COURSE SPECIFICATIONS

Plarmacy

Bachelor of pharmacy

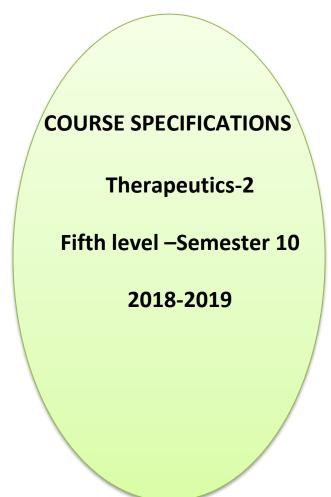
(Clinical Pharmacy)

Fifth level - Semester 10

2018-2019

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Course specification of Therapeutics-2

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

pharmacy).

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Pharmacology and Toxicology

Academic year Level: Fifth Level – 10th semester

Date of specification approval: January 2019

B- Basic information:

Title: Therapeutics-2 Code: PO 007

Credit Hours: ---

Lectures: 2 hrs/week

Practical: 1hr/week

Tutorials: ---

Total: 3 hrs/week

C- Professional information:

1- Overall aim of the course

On completion of the course, the student will be able to explain the basis of therapeutics including etiology, clinical features, diagnosis and treatment of different disease as oncology supportive care, osteoporosis, gout, pituitary disorders, adrenal disorders, obesity, polycystic ovary syndrome, multiple sclerosis and headache disorders.

2- Intended Learning Outcomes (ILOs)

A- ŀ	(nowledge and Understanding
a1	Describe the etiology, symptoms, diagnosis and treatment of osteoporosis, oncology supportive care, gout, pituitary disorders, adrenal disorders, obesity, polycystic ovary syndrome, multiple sclerosis and headache disorders.
a2	Summarize the possible therapeutic interventions
a3	Describe the possible drug-disease interaction and their mechanisms
a4	Identify drug-drug, drug-food and drug-disease interactions
B- F	Professional and Practical skills
b1	Evaluate different therapeutic protocols.
b2	Present different therapeutic cases as a written report.
C- I	ntellectual skills
c1	Evaluate prescribed drugs and the different alternatives according to the case
c2	Suggest the most suitable drugs for each studied disease conditions
D-G	Seneral and Transferable skills
d1	Communicate effectively with others.
d2	Develop critical thinking and problem solving skills.

D- Contents:

Week	Lecture contents (2 hrs/lec.)	Practical session (1hrs/lab)				
No.						
1	Osteoporosis	Case studies on osteoporosis				
2	Oncology supportive care: CINV	Case studies on CINV				
3	Oncology supportive care: Pain	Case studies on pain				
	management	management				
4	Oncology supportive care:	Case studies on febrile				
	Febrile neutropenia,	neutropenia and				
	Thrombocytopenia	thrombocytopenia				
5	Oncology supportive care:	Case studies on anemia, chemo-				
	Anemia, Chemo-protectants	protectants and oncologic				
	and oncologic emergencies	emergencies				
6	Gout	Case studies on gout				
7	Pituitary disorders	Case studies on Pituitary				
	Midterm exam	disorders				
8	Adrenal disorders	Case studies on adrenal				
		disorders				
9	Obesity	Case studies on Obesity				
10	Polycystic ovary syndrome	Case studies on polycystic ovary				
		syndrome				
11	Multiple sclerosis	Case studies on multiple				
		sclerosis				
12	Headache	Case studies on headache				
13	Revision	Practical exam				
14	Revision					
15	Final exam					

E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- Think/pair/share
- Case study, Open discussion, self-learning

F- Student Assessment methods:

- 1- Written exams (midterm and final) to assess: a1 to a4; c1 and c2.
- 2- Practical exam and lab activity to assess: b1 and b2; d1 and d2.
- 3- Oral exam to assess: a1 to a4; c1 and c2.

Assessment schedule

Assessment (1): Mid-term exam	Week 7
Assessment (2): Lab Activity	Week 1 to 12
Assessment (3): Practical exam	Week 13
Assessment (4): Final written exam	Week 15
Assessment (5): Oral exam	Week 15

Weighting of Assessment

Assessment method	Marks	Percentage
Mid-term exam	10	10%
Practical exam and lab activity	25	25%
Final written exam	50	50%
Oral exam	15	15%
TOTAL	100	100%

G- Facilities required for teaching and learning:

a. For lectures: Black (white) board, data show, air conditioned

classroom

b. For practical: Well-equipped labs

H- List of References:

1. Course Notes: Student book of therapeutics-2 approved by the

Pharmacology and Toxicology department (2019) and practical notes

of therapeutics-2 approved by the Pharmacology and Toxicology

department (2019).

2. Essential Books:

a. American collage of clinical pharmacy updates in therapeutics

pharmacotherapy preparatory review and recertification course

(2017)

3. Recommended **Books:** Pharmacotherapy, pathophysiological

approach (tenth edition); DePero J., (2016).

4. Periodicals and websites: Medscape clinical guidelines updates

Course Coordinator: Prof. Dr. Mona Fouad

Head of Department: Prof. Dr. Mona Fouad

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

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Matrix I												
			ILOs of Clinical Pharmacology course									
Course Contents		Knowledge and understanding			Professional and practical skills		Intellectual skills		Transferable and general skills			
Lectures		a1	a2	а3	a4	b1	b2	c1	c2	d1	d2	
1	Osteoporosis	х	х	х	х			х	Х			
2	Oncology supportive care: CINV	x	x	x	х			х	х			
3	Oncology supportive care: Pain management	х	х	x	x			х	х			
4	Oncology supportive care: Febrile neutropenia, Thrombocytopenia	х	х	х	х			х	х			
5	Oncology supportive care: Anemia, Chemoprotectants and oncologic emergencies	x	x	х	х			х	х			

6	Gout	х	х	х	х			x	X		
7	Pituitary disorders Midterm exam	х	х	х	х			x	x		
8	Adrenal disorders	х	х	х	х			х	Х		
9	Obesity	х	х	х	х			х	Х		
10	Polycystic ovary syndrome	х	x	х	х			х	х		
11	Multiple sclerosis	х	х	х	х			х	Х		
12	Headache	x	х	х	Х			х	Х		
				Prac	tical se	ession					
1	Case studies on osteoporosis					x	x			х	Х
2	Case studies on CINV					х	х			х	Х
3	Case studies on pain management					х	х			x	Х
4	Case studies on febrile neutropenia and					х	х			х	X

	thrombocytopenia						
5	Case studies on anemia, chemo-protectants and oncologic emergencies		х	х		х	Х
6	Case studies on gout		х	х		х	Х
7	Case studies on Pituitary disorders		х	X		х	X
8	Case studies on adrenal disorders		х	х		х	Х
9	Case studies on Obesity		х	х		х	Х
10	Case studies on polycystic ovary syndrome		X	х		х	Х
11	Case studies on multiple sclerosis		X	X		х	X
12	Case studies on headache		Х	х		х	Х

Matrix II Teaching and Method of assessment learning methods **National Academic Reference** Program Course **Practical Course contents** Sources **ILOs Standards NARS ILOs Practical** Written exam and Oral Lecture session exam lab exam activity Etiology, epidemiology, **Disorders of** osteoporosis, laboratory diagnosis and oncology supportive care, clinical features of different Student 2.12 A21 a1 gout, endocrine book and diseases and their X X system and CNS essential pharmacotherapeutic books approaches. 2.13 Disorders of Pharmacological properties of A22 a2 to drugs including mechanisms of

	action, therapeutic uses, dosage, contra-indications, ADRs and drug interactions.		a4	osteoporosis, oncology supportive care, gout, endocrine system and CNS	Student book and essential books	x		x		x
3.5	Select medicines based on understanding etiology and pathophysiology of diseases.	B7, B8	b1	Case studies on disorders of osteoporosis, oncology supportive care, gout, endocrine system and CNS	Practical note		x		x	
3.12	Employ proper documentation and drug filing systems.	B18	b2	Case studies on disorders of osteoporosis, oncology supportive care, gout, endocrine system and CNS	Practical note		x		x	
4.9	Utilize the pharmacological basis of therapeutics in the proper	C11	c1	Disorders of osteoporosis, oncology supportive care, gout, endocrine	Student book, Essential books	x		х		x

		selection and use of drugs in			system and CNS					
		various disease conditions.								
4,1	11	Assess drug interactions, ADRs and Pharmacovigilance	C13	c2	Disorders of osteoporosis, oncology supportive care, gout, endocrine system and CNS	Student book, Essential books	x	x		x
5.1	L	Communicate clearly by verbal and written means	D1	d1	Lab activity	Different sources			x	
5.1	LO	Implement writing and thinking, problem- solving and decision- making abilities	D12	d2	Lab activity	Different sources			x	

Course Coordinator: Prof. Dr. Mona Fouad

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

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

COURSE SPECIFICATIONS

Treatment of dermatological and reproductive diseases

Fifth level –Semester 10

2018-2019

Course Specification of Treatment of dermatological and reproductive diseases

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

pharmacy)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Dermatology &Venereology

department , Faculty of medicine

Academic year/Level: Fifth level/tenth semester

Date of specification approval September 2018

B- Basic information:

Title: Treatment of dermatological and reproductive diseases

Code: PP010

Credit Hours:

Lectures : 1 hr/weekPractical: 1 hrs/week

Tutorials: ---

• Total: 2 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to explain the basic medical knowledge of dermatology, venereology and andrology.

2-Intended Learning Outcomes of Treatment of dermatological and reproductive diseases (ILOs):

A- k	Inowledge and Understanding
a1	Outline the normal structure of the human skin and reproductive systems
a2	Describe the primary and secondary skin lesions.
a3	Illustrate the clinical manifestations of allergic skin diseases, papulosquamous disorders and dermatitis.
a4	Mention the dermatologic manifestations of systemic diseases.
a5	Enumerate common skin and male genitourinary system infections (Bacterial, viral, fungal).
B- F	rofessional and Practical skills
b1	Use dermatological expressions effectively.
b2	Diagnose common illnesses of the body related to dermatology, venereology and andrology.
b3	Conduct research studies and analyze the results.
C- I	ntellectual skills
c1	Interpret experimental results as well as published literature in dermatology.
c2	Recognize basic Dermatological, Venereal and Andrological problems.
D- (General and Transferable skills
d1	Retrieve information from different sources.
d2	Implement critical thinking and decision making skills.

D- Contents:

Week	Lecture	Practical session
No.	(1 hr/ week)	(1 hr/week)
1	- Structure and functions of skin	- International standards and ethics.
2	- Dermatological lesions-(Primary & Secondary)	- Case study for dermatological lesions
3	- Bacterial skin diseases (Impetigo, Erysipelas, Cellulitis, Leprosy)	- Case study for bacterial skin diseases
4	- Fungal skin diseases: Diseases due to dermatophytes, Diseases due to yeasts (P.versicolor & candidiasis).	- Case study for fungal skin diseases
5	- Viral skin diseases (Herpes simplex, Varicella zoster infection, Warts "Verrucae" of skin)	•
6	- Parasitic skin infestations: scabies	- Case study for parasitic skin infestations
7	 Eczema (Dermatitis): Definition of eczema Classification:exogenous&endogene ous types Atopic dermatitis - Periodical exam 	- Case study for eczema

8	- Urticaria	- Case study for Urticaria
0		- Activity (report)
9	- Angioedema	- Case study for angioedema
10	- Acne vulgaris	- Case study for acne vulgaris
11	- Papuloaquamous skin diseases (Psoriasis, Lichen planus, Pityriasis rosea)	,
12	- Skin manifestations of systemic diseases (Diabetes mellitus, Liver diseases, SLE)	-
	- Sexually transmitted diseases	,
13	(Gonorrhea and urethritis, Chancroid, Lymphogranuloma	transmitted diseases
	venereum, granuloma inguinale, AIDS)	
4.4	- Basic andrology (Impotence,	- Practical exam
14	Normal semen, Definitions related to semen analysis report)	
15	- final written exam	

E- Teaching and Learning Methods:

- Lectures
- Practical sessions (clinical Rounds Lab)
- Case study
- Self learning (activity, group discussion...)

F- Student Assessment Methods:

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

2- Practical exam to assess b1, b2, c2, d2

3- Activities to assess b3, d1, c1

4- Oral exam to assess a1, a2, a3, a4, a5, c2

5- Periodical exam to assess a1, a2, a3, a4, c2

Assessment schedule:

Assessment (1): Written exam	Week 15
Assessment (2): Practical exam	Week 14
Assessment (3): Activity	Week 8
Assessment (4): Oral exam	Week 15
Assessment (5): Periodical exam	Week 7

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	50	50%
Practical exam and activities	25	25%
Oral exam	15	15%
Periodical exam	10	10%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

• Black (white) board, Data show.

H- List of References:

1- Course Notes: Student book of Treatment of dermatological and

reproductive diseases approved by Dermatology &Venereology

department 2018.

- Practical notes of Treatment of dermatological and reproductive

diseases approved by Dermatology & Venereology department 2018.

2- Essential books:

i- Skin Disease: Diagnosis and Treatment, (Habif) (third edition) by Thomas P.

Habif T.P., James L. Campbell Jr. J.L., Chapman M.S. and Dinulos J.G.H.;

Elsevier Saunders (2011)

3- Recommended books:

i- Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology (Sixth Edition) by Wolff K.

and Johnson R. (2009).

4- Periodicals and websites:

www.Pubmed.Com

www.sciencedirect.com.

Course Coordinators: Prof. Dr. Amany Abdel Rahman

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	Matrix I of Treatment of dermatological and reproductive diseases course													
		ILOs of Treatment of dermatological and reproductive diseases												
	Course Contents	Knowledge and understanding					Professional and practical skills			Intellectual skills		General and transferable skills		
	Lectures	a1	a2	a3	a4	a5	b1	b2	b3	c1	c2	d1	d2	
	- Structure and functions of skin													
1		X												
2	- Dermatological lesions-(Primary & Secondary)		X											
3	- Bacterial skin diseases (Impetigo, Erysipelas, Cellulitis, Leprosy)					x								
	- Fungal skin diseases:													
4	1, , ,					X								
	Diseases due to yeasts (P.versicolor & candidiasis).							_	_					

5	- Viral skin diseases (Herpes simplex, Varicella zoster infection, Warts "Verrucae" of skin)			X				
6	- Parasitic skin infestations: scabies			x				
7	- Eczema (Dermatitis): Definition of eczema Classification:exogenous&endogeneous types Atopic dermatitis	x						
8	- Urticaria	X						
9	- Angioedema	X						
10	- Acne vulgaris	X						
11	- Papuloaquamous skin diseases (Psoriasis, Lichen planus, Pityriasis rosea)	х						
12	- Skin manifestations of systemic diseases (Diabetes mellitus, Liver diseases, SLE)		X					
13	- Sexually transmitted diseases (Gonorrhea and urethritis, Chancroid, Lymphogranuloma venereum, granuloma inguinale, AIDS)			x				
14	- Basic andrology (Impotence, Normal semen, x							

	Definitions related to semen analysis report)								
15	- Revision& Open discussion								
	Practical sessions								
1	- International standards and ethics.			X					
2	- Case study for dermatological lesions				Х		X		X
3	- Case study for bacterial skin diseases				X		X		X
4	- Case study for fungal skin diseases				Х		X		X
5	- Case study for viral skin diseases				X		X		X
6	- Case study for parasitic skin infestations				X		X		Х
7	- Case study for eczema				x		x		х
8	- Case study for Urticaria				X		X		X
9	- Case study for angioedema				Х		X		X
10	- Case study for acne vulgaris				Х		X		Х
11	- Case study for papuloaquamous skin diseases				X		X		Х
12	- Case study for skin manifestations of systemic diseases				х		x		х

13	- Case study for Sexually transmitted diseases				X			X		х
14	- Activity (report)					X	X		Х	

Matrix II of Treatment of dermatological and reproductive diseases course

	National Academic Reference	Program	Course	Course contents	Sources	Teach	ing and le		Method of assessment			
	Standards (NARS)	ILOs	ILOs			Lecture	Practical session	Self learning	Written exam	Practical exam	Periodical exam	Oral exam
	Principles of body function in health and disease states as	A16	a1	- Structure and functions of skin - Basic andrology (Impotence, Normal semen, Definitions related to semen analysis report)	Student book Essential books	×			×		x	x
2.1	well as basis of genomic and		a2	- Dermatological lesions- (Primary & Secondary)	Student book Essential books	x			x		х	x
	regarding their correlation with different diseases.	A18	a3	- Eczema (Dermatitis): Definition of eczema Classification: exogenous&endogeneous types Atopic dermatitis	Student book Essential books	x			x			x

				- Urticaria						
				- Angioedema - Acne vulgaris	Student book Essential books	x		x		x
				- Papuloaquamous skin diseases (Psoriasis, Lichen planus, Pityriasis rosea)	Student book Essential books	x		x		x
			a4	- Skin manifestations of systemic diseases (Diabetes mellitus, Liver diseases, SLE)	Student book Essential books	x		x	x	x
	Etiology, epidemiology, laboratory diagnosis and			- Bacterial skin diseases (Impetigo, Erysipelas, Cellulitis, Leprosy)	Student book Essential books	х		x	x	x
2.12	clinical features of different diseases and their pharmaco- therapeutic approaches	A19	a5	- Fungal skin diseases: Diseases due to dermatophytes, Diseases due to yeasts (P.versicolor &	Student book Essential books Recommended books	x	x	x	x	×

				candidiasis).	Internet							
				- Viral skin diseases (Herpes simplex, Varicella zoster infection, Warts	Student book Essential books							
				"Verrucae" of skin)	Recommended books	X		х	х		X	X
					Internet							
				- Parasitic skin infestations: scabies	Student book Essential books	x			x		×	x
3.1	Use the proper pharmaceutical and medical terms, abbreviations and symbols in	B1	b1	- International standards and ethics.	Practical notes		x			x		
	pharmacy practice.											
3.5	Select medicines based on	B7	b2	- Case study for dermatological lesions	Practical notes		X			x		
	understanding etiology and	B8		- Case study for			Х			X		

path physiology	bacterial skin diseases				
of diseases.	- Case study for fungal skin diseases	x		х	
	- Case study for viral skin diseases	x		х	
	- Case study for parasitic skin infestations	x		х	
	- Case study for eczema	x		х	
	- Case study for Urticaria	x		x	
	- Case study for angioedema	x		х	
	- Case study for acne vulgaris	x		X	
	- Case study for papuloaquamous skin diseases	x		х	
	- Case study for skin manifestations of systemic diseases	x		х	

				- Case study for Sexually transmitted diseases		X		x	
3.11	Conduct research studies and analyze the results.	I R1/	В3	- Activity (report)	Recommended books Internet	×	x	X	

4.13	Analyze and interpret experimental results as well as published literature.	C15	c1	- Activity (report)	Recommended books Internet	X	×	X	
4.14	Analyze and evaluate evidence-based	C16	c2	- Case study for dermatological lesions	Practical notes Recommended	X		X	

information	- Case study for	books	X		X	
needed in	bacterial skin diseases	Internet				
pharmacy		internet				
practice.	- Case study for fungal		X		X	
	skin diseases					
	- Case study for viral skin diseases		X		X	
	skiii diseases					
	- Case study for					
	parasitic skin infestations		X		X	
	- Case study for eczema				X	
			X			
	- Case study for		X		X	
	Urticaria					
	- Case study for angioedema		X		X	
	angioeuema					
	- Case study for acne vulgaris	Student book	X		X	
	vuigaiis	Essential books				
		Recommended				

				- Case study for papuloaquamous skin diseases - Case study for skin manifestations of systemic diseases - Case study for Sexually transmitted diseases	books Internet	x		x	
5.2	Retrieve and evaluate information from different sources to improve professional Competencies.	D2	d1	- Activity (report)	Recommended books Internet	x	x	x	
5.10	Implement writing and	D12	d2	- Case study for dermatological lesions	Practical notes	х		х	
	thinking, problem- solving and decision-			- Case study for bacterial skin diseases	Practical notes	x		x	

making abilities.	- Case study for fungal skin diseases	Practical notes	x	x	
	- Case study for viral skin diseases	Practical notes	x	х	
	- Case study for parasitic skin infestations	Practical notes	x	x	
	- Case study for eczema - Case study for Urticaria	Practical notes	x	x	
	- Case study for angioedema	Practical notes	x	x	
	- Case study for acne vulgaris	Practical notes	x	х	
	- Case study for papuloaquamous skin diseases	Practical notes	x	х	
	- Case study for skin manifestations of systemic diseases	Practical notes	x	х	
	- Case study for Sexually transmitted diseases	Practical notes	X	х	

Course Coordinators: Prof. Dr. Amany Abdel Rahman

COURSE SPECIFICATIONS

Treatment of Pediatric

Diseases

Fifth level –Semester 10

2018-2019

Course Specification of Treatment of Pediatric Diseases

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University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

pharmacy)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Pediatric department, Faculty of

Medicine

Academic year/Level: Fifth level /Tenth semester

Date of specification approval September 2018

B- Basic information:

Title: Treatment of Pediatric Diseases Code: PP 011

Credit Hours:

Lectures : 2 hrs/weekPractical: 1 hrs/week

Tutorials: ---Total: 3 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to explain the principles of treatment of pediatric and neonatal disorders as well as neonatal resuscitation in delivery room.

2-Intended Learning Outcomes of Treatment of Pediatric Diseases (ILOs):

A- K	(nowledge and Understanding
a1	Illustrate the measurements of growth and development in children.
a2	Outline nutritional disorders in children.
a3	Describe the clinical picture and management of neonatal disorders.
a4	Identify management of gastroenteritis and dehydration.
B- P	rofessional and Practical skills
b1	Specify therapeutic management of nutritional disorders, rickets, neonatal sepsis, neonatal convulsions and diabetic ketoacidosis.
b2	Assess normal abnormal and abnormal growth of children.
b3	Determine degree of dehydration and its management.
b4	Examine neonate in delivery room and manage neonatal asphyxia.
C- II	ntellectual skills
c1	Choose appropriate drugs in neonatal resuscitation.
c2	Suggest accurate amount of fluid needed for dehydrated neonates and children.
D- 0	General and Transferable skills
d1	Develop communications skills with public, patients and other health care professionals.
d2	Work effectively as a member of a team.
d3	Practice independent learning needed for continuous professional development.
d4	Write and present reports.
d5	Implement critical thinking and decision making skills.

D- Contents:

Week	Lecture	Practical session
No.	(2 hrs/ week)	(1 hr/week)
1	- Growth and development	- Assessment of growth
2	- Nutritional disorders	- Nutritional classification
3	- Marasmus and kwashiokor	- Treatment of disorders
4	- Rickets	- Assessment and treatment of rickets
5	- Gastroenteritis	- Dehydration
6	- Neonatal resuscitation 1 (APGAR)	- Practical exam-1
7	- Periodical exam	IV management of dehydrationActivity (report)
8	- Neonatal resuscitation (2)	- Drugs of resuscitation
9	- Neonatal sepsis	- IV fluids in neonates
10	- Neonatal convulsions	- TPN in neonates
11	- Neonatal respiratory distress	- Drugs used in treatment of neonatal disorders
12	- Diabetes mellitus	- Diabetic ketoacidosis
13	- Nephrotic syndrome	- Revision
14	- Nephritic syndrome	- Practical exam-2
15	Final written exam	

E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- Self learning (activity, reports, internet search, group discussion...)

F- Student Assessment Methods:

1- Written exam to assess a1, a2, a3, a4, c1, c2, d5

2- Practical exam to assess b1, b2, b3, b4, d1, d2, d5

3- Activities to assess d3, d4

4- Oral exam to assess a1, a2, a3, a4, c1, c2, d1, d5

5- Periodical exam to assess a1, a2, a3, c1, c2, d5

Assessment schedule:

Assessment (1): Written exam	Week 15
Assessment (2): Practical exams	Week 6,14
Assessment (3): Activity	Week 7
Assessment (4): Oral exam	Week 15
Assessment (5): Periodical exam	Week 7

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	50	50%
Practical exam and activities	25	25%
Oral exam	15	15%

Periodical exam	10	10%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

• Black (white) board, Data show.

H- List of References:

- **1- Course Notes:** Student book of Treatment of Pediatric Diseases approved by Pediatric department 2018.
- Practical notes of Treatment of Pediatric Diseases approved by Pediatric department 2018.

2- Essential books:

i- Treatment of Pediatric Neurologic Disorders (Neurological Disease and Therapy) by Harvey S. Singer, Eric H. Kossoff, Adam L. Hartman, Thomas O. Crawford (2005).

3- Recommended books:

i- Walker's Pediatric Gastrointestinal Disease: Physiology, Diagnosis, Management by Ronald E. Kleinman (2008).

4- Periodicals and websites:

www.Pubmed.Com

www.sciencedirect.com.

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Course Coordinators: Prof. Dr. Rabab Albehedi

Pediatric department - Faculty of Medicine

		Matr	ix I d	of Tr	eatr	nent	t of I	Pedia	atric	Diseas	ses	cour	se			
			ILOs of Treatment of Pediatric Diseases course													
	Course Contents		Knowledge and understanding				Professional and practical skills			Intellectual skills		General and transferable skil				transferable skills
	Lectures	a1	a2	a3	a4	b1	b2	b3	b4	c1	c2	d1	d2	d3	d4	d5
1	- Growth and development	Х														
2	- Nutritional disorders		х													x
3	- Marasmus and kwashiokor		x													
4	- Rickets		x													
5	- Gastroenteritis				X											
6	- Neonatal resuscitation 1 (APGAR)			X						X	X					x
7	- Neonatal sepsis			X												
8	- Neonatal convulsions			X												
9	- Neonatal respiratory distress			X												
10	- Diabetes mellitus			X												

11	- Nephrotic syndrome		x					X					
12	- Nephritic syndrome		X					X					
	Practical sessions												
1	- Assessment of growth				X				X				x
2	- Nutritional classification				X								х
3	- Treatment of disorders			X					X				x
4	- Assessment and treatment of rickets			X					X				х
5	- Dehydration					X							
6	- IV management of dehydration					X				X			
7	- Drugs of resuscitation						X						
8	- IV fluids in neonates						x						
9	- TPN in neonates						X						
10	- Drugs used in treatment of neonatal disorders			x									
11	- Diabetic ketoacidosis			X									
12	- Activity (report)										X	X	

Matrix II of Treatment of Pediatric Diseases course

	National Academic Reference	Program	Course ILOs	Course	Sources	Teach	ing and le		Method of assessment			
	Standards (NARS)	ILOs		contents		Lecture	Practical session	Self learning	Written exam	Practical exam	Periodical exam	Oral exam
	Principles of body function in health and	A16	a1	- Growth and development	Student book Essential books	x			х		x	×
2.11	disease states as well as basis of genomic and different			- Nutritional disorders	Student book Essential books	x			х		х	x
	biochemical pathways regarding their correlation with different diseases.	A18	a2	- Marasmus and kwashiokor	Student book Essential books	x			х		х	х
				- Rickets	Student book Essential books	x			х		х	х

				- Neonatal resuscitation 1 (APGAR)	Student book Essential books	x		x	x	x
	Etiology, epidemiology,			- Neonatal sepsis	Student book Essential books Recommended books Internet	x	×	x	x	х
2.12	laboratory diagnosis and clinical features of different diseases and their pharmaco- therapeutic	A19	a3	- Neonatal convulsions	Student book Essential books Recommended books Internet	x	×	x	x	х
	approaches			- Neonatal respiratory distress	Student book Essential books Recommended books Internet	х	x	x	х	х
				- Diabetes mellitus	Student book Essential books	х		X	x	x

				- Nephrotic syndrome	Student book Essential books	х			x		х	х
				- Nephritic syndrome	Student book Essential books Recommended books Internet	x		x	x		х	х
		A21	a4	- Gastroenteritis	Student book Essential books	х			x		x	x
	Select medicines			- Treatment of disorders			х			x		
3.5	based on understanding of etiology and	В7	b1	- Drugs used in treatment of neonatal disorders	Practical notes		х			х		
	pathophysiology of diseases			- Diabetic ketoacidosis - Assessment and treatment of rickets			x			x		

3.6	Monitor and control microbial growth and carry out laboratory tests for identification of infectious and non-infectious diseases	B11	b2	 Assessment of growth Nutritional classification 	Practical notes	x		X	
	Advise nationts		b3	- Dehydration - IV management of dehydration Case study for CVD		×		x x	
3.10	Advise patients and other health care professionals about safe and proper use of medicines.	B16	b4	- Drugs of resuscitation - IV fluids in neonates	Practical notes	x		x	
				- TPN in neonates - Drugs of resuscitation		x		x	

4.9	Utilize the pharmacological basis of therapeutics in the proper selection and use of drugs in various disease conditions.	C11	c1	- Neonatal resuscitation 1 (APGAR)	Student book Essential books	x			x		x	x
4.14	Analyze and evaluate evidence-based information needed in pharmacy practice.	C16	c2	- Neonatal resuscitation 1 (APGAR) - Nephrotic syndrome - Nephritic syndrome	Student book Essential books Recommended books Internet	x x x		x x x	x x		x x	x x x
5.1	Communicate clearly by verbal and written means	D1	d1	- Assessment of growth - Treatment of disorders - Assessment and treatment of rickets	Practical notes		x x			x x		
5.3	Work effectively in a team	D4	d2	- IV management of dehydration	Practical notes		х			X		

5.5	Practice independent learning needed for continuous professional development	D7	d3	- Activity (report)	Student book Essential books Recommended books Internet	x x		x x				x x x
5.9	Implement writing and presentation skills	D11	d4	Activity (report)	Recommended books Internet		x	x		х		
				- Nutritional disorders	Student book Essential books	x			х		x	х
	Implement			- Neonatal resuscitation 1 (APGAR)	Student book Essential books	х			х		х	х
5.10	writing and thinking, problem- solving	D12	d5	- Assessment of growth	Practical notes		x			x		
	and decision- making abilities.			- Nutritional classification	Practical notes		x			Х		
				- Treatment of disorders	Practical notes		x			х		
				- Assessment and	Practical notes		х			x		

		treatment of rickets				

Course Coordinators: Prof. Dr. Rabab Albehedi (Faculty of Medicine)

COURSE SPECIFICATIONS

Treatment of cardiovascular diseases

Fifth level –Semester 10

2018-2019

Course Specification of Treatment of cardiovascular diseases

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

pharmacy)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Cardiology department

Faculty of Medicine

Academic year/Level: Fifth level/tenth semester

Date of specification approval: September 2018

B- Basic information:

Title: Treatment of cardiovascular diseases Code: PP 012

Credit Hours:

Lectures : 2 hrs/weekPractical: 1 hrs/week

Tutorials: ---

Total: 3 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to demonstrate responsibility for the patient's drug management in the health care setting.

2-Intended Learning Outcomes of Treatment of cardiovascular diseases (ILOs):

A- K	(nowledge and Understanding											
a1	Outline cardiovascular disease states, their treatments and outcomes for individual cardiac patients.											
a2	Determine evidence-based medication by monitoring progress of disease to maximize the benefits and minimize the risks of treatment.											
B- P	B- Professional and Practical skills											
b1	Manage, monitor and review medication for cardiac patients.											
b2	Describe and evaluate any non-drug management options, where appropriate.											
C- II	ntellectual skills											
c1	Evaluate evidence-based information needed in pharmacy practice.											
c2	Apply knowledge and understanding of therapeutics to 'real life' situations, using an evidence-based approach that takes into account recent research and current professional practice.											
D- 0	General and Transferable skills											
d1	Develop communications skills with public, patients and other health care professionals.											
d2	Implement critical thinking and decision making skills.											

D- Contents:

Week	Lecture	Practical session				
No.	(2 hrs/ week)	(1 hr/week)				
1	- Introduction to treatment cardiovascular diseases	- Introduction to hospital setting practice.				
2	- Cardiac symptoms	- Tacking history (Cardiac symptoms)				
3	- Rheumatic fever	- Clinical cases of rheumatic fever				
4	- Valvular heart disease	- Clinical cases of Valvular heart disease				
5	- Prosthetic valve	- Clinical cases of Prosthetic valve				
6	- Infective endocarditis	- Clinical cases of Infective endocarditis				
7	- Periodical exam	- Practical exam-1				
8	- Acute coronary syndrome(part I)	- Clinical cases of Acute coronary syndrome (part I)- Activity				
9	- Acute coronary syndrome(part II)	- Clinical cases of Acute coronary syndrome (part II)				
10	- Heart failure (part I)	- Clinical cases of Heart failure (part I)				
11	- Heart failure (part II)	- Clinical cases of Heart failure (part II)				
12	- Hypertension	- Clinical cases of Hypertension				

	- Cardiac arrhythmias	- Clinical cases of Cardiac
		arrhythmias
13		- Clinical cases & MCQ revision
		- Hospital setting practice
		revision
	- Revision	- Practical exam-2
14	- Open discussion	
15	Final written exam	

E- Teaching and Learning Methods:

- Lectures
- Clinical cases.
- Clinical MCQs.
- Hospital setting practice.
- Self learning (activity, group discussion...)

F- Student Assessment Methods:

1- Written exam to assess a1, a2, c1, c2, d2

2- Practical exam to assess b1, b2, d1

3- Activities to assess d2

4- Oral exam to assess a1, a2, c1, c2, d2

5- Periodical exam to assess a1, a2, c1, c2, d2

Assessment schedule:

Assessment (1): Written exam	Week 15

Assessment (2): Practical exams	Week 7, 14
Assessment (3): Activity	Week 8
Assessment (4): Oral exam	Week 15
Assessment (5): Periodical exam	Week 7

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	50	50%
Practical exam and activities	25	25%
Oral exam	15	15%
Periodical exam	10	10%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

• Black (white) board, Data show.

H- List of References:

- **1- Course Notes:** Student book of Treatment of cardiovascular diseases approved by cardiology department 2018.
- Practical notes of Treatment of cardiovascular diseases approved by cardiology department 2018.

2- Essential books:

i- CARDIAC DRUG THERAPY (Seventh Edition) by KHAN:, Humana Totowa, New Jersey (2007)

ii- Textbook of Cardiovascular Medicine(3rd Edition) by Topol, Eric, Lippincott Williams & Wilkins (2007).

3- Recommended books:

i- Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine (8th ed.) by Libby, Philadelphia (2008).

ii- Drugs for the heart , the latest advances in cardiovascular pharmacology (7th edition) by Lionel opie Philadelphia (2009).

4- Periodicals and websites:

www.escardio.org/

www.ascpt.org/

www.accp.com/

www.abcp.net/

www.accp1.org/

Course Coordinators: Prof. Dr. AbdelSalam Elsayed Hussien

	Matrix I of Treatment of cardiovascular diseases course											
		ILOs of Treatment of cardiovascular diseases course										
	Course Contents	Knowled underst	Professional and practical skills		Intellectual skills		General and transferable skills					
	Lectures	a1	a2	b1	b2	c1	c2	d1	d2			
1	- Introduction to treatment cardiovascular diseases	х	x			×	х					
2	- Cardiac symptoms	Х	Х			Х	X					
3	- Rheumatic fever	X	X			X	X					
4	- Valvular heart disease	Х	X			X	X					
5	- Prosthetic valve	Х	X			X	X					
6	- Infective endocarditis	Х	X			Х	X					
7	- Acute coronary syndrome(part I)	X	X			X	X					
8	- Acute coronary syndrome(part II)	X	X			X	X					
9	- Heart failure (part I)	X	X			X	X					

10	- Heart failure (part II)	x	x			x	x		
11	- Hypertension	X	х			х	х		
12	- Cardiac arrhythmias	X	x			X	X		
	Practical sessions								
1	- Introduction to hospital setting practice.			X	x			x	
2	- Tacking history (Cardiac symptoms)			X	x			х	
3	- Clinical cases of rheumatic fever			X	x			х	x
4	- Clinical cases of Valvular heart disease			X	x			х	x
5	- Clinical cases of Prosthetic valve			X	x			х	x
6	- Clinical cases of Infective endocarditis			X	x			х	x
7	- Clinical cases of Acute coronary syndrome (part I)			X	x			х	x
8	- Clinical cases of Acute coronary syndrome (part II)			x	x			x	x
9	- Clinical cases of Heart failure (part I)			X	x			х	x
10	- Clinical cases of Heart failure (part II)			X	x			x	x
11	- Clinical cases of Hypertension			X	x			х	x
12	- Clinical cases of Cardiac arrhythmias			X	X			X	х

4	2	- Clinical cases & MCQ revision						
13	.3	- Hospital setting practice revision		X	X		X	X
1	4	- Activity (Report)						×

Matrix II of Treatment of cardiovascular diseases course

	National Academic Reference	Program	Course	Course	Sources	Teach	ing and le		Method of assessment			
5	Standards (NARS)	ILOs	ILOs	contents		Lecture	Practical session	Self learning	Written exam	Practical exam	Periodical exam	Oral exam
	Principles of body function in health and disease states as well as basis of genomic and different biochemical pathways regarding their correlation with different diseases.			- Introduction to treatment cardiovascular diseases	Student book Essential books	х			x		х	×
2.11		A18	a1	- Cardiac symptoms	Student book Essential books	×			×		x	Oral exam
				- Rheumatic fever	Student book Essential books	х			х		x	x
				- Valvular heart disease	Student book Essential books	x			x		х	x

	- Prosthetic valve	Student book Essential books	×	x	x	x
	- Infective endocarditis	Student book Essential books	x	х	х	x
	- Acute coronary syndrome(part I)	Student book Essential books	x	x	х	x
	- Acute coronary syndrome(part II)	Student book Essential books	x	x	х	x
	- Heart failure (part I)	Student book Essential books	х	х	х	x
	- Heart failure (part II)	Student book Essential books	х	х	х	x
	- Hypertension	Student book Essential books	х	х	х	x
	- Cardiac arrhythmias	Student book Essential books	x	х	x	х

				- Introduction to treatment cardiovascular diseases	Student book Essential books	x		x	x	x
	Etiology, epidemiology, laboratory			- Cardiac symptoms	Student book Essential books Recommended books Internet	x	x	x	x	х
2.12	diagnosis and clinical features of different diseases and their pharmacotherapeutic approaches	A19	a2	- Rheumatic fever	Student book Essential books Recommended books Internet	x	x	x	×	х
	3			- Valvular heart disease	Student book Essential books Recommended books Internet	x	x	x	x	x
				- Prosthetic valve	Student book Essential books	×		×	X	x

	- Infective endocarditis	e Student book Essential books	x		x	x	x
	- Acute coronar syndrome(part I)	Essential books Recommended books	×	x	x	x	x
	- Acute coronar syndrome(part II)	y Student book Essential books	x		x	x	x
	- Heart failure (part I)	Student book Essential books	x		x	x	x
	- Heart failure (part II)	Student book Essential books	x		x	x	x

				- Hypertension	Student book Essential books	x			x		×	x
				- Cardiac arrhythmias	Student book Essential books Recommended books Internet	x		×	x		x	х
				- Introduction to hospital setting practice.			x			x		
	Select medicines			- Tacking history (Cardiac symptoms)			х			х		
3.5	based on understanding of etiology and	В7	b1	- Clinical cases of rheumatic fever	Practical notes		x			X		
	pathophysiology of diseases			- Clinical cases of Valvular heart disease			x			X		
				- Clinical cases of Prosthetic valve			x			х		
				- Clinical cases of Infective endocarditis			x			x		

				- Clinical cases of Acute coronary syndrome (part I)		x		x	
				- Clinical cases of Acute coronary syndrome (part II)		х		х	
				- Clinical cases of Heart failure (part I)		х		х	
				- Clinical cases of Heart failure (part II)		x		х	
				- Clinical cases of Hypertension		x		X	
				- Clinical cases of Cardiac arrhythmias		x		х	
	Advise patients and other health care			- Introduction to hospital setting practice.		x		X	
3.10	professionals about safe and proper use of	B16	b2	- Tacking history (Cardiac symptoms)	Practical notes	x		х	
	medicines.			- Clinical cases of rheumatic fever		x		х	

				- Clinical cases of Valvular heart disease			×		x		
				- Clinical cases of Prosthetic valve			x		X		
				- Clinical cases of Infective endocarditis			x		X		
				- Clinical cases of Acute coronary syndrome (part I)			x		Х		
				- Clinical cases of Acute coronary syndrome (part II)			х		X		
				- Clinical cases of Heart failure (part I)			x		x		
				- Clinical cases of Heart failure (part II)			x		Х		
				- Clinical cases of Hypertension			X		х		
				- Clinical cases of Cardiac arrhythmias			x		X		
4.13	Analyze and interpret	C15	c1	- Introduction to treatment	Student book Essential books	х		х		х	Х

	experimental	cardiovascular						
	results as well as	diseases						
	published							
	literature.	- Cardiac symptoms	Student book	X		x	x	x
			Essential books					
}		- Rheumatic fever	Student book					
			Essential books					
			Recommended	v	v		v	
			books	X	X	X	X	X
			Internet					
		- Valvular heart	Student book					
		disease	Essential books					
			Recommended	v	v	v	v	v
			books	X	X	X	X	X
			Internet					
		- Prosthetic valve	Student book					
			Essential books					
			Recommended	x	x	x	x	X
			books	^	^	^	^	^
			Internet					
		- Infective	Student book					
		endocarditis	Essential books	X	X	X	X	X
			Recommended					

		books					
		Internet					
	- Acute coronary syndrome(part I)	Student book Essential books Recommended books Internet	х	x	x	x	x
	- Acute coronary syndrome(part II)	Student book Essential books Recommended books Internet	x	×	×	х	x
	- Heart failure (part I)	Student book Essential books	x		x	х	X
	- Heart failure (part II)	Student book Essential books	x		x	x	x
	- Hypertension	Student book Essential books	x		х	×	х
	- Cardiac arrhythmias	Student book Essential books Recommended books	x	x	x	х	x

					Internet					
4.14	Analyze and evaluate evidence-based information	C16	c2	- Introduction to treatment cardiovascular diseases - Cardiac symptoms - Rheumatic fever - Valvular heart disease	Student book Essential books Recommended books Internet	x	x	x	x x x	x x x
	needed in pharmacy practice.			- Prosthetic valve - Infective endocarditis		x	x	x	x	x
				- Acute coronary syndrome(part I)	Student book Essential books Recommended	X				
				- Acute coronary syndrome(part II)	books Internet	х				
				- Heart failure (part I)		X				
				- Heart failure (part II)		X				

				- Hypertension		x						
				- Cardiac arrhythmias		x		X	X		x	X
				- Introduction to hospital setting practice.			х			×		
				- Tacking history (Cardiac symptoms)			X			x		
				- Clinical cases of rheumatic fever			x			x		
5.1	Communicate clearly by verbal	D1	d1	- Clinical cases of Valvular heart disease	Practical notes		X			X		
3.1	and written means	D1	ui	- Clinical cases of Prosthetic valve	Tractical flotes		х			X		
				- Clinical cases of Infective endocarditis			х			X		
				- Clinical cases of Acute coronary syndrome (part I)			x			x		
				- Clinical cases of Acute coronary syndrome (part II)			x			х		

				- Clinical cases of Heart failure (part I)		x		Х	
				- Clinical cases of Heart failure (part II)		X		х	
				- Clinical cases of Hypertension		X		х	
				- Clinical cases of Cardiac arrhythmias		x		х	
				- Clinical cases & MCQ revision					
				- Hospital setting practice revision		x		X	
				- Clinical cases of rheumatic fever	Student book Essential books	х		X	
	Implement writing and			- Clinical cases of Valvular heart disease	Practical notes	x		x	
5.10	thinking, problem- solving and decision-	D12	d2	- Clinical cases of Prosthetic valve	Practical notes	x		X	
	making abilities.			- Clinical cases of Infective endocarditis	Practical notes	x		х	
				- Clinical cases of Acute coronary	Practical notes	x		Х	

	syndrome (part I)					
	- Clinical cases of Acute coronary syndrome (part II)	Practical notes	x		x	
	- Clinical cases of Heart failure (part I)	Practical notes	х		X	
	- Clinical cases of Heart failure (part II)	Practical notes	х		X	
	- Clinical cases of Hypertension	Practical notes	х		Х	
	- Clinical cases of Cardiac arrhythmias	Practical notes	х		Х	
	- Activity	Internet	Х	X	X	

Course Coordinators: Prof. Dr. AbdelSalam Elsayed Hussien

COURSE SPECIFICATIONS

Gastroenterology

Fifth level –Semester 10

2018-2019

Course Specification of Gastroenterology

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

(Clinical pharmacy)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Internal medicine department

Faculty of Medicine

Academic year/Level: Fifth level/Tenth semester

Date of specification approval: September 2018

B- Basic information:

Title: Gastroenterology Code: PP 013

Credit Hours:

Lectures : 2 hrs/weekPractical: 1 hrs/week

Tutorials: ---Total: 3 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to explain the physiological processes and major diseases of Gastroenterology.

2-Intended Learning Outcomes of Gastroenterology (ILOs):

A- K	(nowledge and Understanding
a1	Outline classification of viral hepatitis.
a2	Illustrate development of ascites.
a3	Describe the clinical picture of peptic ulcer and other GIT diseases.
a4	Summarize the importance of early treatment of hepatitis c virus.
a5	Specify laboratory diagnosis of hepatitis.
a6	Define management of GIT diseases.
B- P	Professional and Practical skills
b1	Measure blood pressure.
b2	Determine vital signs of patient's disease.
b3	Identify cases that need ICU.
C- II	ntellectual skills
c1	Select the appropriate method for differentiation between types of viral hepatitis.
c2	Analyze and interpret quantitative data in a suitable form.
c3	Assess different methods used for treatment of ascites.
c4	Compare between different causes of diarrhea.
D- (General and Transferable skills
d1	Work effectively as a member of a team.
d2	Manage time to achieve targets within deadlines.
d3	Write and present reports.
d4	Implement critical thinking and decision making skills.

D- Contents:

Week	Lecture	Practical session
No.	(2 hrs/ week)	(1 hr/week)
1	- Achalasia	- Personal history
1	- GERD	
2	- Peptic ulcer	- Present history
	- Hiatus hernia	
3	- Diarrhea	- Blood pressure
4	- Constipation	- Pulse
5	- Haematemesis	- Temperature
6	- Bleeding per rectum	- Respiratory rate
0		- Activity (report)
7	- Dysentery	- Practical exam-1
-	- Periodical exam	
8	- Inflammatory bowel diseases	- Inspection of abdomen
9	- Bilharziasis	- Palpation of abdomen
10	- Acute hepatitis	- Percussion of abdomen
11	- Chronic hepatitis C	- Jaundice
12	- Chronic hepatitis B	- Lower limb edema
13	- Ascites	- Activity (report)
14	- Hepatic encephalopathy	- Practical exam-2
15	- final written exam	

E- Teaching and Learning Methods:

- Lectures
- Practical sessions
- Self learning (activity, reports, internet search, group discussion...)

F- Student Assessment Methods:

1- Written exam to assess a1, a2, a3, a4, a4, a5, a6, c1, c3, c4

2- Practical exam to assess b1, b2, b3, c1, d4

3- Activities to assess c2, d1, d2, d3

4- Oral exam to assess a1, a2, a3, a4, a4, a5, a6, c1, c3, c4, d4

5- Periodical exam to assess a3, a6, c4

Assessment schedule:

Assessment (1): Written exam	Week 15
Assessment (2): Practical exam	Week 7, 14
Assessment (3): Activity	Week 6,13
Assessment (4): Oral exam	Week 15
Assessment (5): Periodical exam	Week 7

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	50	50%
Practical exam and activities	25	25%
Oral exam	15	15%
Periodical exam	10	10%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

• Black (white) board, Data show.

H-List of References:

- **1- Course Notes:** Student book of gastroenterology approved by internal medicine department 2018.
- Practical notes of gastroenterology approved by internal medicine department 2018.

2- Essential books:

i- Kummar gastroenterology (2000).

3- Recommended books:

ii- Harrison of internal medicine (2008).

4- Periodicals and websites:

Egyptian J. of gastroenterology.

Arab J. of laboratory medicine

J. of Cardiovascular diseases.

www.Pubmed.Com

www.sciencedirect.com.

Course Coordinators: Prof. Dr. Amany Mohamed (Faculty of

Medicine

					Mat	rix I	of Ga	astro	ent	erol	ogy co	urse	9						
								IL	Os o	f Gas	troente	erolo	gy coui	rse					
	Course Contents	1	Knowledge and understanding						ofession I pract skills	tical	In	itelled	ctual skills		(General and transferable skills			
	Lectures	a1	a2	a3	a4	a5	a6	b1	b2	b3	c1	c2	c3	c4	d1	d2	d3	d4	
1	- Achalasia - GERD						x												
2	- Peptic ulcer - Hiatus hernia			x			x												
3	- Diarrhea			х										Х					
4	- Constipation			х															
5	- Haematemesis						х												

6	- Bleeding per rectum						x							
7	- Dysentery						X					X		
8	- Inflammatory bowel diseases			X			X							
9	- Bilharziasis	X		X		X								
10	- Acute hepatitis	X				X				Х				
11	- Chronic hepatitis C	X			X	X				Х				
12	- Chronic hepatitis B	X				X				Х				
13	- Ascites		х								X			
14	- Hepatic encephalopathy	X				X				Х				
15	- Revision- Open discussion													х
	Practical sessions													
1	- Personal history								х					X
2	- Present history								X					X
3	- Blood pressure							X						
4	- Pulse								X					

5	- Temperature				X							
6	- Respiratory rate				X							
7	- Inspection of abdomen				X							
8	- Palpation of abdomen				X							
9	- Percussion of abdomen				X							
10	- Jaundice				X	X						
11	- Lower limb edema				X	X						
12	- Activity (Report)						X		X	X	X	

Matrix II of Gastroenterology course

-	National Academic Reference	Program	Course	Course	Sources	Tea	ching and I method		M	ethod of	assessment	t
S	Standards (NARS)	ILOs	ILOs	contents		Lecture	Practical session	Self learning	Written exam	Practical exam	Periodical exam	Oral exam
2.11	Principles of body function in health and disease states as well as basis of genomic and different biochemical	A16	a1	 Bilharziasis Acute hepatitis Chronic hepatitis C Chronic hepatitis B Hepatic encephalopathy 	Student book Essential books	×			×			×
	pathways regarding their correlation with different diseases.	A18	a2	- Ascites	Student book Essential books	×			×			×

		A19	a3	Peptic ulcerHiatus herniaDiarrheaConstipation	Student book Essential books	x		x	x	x
2.12	Etiology, epidemiology, laboratory diagnosis and clinical features	AIS	a4	- Chronic hepatitis C	Student book Essential books Recommended books Internet	×	×	x		х
2.12	of different diseases and their pharmaco- therapeutic approaches	A20	a5	- Bilharziasis - Acute hepatitis - Chronic hepatitis C - Chronic hepatitis B - Hepatic encephalopathy	Student book Essential books Recommended books Internet	x	×	×		x
		A21	a6	- Achalasia - GERD - Peptic ulcer	Student book Essential books	x		х	x	x

				 - Hiatus hernia - Haematemesis - Bleeding per rectum - Dysentery - Inflammatory bowel diseases 					
3.6	Monitor and control microbial growth and carry out laboratory tests for identification of infectious and non-infectious diseases	B11	b1 b2	- Blood pressure - Personal history - Present history - Pulse - Temperature - Respiratory rate - Inspection of abdomen - Palpation of abdomen - Percussion of abdomen	Practical notes	X		x	

				- Jaundice - Lower limb edema							
3.10	Advise patients and other health care professionals about safe and proper use of medicines.	B16	b3	- Jaundice - Lower limb edema	Practical notes		x			x	
4.8	Select and assess appropriate methods of infection control to prevent infections and promote public health.	C10	c1	- Acute hepatitis - Chronic hepatitis C - Chronic hepatitis B - Hepatic encephalopathy	Student book Essential books	x			x		x
4.13	Analyze and interpret experimental results as well as published literature	C15	c2	- Activity (Report)	Student book Essential books Recommended books Internet		х	x		x	

	Analyze and evaluate evidence-based		c3	- Ascites	Student book Essential books	x			х			х
4.14	information needed in pharmacy practice.	C16	c4	- Diarrhea - Dysentery	Student book Essential books	x			x		x	x
5.3	Work effectively in a team	D4	d1	Activity (report)	Recommended books Internet		×	×		x		
5.8	Demonstrate creativity and time management abilities.	D10	d2	Activity (report)	Recommended books Internet		x	x		х		
5.9	Implement writing and presentation skills	D11	d3	Activity (report)	Recommended books Internet		x	x		x		
5.10	Implement writing and thinking,	D12	d4	- Revision- Open discussion	Student book Essential books	х		x				X
	problem- solving and decision-			- Personal history	Practical notes		x			x		

	making abilities.		- Present history				

Course Coordinators: Prof. Dr. Amany Mohamed (Faculty of

Medicine)

COURSE SPECIFICATIONS

Treatment of Respiratory

System Diseases

Fifth level –Semester 10

2018-2019

Course Specification of Treatment of Respiratory System Diseases

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

pharmacy)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Chest department , Faculty of

Medicine

Academic year/Level: Fifth level/Tenth semester

Date of specification approval September 2018

B- Basic information:

Title: Treatment of Respiratory System Diseases Code: PP 014

Credit Hours:

Lectures : 2 hrs/weekPractical: 1 hrs/week

• Tutorials: ---

Total: 3 hrs/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to explain symptoms of occupational, immunological chest diseases and infections as well as efficiency of respiratory treatment.

2-Intended Learning Outcomes of Treatment of Respiratory System Diseases (ILOs):

A- K	A- Knowledge and Understanding												
a1	Describe normal structure and function of human respiratory system.												
a2	Discuss altered structure and function of the respiratory system during air way diseases including (bronchial asthma, chronic obstructive pulmonary disease, occupational lung diseases and lung cancer).												
a3	Demonstrate etiology, pathogenesis, clinical features, diagnosis and complications of respiratory system diseases.												
a4	Identify suitable drugs and complementary medicine for management of chest diseases.												
B- P	Professional and Practical skills												
b1	Choose appropriate treatment of various kinds of chest diseases according to disease etiology and pathophysiology.												
b2	Monitor patient's history and status in depth relative to clinical context.												
b3	Advise patients about initial management of the emergency situ.												
b4	Employ the relevant knowledge to patients for the safe and effective use of oxygen therapy and nebulizer for administration of inhalation therapy.												
b5	Analyze the most important respiratory function test and evaluate scientific literature.												
C- II	ntellectual skills												
c1	Interpret the respiratory laboratory results to distinguish between												

	physiological and pathological conditions.
c2	Correlate pathologic features of respiratory disease with laboratory investigations and complications.
c3	Evaluate the causal relationship of microbes and infectious diseases according to evidence.
D- 0	General and Transferable skills
d1	Interact effectively with colleagues and patients.
d2	Gather and organize data for various sources including library and electronic resources.
d3	Work effectively as a member of a team.
d4	Practise long life learning needed for continuous professional development.
d5	Respect ethics related to drug prescription especially drugs liable to abuse.
d6	Write and present reports.
d7	Implement critical thinking and decision making skills.

D- Contents:

Week	Lecture	Practical session
No.	(2 hrs/ week)	(1 hr/week)
1	- Anatomy and physiology of respiratory system	- Personal history, complaints
2	- Pleural diseases - Asthma	-Present history (symptoms of chest diseases) - Past& family history
3	- COPD	- General examination
4	- Pulmonary tuberculosis	- Diagnostic tools with demonstration of x-ray, PFT traces, ABGs
5	- Pneumonia (bacterial, viral, fungus, parasitic)	- Therapeutic modalities with demonstration of oxygen administration
6	- Lung abscess	- Inhalation devices
7	Bronchiectasis, infected cystic lung, cystic fibrosisPeriodical exam	- Clinical demonstration 1- Activity (report and presentations)
8	- Interstitial lung diseases	- Clinical demonstration 2
9	- Pulmonary embolism	- Clinical demonstration 3
10	- Occupational lung diseases	- Clinical demonstration 4
11	- Lung cancer- lung in systemic disorders	- Problem solving 2
12	- Respiratory failure, life threatening	- Problem solving 3

	conditions	
13	- Drug-induced lung diseases	- Clinical assessment
14	- Pregnancy& respiratory disorders	- Practical exam
15	Final written exam	

E- Teaching and Learning Methods:

- Lectures
- Clinical rounds
- Self learning (activity, reports, internet search, group discussion, role play...)
- Case studies and problem solving
- Electronic learning at Zagazig university electronic library

F- Student Assessment Methods:

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

2- Practical exam to assess b1, b2, b3, b4, c1

3- Activities to assess b5, d1, d2, d3, d4, d5, d6, d7

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

5- Periodical exam to assess a1, a2, a4, c2, c3

Assessment schedule:

Assessment (1): Written exam	Week 15
Assessment (2): Practical exam	Week 14
Assessment (3): Activity	Week 7
Assessment (4): Oral exam	Week 15
Assessment (5): Periodical exam	Week 7

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	50	50%
Practical exam and activities	25	25%
Oral exam	15	15%
Periodical exam	10	10%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

• Black (white) board, Data show, computer.

H- List of References:

- **1- Course Notes:** Student book of Treatment of Respiratory System Diseases approved by Chest department 2018.
- Practical notes of Treatment of Respiratory System Diseases approved by Chest department 2018.

2- Essential books:

- i- Text book of respiratory diseases by Crofton and Douglas.
- 3- Recommended books:
- 4- Periodicals and websites:

www.ncbi.nlm.nih.gov

Course Coordinators: Prof. Dr. Nagwan Adel

	Ma	trix	I of	Trea	tme	nt of	Res	oirate	ory S	yster	n Di	seas	ses (cour	se					
		ILOs of Treatment of Respiratory System Diseases course																		
Course Contents Lectures		Knowledge and understanding			Professional and practical skills				Intellectual skills		General and transferable skills									
		a1	a2	a3	a4	b1	b2	b3	b4	b 5	c1	c2	с3	d1	d2	d3	d4	d5	d6	d7
1	- Anatomy and physiology of respiratory system	x																		
2	- Pleural diseases - Asthma		x	x	x							x								
3	- COPD		X	X	x							X								
4	- Pulmonary tuberculosis			X	x							Х	X							
5	- Pneumonia (bacterial, viral, fungus, parasitic)			x	х							х	х							
6	- Lung abscess			X	x							X	X							
7	- Bronchiectasis, infected cystic lung, cystic fibrosis			x	X							х	х							

8	- Interstitial lung diseases		x	x				X				
9	- Pulmonary embolism		х	X				X				
10	- Occupational lung diseases	X	X	X				X				
11	- Lung cancer lung in systemic disorders	x	x	x				х				
12	- Respiratory failure, life threatening conditions		х	x				х				
13	- Drug-induced lung diseases		X	X				X				
14	- Pregnancy& respiratory disorders		x	x				х				
Pr	actical sessions											
1	- Personal history, complaints				X							
2	Present history (symptoms of chest diseases) - Past& family history				x							
3	- General examination				X							
4	- Diagnostic tools with demonstration of x-ray, PFT traces, ABGs				X							

5	- Therapeutic modalities with demonstration of oxygen administration		x													
6	- Inhalation devices		X													
7	- Clinical demonstration 1				X	х		X								
8	- Clinical demonstration 2				X	х		X								
9	- Clinical demonstration 3				X	х		X								
10	- Clinical demonstration 4				X	х		X								
11	- Problem solving 1				Х	Х		X								
12	- Problem solving 2				X	Х		X								
13	- Problem solving 3				X	х		X								
14	- Clinical assessment			X												
15	- Activity (report and presentation)						x			X	X	х	X	X	X	x

Matrix II of Treatment of Respiratory System Diseases course

	National Academic Reference	Program Cours		Course contents	Sources		ing and lea methods	arning	Method of assessment				
9	Standards (NARS)	ILOs	ILOs			Lecture	Practical session	Self learning	Written exam	Practical exam	Periodical exam	Oral exam	
	Principles of body function in health and disease states as well as basis		a1	- Anatomy and physiology of respiratory system	Student book Essential books	x			x		х	×	
2.11	of genomic and different biochemical pathways regarding their correlation with different diseases.	A16	a2	- Pleural diseases - Asthma - COPD	Student book Essential books	x			х		x	x	
2.12	Etiology, epidemiology, laboratory diagnosis and clinical features	A19	a3	- Pleural diseases - Asthma - COPD	Student book Essential books	x			×		x	×	

of different	- Pulmonary tuberculosis						
diseases and							
their pharmaco-	- Pneumonia (bacterial, viral,						
therapeutic	fungus, parasitic)						
approaches	- Lung abscess						
	- Bronchiectasis, infected cystic						
	lung, cystic fibrosis						
	- Interstitial lung diseases	Student book					
		Essential					
		books	X	X	X	X	X
		Internet					
	- Pulmonary embolism	Student book					
		Essential					
		books	X	X	X	X	X
		Internet					
	- Occupational lung diseases	Student book					
		Essential					
		books	X	X	X	X	X
		Internet					
	- Lung cancer	Student book					
		Essential	X		X	x	x
		books					

				- lung in systemic disorders	Student book Essential books	×		x	x	x
				- Respiratory failure, life threatening conditions	Student book Essential books Internet	x	x	х	х	x
				- Drug-induced lung diseases	Student book Essential books Internet	x	х	x	х	x
				- Pregnancy& respiratory disorders	Student book Essential books Internet	x	х	х	x	x
		A21	a4	- Pleural diseases - Asthma - COPD	Student book Essential books	x		x	x	x

				- Pulmonary tuberculosis					
				- Pneumonia (bacterial, viral, fungus, parasitic)					
				- Lung abscess					
				- Bronchiectasis, infected cystic lung, cystic fibrosis					
				- Interstitial lung diseases					
				- Pulmonary embolism					
				- Occupational lung diseases					
				- Lung cancer					
				- lung in systemic disorders					
				- Respiratory failure, life threatening conditions					
				- Drug-induced lung diseases					
				- Pregnancy& respiratory disorders					
3.5	Select	В7	b1	- Therapeutic modalities with demonstration of oxygen	Practical notes	X		×	
	medicines based on			administration		Х		X	

	understanding of etiology and pathophysiology of diseases			- Therapeutic modalities with demonstration of oxygen administration		x		×	
3.6	Monitor and control microbial growth and carry out laboratory tests for identification of infectious and non-infectious diseases	B11	b2	- Personal history, complaints - Present history (symptoms of chest diseases) - Past& family history - General examination - Clinical assessment	Practical notes	x		х	
3.9	Maintain public awareness on rational use of drugs and social health hazards of drug abuse and misuse	B15	b3	- Clinical demonstration 1 - Clinical demonstration 2 - Clinical demonstration 3 - Clinical demonstration 4 - Problem solving 1 - Problem solving 2 - Problem solving 3	Practical notes	x		x	

3.10	Advise patients and other health care professionals about safe and proper use of medicines.	B16	b4	- Clinical demonstration 1 - Clinical demonstration 2 - Clinical demonstration 3 - Clinical demonstration 4 - Problem solving 1 - Problem solving 2 - Problem solving 3	Practical notes		×			×		
3.11	3.11 Conduct research studies and analyze the results.	B17	b5	- Activity (report and presentation)	Essential books Internet		x	x		x		
4.13	Analyze and interpret experimental results as well as published literature.	C15	c1	- Clinical demonstration 1 - Clinical demonstration 2 - Clinical demonstration 3 - Clinical demonstration 4 - Problem solving 1 - Problem solving 2 - Problem solving 3	Student book Essential books	x			x		x	x

		- Pleural diseases				
		- Asthma				
		- COPD				
		- Pulmonary tuberculosis				
		- Pneumonia (bacterial, viral, fungus, parasitic)				
		- Lung abscess				
		- Bronchiectasis, infected cystic				
	c2	lung, cystic fibrosis				
		- Interstitial lung diseases				
		- Pulmonary embolism				
		- Occupational lung diseases				
		- Lung cancer				
		- lung in systemic disorders				
		- Respiratory failure, life				
		threatening conditions				
		- Drug-induced lung diseases				
		- Pregnancy& respiratory				

				disorders								
	Analyze and evaluate			- Pulmonary tuberculosis	Cividant hands	х		х	Х		Х	х
4.14	evidence-based information	C16	c3	- Pneumonia (bacterial, viral, fungus, parasitic)	Student book Essential books	х		X	X		X	X
	needed in pharmacy			- Lung abscess - Bronchiectasis, infected cystic	Internet	x		X	×		×	x
	practice.			lung, cystic fibrosis								
5.1	Communicate clearly by verbal D	D1	d1	- Activity (report and presentation)	Essential books			x		×		
	and means.			presentation	Internet		x					
	Retrieve and evaluate information			- Activity (report and								
5.2	from different sources to	D2	d2		Essential books			x		×		
	improve professional			presentation)	Internet							
	competencies.						x					
5.3	Work effectively	D4	d3	- Activity (report and presentation)	Essential books			x		x		
	in a team	5 7			Internet		x					

5.5	Practice independent learning needed for continuous professional development	D7	d4	- Activity (report)	Essential books Internet	x x	x x x	x x	
5.6	Adopt ethical, sales and safety guidelines	D8	d5	- Activity (report and presentation)	Essential books Internet	x	х	x	
5.9	Implement writing and presentation skills	D11	d6	- Activity (report and presentation)	Essential books Internet	x	x	x	
5.10	Implement writing and thinking, problem- solving and decision- making abilities.	D12	d7	- Activity (report and presentation)	Essential books Internet	x	x	x	

Course Coordinators: Prof. Dr. Nagwan Adel



Course Specification of Drug information

University: Zagazig Faculty: Pharmacy

A- Course specifications:

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

pharmacy)

Major or Minor element of programs: Major

Department offering the program: ------

Department offering the course: Pharmacy practice department

Academic year/Level: Fifth level/tenth semester

Date of specification approval December 2019

B- Basic information:

Title: Drug information Code: PP015

Credit Hours:

Lectures : 1 hr/week

• Practical: 0

Tutorials: ---

Total: 1 hr/week

C- Professional information:

1-Overall Aims of the Course:

On completion of the course, students will be able to: Recognize the role of clinical pharmacist in drug information centres. Evaluate and use different drug information resources. Describe different types of clinical studies, different parts of controlled clinical trials as well as different pharmacoeconomic studies.

2-Intended Learning Outcomes of Drug Information (ILOs):

3. Intended learning outcomes (ILOs):

Knowledge	e and Understanding
a1	Define different terminologies related to drug information and pharmacoeconomics
a2	Outline different services provided by drug information center, categories of drug information questions and required steps to identify the requestor needs
а3	Describe the characteristics of a controlled clinical trial and other clinical studies
a4	Describe the advantages and disadvantages of the different types of pharmacoeconomic analyses
Profession	al and practical skills
b1	Evaluate a controlled clinical trial according to CONSORT format
b2	Use different drug information resources
Intellectua	l skills
c1	Identify the appropriate drug information source to answer a drug information request
c2	Identify one potential question that would benefit from using the modified systematic approach
c3	analyze key information presented in each section of a clinical trial
c4	Differentiate between different pharmacoeconomic studies
General ar	nd Transferable Skills

d1	Demonstrate critical thinking and decision-making abilities
d2	Develop search skills using various types of E-sources

D- Contents:

Week No.	Lecture contents (1 hr/lec.)
1	Introduction to drug information
2	- Systematic approach for answering question
	- Modified systematic approach
3	Response formulation
4	Drug information resources:
	Tertiary literature
	Evaluation of Tertiary literature
5	• secondary literature
	Primary literature
6	Alternative Information Sources
7	Definition of controlled clinical trial
	Format and content of controlled clinical trials
	 Reasons for not publishing trials
_	Peer review process
8	Appraisal of clinical trial:
	• title & Abstract
	Introduction
	Methods
9	Appraisal of clinical trial:
	Results
	Conclusion & discussion
	References
	True experiments—beyond the controlled clinical trial
10	Introduction to pharmacoeconomics
	Types of costs:

11	Pharmacoeconomics models
	Cost minimization analysis
	 Cost benefit analysis
	 Cost effectiveness analysis
	 Cost utility analysis
12	Steps in decision analysis
	Pharmacoeconomic websites
13	Delivery of clinical trial evaluation template &
	discussion
14	Open discussion & Revision
15	Final written exam

E- Teaching and Learning Methods:

- Lectures
- Simulation: clinical case study & search in different resources
- Conduct a clinical trial appraisal

F- Student Assessment Methods:

1- Written exam to assess a1, a2, a3, a4, c1, c2, c3, c4

2- Activities to assess b1,b2, d1, d2

3- Oral exam to assess a1, a2, a3, a4, c1, c2, c3, c4

Assessment schedule:

Assessment (1): Written exam	Week 15
Assessment (2): Activity	Week 13

Assessment (3): Oral exam	Week 15

Weighting of Assessment:

Assessment method	Marks	Percentage
Written exam	75	75%
Oral exam	15	15%
Activities (appraisal of clinical trial & internet search)	10	10%
TOTAL	100	100%

G- Facilities Required for Teaching and Learning:

Black (white) boards, data show, internet, air conditioned classroom

H-List of References:

1- Course Notes: Student book of Drug Information approved by pharmacy practice department, 2018.

2- Essential Books:

Drug information: A guide for Pharmacists, Patrick Malone et al 4th edition

3- Recommended Books:

Drug Information Handbook: A Clinically Relevant Resource for All Healthcare Professionals 27th edition by <u>Lexicomp</u>

4- Periodicals and websites:

PubMed, Cochrane Library, Trip database

Course Coordinator: Dr. Gehan Fathy Attia Head of Department: Dr. Gehan Fathy Attia

	Matrix I of Drug information												
		ILOs											
												Gen	eral
		К	nowle	dge an	ıd	Professi	onal and					Transf	erable
		ι	Inders	tandin	g	practic	al skills		Intellect	ual skills	5	sk	ills
	Course Contents		a2	a3	a4	b1	b2	c1 c2 c3 c4			c4	d1	d2
			ű.	us	u-r	01	UL.	CI	CZ	CS	C-4	u1	uz.
1	Introduction to drug information	x	x										
2	 Systematic approach for answering question Modified systematic approach 			х					х				
3	Response formulation			х					х				
4	Drug information resources: • Tertiary literature • Evaluation of Tertiary literature				х		х	х					

5	 secondary literature 		х						
	Primary literature								
6	Alternative		х		х	х			
	Information Sources								
	•Definition of controlled							Х	Х
	clinical trial								
7	Format and content of		.,						
,	controlled clinical trials		Х						
	Reasons for not								
	publishing trials								
	Peer review process								
	Appraisal of clinical trial:						Х	х	Х
8	• title & Abstract		x	x					
	Introduction			Α					
	Methods								
	Appraisal of clinical trial:						х	Х	Х
	Results								
9	◆Conclusion & discussion		х						
9	References		^	x					
	True experiments—								
	beyond the controlled								
	clinical trial								

10	Introduction to pharmacoeconomics • Types of costs:		x			Х	
11	Pharmacoeconomics models Cost minimization analysis Cost benefit analysis Cost effectiveness analysis Cost utility analysis		x			x	
12	Conduct economic analysis		x			x	
13	Steps in decision analysis Pharmacoeconomic websites		х			х	

Matrix II of Drug information course

	tional Academic Reference andards (NARS)	Program ILOs	Course ILOs	Course contents	Sources	Teaching and learning methods Lecture Self learning		Method of assessment Written exam Oral exam	
2.1	Principles of basic, pharmaceutical, medical, social, behavioral, management, health and environmental sciences as well as pharmacy practice.	A4	a1 a2 a3	Introduction to drug information Systematic approach for answering question Modified systematic approach Response formulation controlled clinical trial True experiments—beyond the controlled clinical trial Introduction to pharmacoeconomics Types of costs:	Student book Essential books	x		×	x

			a4	Pharmacoeconomic models				
2.19	Principles of drug promotion, sales and marketing, business administration, accounting and pharmacoeconomics.	A29	a4	Pharmacoeconomics models:	Student book Essential books	x	X	x
3.10	Advise patients and other health care professionals about safe and proper use of medicines	B16	b2	Cost utility analysis Systematic approach for answering question Modified systematic approach Response formulation	Student book Essential books	x	x	х
	Conduct research		b1	controlled clinical trialDrug information	Recommended	Х	х	х
3.11	studies and analyze the results	B17	b1 b2	resources: Tertiary literature	books Internet	X	х	х
				• secondary literature		X	x	x

				Primary literature Alternative Information Sources				
4.12	Apply the principles of pharmacoeconomics in promoting cost/effective pharmacotherapy.	c14	c4	Pharmacoeconomics models Cost minimization analysis Cost benefit analysis Cost effectiveness analysis Cost utility analysis Conduct economic analysis Steps in decision analysis Pharmacoeconomic websites	Student book Essential books	X	X	X
4.13	Analyze and interpret experimental results as well as published literature	c15	с3	Appraisal of clinical trial: • title & Abstract • Introduction • Methods Appraisal of clinical trial: • Results • Conclusion & discussion • References	Student book Essential books	x	×	x

4.14	Analyze and evaluate evidence-based information needed in pharmacy practice.	c16	c1 c2	- Systematic approach for answering question - Modified systematic approach Response formulation • Drug information resources: • Tertiary literature Evaluation of Tertiary literature • secondary literature • Primary literature Alternative Information Sources	Student book Essential books	x		×	x
5.10	Implement writing and thinking, problem-solving and decision-making abilities.	D12	d1	Activity	Recommended books Internet		x		
5.2	Retrieve and evaluate information from different sources to improve professional competencies.	D2	d2	Activity	Recommended books Internet		x		

Course Coordinator: Assistant Prof. Gehan Fathy Attia