



**Pre-master  
courses**

**2018-2019**

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# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutical Medicinal chemistry

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## A – Basic Information:

**1- Title and code:** Drug Design **M109**

**2- Program(s) on which this course is given:** master

**3- Year / Level of programs:** Pre-master

**4- Credit hours:**

Lectures	4hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof.Dr. / Mohammed Al-Hussany
- Prof.Dr. / Mohammed mohammed Baraka
- Prof.Dr/Kamel abd eireheim metwally

**6- Course coordinators:**

- Prof. Dr. / Mohammed Al-Hussany

**7- External evaluator:**

- Prof. Dr. / Samir El- Moghazy (Cairo University)

## **B- Statistical Information:**

No. of students attending the course	<u>6</u>	100%
No. of students completing the course	<u>6</u>	100%

<b>Results:</b>					
Passed	6	100%	Failed	-	-

<b>Grading of successful students:</b>					
Excellent	0	0%	Very Good	2	33.33%
Good	2	33.33%	Pass	2	33.33%

## **C- Professional Information:**

### **1- Course Teaching:**

Topic	No of hours	Lecturers
Principles of drug design	4	Prof. Dr. / Mohammed Al- Hussany
Combinatorial chemistry ( combinatorial and parallel synthesis in medicinal chemistry projects)	4	
Combinatorial chemistry ( solid phase techniques)	4	Prof. Dr. / mohammed mohammed Baraka
QSAR ( hydrophobicity, electronic effects)	4	

QSAR( steric factors, other physicochemical parameters)	4	Prof.Dr kamel abd elreheim metwally
<b>Activity(Reports)</b>	4	
Drug design and relationship of functional groups to biological activity (hydrophilic/ hydrophobic properties)	4	
Drug design and relationship of functional groups to biological activity (resistance to chemical and enzymatic degradation)	4	
Relationship between molecular structure and biological activity	4	
Docking ( Introduction)	4	
Docking ( procedures)	4	
<b>Activity( Reports)</b>	4	
Applications of drug design ( self destruct drugs, peptidomimetics)	4	
Applications of drug design ( targeting drugs)	4	

**Topics taught as a percentage of the content specified:**

>90 %	√	70 – 90 %		<70%	
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- **Reasons in detail for not teaching any topics:** -----
- **If any topics were taught are not specified , give reasons in detail:** -----  
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**2- Teaching and learning Methods:**

<b>Lectures:</b>	√
<b>Seminar / Workshop:</b>	√
<b>Case study:</b>	-
<b>Other assignment / homework:</b>	√

### 3- Student Assessment:

<b>Method of Assessment</b>	<b>Percentage of total %</b>
<b>Written examination</b>	75%
<b>Oral Examination</b>	15%
<b>Activity</b>	10%

### Members of examination committee:

- Prof.Dr. Mohammed Al-hussany
- Prof.Dr. Mohammed mohammed Baraka
- Prof.Dr/kamel abdelreheim metwally

### 4- Facilities and Teaching Materials:

<b>Totally adequate</b>	
<b>Adequate to some extent</b>	√
<b>Inadequate</b>	

### 5- Administrative Constraints: No permanent places for lectures.

## 6- Students Evaluation of the Course:

Students evaluation of the course	Response of course team
Internet services are inadequate	Internet services have been enhanced.
The course is too long.	The new system already applied from this year

## 7- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
Well designed course	-----

## 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Updating course learning materials	Completed

## 9- Action plan for academic year 2019-2020:

Action required	Completion date	Person responsible
Continuous development of course content to cope with program ILOS and labour market needs.	2019- 2020	Course coordinator & head of department

**Course Coordinator:**

Prof. Dr / Prof.Dr. Mohammed Al-Hussany

**Head of department:** Prof. Dr. / kamel abd elreheim metwally

**Signature:**

# **Annual Course Report**

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutical Medicinal chemistry

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## **A – Basic Information:**

**1- Title and code:** Advanced instrumental analysis & chromatographyI  
M101

**2- Program(s) on which this course is given:** master

**3- Year / Level of programs:** Pre-master

**4- Credit hours:**

Lectures	4hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof.Dr. Elsayed Lashen (Medicinal chemistry department)
- Prof.Dr. Hisham Ezzet (Analytical chemistry department)

**6- Course coordinators:**

- Prof.Dr. Elsayed Lashen
- Prof.Dr. Hisham Ezzet

**7- External evaluator:**

- Prof. Dr. / Samir El-Moghazy (Cairo University)

## **B- Statistical Information:**

<b>No. of students attending the course</b>	No. 10	100 %
<b>No. of students completing the course</b>	No. 10	100 %

<b>Results:</b>					
Passed	9	90 %	Failed	1	10%

<b>Grading of successful students:</b>					
Excellent	-	-	Very Good	2	20%
Good	4	40%	Pass	3	30%

## **C- Professional Information:**

### **1- Course Teaching:**

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
Advanced Ultra-violet spectroscopy	4	Prof.Dr. Elsayed Lashen  Prof.Dr. Hisham Ezzet
New aspects in vibrational spectroscopy (IR spectroscopy )	4	
Application of Nuclear magnetic resonance (NMR)	4	
Application of Mass spectrometry(MS)	4	

Medicinal application of spectroscopy in diagnosis of diseases	4	
Raman spectroscopy.	4	
Advanced HPLC. <b>Activity (Reports)</b>	4	
HPLC & its medicinal and pharmaceutical application	4	
High performance thin layer chromatography (HPTLC).	4	
Advanced Gas chromatography.	4	
GC & its medicinal and pharmaceutical application	4	
New aspects of Supercritical fluid chromatography (SFC) and ion exchange chromatography (IEC).	4	
Capillary electrophoresis(CE)	4	
Analytical application of dimeric and polymeric molecules. <b>Activity (Reports)</b>	4	

**Topics taught as a percentage of the content specified:**

>90 %	√	70 – 90 %		<70%	
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- Reasons in detail for not teaching any topics: -----
- If any topics were taught are not specified , give reasons in detail: -----  
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**2- Teaching and learning Methods:**

<b>Lectures:</b>	√
<b>Seminar / Workshop:</b>	√
<b>Case study:</b>	-
<b>Other assignment / homework:</b>	√

**3- Student Assessment:**

<b>Method of Assessment</b>	<b>Percentage of total %</b>
<b>Written examination</b>	75%
<b>Oral examination</b>	15%
<b>Activities</b>	10%

**Members of examination committee:**

- Prof.Dr. Elsayed Lashen
- Prof.Dr. Hisham Ezzet

#### 4- Facilities and Teaching Materials:

Totally adequate	
Adequate to some extent	√
Inadequate	

**5- Administrative Constraints:** No permanent lectures places

#### 6- Students Evaluation of the Course:

Students evaluation of the course	Response of course team
Internet services are inadequate	Internet services have been enhanced.
The course is too long.	The new system already applied from this year

#### 7- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
Well designed course	-----

#### 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Updating course learning materials	Completed

## 9- Action plan for academic year 2019– 2020:

Action required	Completion date	Person responsible
Continuous development of course content to cope with program ILOS and labour market needs.	2019- 2020	Course coordinator & head of department

### Course Coordinator:

- Prof.Dr. Elsayed Lashen
- Prof.Dr. Hisham Ezzet

**Head of department:** Prof. Dr. / kamel abdelreheim metwally

**Signature:**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutical Analytical chemistry

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## A – Basic Information:

**1- Title and Code** Physical Chemistry                      **M106**

**2- Program(s) on which this course is given:** Master

**3- Year / Level of programs:** Pre-Master

**4- Credit hours:** -----

<b>Lectures</b>	4hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof. Dr/ Magda Ayad
- Prof. Dr/ Mervat Hosny
- Prof. Dr/ Wafaa Hassan
- Prof. Dr/ Hawaa Mohamed

**6- Course coordinator:**

- Prof. Dr. / Wafaa Hassan

**7- External evaluator:**

- Prof.Dr. / Gamal Saleh (Assuit University)

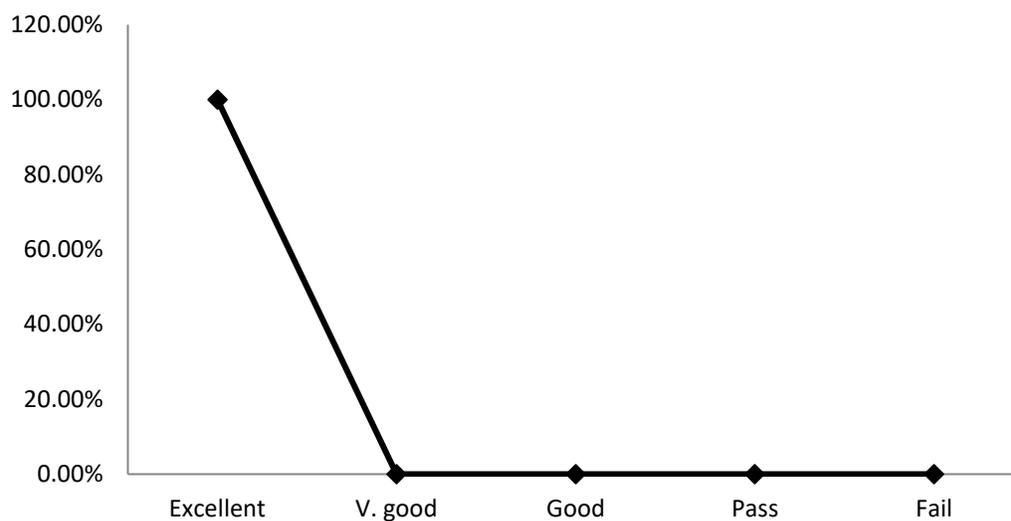
## B- Statistical Information:

No. of students attending the course:	No. 9	100%
No. of students completing the course:	No. 9	100%

Results:					
Passed	No.9	100%	Failed	No.0	0%

Grading of successful students:					
Excellent	No.9	100%	Very Good	No.0	0%
Good	No.0	0%	Pass	No.0	0%

المنحني التكراري لطلبة مقررتمهيدى ماجستير  
physical chemistry



## C- Professional Information:

### 1- Course Teaching:

Week number	Contents	lecturer
1	<ul style="list-style-type: none"> <li>Introduction of kinetics and rate of reactions</li> </ul>	Prof. Dr/ Magda Ayad
2	<ul style="list-style-type: none"> <li>Molecular and order of reaction.</li> </ul>	

3	<ul style="list-style-type: none"> <li>• Parallel and consecutive reactions.</li> </ul>		
4	<ul style="list-style-type: none"> <li>• Methods used for determination of the order of reactions</li> </ul>		
5	<ul style="list-style-type: none"> <li>• Theories of reaction rates and chain reaction</li> </ul>		Prof. Dr/ Mervat Hosny
6	<ul style="list-style-type: none"> <li>• Criteria of catalysis.</li> </ul>		
7	<ul style="list-style-type: none"> <li>• Homogenous and enzyme catalysis</li> </ul>		
8	<ul style="list-style-type: none"> <li>• Heterogeneous catalysis</li> </ul>		
9	<ul style="list-style-type: none"> <li>• Nature of electrolytes in solution.</li> </ul>	Prof. Dr/ Wafaa Hassan	
10	<ul style="list-style-type: none"> <li>• Photochemistry and properties of electromagnetic radiations.</li> </ul>		
11	<ul style="list-style-type: none"> <li>• Laws of photochemical process, quantum yield and chain reaction.</li> </ul>		
12	<ul style="list-style-type: none"> <li>• Solutions:</li> <li>• Principles and concentration and solubility.</li> </ul>	Prof. Dr/ Hawaa Mohamed	
13	<ul style="list-style-type: none"> <li>• Factors affecting solubility</li> <li>• Solute-solvent interaction.</li> <li>• Solubility and temperature.</li> </ul>		

	<ul style="list-style-type: none"> <li>• Effect of pressure on solubility.</li> </ul>	
14	<ul style="list-style-type: none"> <li>• Solutions of liquids in liquids</li> <li>• Solutions of solid in liquids (Colligative properties of solutions.)</li> </ul>	
15	<ul style="list-style-type: none"> <li>• Written Exam</li> </ul>	•

**Topics taught as a percentage of the content specified:**

>90 %	√	70 – 90 %		<70%	
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- **Reasons in detail for not teaching any topics:** -----
- **If any topics were taught are not specified , give reasons in detail:** -----  
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**2- Teaching and learning Methods:**

<b>Lectures:</b>	√
<b>Seminar / Workshop:</b>	√
<b>Case study:</b>	-
<b>Other assignment / homework:</b>	√

**3- Student assessment:**

<b>Method of Assessment</b>	<b>Percentage %</b>
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<b>Written examination</b>	75
<b>Oral examination</b>	15
<b>Activity</b>	10
<b>Total</b>	100

**Members of examination committee:**

- Prof. Dr/ Magda Ayad
- Prof. Dr/ Mervat Hosny
- Prof. Dr/ Wafaa Hassan

**4- Facilities and Teaching Materials:**

<b>Totally adequate</b>	√
<b>Adequate to some extent</b>	
<b>Inadequate</b>	

**5- Administrative Constraints:** no constrain

**6- Students Evaluation of the Course:**

<b>Students evaluation of the course</b>	<b>Response of course team</b>
Increase number of the practice cases within the course	The department will discuss this suggestion.

**7- Comments from external evaluator(s):**

<b>Comments from external evaluator</b>	<b>Response of course team</b>
The course aims are clear, well designed and linked to program ILOS	-----

**8- Course Enhancement:**

Action required	State whether or not complete and give reasons for any non-completion
Revision of the course with updating references used.	completed

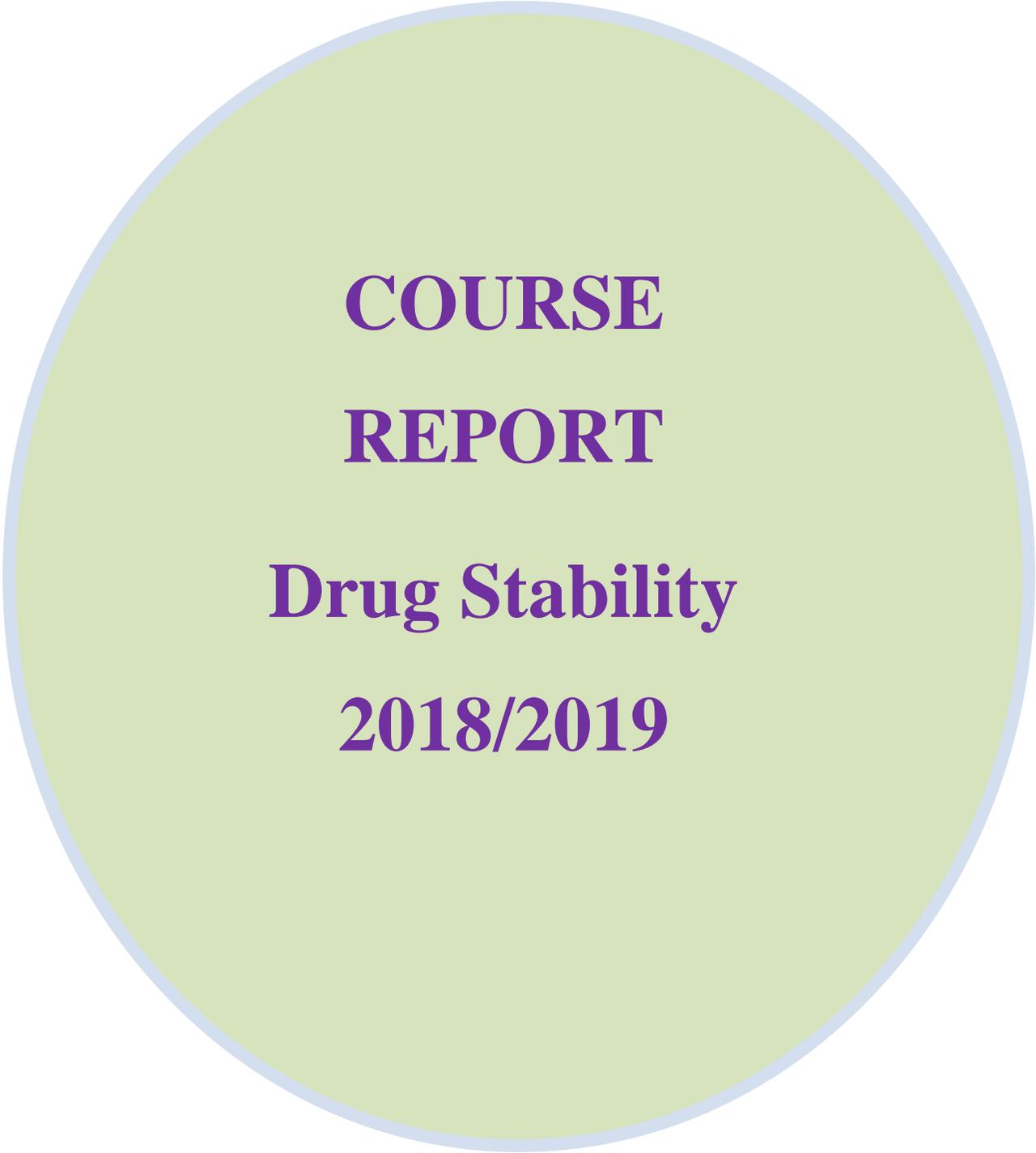
### 9- Action plan for academic year 2019– 2020:

Action required	Completion date	Person responsible
Revision of the course content for the preparation of new post graduates by laws	2020	Course team

**Course Coordinator:** Prof. Dr. / Wafaa Hassan

**Head of Department:**

تم اعتماد التقرير في مجلس القسم بتاريخ 2019/10/8



**COURSE  
REPORT**

**Drug Stability**

**2018/2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## A – Basic Information:

**1- Title and code:** Drug stability ME3

**2- Program(s) on which this course is given:** master

**3- Year / Level of programs:** pre-master

**4- Credit hours:**

Lectures	4hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof. Dr/ Mahmoud Abdul Ghany
- Prof.Dr/Hanaa El-Ghamry

**6- Course coordinator:**

- Prof. Dr/ Mahmoud Abdul Ghany

**7- External evaluator:**

Ali abd elzaher (Assuit university)

## B- Statistical Information:

<b>No. of students attending the course</b>	3	100 %
<b>No. of students completing the course</b>	3	100%

<b>Results:</b>					
Passed	No.2	100%	Failed	-	-

<b>Grading of successful students:</b>					
Excellent	2	66.6%	Very Good	1	33.3%
Good	-	-	Pass	-	-

### **C- Professional Information:**

#### **1- Course Teaching:**

<b>Week number</b>	<b>Lecture content (4 hr/w)</b>	<b>Lecturer</b>
1	<ul style="list-style-type: none"> <li>• Drug stability (Overview – importance)</li> </ul>	Prof. Dr/ Mahmoud Abdel Ghany
2	<ul style="list-style-type: none"> <li>• Stability regulations (overview)</li> </ul>	
3	<ul style="list-style-type: none"> <li>• Critical regulatory requirements for a stability program</li> </ul>	
4	<ul style="list-style-type: none"> <li>• Global stability practices</li> </ul>	
5	<ul style="list-style-type: none"> <li>• Understanding and predicting pharmaceutical product shelf life</li> </ul>	
6	<ul style="list-style-type: none"> <li>• Stability methodologies (overview)</li> </ul>	
7	<ul style="list-style-type: none"> <li>• Development of stability indicating methods</li> <li>• <b>(Presentation)</b></li> </ul>	
8	<ul style="list-style-type: none"> <li>• Overview of USP-NF requirements for stability</li> </ul>	

9	<ul style="list-style-type: none"> <li>• Non chromatographic methods for stability program</li> </ul>	Prof.Dr/Hanaa El-Ghamry
10	<ul style="list-style-type: none"> <li>• Vibrational spectroscopic methods for quantitative analysis</li> </ul>	
11	<ul style="list-style-type: none"> <li>• Evaluation of stability data</li> </ul>	
12	<ul style="list-style-type: none"> <li>• Qualification, calibration and maintenance of stability chambers</li> </ul>	
13	<ul style="list-style-type: none"> <li>• <b>Stability operation practices</b></li> </ul>	
14	<ul style="list-style-type: none"> <li>• Stability studies in biologics</li> <li>• <b>(Final Presentation)</b></li> </ul>	
15	<ul style="list-style-type: none"> <li>• Written exam</li> </ul>	

**Topics taught as a percentage of the content specified:**

>90 %	√	70 – 90 %		<70%	
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- **Reasons in detail for not teaching any topics:** -----
- **If any topics were taught are not specified , give reasons in detail:** -----

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**2- Teaching and learning Methods:**

<b>Lectures:</b>	√
<b>Seminar / Workshop:</b>	√
<b>Case study:</b>	-
<b>Other assignment / homework:</b>	√

**3- Student Assessment:**

Method of Assessment	Percentage of total %
Written examination	75
Oral Exam	15
Activity	10

### Members of examination committee:

- Prof. Dr/ Mahmoud Abdul Ghany
- Prof.Dr/Hanaa El-Ghamry

### 4- Facilities and Teaching Materials:

Totally adequate	√
Adequate to some extent	
Inadequate	

### 5- Administrative Constraints: no constrain

### 6- Students Evaluation of the Course:

Students evaluation of the course	Response of course team
Addition of practical cases and management strategies for stability problems	Will be considered

### 7- Comments from external evaluator(s):

Comments from external evaluator	Response of course team

The course needs some refining and update.	References are updated and course will include activities in course specification 2019- 2020.
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### 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Updating learning materials	completed

### 9- Action plan for academic year 2019– 2020:

Action required	Completion date	Person responsible
Revision of course content and make required updates: practical cases of instability	2019- 2020	Course team
Updating postgraduate bylaws	2019- 2020	Head of department Vice dean for postgraduate studies

**Course Coordinator:** Prof. Dr/ Mahmoud Abdel Ghany

**Head of department:** Prof. Dr. / Nagia Ahmed El-Megarb

# **Annual Course Report**

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Medicinal chemistry

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## **A – Basic Information:**

**1- Title and code:** Good practice for analysis of drugs and quality control  
ME-1

**2- Program(s) on which this course is given:** master

**3- Year / Level of programs:** Pre-master

**4- Credit hours:**

<b>Lectures</b>	4hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof.Dr/ Sobhy ElAdl
- Prof.Dr/Abd allah El shanawany
- Dr/ Mohammed Sebaiy

**6- Course coordinator:**

- Prof.Dr/ Sobhy ElAdl
- Prof.Dr/Abd allah El-shanawany

**7- External evaluator:**

- Prof. Dr. / Samir Elmoghazy (Cairo University)

## **B- Statistical Information:**

<b>No. of students attending the course</b>	No. 9	100 %
<b>No. of students completing the course</b>	No. 9	100 %

<b>Results:</b>					
Passed	No. 8	88.89 %	Failed	1	11.12%

<b>Grading of successful students:</b>					
Excellent	2	22.22%	Very Good	No. 6	66.67 %
Good	-	-	Pass	-	-

## **C- Professional Information:**

### **1- Course Teaching:**

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
Validation parameters in analysis	4	Prof.Dr/ Sobhy ElAdl
Application of quantitative analysis for different drugs.	4	
Quality control and how to minimize the synthesis errors.	4	
Quality assurance and basic requirement.	4	
Applications of Spectrophotometric analysis for dosage forms	4	

<b>Activity</b>		
H <sup>1</sup> ,C <sup>13</sup> ,N <sup>15</sup> ,F <sup>19</sup> - NMR	4	Prof.Dr/Abdallah El-shanawany
Advanced techniques in mass spectroscopy	4	
Atomic absorption	4	
Fluorimetric analysis	4	
Radioimmune Assay	4	
Electrophoresis	4	Dr/Mahmoud sebaiy
Advanced GC-MS chemistry	4	
<b>Activity</b>		
Spectrodenistometric (TLC scanner)	4	
Forensic chemistry	4	
Final exam		

**Topics taught as a percentage of the content specified:**

>90 %	√	70 – 90 %		<70%	
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- **Reasons in detail for not teaching any topics:** -----
- **If any topics were taught are not specified , give reasons in detail:** -----  
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**2- Teaching and learning Methods:**

<b>Lectures:</b>	√
<b>Seminar / Workshop:</b>	√

<b>Case study:</b>	-
<b>Other assignment / homework:</b>	√

### 3- Student Assessment:

Method of Assessment	Percentage of total %
<b>Written examination</b>	75%
<b>Oral examination</b>	15%
<b>Activity</b>	10%

### Members of examination committee:

- Prof.Dr/ Sobhy ElAdl
- Prof.Dr/abdallah el-shanawany
- Dr/Mahmoud elsebaiy

### 4- Facilities and Teaching Materials:

<b>Totally adequate</b>	
<b>Adequate to some extent</b>	√
<b>Inadequate</b>	

**5- Administrative Constraints:** No permanent lectures places.

### 6- Students Evaluation of the Course:

Students evaluation of the course	Response of course team
Internet services are inadequate	Internet services have been enhanced.

The course is too long.	The new system already applied from this year
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### 7- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
Course is appropriately designed	-----

### 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Updating course learning materials	Completed

### 9- Action plan for academic year 2019– 2020:

Action required	Completion date	Person responsible
Continuous development of course content to cope with program ILOS and labour market needs.	2019- 2020	Course coordinator & head of department

#### Course Coordinator:

- Prof.Dr/ Sobhy ElAdl
- Prof.Dr/ abdallah el shanawany

**Head of department:** Prof. Dr. / Kamel abd-elreheim metwally. **Signature:**



# **Course Report**

Advanced Organic  
Chemistry:  
Structure and  
Mechanism

# Annual Course Report

University: Zagazig

Faculty: Pharmacy

Department: Pharmaceutical Organic Chemistry

## A – Basic Information:

1. **Title and Code:** Advanced Organic chemistry-1: Structure and Mechanism (osp1)

2. **Program(s) on which this course is given:** Master Program.

3. **Year / Level of programs:**

4. **Units / Credit hours:** 4 hrs

<b>Lectures</b>	4 hrs/week.	<b>Practical sessions</b>	-	<b>Total</b>	4 hrs/week.
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5. **Names of lecturers contributing to the delivery of the course:**

- Prof. Dr. / Aza M. Kadry
- Prof. Dr./Said El-feky

6. **Course coordinator:**

- Prof. Dr. / Aza M. Kadry

7. **External evaluator:**

- Prof. Dr/ Manal Kandel (Cairo University)

## B- Statistical Information:

<b>No. of students attending the course</b>	1	100%
<b>No. of students completing the course</b>	1	100%

<b>Results:</b>					
Passed	1	100%	Failed	0	0%
<b>Grading of successful students:</b>					

A	1	100%	A <sup>-</sup>	0	0%
B	0	0%	B <sup>-</sup>	0	0%
B <sup>+</sup>	0	0%	C	0	0%
C <sup>+</sup>	0	0%			

**C- Professional Information:**

1-Course Teaching:

**Topics taught as a percentage of the content specified:**

>90 %                      √                      70 – 90 %                      <70%

- **Reasons in detail for not teaching any topic: -----**
- **If any topics were taught which are not specified, give reasons in detail:**

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Week number	Lecture contents (4hrs/week)	Lecturer
1	Valence bond and molecular orbital theories	Prof .Dr. /Aza M. Kadry
2	Factors affecting molecular structure	
3	Stereochemistry and conformation	
4	Stereoselectivity	
5	Structural effects on stability and reactivity	
6	Nucleophilic substitution	Prof. Dr. /Said El-Feky
7	Polar addition and elimination reaction	
8	Carbanions and other carbon nucleophile	

9	Addition, condensation and substitution reactions of carbonyl compounds
10	<b>Activity (review article)/</b> Aromaticity
11	Aromatic substitution
12	Concerted pericyclic reaction
13	Free radical reaction
14	Photochemistry Illustrative examples for stability of organic pharmaceuticals
15	Final exam

## 2- Teaching and learning methods:

Lectures	√
Practical Training / Laboratory	-
Seminar / Workshop	√
Class activity	√
Case study	-
Other assignment / homework	√

- If teaching and learning methods were used other than those specified, list and give reasons: discussion session.

## 3- Student Assessment:

Method of Assessment	Percentage of total %
Written examination	75%

Oral examination	15%
Other Assignments/class work	10%
Total	100%

**Members of examination committee:**

- Prof. Dr. /Aza Kadry
- Prof. Dr/ Said El-Feky.

**4- Facilities and Teaching Materials:**

Totally adequate	√
Adequate to some extent	
Inadequate	

**List any inadequacies:-----**

**5- Administrative Constraints:**

No constraints

**6- Students evaluation of the course:**

Students evaluation of the course	Response of course team
Students are satisfied about the course	-

**7- Comments from external evaluator(s):**

Comments from external evaluator:	Response of course team
The course is well designed	-

**8- Course Enhancement:**

Action	State whether or not completed and give reasons for any non-completion
Update references for the course	Completed

**9- Action plan for academic year 2019/2020**

<b>Action required</b>	<b>Completion date</b>	<b>Person responsible</b>
Update the contents and learning materials	2020	Course team
Addition of more appreciable topics related to the practical research	2020	Course team

**Course Coordinator:** Prof. Dr. / Aza M. Kadry

**Signature:**

**Date:** Course report is approved in the departmental council on: 26/11/2019



# **Course Report**

Advanced Organic  
Chemistry: Reactions  
and Synthesis

(osp2)

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutical Organic Chemistry

## A – Basic Information:

**1. Title and Code:** Advanced Organic chemistry-2: Reactions and Synthesis:  
(osp2)

**2. Program(s) on which this course is given:** Master Program.

**3. Year / Level of programs:**

**4. Units / Credit hours:** 4 hrs

<b>Lectures</b>	4 hrs/week.	<b>Practical sessions</b>	-	<b>Total</b>	4 hrs/week.
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**5. Names of lecturers contributing to the delivery of the course:**

- Prof. Dr. / Aza M. Kadry
- Prof. Dr./Said El-feky

**6. Course coordinator:**

- Prof. Dr. / Aza M. Kadry

**7. External evaluator:**

- Prof. Dr/ Manal Kandel (Cairo University)

## B- Statistical Information:

<b>No. of students attending the course</b>	2	100%
<b>No. of students completing the course</b>	2	100%

<b>Results:</b>					
Passed	2	100%	Failed	0	0%
<b>Grading of successful students:</b>					

A	2	100%	A <sup>-</sup>	0	0%
B	0	0%	B <sup>-</sup>	0	0%
B <sup>+</sup>	0	0%	C	0	0%
C <sup>+</sup>	0	0%			

**C- Professional Information:**

1-Course Teaching:

**Topics taught as a percentage of the content specified:**

>90 %

√

70 – 90 %

<70%

- **Reasons in detail for not teaching any topic: -----**
- **If any topics were taught which are not specified, give reasons in detail:**

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Week number	Lecture contents (4hrs/week)	Lecturer
1	Alkylation of enolates and other carbon nucleophiles	Prof .Dr. /Aza M. Kadry
2	Reactions of carbon nucleophiles with carbonyl compounds	
3	Functional group interconversion by substitution,including protection and deprotection	
4	Electrophilic addition to carbon-carbon multiple bonds	
5	Reduction of carbon-carbon multiple	

	bonds, carbonyl groups and other functional groups	
6	Concerted cycloadditions, unimolecular rearrangement, and thermal eliminations	Prof. Dr. /Said El-Feky
7	Organometallic compounds of group 1 and 2 metals	
8	Reactions involving transition metals	
9	Reactions involving carbocations as reactive intermediates	
10	Reactions involving carbenes, and radicals as reactive intermediates	
11	<b>Activity (Problem solving)</b> / Aromatic substitution reactions	
12	Oxidations	
13	Retrosynthetic analysis	
14	Synthetic equivalence and control of Stereochemistry  Illustrative examples for multistep synthesis / <b>Activity (Problem solving)</b>	
15	Final exam	

## 2- Teaching and learning methods:

Lectures	√
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Practical Training / Laboratory	-
Seminar / Workshop	√
Class activity	√
Case study	-
Other assignment / homework	√

- **If teaching and learning methods were used other than those specified, list and give reasons:** discussion session.

### 3- Student Assessment:

Method of Assessment	Percentage of total %
Written examination	75%
Oral examination	15%
Other Assignments/class work	10%
Total	100%

### Members of examination committee:

- Prof. Dr. /Aza Kadry
- Prof. Dr/ Said El-Feky.

### 4- Facilities and Teaching Materials:

Totally adequate	√
Adequate to some extent	
Inadequate	

**List any inadequacies:-----**

### 5- Administrative Constraints:

No constraints

### 6- Students evaluation of the course:

Students evaluation of the course	Response of course team
The students were satisfied about the course	-

**7- Comments from external evaluator(s):**

Comments from external evaluator:	Response of course team
Course ILOs are properly written and can be measured	-

**8- Course Enhancement:**

Action	State whether or not completed and give reasons for any non-completion
Updating learning materials	Completed

**9- Action plan for academic year 2019/2020**

Action required	Completion date	Person responsible
Addition of topics more related to practical research	2020	Course team

**Course Coordinator:** Prof. Dr. / Aza M. Kadry

**Signature:**

**Date:** Course report is approved in the departmental council on: 26/11/2019