Academic year 2018/2019

University of Beni- Suef College of Pharmacy Quality Assurance Unit



جامعة بني سويف كلية الصيدلة وحدة ضمان الجودة

Course Specifications

University	Beni-Suef
Faculty	Pharmacy
Dept.	Medicinal chemistry

<u>1-Course Info.</u>

Programme(s) on which the course is given: Bachelor in Pharmacy

Course Name and code No.: Pharmaceutical chemistry 2 (802)

Academic year/ Level: 2018/2019, level 4, semester 2

Credit hours: Lecture (3) hour + Practical (1) hour

2-Overall Aim of the Course

The student should be able to identify the major structural, chemical, analytical and pharmacological characteristics of certain drug classes (antibiotics, antineoplastics, antivirals, antifungals, anti-infectives, antimycobacterials and synthetic antibacterials).

3-Intended Learning Outcomes of the course (ILOs)

a. Knowledge and understanding

After completing this course, the student should be able to:

a1. Describe the synthesis, chemical properties, mode of action, assay, metabolism and adverse side effects of the drugs related to the topics covered by this course.

a2. Explain the relationship between molecular structure and its biological action, particularly in drugs related to the topics covered by this course.

a3. Interpret the physiochemical parameters of the drug that affect drug-receptor interactions.

b. Professional and Practical Skills

- b1. Simulate appropriate experiments to identify various active constituents.
- b2. Assess some drugs covered in this course quantitatively.

c. Intellectual Skills

c1. Predict metabolism and pharmacological activity/potency of individual drugs that covered in this course based on the contribution of their functional groups to their structures.

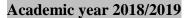
c2. Apply chemical knowledge to the development and analysis of drugs.

d. General and Transferable Skills

- d1. Adapt proper oral and written communication, data analysis and interpretation.
- d2. Integrate effectively as part of a team.
- d3. Set realistic plan work to meet target within deadlines.
- d4. Use equipment in the laboratory properly and safely.

4-Course Contents			
	No. of hours		
Topics	Tutorial / Practical	Lecture	
Antibiotics		9	

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4-Course Contents			
	No. of hours		
Topics	Tutorial / Practical	Lecture	
Synthetic antibacterial agents		6	
Antineoplastic agents		6	
Antiviral agents		3	
Antifungal agents		3	
Antimycobacterial agents		3	
Antiprotozoal agents		3	
Antiseptic and disinfectant agents	· · · · · · · · · · · · · · · · · · ·	3	
Quantitative determination of :	1		
hydrogen peroxide solution			
zinc content in prisoline zinc eye drops	1		
ofloxacin tablets			
cyclophosphamide	1		
isonicotinic acid hydrazide	1		
salicylic acid) 1		
sulfamethoxazole and trimethoprim			
di-iodohydroxyquine in enteroquine tablets	1		
ampicillin	1		
calcium gluconate	1		
Drug identification of :	1		
nalidixic acid			
chloroquine diphosphate			
grisofulvin			
erythromycin	1		
tetracyclin			
oxytetracyclin			
ampicillin	1		
amoxicillin			
cephalexin	10	26	
Total	12	36	

5- Teaching and learning Methods

1-Lectures.

- 2-Practical laboratory sections.
- 3-Problem solving and working in groups

6- Student Assessment Methods

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a-Methods

- 1. Laboratory work (practical sections activities and other assignments delivered as reports and oral presentations) and quiz to assess the theoretical aspects of experimental work.
- 2. Practical examination to assess gained practical skills.
- 3. Written exam to assess knowledge and understanding of theoretical information as well as higher intellectual skills.
- 4. Oral examination to assess acquired knowledge and higher intellectual skills.

b- Assessment Schedule

Assessment		Veek
Assessment 1: written quizzes 1 & 2	Week	3,7
Assessment 2: Practical Exam1&2	Week:	10 & 12
and practical Quiz	7	
Assessment 3: Final Written and Oral Exam.		

c- Weighting of Assessment Marks

Type of assessment	Marks	Weight (%)
Practical Exam	70	35%
Final Written Exam	100	50%
Final Oral Exam	30	15%
Total	200	100%

7-List of References

a. Notes

1-Practical notes

2-Reference books

b. Mandatory Books

- 1-Foye, W.O.; "Principles of Medicinal Chemistry", 4th edition, Lippincott Williams & Wilkins, U.S.A.
- 2-Patrick, G. L.; "An introduction to medicinal Chemistry", 3rd Edition, Oxford University Press, 2005

c. Suggested Books

- 1-Abraham, D.J.; "Burger's Medicinal Chemistry", 6th edition, John Wiley & sons, New Jersey, 2003.
- 2-Delgado, J.N. and Remers, W.A.; "Wilson and Gisvold's Textbook of Organic Medicinal and Pharmaceutical Chemistry", 11th edition, Lippincott Williams & Wilkins, U.S.A., 2004

d. Journals

1-European journal of medicinal chemistry.

2-Journal of American chemical society

Course Coordinator: Dr. Ahmed Gouda

Head of department: Dr. Mohamed Taha El-Saadi Date: 9/2018

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