Department of Pharmaceutical Organic chemistry

Program: MSC in Pharmaceutical Sciences
(*Pharmaceutical Organic chemistry*)

Course: Advanced Organic Chemistry
Code: (POM 201)

Academic year: 2020/*2021*
Second Semester

البرنامج	تقرير مقرر
MSC in Pharmaceutical Sciences	Advanced Organic Chemistry

رئيس القسم	منسق المقرر
أ د. شاهنده متولي المسيري	أ.د/ فاطمة النبوية السيد جودة

University: Mansoura

Faculty: Pharmacy

Department: Pharmaceutical Organic Chemistry

A. Basic Information

Course Title and code:	Advanced Organic Chemistry (POM 201)
Program on which this course is given:	Master
Total Credit hours:	2
Lectures: Tutorial	
Academic Level	Postgraduate
Academic year	2020/ 2021 - second semester
Name of lecturers contributed to the delivery of this course	1. Prof. Fatma Goda 2. Dr. Dina Ibrahim Ali Othman
Course co-coordinator:	Prof. Fatma Goda
External evaluator:	
Date of Department Council Approval	10/7/2021
Date of Faculty Council Approval	25/8/2021

B. Statistical Information:

No. of students attending the course : 1

No. of students completing the course: 1

Exam Results

Passed No.: 1 **percentage: 100%**

Failed No.: 0 **percentage: 0%**

Grading of successful students (%):

A+	**100%**	**A**		**A-**	
B+		**B**		**B-**	
C+		**C**		**C-**	
D+		**D**		**D-**	

C. Professional Information:

1. Course teaching:

No.	Topics actually taught
1.	Introduction to protecting groups: definition, advantages and disadvantages.
2.	Protection of alcohols, acids, aldehydes, ketones, acids and amines.
3.	Application of protecting groups in pharmaceutical chemistry.
4.	Free radicals; Definition, Properties, Structure, Formation & Stability.
5.	Typical radical reaction involving the three main steps (initiation, propagation and termination).
6.	Application (Reactions) of Free radicals; Halogenation regioselectivity, Halogenation Stereochemistry and Allylic Halogenation.
7.	Radical Inhibitors; antioxidant chemistry of Vitamin E.
8.	Considering the COVID-19, the oxidizing properties and the radical nature of good disinfectants, virucidal and bactericidal agents.

Topics taught as a percentage of the content specified:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

Lecturers' commitment of the course content:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

Coverage of exam topics to course content:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

2. Used teaching and Learning Methods:

Lectures:	✓
Practical Training/ Laboratory:	
Seminar / Work shop:	
Class Activity:	✓
Case Study:	
Other assignments / home work:	**Self-learning**

3. Student Assessment:

a. Method of Assessment	Percentage of total
Written examination	**90 %**
Oral examination	**10 %**

Practical / laboratory work	
Semester Work	

b. Members of examination committee:
1. Prof. Fatma Goda
2. Dr. Dina Ibrahim Ali Othman

c. Role of external evaluator (If any): **None**

4. Facilities and Teaching Materials

Totally adequate	√
Adequate to some extent	
Inadequate	
List any inadequacies:	

5. Administrative constraints

List any difficulties encountered:

6. Student evaluation of the course: ….

Criticisms	response of course team
Corona Epidemic	Recording Lectures and Uploading through Electronic Education Platform

7. Comments from external evaluator(s) (if exists) and response of course team:

Comment	Response

8. Course enhancement suggestions:

Progress on actions identified in the previous year's action plan:

Action	Completed	Not completed	Why not completed?
Upgrade course subjects	√		

9. Action plan for academic year 2021 - 2022:

Action Required	Person responsible	Completion Date
1. Study the role of protecting groups from drug industry point of view.	**Course Lecturers**	**2022**
2. More course subjects to be taught considering free radical scavengers.	**Course Lecturers**	**2022**

	Name	Signature
Course Coordinator	**Prof. Fatma Goda**	
Head of Department	**Prof. Shahenda Metwaly El-Messery**	

Department of: Pharmaceutical Organic Chemistry

Program: Master in Pharmaceutical Sciences
(Pharmaceutical Organic Chemistry)

Course: Heterocyclic Chemistry
Code: (POM-202)

Course Report

Academic year: *2020/2021*
Second Semester

البرنامج	تقرير مقرر
ماجستير	كيمياء حلقية غير متجانسة

رئيس القسم	منسق المقرر
أ د. شاهندة متولي المسيري	ا.م .د. ولاء محمود عادل الحسيني

University: Mansoura

Faculty: Pharmacy

Department: Pharmaceutical Organic Chemistry

A. Basic Information

Course Title and code:	Heterocyclic Chemistry (POM-202)
Program on which this course is given:	Master degree in Pharmaceutical science (Pharmaceutical Organic Chemistry)
Total Credit hours:	2
Lectures: 2	**Tutorial/Practical: ---**
Academic Level	Postgraduate
Academic year	2020/2021- Second semester
Name of lecturers contributed to the delivery of this course	1. Ass. Prof. Dr. Walaa Mahmoud Adel Elhusseiny 2. Dr. Samar Samir Tawfeek
Course co-coordinator:	Ass. Prof. Dr. Walaa Mahmoud Adel Elhusseiny
External evaluator:	---
Date of Department Council Approval	10/7/2021
Date of Faculty Council Approval	25/8/2021

B. Statistical Information:

No. of students attending the course : 1

No. of students completing the course: 1

Exam Results

Passed No.: 1 **percentage: 100%**

Failed No.: 0 **percentage: 0%**

Grading of successful students (%):

A+	**100%**	**A**		**A-**	
B+		**B**		**B-**	
C+		**C**		**C-**	
D+		**D**		**D-**	

C. Professional Information:

1. Course teaching:

No.	Topics actually taught
1.	Introduction to heterocyclic chemistry: Nomenclature, Classification, Reactivity
2.	Five-membered Heterocycles (with 1 heteroatom)
3.	Five-membered Heterocycles (with more than 1 heteroatom)
4.	Drugs containing five-membered Heterocycles and its uses
5.	Six-membered Heterocycles (with 1 heteroatom)
6.	Six-membered Heterocycles (with more than 1 heteroatom)
7.	Drugs containing six-membered Heterocycles and its uses

Topics taught as a percentage of the content specified:

√ > 90 %	70 - 90 %	< 70 %

Lecturer's commitment of the course content:

√ > 90 %	70 - 90 %	< 70 %

Coverage of exam topics to course content:

√ > 90 %	70 - 90 %	< 70 %

2. Used teaching and Learning Methods:

Lectures:	✓
Practical Training/ Laboratory:	
Seminar / Work shop:	✓
Class Activity:	✓
Case Study:	
Other assignments / home work:	

3. Student Assessment:

a. Method of Assessment	Percentage of total
Written examination	**90 %**
Oral examination	**10 %**

Practical / laboratory work	**---**
Semester Work	**---**

b. Members of examination committee:

1. Ass. Prof. Dr. Walaa Mahmoud Adel Elhusseiny

2. Dr. Samar Samir Tawfeek

c. Role of external evaluator (If any):

Please make paraphrasing to the following sentences, or suggest new one

1. Revision of course contents, and suggests new topics.
2. Revision of teaching and learning strategy.
3. Revision of course notes and suggest enhancement plan
4. Revision of Exam and related assignments

4. Facilities and Teaching Materials

Totally adequate	
Adequate to some extent	√
Inadequate	
List any inadequacies:	

5. Administrative constraints

List any difficulties encountered:

6. Student evaluation of the course: ….

List any criticisms and response of course team

Criticisms	response of course team

7. Comments from external evaluator(s) (if exists) and response of course team:

Comment	Response

8. Course enhancement suggestions:

Progress on actions identified in the previous year's action plan:

Action	Completed	Not completed	Why not completed?
Upgrade course note	√		

9. Action plan for academic year 2021 - 2022:

Action Required	Person responsible	Completion Date
1. Study of more recent drugs containing heterocyclic nucleus	**Staff members of this course for the academic year 2021-2022**	**2022**
2. More course items to be taught	**Staff members of this course for the academic year 2021-2022**	**2022**

	Name	Signature
Course Coordinator	Ass. Prof. Dr. Walaa Mahmoud Adel Elhusseiny	
Head of Department	Prof. Shahenda Metwally Elmessery	

Department of: Pharmaceutical Organic Chemistry

Program: PhD in Pharmaceutical Sciences
(*Pharmaceutical Organic Chemistry*)

Course: Molecular Modeling and Drug Development
Code: (POM-204)

Course Report

Academic year: *2020/2021*
Second Semester

البرنامج	**تقرير مقرر**
ماجستير	**النمذجة الجزيئية و تطوير الأدوية**
رئيس القسم	**منسق المقرر**
أ د. شاهندة متولي المسيري	**ا.د. ماجدة نصر أحمد نصر**

University: Mansoura

Faculty: Pharmacy

Department: Pharmaceutical Organic Chemistry

A. Basic Information

Course Title and code:	Molecular Modeling and Drug Development (POM 204)
Program on which this course is given:	Master degree in Pharmaceutical science
Total Credit hours:	2
Lectures: 2	**Tutorial/Practical: ---**
Academic Level	Postgraduate
Academic year	2020/2021- second semester
Name of lecturers contributed to the delivery of this course	1. Prof. Dr. Magda Nasr Ahmed Nasr 2. Prof. Dr. Shahenda Metwally El-Messery
Course co-coordinator:	Prof. Dr. Magda Nasr Ahmed Nasr
External evaluator:	---
Date of Department Council Approval	10/7/2021
Date of Faculty Council Approval	25/8/2021

B. Statistical Information:

No. of students attending the course : 1

No. of students completing the course: 1

Exam Results

Passed No.: 1 **percentage: 100%**

Failed No.: 0 **percentage: 0%**

Grading of successful students (%):

A+		**A**	✓	**A-**	
B+		**B**		**B-**	
C+		**C**		**C-**	
D+		**D**		**D-**	

C. Professional Information:

1. Course teaching:

No.	Topics actually taught
1.	Scope of Molecular modeling; overview on biomolecular modeling and simulation, from drug design to new materials
2.	. potential energy surfaces, local and global minima,
3.	Transition states determination and Geometry optimization
4.	Ab Initio Calculation of Protein Structure by Global Optimization of Potential Energy.
5.	Introduction to interesting biomolecular modeling problems: protein folding
6.	Stereo chemical aspects of drugs Optical isomerism.♣ Geometrical isomerism♣
7.	Receptor visualization, binding site determination
8.	. Introduction to docking using different modules
9.	Molecular Modeling Applied to Drug Discovery, Pharmacophore modeling
10.	Computer aided drug design
11.	Structure Prediction - Introduction to Comparative Modeling. Sequence , homology modeling
12	Principles of Structure based De Novo Ligand design, Drug Discovery –QSAR.

Topics taught as a percentage of the content specified:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

Lecturer's commitment of the course content:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

Coverage of exam topics to course content:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

2. Used teaching and Learning Methods:

Lectures:	✓
Practical Training/ Laboratory:	
Seminar / Work shop:	✓
Class Activity:	✓

Case Study:	
Other assignments / home work:	

3. Student Assessment:

a. Method of Assessment	Percentage of total
Written examination	**90 %**
Oral examination	**10 %**
Practical / laboratory work	**---**
Semester Work	**---**

b. Members of examination committee:

1. **Prof. Dr. Magda Nasr Ahmed Nasr**
2. **Prof. Dr. Shahenda Metwally El-Messery**

c. Role of external evaluator (If any):

1. Suggest new topics. .
2. Revision of course notes and suggest enhancement plan
3. Use new recent references

4. Facilities and Teaching Materials

Totally adequate	
Adequate to some extent	√
Inadequate	
List any inadequacies:	

5. Administrative constraints

Need some practical applications using new softwares

6. Student evaluation of the course: ….

List any criticisms and response of course team

Criticisms	response of course team

7. Comments from external evaluator(s) (if exists) and response of course team:

Comment	Response

8. Course enhancement suggestions:

Progress on actions identified in the previous year's action plan:

Action	Completed	Not completed	Why not completed?
Upgrade course note	√		

9. Action plan for academic year 2021 - 2022:

Action Required	Person responsible	Completion Date
1. Adding research project as applications to studied protocols	**Staff members of this course for the academic year 2021-2022**	**2022**

	Name	Signature
Course Coordinator	Prof. Dr. Magda Nasr Ahmed Nasr	
Head of Department	Prof. Shahenda Metwally El-Messery	

Department of Pharmaceutical Organic Chemistry

Program: Master Degree in Pharmaceutical Sciences
(Pharmaceutical *Organic Chemistry*)

Course: Structure Elucidation of Drugs
Code: POM-203

Academic year: *2020/2021*
Second Semester

البرنامج	**تقرير مقرر**
ماجستير	إثبات التركيب البنائي للأدوية
رئيس القسم	**منسق المقرر**
أ د. شاهندة متولي المسيري	ا. د. خالد بشير سليم

University: Mansoura

Faculty: Pharmacy

Department: Pharmaceutical Organic Chemistry

A. Basic Information

Course Title and code:	POM-203
Program on which this course is given:	Master degree in Pharmaceutical science (Pharmaceutical Organic Chemistry)
Total Credit hours:	2
Course: **Lectures :** 2 credit hours **Tutorial/Practical:** 0 hours	
Academic Level	Postgraduate
Academic year	2020/2021 - Second Semester
Name of lecturers contributed to the delivery of this course	1. Prof. Mohamed Adel Massoud 2. Prof. Khalid Bashir Selim
Course co-coordinator:	Prof. Khalid Bashir Selim
External evaluator:	
Date of Department Council Approval	10/7/2021
Date of Faculty Council Approval	25/8/2021

B. Statistical Information:

No. of students attending the course : 1

No. of students completing the course: 1

Exam Results

Passed No.: 1 **percentage: 100%**

Failed No.: 0 **percentage: 0%**

Grading of successful students (%) :

A+		**A**		**A-**	
B+	**100%**	**B**		**B-**	
C+		**C**		**C-**	
D+		**D**		**D-**	

C. Professional Information:

1. Course teaching:

No.	Topics actually taught
1.	Introduction to Spectroscopic analysis and UV & CD spectroscopy
2.	Determination of molecular formula and index of hydrogen deficiency
3.	Infra red spectroscopy and identification of functional groups
4.	Nuclear magnetic resonance HNMR
5.	Nuclear magnetic resonance C13NMR
6.	Homotopic, enantiotopic, and diastereotopic protons
7.	The Nuclear Overhauser effect and 2 D NMR and its application
8.	X-ray crystallography and ESR (EPR) Spectroscopy
9.	Determination of stereochemistry by spectroscopic methods
10.	Mass spectrometry and Molecular weight determination
11.	Determining organic structures using different spectra of spectroscopy tools

Topics taught as a percentage of the content specified:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

Lecturers commitment of the course content:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

Coverage of exam topics to course content:

√ **> 90 %**	**70 - 90 %**	**< 70 %**

2. Used teaching and Learning Methods:

Lectures:	√
Practical Training/ Laboratory:	-
Seminar / Work shop:	√
Class Activity:	√
Case Study:	√
Other assignments / home work:	√

3. Student Assessment:

a. Method of Assessment	Percentage of total
Written examination	90%
Oral examination	10%
Practical / laboratory work	0%
Semester Work	0%

b. Members of examination committee:

1. Prof. Mohamed Adel Massoud

2. Prof. Khalid Bashir Selim

c. Role of external evaluator (If any):

4. Facilities and Teaching Materials

Totally adequate	√
Adequate to some extent	
Inadequate	
List any inadequacies:	

5. Administrative constraints

List any difficulties encountered:

None

6. Student evaluation of the course: ….

List any criticisms and response of course team

Criticisms	Response of course team
-	-

7. Comments from external evaluator(s) (if exists) and response of course team:

Comment	Response
-	-

8. Course enhancement suggestions:

Progress on actions identified in the previous year's action plan:

Action	Completed	Not completed	Why not completed?
-	-	-	-

9. Action plan for academic year 2021 - 2022:

Action Required	Person responsible	Completion Date
Additional structural elucidation problem	Prof. Mohamed Adel Massoud	2022
Application on spectral software programs	Prof. Khalid Bashir Selim	2022

	Name	Signature
Course Coordinator	Prof. Khalid Bashir Selim	
Head of Department	Prof. Shahenda El-Messery	