

# **COURSE REPORTS**



**Pre-master courses**

**2018-2019**



Advanced  
Instrumental Analysis  
and Chromatography  
II

**M102**

**2018-2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutical Analytical chemistry

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## A – Basic Information:

**1- Title and Code:** Advanced Instrumental Analysis and Chromatography II  
**M102**

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

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

**4- Credit hours: 4**

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

- Prof.Dr/ Hisham Ezzat
- Prof Dr/ Magda El Henawee
- Prof Dr/ Abdalla Shalaby

**6- Course coordinator:**

- Prof.Dr/Hisham Ezzat

**7- External evaluator:**

- Prof. Dr. Gamal Saleh (Assuit University)

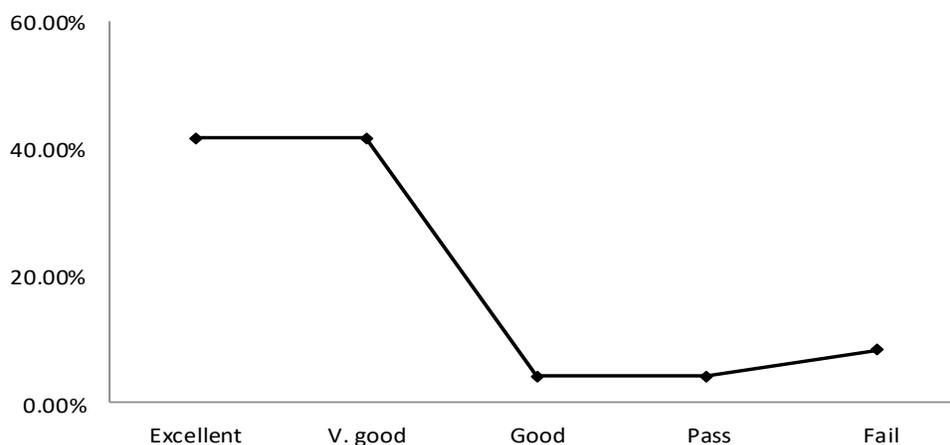
## B- Statistical Information:

No. of students attending the course	No.26	100 %
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Results:					
Passed	No. 22	91.67%	Failed	No.2	8.33%
No. of students completing the course			No.24	92.31%	

Grading of successful students:					
Excellent	10	41.67%	Very Good	No.10	41.67%
Good	No.1	4.17%	Pass	No.1	4.17%

المنحنى التكراري لطلبة مقررتمهيدى ماجستير  
advanced instrumental analysis and chromatography II



## **C- Professional Information:**

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

2- Topic	No of hours	Lecturers
Introduction and classification of chromatographic methods, quantitative and qualitative TLC.	20	Prof.Dr/ Hisham Ezzat
Gas chromatography, HPLC, Electrophoresis.  Polarography and voltametry	20	Prof Dr/ Magda El Henawee
UV spectrophotometry, Spectrofluorimetry, Atomic absorption spectrophotometry	20	Prof Dr/ Abdalla Shalaby

**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 %
Written examination	75
Oral examination	15
Activity	10
Total	100

### Members of examination committee:

Prof.Dr/ Hisham Ezzat

Prof Dr/ Magda El Henawee

Prof Dr/ Abdalla Shalaby

### 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
Practical sessions are required to carry out some experiments to clarify the theoretical content.	The department will discuss this suggestion.

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

Comments from external evaluator	Response of course team
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Other methods in addition to the previous teaching methods are required for increase the ability to solve problem e.g: practical analysis of drugs.	Evaluator's comments will be carefully considered.
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## 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

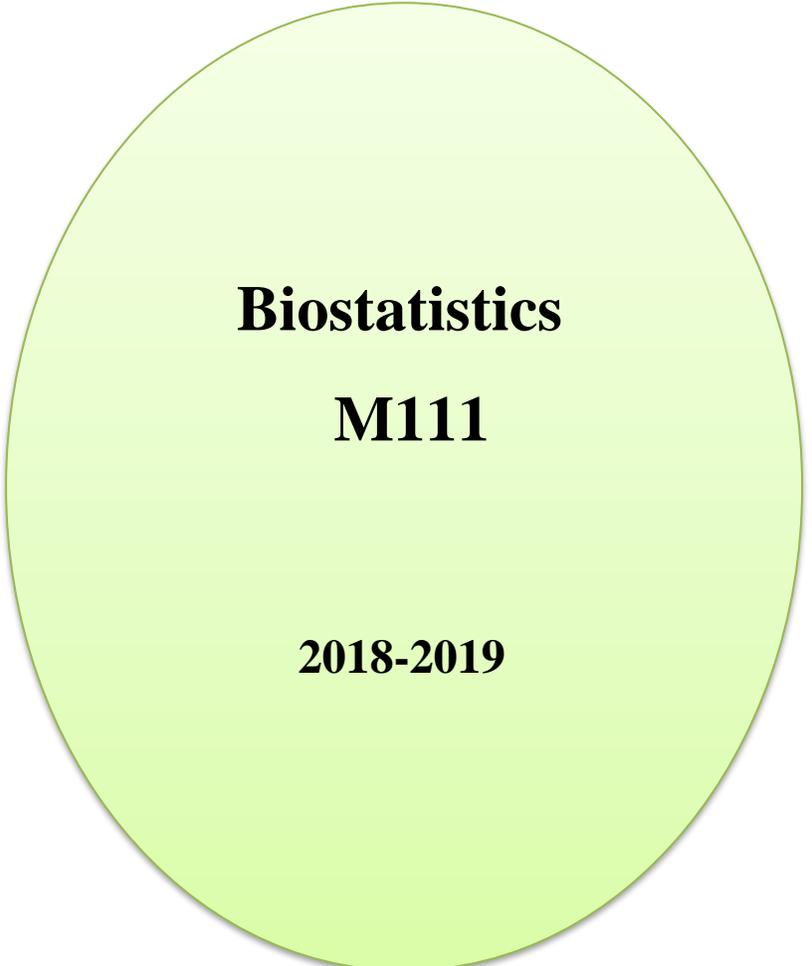
## 9- Action plan for academic year 2019– 2020:

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/ Hisham Ezzat

**Head of Department:**

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



**Biostatistics**

**M111**

**2018-2019**

## Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmacology and toxicology

### A – Basic Information:

- 1) **Title and Code:** Biostatistics **M 111**
- 2) **Program on which this course is given:** Pre-master
- 3) **Year / Level of programs:** Pre-master
- 4) **Credit hours: 2 hours**

Lectures	2hr/wk
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5) **Names of lecturers contributing to the delivery of the course:**

- Prof.Dr/ Hany Elbassosy
- Dr/Noura Ahmed

6) **Course coordinator:** Prof.Dr/ Hany Elbassosy

7) **External evaluator:** Prof-Dr: El-Sayed Kamel

### B- Statistical Information:

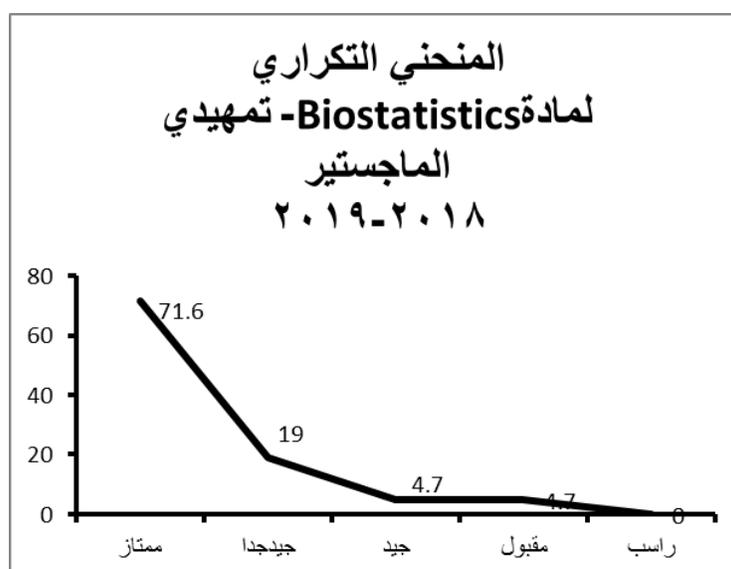
No. of students attending the course:	No. 35	100%
No. of students completing the course:	No. 21	60 %

## Results:

Passed	No.21	100%	Failed	-	-
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## Grading of successful students:

Excellent	No.15	71.6%	Very Good	No.4	19%
Good	No.1	4.7%	Pass	No.1	4.7%



## **C- Professional Information:**

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

<b>Course Contents</b>	<b>No. of hours</b>	<b>Lecturers</b>
General principle of biostatistics 1	15	<ul style="list-style-type: none"><li>• Dr/Noura Ahmed</li></ul>
General principle of biostatistics 2		
Presentation of data		
Descriptive statistics		
Measures of central tendency		
Measures of variability		
Normal frequency distribution curve		
Probability		
Comparing of two means- Problem solving activity	15	<ul style="list-style-type: none"><li>• Prof.Dr/ Hany El-Bassossy</li></ul>
Comparing of more than two means		
Chi square test		
Regression and correlation analysis		
Complex analysis		
Criteria of good experimental design		
Revision		

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

>90 %	√	70 – 90 %		<70%	
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- 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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### **2- Teaching and learning Methods:**

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

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

### **3- Student assessment:**

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

### **Members of examination committee:**

- Prof. Dr/ Hany El-Bassossy
- Dr/Noura Ahmed

#### 4- Facilities and Teaching Materials:

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

#### 5- Administrative Constraints:

None

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

<b>Students evaluation of the course</b>	<b>Response of course team</b>
The students was satisfied about the course	-----

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

<b>Comments from external evaluator</b>	<b>Response of course team</b>
The course is well designed and the outcomes are clear	-----

## 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Activating the new evaluation methods by including oral exam & activities in the student assessment methods.	completed
Measurement of the course ILOS	completed
Continuous development of course content to cope with program ILOS and labour market needs.	continuous

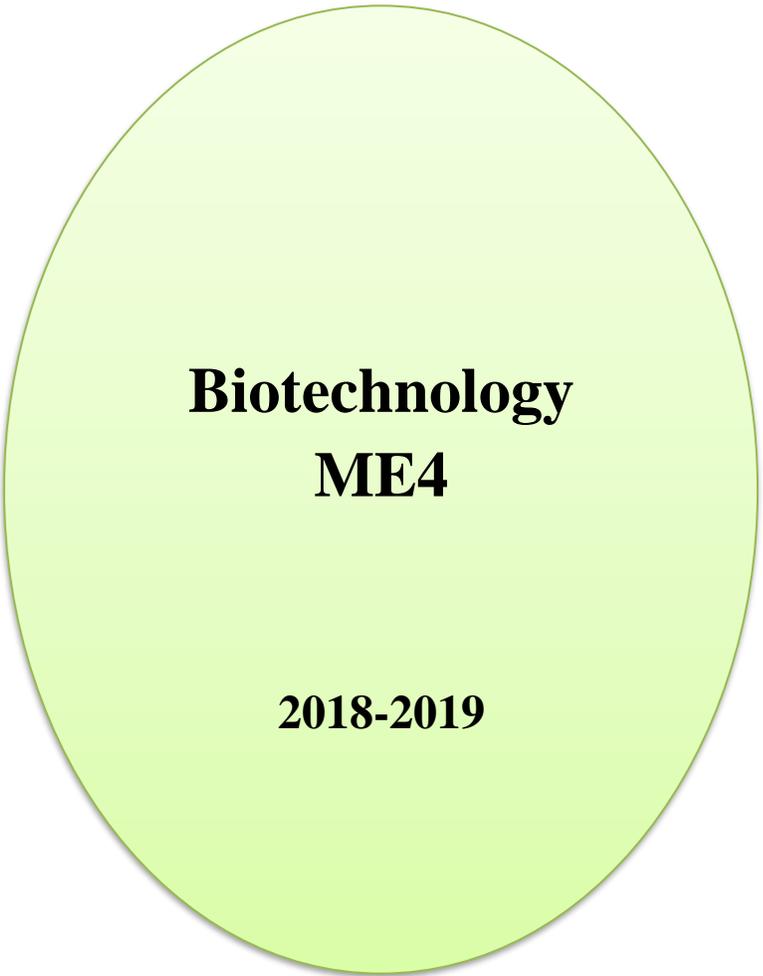
## 9- Action plan for academic year 2019-2020:

Action required	Completion date	Person responsible
Continuous course revision and development	2019-2020	Course instructors

- **Course Coordinator: Prof. Dr/ Hany El-Bassossy**
- **Head of department: Pro. Dr/ Mona Fouad**

**Signature:**

**Date: 3/12/2019**



**Biotechnology**  
**ME4**

**2018-2019**

## Annual Course Report

University: Zagazig

Faculty: Pharmacy

Department: Biochemistry

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### A – Basic Information:

1- Title and Code: Biotechnology ME4

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

3- Year / Level of programs: Premaster

4-Units / Credit hours: 4 hours

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

- Prof. Dr / Mohamed Elseweidy (Biochemistry department)
- Prof. Dr / AShraf kadry (Microbiology department)

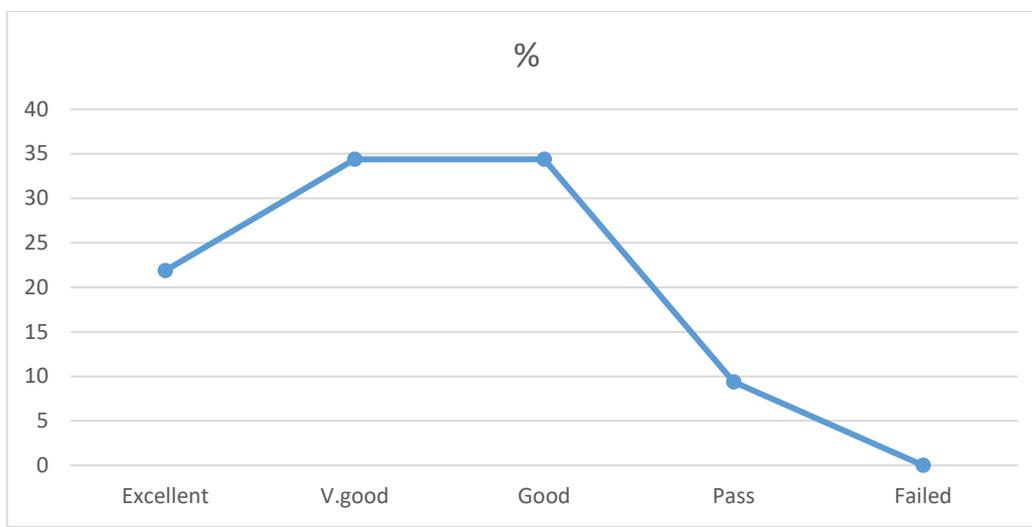
Course coordinator: Prof. Dr/ Mohamed Mahmoud ElSeweidy

External evaluator: Prof. Dr/ Ola Ali

### B- Statistical Information:

No. of students attending the course	no.40	100 %
No. of students completing the course	no.32	80 %

<b>Results:</b>					
Passed	No. 32	100 %	Failed	No. 0	0%
<b>Grading of successful students:</b>					
Excellent	No. 7	21.875%	Very Good	No. 11	34.375%
Good	No. 11	34.375%	Pass	No. 3	9.375%



## **C- Professional Information:**

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

<b>Topic</b>	<b>No. of hours</b>	<b>Lecturers</b>
<ul style="list-style-type: none"> <li>• Introduction to Biotechnology, Bioprocess, Downstream processing, Cell culture, Hybridoma technology.</li> <li>• Medical biotechnology.</li> <li>• Medicine from cultured cells</li> <li>• DNA Recombination &amp; Application of genetic engineering.</li> </ul>	30	Prof. Dr/ Mohamed El-Seweidy
<ul style="list-style-type: none"> <li>• Principle of PCR technology and gene amplification.</li> <li>• Applications and advances in PCR.</li> <li>• Monoclonal antibody- technology production</li> <li>• Pharmaceutically useful monoclonal antibodies</li> <li>• Vaccine preparations</li> </ul>	30	Prof. Dr / AShraf Kadry

### **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: -----

## 2- Teaching and learning Methods:

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

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

## 3- Student Assessment:

Assessment method	Marks	Percentage
• Activity	10	10 %
• Written exam	75	75 %
• Oral exam	15	15 %
<b>TOTAL</b>	<b>100</b>	<b>100%</b>

## Members of examination committee:

- Prof. Dr / Mohamed Mahmoud Elseweidy
- Prof. Dr / Ashraf kadry

## 4- Facilities and Teaching Materials:

Totally adequate	√
Adequate to some extent	
Inadequate	

## 5- Administrative Constraints: -----

## 6- Students Evaluation of the Course:

Students evaluation of the course	Response of course team
<ul style="list-style-type: none"> <li>The course content should be matched with the determined time.</li> <li>The course content should be presented simply and clearly.</li> </ul>	<p>The time will be considered.</p> <p>The course content will be presented simply.</p>

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

Comments from external evaluator:	Response of course team
The course content should encourage thinking skills instead of dependent memorizing.	Holding open discussions between students to increase interaction.

### 8- Course Enhancement:

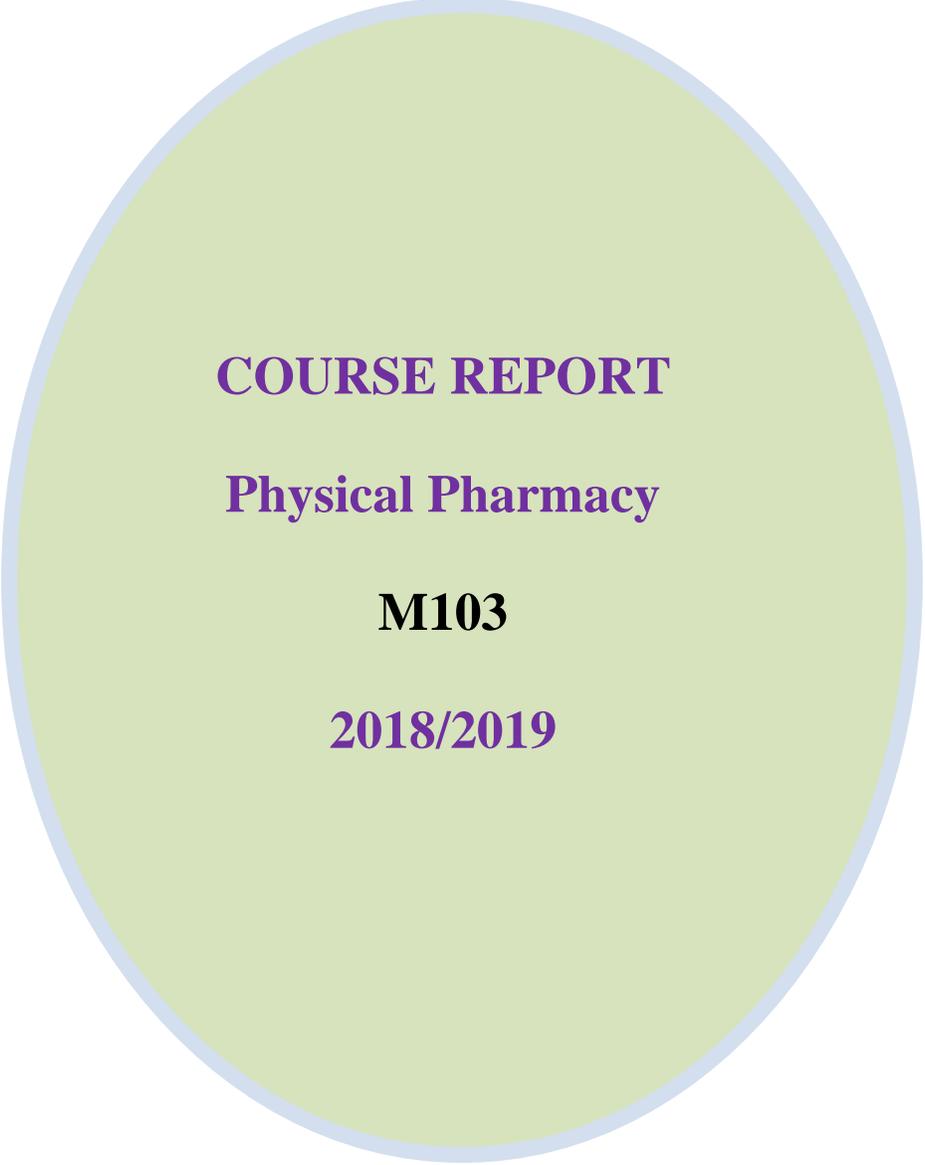
Action	State whether or not completed and give reasons for any non completion
-Continuous development of course content to cope with program ILOS.	Completed
-Textbooks and references need to be updated	Completed

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

Action required	Completion date	Person responsible
The course content should be matched with the determined time. The course content should be presented simply and clearly.	<b>2019– 2020</b>	Course coordinator & Course team

- **Course Coordinator:** Prof. Dr / Mohamed Mahmoud Elseweidy
- **Head of department:** Prof. Dr./ Sahar Elswefy
- **Date:** 2019/9/23 تم مناقشته واعتماده بمجلس القسم بتاريخ





**COURSE REPORT**

**Physical Pharmacy**

**M103**

**2018/2019**

# **Annual Course Report**

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## **A – Basic Information:**

**1- Title and code:** Physical Pharmacy

**M103**

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

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

**4- Credit hours:**

<b>Lectures</b>	2 hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

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

**6- Course coordinator:**

- Prof. Dr/ Mahmoud Abdul Ghany

**7- External evaluator:**

- Prof. Dr. / Ali Abd Elzaher (Assuit University)

## **B- Statistical Information:**

<b>No. of students attending the course</b>	No.4	100 %
<b>No. of students completing the course</b>	No.4	100%

<b>Results:</b>					
Passed	No.4	100%	Failed	-	-

<b>Grading of successful students:</b>					
Excellent	No.1	100%	Very Good	3	--
Good	-	-	Pass	-	-

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

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

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
Equilibrium phenomena, Complexation and protein binding, Surface and interfacial phenomena, Metal complexes & Organic molecular complexes.	15	Prof. Dr/ Mahmoud Abdul-Ghany
Occlusion compounds, Complexation and method of analysis, State of matter, Colligative properties of solutions, disperse system.	15	Prof.Dr/Hanaa El-Ghamry

#### **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 Mahdy
- 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
Course content is update and gives an insight on different factors affecting formulation design	-

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

Comments from external evaluator	Response of course team
References should be updated.	References are updated in the course specification 2019- 2020.

### 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Continuous development of course content and learning materials	completed

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

Action required	Completion date	Person responsible
Discussion of articles demonstrating manipulation of drug physical properties for bioavailability enhancement	2019- 2020	Course coordinator

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

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

**Signature:**

**COURSE REPORT**

**Biopharmaceutics and  
Pharmacokinetics**

**M104**

**2018/2019**

# **Annual Course Report**

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## **A – Basic Information:**

**1- Title and code:** Biopharmaceutics and Pharmacokinetics **M104**

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

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

**4- Credit hours:**

<b>Lectures</b>	2 hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof. Dr/ Fakhr El-Din Soliman Ghazy
- Dr/ Mohamed Waly

**6- Course coordinator:**

- Prof. Dr/ Fakhr El-Din Soliman Ghazy

**7- External evaluator:**

- Prof. Dr. / Ali abd El zaher (Assuit University)

## **B- Statistical Information:**

<b>No. of students attending the course</b>	No.4	100 %
<b>No. of students completing the course</b>	No.4	100%

<b>Results:</b>					
Passed	No.4	100%	Failed	--	--
<b>Grading of successful students:</b>					
Excellent	N0.1	25 %	Very Good	3	75%
Good	---	---	Pass	---	---

## **C- Professional Information:**

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

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
Factors affecting bioavailability (biological and physiological) Physicochemical factors, advantages and disadvantages of oral administration.	15	Prof. Dr/ Fakhr El-Din Soliman
Distribution and factors affecting it.		
Elimination , biotransformation, and urinary excretion .		
Minor routes of drug elimination		
Use of physical and animal models to evaluate bioavailability.	15	Dr/ Mohamed Waly
Review on bioequivalence study through revision of certain scientific research papers.		
Pharmacokinetic models, volume of distribution, and total body clearance.		

Problems in determination of bioavailability of urine and saliva sample.		
Loading dose, steady state, lag time, and flip-flop.		
Method of residuals, therapeutic drug monitoring, and dosage regimen design.		
Pharmacokinetic parameters.		
Kidney and liver function tests.		
Haemodialysis.		
Revision and open discussion.		

**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 Examination	15
Activity	10

### Members of examination committee:

- Prof. Dr/ Fakhr El-Din Soliman Ghazy
- Dr/ Mohamed Waly

### 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
Good content gives an insight on bioavailability of drugs and different factors affecting drug kinetics	-

## 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.

## 8- Course Enhancement:

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

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

Action required	Completion date	Person responsible
Revision of course content and addition of research articles demonstrating modification of drug formulation and hence change of drug pharmacokinetics	2019 - 2020	Course coordinator

**Course Coordinator:** Prof. Dr/ Fakhr El-Din Soliman Ghazy

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

**Signature:**



**COURSE REPORT**

**Pharmaceutical  
Technology**

**M106**

**2018/2019**

# **Annual Course Report**

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## **A – Basic Information:**

**1- Title and code:** Pharmaceutical Technology **M106**

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

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

**4- Credit hours:**

<b>Lectures</b>	2 hrs/week
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**5- Names of lecturers contributing to the delivery of the course:**

- Prof. Dr/ Fakhr El-Din Soliman Ghazy
- Dr/ Mohamed Waly

**6- Course coordinator:**

- Prof. Dr/ Fakhr El-Din Soliman Ghazy

**7- External evaluator:**

- Prof. Dr. / Ali Abd Elzaher (Assuit University)

## **B- Statistical Information:**

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

<b>Results:</b>					
Passed	No.5	83.3%	Failed	1	16.7%

<b>Grading of successful students:</b>					
Excellent	2	33.3%	Very Good	N0.3	50%
Good	-	-	Pass	--	--

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

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
<ul style="list-style-type: none"> <li>• Preformulation, Material of fabrication and corrosion</li> </ul>	15	Prof. Dr/ Fakhr El-Din Soliman Ghazy
<ul style="list-style-type: none"> <li>• Granulation and factors affecting it</li> </ul>		
<ul style="list-style-type: none"> <li>• Tablet manufacture</li> </ul>		
<ul style="list-style-type: none"> <li>• Types of tablet coating</li> </ul>		
<ul style="list-style-type: none"> <li>• Sterilization</li> </ul>		
<ul style="list-style-type: none"> <li>• Packs of pharmaceutical preparation</li> </ul>		
<ul style="list-style-type: none"> <li>• Size reduction and factors affecting it</li> </ul>		
<ul style="list-style-type: none"> <li>• Technique of milling</li> </ul>	15	Dr/ Mohamed Waly
<ul style="list-style-type: none"> <li>• Wet and dry milling , types of mill</li> </ul>		
<ul style="list-style-type: none"> <li>• Determination of particle size</li> </ul>		
<ul style="list-style-type: none"> <li>• Micromeritic and methods of particle size control</li> </ul>		
<ul style="list-style-type: none"> <li>• Factors affecting solid mixing</li> </ul>		

<ul style="list-style-type: none"> <li>• Tumbling and agitator mixers and mixers for semisolid</li> </ul>		
<ul style="list-style-type: none"> <li>• Open discussion and revision</li> </ul>		

### 1- Course Teaching:

#### 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>Oral Exam</b>	15
<b>Activity</b>	10
<b>Written examination</b>	75

#### **Members of examination committee:**

- Prof. Dr/ Fakhr El-Din Soliman Ghazy
- Prof. Dr/ Mohamed Waly

### 4- Facilities and Teaching Materials:

<b>Totally adequate</b>	√
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<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>
Update course content	Will be considered

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

<b>Comments from external evaluator</b>	<b>Response of course team</b>
The course needs some refining and update.	References are updated and course will include activities in course specification 2019- 2020.

**8- Course Enhancement:**

<b>Action required</b>	<b>State whether or not complete and give reasons for any non-completion</b>
Update course learning materials	completed

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

<b>Action required</b>	<b>Completion date</b>	<b>Person responsible</b>
Revision of course content and update after benchmark with international course	2019- 2021	Vice dean of higher studies Course coordinator & head of department

**Course Coordinator:** Prof. Dr/ Fakhr El-Din Soliman Ghazy

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

**Signature:**



**Master courses**

**2018-2019**



**COURSE REPORT**

**Controlled Release**

**Dosage Forms**

**ESp1**

**2018/2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## A – Basic Information:

**1- Title and code:** Controlled release dosage forms **ESp1**

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

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

**4- Credit hours:**

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

- Assis.Prof. Dr/ Azza Ali Hasan
- Dr/Shreen sabry

**6- Course coordinator:**

- Assis.Prof. Dr/ Azza Ali Hasan

**7- External evaluator:**

Prof. Dr. / Ali Abd elzaher (Assuit University)

## B- Statistical Information:

<b>No. of students attending the course</b>	4	100%
<b>No. of students completing the course</b>	4	100%

<b>Results:</b>					
Passed	4	100%	Failed	--	-

<b>Grading of successful students:</b>					
Excellent	2	50%	Very Good	1	25%
Good	1	25%	Pass	-	-

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

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

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
General design principle for controlled-release drug delivery systems, Biological factors influencing design and performance of controlled-release formulations, Diffusion, dissolution and osmotic controlled drug delivery systems	35	Assis.Prof. Dr/ Azza Ali Hasan
Nanostructure-mediated controlled-release dosage forms, Technologies for developing transdermal dosage forms, Vaginal and uterine controlled-release dosage forms, Ocular controlled-release dosage forms.	25	Dr/Shreen Sabry

#### **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: -----  
-----

## 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 Exam</b>	15
<b>Activity</b>	10

## Members of examination committee:

- Assis.Prof. Dr/ Azza Ali Hasan
- Dr/Shreen Sabry

## 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:

Students evaluation of the course	Response of course team
The course should include different formulation problems with solution strategies	Will be considered

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

Comments from external evaluator	Response of course team
The specified references require updating	References are updated

## 8- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Revision of the course content and make required changes	done

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

Action required	Completion date	Person responsible
Updating of course references and add case studies demonstrating formulation problems	2019- 2020	Course coordinator

**Course Coordinator:** Assis.Prof. Dr/ Azza Ali Hasan

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

**Signature:**



**COURSE REPORT**

**Transdermal Drug  
Delivery Systems**

**Esp3**

**2018/2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## A – Basic Information:

**1- Title and code:** Transdermal drug delivery systems      **Esp3**

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

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

**4- Credit hours:**

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

- Assist.Prof. Dr/ Azza Ali Hassan
- Dr/Shreen Sabry

**6- Course coordinator:**

- Assist.Prof. Dr/ Azza Ali Hassan

**7- External evaluator:**

- Prof. Dr. / 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	3	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>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
<ul style="list-style-type: none"> <li>• Skin</li> <li>• Advantages and disadvantages of transdermal drug delivery system</li> <li>• Kinetics of transdermal permeation</li> <li>• Basic components of transdermal drug delivery system</li> <li>• Factors affecting transdermal bioavailability</li> <li>• Various methods for preparation of transdermal drug delivery system</li> <li>• Types of transdermal patches</li> </ul>	30	Assist.Prof. Dr/ Azza Ali Hassan
<ul style="list-style-type: none"> <li>• Mechanism of action of transdermal patches <b>(Presentation)</b></li> <li>• Evaluation parameters</li> <li>• Transdermal market</li> <li>• Advance developments in transdermal drug delivery system</li> </ul>	30	Dr/Shreen Sabry

• Formulation of semisolid dosage forms(Ointments) and equipments used		
• Formulation of semisolid dosage forms(Creams) and equipments used		

**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: -----  
-----

**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:**

- Assist.Prof. Dr/ Azza Ali Hassan
- Dr/Shreen Sabry

#### 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
Students are satisfied about the course	-

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

Comments from external evaluator	Response of course team
References should be updated	References are updated and course will include activities in course specification 2019- 2020.

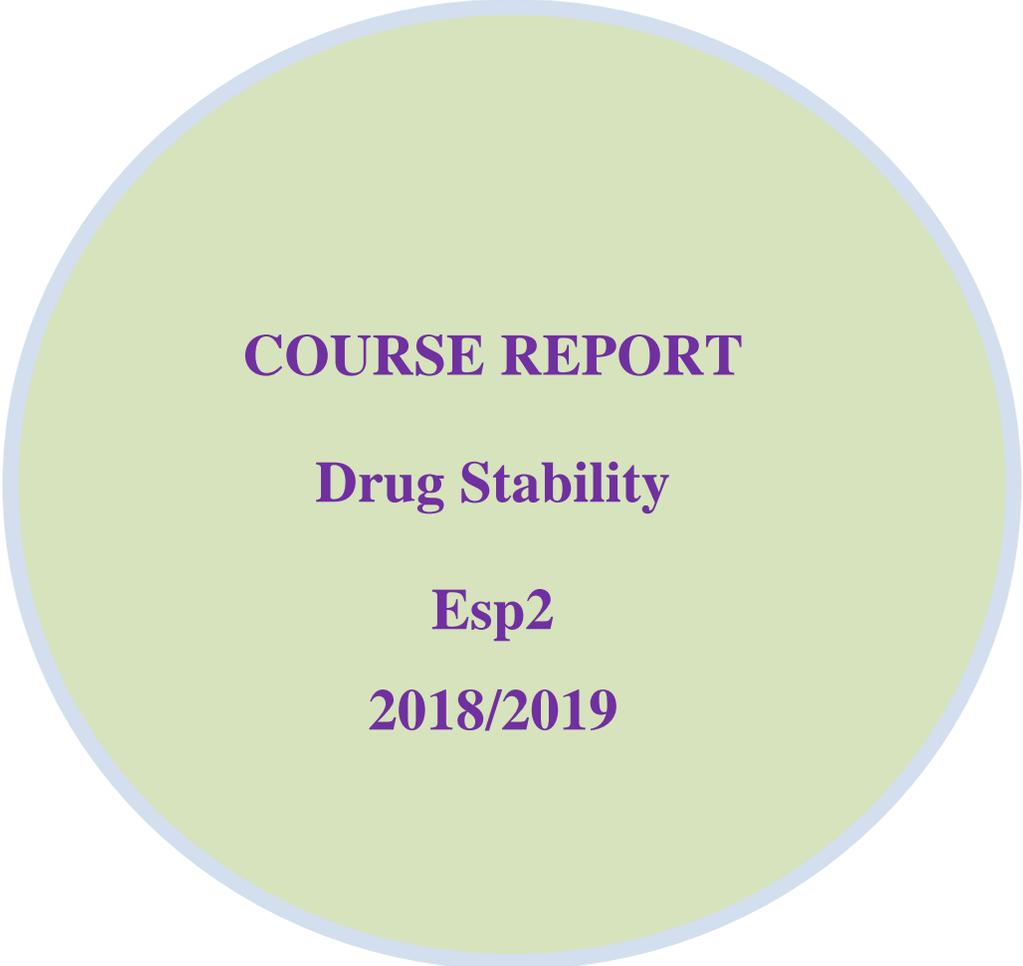
#### 8- Course Enhancement:

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

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

<b>Action required</b>	<b>Completion date</b>	<b>Person responsible</b>
Update teaching methods : add case study to develop critical thinking and problem solving skills	2019- 2020	Course coordinator

- **Course Coordinator:** Assist.Prof. Dr/ Azza Ali Hassan
- **Head of department:** Prof. Dr. / Nagia Ahmed El-Megarb
- **Signature:**



**COURSE REPORT**

**Drug Stability**

**Esp2**

**2018/2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## A – Basic Information:

**1- Title and code:** Drug stability                      ESp2

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

**3- Year / Level of programs:** 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/ Mahmoud Abdul Ghany
- Prof.Dr/Hanaa El-Ghamry

**6- Course coordinator:**

- Prof. Dr/ Mahmoud Abdul Ghany

**7- External evaluator:**

- Prof. Dr. / 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>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
Rate of chemical reactions, orders of reaction. Determination of order of reaction Substitution, Graphical, half- life method.	45	Prof. Dr/ Mahmoud Abdel Ghany
Routes of degradation, Incompatibility, Physical degradation routes Complex reactions.	15	Prof.Dr/Hanaa El-Ghamry

#### **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 Exam</b>	15
<b>Activity</b>	10

## Members of examination committee:

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

## 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:

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.

## 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



**PhD courses**

**2018-2019**



**COURSE REPORT**

**Packaging**

**Esp5**

**2018/2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## A – Basic Information:

**1- Title and code:** packaging                      **Esp5**

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

**3- Year / Level of programs:** PhD

**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/ Mahmoud Abdul Ghany
- Prof.Dr. Hanna El-ghamry

**6- Course coordinator:**

- Prof. Dr/ Mahmoud Abdul Ghany

**7- External evaluator:**

- Prof. Dr. / Ali abd elzaher (Assuit University)

## B- Statistical Information:

<b>No. of students attending the course</b>	4	100 %
<b>No. of students completing the course</b>	4	100%

**Results:**

Passed	4	100%	Failed	-	-
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Grading of successful students:					
Excellent	3	75%	Very Good	1	25%
Good	----	---	Pass	-----	---

## C- Professional Information:

### 1- Course Teaching:

Topic	No of hours	Lecturers
<ul style="list-style-type: none"> <li>• Properties of good packaging</li> <li>• Factors affecting packaging</li> </ul>	30	Prof. Dr/ Mahmoud Abdul Ghany
<ul style="list-style-type: none"> <li>• Moisture, Volatility, Heat, Light, Oxygen, Sterilization and mechanical shock</li> </ul>		
<ul style="list-style-type: none"> <li>• Glass</li> <li>Types of glass</li> <li>Protection of light sensitive drugs in glass</li> <li>• Advantages and disadvantages of glass</li> </ul>		
<ul style="list-style-type: none"> <li>• Plastics</li> <li>• General properties of plastics</li> </ul>		
<ul style="list-style-type: none"> <li>• Types of plastics</li> <li>• Thermoplastic</li> </ul>	30	Prof.DR/Hanaa El-Ghamry
<ul style="list-style-type: none"> <li>• Types of plastics</li> <li>• Thermosetting</li> </ul>		
<ul style="list-style-type: none"> <li>• Drug-plastic possible interactions</li> <li>• Leaching, permeation</li> </ul> <p style="text-align: center;"><b>(Presentation)</b></p>		
<ul style="list-style-type: none"> <li>• Drug-plastic possible interactions</li> <li>Sorption ,Chemical reactions</li> <li>• Physical alterations</li> </ul>		

<ul style="list-style-type: none"> <li>• Metals</li> </ul>		
<ul style="list-style-type: none"> <li>• Rubber</li> </ul>		
<ul style="list-style-type: none"> <li>• Forms of pharmaceutical package</li> <li>• For liquids</li> </ul>		
<ul style="list-style-type: none"> <li>• Forms of pharmaceutical package</li> <li>• For semi-solid</li> </ul>		
<ul style="list-style-type: none"> <li>• Forms of pharmaceutical package</li> <li>• For solid</li> </ul>		
<ul style="list-style-type: none"> <li>• Pouches, plaster package and unit dose packaging</li> </ul>		
<ul style="list-style-type: none"> <li>• Revision and open discussion <b>(Final Presentation)</b></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 of total %</b>
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<b>Written examination</b>	75
<b>Oral Exam</b>	15
<b>Activity</b>	10

**Members of examination committee:**

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

**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>
Discuss research articles demonstrating incompatibility between drug and packaging materials	Will be considered

**7- Comments from external evaluator:**

<b>Comments from external evaluator</b>	<b>Response of course team</b>
Well designed course with measurable ILOs	-----

## 8- Course Enhancement:

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

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

Action required	Completion date	Person responsible
Add practical case studies	2019- 2020	Course coordinator

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

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

**Signature:**



**COURSE REPORT**

**Solid Dosage Forms**

**Esp6**

**2018/2019**

## Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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### A – Basic Information:

**1- Title and code:** solid dosage forms **Esp6**

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

**3- Year / Level of programs:** PhD

**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/ Mahmoud Abdul Ghany
- Prof.Dr/Hanan Mohamed El-Nahas
- Prof.Dr/ Nagia Ahmed El-Megrab

**6- Course coordinator:**

- Prof. Dr/ Mahmoud Abdul Ghany

**7- External evaluator:**

- Prof. Dr. / Ali Abd el zaher (Assuit University)

### B- Statistical Information:

<b>No. of students attending the course</b>	4	100 %
<b>No. of students completing the course</b>	4	100%

<b>Results:</b>					
Passed	4	100%	Failed	-	-

<b>Grading of successful students:</b>					
Excellent	4	100%	Very Good	---	---
Good	----	-----	Pass	-----	----

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

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

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
<ul style="list-style-type: none"> <li>• Design and formulation of compressed tablets</li> </ul>	20	Prof. Dr/ Mahmoud Abdel Ghany
<ul style="list-style-type: none"> <li>• Tablet manufacture</li> </ul>		
<ul style="list-style-type: none"> <li>• Tableting equipment</li> </ul>		
<ul style="list-style-type: none"> <li>• Coated tablets</li> </ul>		
<ul style="list-style-type: none"> <li>• Evaluation of tablets</li> </ul>		
<ul style="list-style-type: none"> <li>• Recent developments in tableting</li> </ul>	20	Prof.Dr/Hanan Mohamed El-Nahas
<ul style="list-style-type: none"> <li>• Historical development and role of capsules as a dosage form <b>(Presentation)</b></li> </ul>		
<ul style="list-style-type: none"> <li>• Hard gelatin capsules</li> </ul>		
<ul style="list-style-type: none"> <li>• Manufacture of hard gelatin capsules</li> </ul>		
<ul style="list-style-type: none"> <li>• Filling of hard gelatin capsules</li> </ul>		
<ul style="list-style-type: none"> <li>• Soft gelatin capsules</li> </ul>	20	Prof.Dr/ Nagia Ahmed El-Megrab
<ul style="list-style-type: none"> <li>• Formulation and Manufacture of soft gelatin capsules</li> </ul>		

<ul style="list-style-type: none"> <li>• Soft/liquid-filled hard gelatin capsules</li> </ul>		
<ul style="list-style-type: none"> <li>• Evaluation of capsules</li> </ul>		
<ul style="list-style-type: none"> <li>• Revision and Open discussion ( <b>Final Presentation</b>)</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:** -----  
-----

**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/Hanan Mohamed El-Nahas
- prof.Dr/ Nagia Ahmed El-Megrab

#### 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
The course is well designed but it is preferable to add case studies demonstrating formulation problems	Will be considered

#### 7- Comments from external evaluator:

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
Update course learning materials	Completed

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

Action required	Completion date	Person responsible
Addition of practical cases of formulation problems and solution strategies	2019- 2020	Course coordinator

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

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

**Signature:**



**COURSE REPORT**

**Drug Targeting**

**Esp4**

**2018/2019**

# Annual Course Report

**University:** Zagazig

**Faculty:** Pharmacy

**Department:** Pharmaceutics

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## A – Basic Information:

**1- Title and code:** Drug targeting                      **Esp4**

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

**3- Year / Level of programs:** Phd

**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/ Nagia Ahmed El-Megrab
- Assist.Prof.Dr/Gehan Fathy Balata

**6- Course coordinator:**

- Prof. Dr/ Nagia Ahmed El-Megrab

**7- External evaluator:**

- Prof. Dr. / Ali Abd elzaher (Assuit University)

## B- Statistical Information:

<b>No. of students attending the course</b>	No.4	100 %
<b>No. of students completing the course</b>	No.4	100%

<b>Results:</b>					
Passed	No.4	100%	Failed	-	-

<b>Grading of successful students:</b>					
Excellent	----	-----	Very Good	-----	-----
Good	No.4	100%	Pass	-----	----

## **C- Professional Information:**

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

<b>Topic</b>	<b>No of hours</b>	<b>Lecturers</b>
Drug Delivery: The Basic Concepts: The concept of bioavailability The process of drug absorption	30	Prof. Dr/ Nagia Ahmed El-Megrab
Drug Delivery: The Basic Concepts: (Cont.) Pharmacokinetic processes Timing for optimal therapy Drug delivery considerations for the 'new biotherapeutics'		
Drug Delivery: Market Perspectives: Commercial importance of advanced drug delivery technologies Market analysis Industry evolution and structure		
Terminology of drug delivery and targeting Rate-controlled release in drug delivery and targeting Drug targeting systems Dosage forms for advanced drug delivery and targeting systems		
Rate Control in Drug Delivery and Targeting: Fundamentals and Applications to Implantable Systems: Advantages and disadvantages of implantation therapy Biocompatibility issues		

Non-degradable polymeric implants		
Rate Control in Drug Delivery and Targeting: Fundamentals and Applications to Implantable Systems(Cont.) Biodegradable polymeric implants Implantable pumps		
Transdermal Drug Delivery Introduction Structure and physiology of the skin Factors affecting transdermal bioavailability	30	Assist. Prof. Dr/Gehan Fathy Balata
Transdermal Drug Delivery Advantages and disadvantages of transdermal drug delivery Current technologies for transdermal drug delivery		
Transdermal Drug Delivery New and evolving technologies for transdermal drug delivery		
Vaginal Drug Delivery Introduction Structure and physiology of the vagina Physiological factors affecting vaginal drug delivery		
Vaginal Drug Delivery Formulation factors affecting vaginal drug delivery Advantages and disadvantages of vaginal delivery		
Vaginal Drug Delivery Current technologies in vaginal drug delivery New technologies in vaginal drug delivery		
Tutorial		
Tutorial		
Presentation about selected topics (self learning part)		

**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: -----**  
-----

## 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 exam</b>	15
<b>Activity</b>	10

### **Members of examination committee:**

- Prof. Dr/ Nagia Ahmed El-Megrab
- Assist.Prof.Dr/Gehan Fathy Balata

## 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:

Students evaluation of the course	Response of course team
Discussion of research articles demonstrating effect of drug targeting on bioavailability and drug action optimization	Will be considered

## 7- Comments from external evaluator:

Comments from external evaluator	Response of course team
Course is well designed and ILOs are measurable	-----

## 8- Course Enhancement:

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

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

Action required	Completion date	Person responsible
Discussion of research articles demonstrating effect of targeting strategy on drug action	2019- 2020	Course coordinator

**Course Coordinator:** Prof. Dr/ Nagia Ahmed El-Megrab

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

**Signature:**