	أسس اتخاذ القرارات الذكية للصيدلي المتميز		x								x		
8	إدارة الوقت كأداة لتحقيق التميز			x			x					x	
9	إدارة الازمات وطرق مواجهتها		x				x						
10	دراسة جدوى إنشاء المشروع الجديد				x	x	x						x
11	طرق إدارة الصراع ومواجهتها			x			x						
12	طرق الإدارة ضمن فريق العمل			x			x	x					
13	مهارات الاتصال داخل المنظمة		x						x				
14	التنسيق وتنظيم الأعمال		x										
15	الرقابة كأداة لتحقيق الخطط المحددة -مراجعة		x										

مصفوفة 2 إدارة أعمال								
المعايير الأكاديمية المرجعية القومية (NARS)	نتائج التعلم المنشودة للبرنامج	نتائج التعلم المنشودة للمقرر	محتويات المقرر	المصدر	أساليب التعليم و التعلم			أسلوب التقييم
					المحاضرة	الدروس العملية	التعلم الذاتي	الامتحان التحريري
2.1 Principles of basic, pharmaceutical, medical, social, behavioral, management, health and environmental sciences as well as pharmacy practice.	A6	أ-1	مفاهيم الإدارة والأعمال. المتغيرات العالمية التي تؤثر على الصيدلي بعض المفاهيم الحديثة لمواجهتها. ثقافة المنظمة الملتزمة بالجودة. أخلاقيات الأعمال والمسئولية الإجتماعية للمنظمات.	الكتاب	x			x
2.18 Principles of management including financial and human resources	A 37	أ-2	التنبؤ وبناء القدرة على الرؤيا المستقبلية. التخطيط: طرق إعداد الخطط الاستراتيجية. أسس اتخاذ القرارات الذكية للصيدلي المتميز. إدارة الازمات وطرق مواجهتها. مهارات الاتصال داخل المنظمة. التنسيق وتنظيم الأعمال. الرقابة كأداة لتحقيق الخطط المحددة.	الكتاب	x			x

x			x	الكتاب	إدارة الوقت كأداة لتحقيق التميز. طرق إدارة الصراع ومواجهتها. طرق الإدارة ضمن فريق العمل.	أ-3	A38	**2.19 Principles of drug promotion, sales and marketing, business administration, accounting and pharmacoeconomics**
x			x	الكتاب	دراسة جدوى إنشاء المشروع الجديد.	أ-4		
x			x	الكتاب	التنبؤ وبناء القدرة على الرؤيا المستقبلية. دراسة جدوى إنشاء المشروع الجديد.	ج-1	C15	**4.12 Apply the principles of pharmacoeconomics in promoting cost/effective pharmacotherapy**
x			x	الكتاب	إدارة الوقت كأداة لتحقيق التميز. إدارة الازمات وطرق مواجهتها. دراسة جدوى إنشاء المشروع الجديد. طرق إدارة الصراع ومواجهتها. طرق الإدارة ضمن فريق العمل.	ج-2		
x			x	الكتاب	طرق الإدارة ضمن فريق العمل.	د-1	D4	**5.3 Work effectively in a team.**

					المتغيرات العالمية التي تؤثر على الصيدلي بعض المفاهيم الحديثة لمواجهتها. ثقافة المنظمة الملتزمة بالجودة. مهارات الاتصال داخل المنظمة.	د-2	D6	**5.4 Use numeracy, calculation and statistical methods as well as information technology tools**
x			x	الكتاب	أخلاقيات الأعمال والمسئولية الإجتماعية للمنظمات.	د-3	D8	**5.6 Adopt ethical, legal and safety guidelines**
x			x	الكتاب	أسس اتخاذ القرارات الذكية للصيدلي المتميز.	د-4	D9	**5.7 Develop financial, sales and market management skills**
x			x	الكتاب	التخطيط: طرق إعداد الخطط الاستراتيجية. إدارة الوقت كأداة لتحقيق التميز.	د-5	D10	**5.8 Demonstrate creativity and time management abilities.**
x			x	الكتاب	التنبؤ وبناء القدرة على الرؤيا المستقبلية. دراسة جدوى إنشاء المشروع الجديد.	د-6	D12	**5.10 Implement writing and thinking, problem-solving and decision- making abilities**

مصفوفة 3 مقرر إدارة الأعمال

الأسبوع	محتويات المقرر	المصدر	أساليب التعليم و التعلم			أسلوب التقييم
			المحاضرة	الدروس العملية	التعلم الذاتي	الامتحان التحريري
1	مفاهيم الإدارة والأعمال	الكتاب	x			x
2	المتغيرات العالمية التي تؤثر على الصيدلي بعض المفاهيم الحديثة لمواجهتها	الكتاب	x			x
3	ثقافة المنظمة الملتزمة بالجودة	الكتاب	x			x
4	أخلاقيات الأعمال والمسئولية الإجتماعية للمنظمات	الكتاب	x			x
5	التنبؤ وبناء القدرة على الرؤيا المستقبلية	الكتاب	x			x
6	التخطيط: طرق إعداد الخطط الاستراتيجية	الكتاب	x			x
7	أسس اتخاذ القرارات الذكية للصيدلي المتميز	الكتاب	x			x
8	إدارة الوقت كأداة لتحقيق التميز	الكتاب	x			x
9	إدارة الازمات وطرق مواجهتها	الكتاب	x			x
10	دراسة جدوى إنشاء المشروع الجديد	الكتاب	x			x
11	طرق إدارة الصراع ومواجهتها	الكتاب	x			x
12	طرق الإدارة ضمن فريق العمل	الكتاب	x			x

13	مهارات الاتصال داخل المنظمة	الكتاب	x			x
14	التنسيق وتنظيم الأعمال	الكتاب	x			x
15	الرقابة كأداة لتحقيق الخطط المحددة -مراجعة	الكتاب	x			x

منسق المقرر: أ.د / عزة أحمد الشربيني

التاريخ: