



Course specification
2018- 2019
Faculty of Pharmacy
Mansoura University



المستوى الأول

توصيف المقرر Physical Chemistry

University: Mansoura
Faculty : Pharmacy
Department : Pharm. Anal. Chemistry
Course title: Physical Chemistry

Program on which the course is given	B. Pharm
Academic Level	First Level, semester one, 2018/2019
Date of course specification approval	

1- Basic Information : Course data :

Course title:	Physical Chemistry	Code:	PA111
Specialization:	pharmaceutical		
Prerequisite:	Registration		
Teaching Hours:	Lecture:1	Practical:	0
Number of units: (credit hours)	1		

2- Course Aims:

Demonstrate the basic concepts of physical chemistry regarding some topics such as: the rate of reaction, kinetics of chemical reactions, thermochemistry, electrochemistry and photochemistry

Intended learning outcomes (ILO_s):

a- Knowledge and understanding

At the end of this course the student will be able to:

a1	Recognize the principles of basic pharmaceutical sciences.
a2	Define the physical and chemical properties of various substances.

b- Intellectual skills

At the end of this course the student will be able to:

b1	Interpret experimental data based on relevant chemical and pharmaceutical principles
b2	Distinguish the physical and chemical properties of chemicals.



Course specification
2018- 2019
Faculty of Pharmacy
Mansoura University



c- Professional and practical skills

At the end of this course the student will be able to:

C1	Apply proper labeling and storing of pharmaceutical preparations.
-----------	---

d- General and transferable skills

At the end of this course the student will be able to:

d1	Interact effectively in team working.
d2	Apply calculations for chemical analysis.
d3	Acquire the ability to learn independently.
d4	Present information clearly in written, electronic and oral forms.
d5	Show the ability for critical thinking, problem-solving, decision-making, and time managing capabilities..

3- Contents :-

Week No	Topics	No.of hours	Lecture	Practical
1-6	Chemical reaction kinetics	6	6	-
	Week 7 Mid-term			
7,8	Thermochemistry	2	2	-
10,11	Electrochemistry	2	2	-
12,13	Photochemistry	2	2	-
15	Week 15 Final written & oral	-	-	-

4- Teaching and learning Methods :

4.1	Lectures using white board and data show.
------------	---

5- Student Assessment:

a- Assessment methods:

1-Written exam	To assess understanding, intellectual, professional
2-Oral	To assess Knowledge, understanding, intellectual skills, general skills and confidence
3-Quizzes	To assess Knowledge, understanding and intellectual skills

b- Assessment schedule

Assessment 1	Quiz	5th week
---------------------	-------------	----------------------------



Course specification
2018- 2019
Faculty of Pharmacy
Mansoura University



Assessment 2	Mid-term	7 th week
Assessment 3	Oral	15 th week
Assessment 4	Written	15 th week

c- Weighting of assessments

1	Mid-term examination	10 %
2	Final-term examination	75 %
3	Oral examination	15 %
4	Practical examination & Semester work	0 %
5	Other types of assessment	0
Total		100%

6 - List of References

N0.	Reference	type
1	Lectures notes prepared by staff members	Course notes
2	Raymond Chang, Editor, "Physical Chemistry for the Biosciences" Sausalito, California (2005).	Book
3	Essentials of Physical Chemistry, ArunBahl,B.S. Bahl,G.D. Tuli, New Delhi 110055, India (2014)	Book

7- Matrix of knowledge and skills of the course

No	Course contents	Study Week	ILOS			
			Knowledge & understanding	Intellectual skills	Professional and practical skills	General & transferable skills
1.	Chemical reaction kinetics	1-6	a1,a2	b2	C1	d1,d5
2.	Thermochemistry	7,8	a1,a2	b1,b2	C1	d1,d2,d3
3.	Electrochemistry	9,10	a1	b1,b2	C1	d1,d4
4.	Photochemistry	11,12	a1,a2	b2	C1	d1,d2,d3

Course Coordinator :	Prof. Dr. Amina El-Brashy
Head of department	Dr. Yasser El-Shabrawy