COURSE REPORTS



Natural Products Biotechnology

M113

2018-2019

University: Zagazig **Department:** Pharmacognosy

Faculty: Pharmacy

<u>A – Basic Information:</u>

- 1- Title and Code: Natural Products Biotechnology M113
- 2- Program(s) on which this course is given: Pre-master ---
- 3- Year / Level of programs: Pre-master
- 4- Credit hours: ------

Lectures 4hrs/week

5-Names of lecturers contributing to the delivery of the course:

- Prof. Ass. Dr. / Maged Abo-Hashem
- Dr. Rehab Hamed
- 6- Course coordinator:
- Prof. Ass. Dr. / Maged Abo-Hashem

7- External evaluator:

• Prof.Dr. / Mona Goda Zaghlol (Professor of Pharmacognosy, mansura University)

<u>B- Statistical Information:</u>

No. of students attending the course:	1	100%
No. of students completing the course:	1	100%

Results:					
Passed	0	0%	Failed	1	100%

Grading of successful students:					
Excellent	0	0%	Very Good	0	0%
Good	0	0%	Pass	0	0%

<u>C-Professional Information</u>:

Торіс	No of hours	Lecturers
Fundamentals of NP biotransformation and	30	Prof. Ass. Dr. / Maged
green biocatalysis, Enzyme immobilization,		Abo-Hashem
Phytoremediation and enzyme debittering,		
Plant genetic engineering.		
Horizontal and vertical gene transfer,	30	Dr. Rehab Hamed

Components and procedures of a typical	
cloning experiment, Application of genetic	
engineering in the field of natural products.	
T	 • • • •

>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:	

3- Student assessment:

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

Members of examination committee:

- Prof. Ass. Dr. / Maged Abo-Hashem
- Dr. Rehab Hamed

• 4- Facilities and Teaching Materials:

Totally adequate	
Adequate to some extent	
Inadequate	

5- Administrative Constraints: no constrain

6- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
The course needs some refining and	References are updated and
update.	course include activities.

7- Course Enhancement:

Action required	State whether or not complete and give reasons for any non- completion
Continuous development of course	Some new topics were added to
content to cope with program ILOS	Course specification of 2018- 2019
and labour market needs.	as proteomics

8- Action plan for academic year 2019-2020:

Action required	Completion date	Person responsible
Updating learning materials	2019-2020	Course Coordinator Head of Department Post- Graduate Vice Dean of Faculty

Course Coordinator:

• Prof. Ass. Dr. / Maged Abo-Hashem

Head of Department: Prof. Dr. Amal Al-Gendy Signature:

Advanced Instrumental Analysis and Chromatography I

M101

2018-2019

<u>Annual Course Report</u>

University: Zagazig Faculty: Pharmacy Department: Pharmaceutical Medicinal chemistry

A – Basic Information:

- 1- Title and code: Advanced instrumental analysis & chromatography I **M101**
- 2- Program(s) on which this course is given: Pre-master
- 3- Year / Level of programs: Pre-master
- 4- Credit hours: Lectures 4hrs/week
- 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:

No. of students attending the course	No. 10	100 %
No. of students completing the course	No. 10	100 %

D

Kesults:					
Passed	9	90 %	Failed	1	10%

Grading of successful students:					
Excellent	-	-	Very Good	2	22%
Good	4	44%	Pass	3	34%

C- Professional Information:

Торіс	No of hours	Lecturers
Advanced Ultra-violet spectroscopy	4	Prof.Dr. Elsayed

New aspects in vibrational spectroscopy	4	Lashen
(IR spectroscopy)		
Application of Nuclear magnetic	4	
resonance (NMR)		
Application of Mass spectrometry(MS)	4	
Medicinal application of spectroscopy in	4	-
diagnosis of diseases		
Raman spectroscopy.	4	
Advanced HPLC.	4	
Activity (Reports)		
HPLC & its medicinal and	4	
pharmaceutical application		
High performance thin layer	4	
chromatography (HPTLC).		
Advanced Gas chromatography.	4	
GC & its medicinal and pharmaceutical	4	
application		Prof.Dr. Hisham Ezzet
New aspects of Supercritical fluid	4	
chromatography (SFC) and ion exchange		
chromatography (IEC).		
Capillary electrophoresis(CE)	4	
Analytical application of dimeric and	4	
polymeric molecules.		
Activity (Reports)		

	>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:	

3- Student Assessment:

Method of Assessment	Percentage of total %
Written examination	75%
Oral examination	15%
Activities	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 places6- 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 materilas	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:**

Recent applications of Plant Tissue Culture techniques

M107

2018-2019

University: Zagazig**Faculty:** Pharmacy **Department:** Pharmacognosy

<u>A – Basic Information:</u>

1- Title and Code: Recent applications of Plant Tissue Culture techniques M107

- 2- Program(s) on which this course is given: Pre-master
- 3- Year / Level of programs: Pre-master
- 4- Credit hours: ---- Lectures 2 hrs/week
- **5-Names of lecturers contributing to the delivery of the course:**
- Prof.Dr. / EhsanAbozaid
- Prof.Dr./Amal Al-Gendy

6- Course coordinator:

• Prof.Dr. / Ehsanabozaid

7- External evaluator:

• Prof.Dr.Hasan Al-RadySaad (Faculty of Pharmacy – Mansoura University)

B- Statistical Information:

No. of students attending the course:	2	100%
No. of students completing the course:	2	100%

Results:					
Passed	2	100%	Failed	-	-

Grading o	f successfu	l students:			
Excellent	1	50%	Very Good	-	-
Good	1	50%	Pass	-	-

<u>C-Professional Information</u>:

Торіс	No of hours	Lecturers
Introduction: Tissue culture definition, Medium component: Macroelements, Microelements and other components, Plant growth regulators: hormones and applications, Culture types: Callus, cell suspension and protoplast, Culture types: Hairy root cultures, General plant tissue culture laboratory design	15	Prof.Dr. / Ehsan Abo Zied
Plant regeneration: somatic embrygenesis, Plant regeneration: organogenisis, Micropropagation: definition and stages, Practical techniques used for plant tissue culture, Production of the secondary metabolites by tissue culture: techniques used	15	Prof.Dr./ Amal Al-Gendy

>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:	

3- Student assessment:

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

Members of examination committee:

- Prof.Dr. / Ehsan Abozaid
- Prof.Dr./Amal Al-Gendy

4- Facilities and Teaching Materials:

Totally adequate	
Adequate to some extent	
Inadequate	

5- Administrative Constraints: no constrain

6- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
 In page 1: Practical skills (c1 to c3) were achieved by the course content 10 &11 in the Matrix. In page 4: A column for skill (d3) was added to the general and transferable skills. In page 4: The oral exam assess skills (b1 to b3) instead of (c1 to c3). In page 3:The written exam assess skills (b1 to b3) instead of (c1 to c3). In page 2: skill a4 (The verb apply was replaced by understanding). 	All changes are done and the course specification (2019- 2020) was updated updated.

7- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Evaluation methods should include marks for assignment, practical, seminars and other activities.	Complete

8- Action plan for academic year 2019–2020:

Action required	Completion date	Person responsible
Adding some Practical Activities in tissue culture Lab.	2019- 2020	Course coordinator & head of department
Training of examination committee for development of written exam structure to cover ILOS	2019- 2020	Examination committee member Training Unit
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. / Ehsan Abo Zied

• Head of Department: Prof. Dr. / Amal Al-Gendy

Signature:

Date:



University: Zagazig**Faculty:** Pharmacy **Department:** Pharmacognosy

<u>A – Basic Information:</u>

- 1- Title and Code: Advanced taxonomy M108
 - 2- Program(s) on which this course is given: Pre-master
 - 3- Year / Level of programs: Pre-master
 - 4- Credit hours: ------

Lectures 2 hrs/week

5-Names of lecturers contributing to the delivery of the course:

- Prof.Dr. / Fawkya Abbas
- Prof.Dr. / NawalFarrag

6- Course coordinator:

- Prof.Dr. / Fawkya Abbas
- 7- External evaluator:

• Prof.Dr. / Hasan Al-Rady (Faculty of Pharmacy – Mansoura University)

B- Statistical Information:

No. of students attending the course:	1	100%
No. of students completing the course:	1	100%

Results:					
Passed	1	100%	Failed	0	0%

Grading of successful students:					
Excellent Very Good 1 100%					
Good	-	-	Pass	-	-

<u>C- Professional Information</u>:

Торіс	No of hours	Lecturers
Classification of plant kingdom and thallophyta Classification of subphyla algae, fungi and lichens Modern trends in plant taxonomy: Numerical taxonomy	20	Prof.Dr. / Fawkya Abbas

brary, Botanical 1	10	Prof Dr. / NawalFar	0.0	
oral formula		Prof.Dr. / NawaiFarrag		
Topics taught as a percentage of the content specified:				
) – 90 %		<70%	1	
	ral formula centage of the con	ral formula centage of the content	ral formula Prof.Dr. / NawalFarra centage of the content specified:	

- 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:	

3- Student assessment:

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

Members of examination committee:

- Prof.Dr. / Fawkya Abbas
- Prof.Dr. / NawalFarrag

4- Facilities and Teaching Materials:

Totally adequate	
Adequate to some extent	
Inadequate	

5- Administrative Constraints:no constrain

6- Comments from external evaluator(s):

Comments from external evaluator	Response of course team	
Well structured course		

7- Course Enhancement:

Action required	State whether or not complete
	and give reasons for any non-
	completion
Evaluation methods should include	Complete
marks for assignment, practical,	
seminars and other activities.	

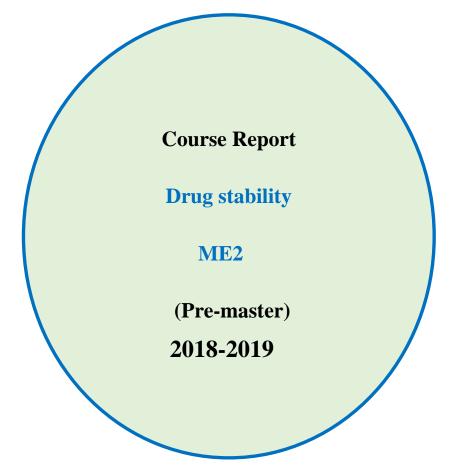
8- Action plan for academic year 2019–2020:

Action required	Completion date	Person responsible
Adding some Practical Activity And Field visits to collect plant samples	2019-2020	Course coordinator
Training of examination committee for development of written exam structure to cover ILOS	2019-2020	Examination committee member Training Unit
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. / Fawkya Abbas

Head of Department: Prof. Dr. / Prof. Dr. Amal Al-Gendy Date:



ME2

University: Zagazig **Department:** Pharmaceutics

<u>A – Basic Information:</u>

- 1- Title and code: Drug stability
- 2- Program(s) on which this course is given: Pre-master
- 3- Year / Level of programs: master
- 4- Credit hours:

Lectures 4hrs/week

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

B- Statistical Information:

No. of students attending the course	3	100 %
No. of students completing the course	3	100%

Results:					
Passed	No.2	100%	Failed	-	-

Grading of successful students:					
Excellent	2	66.6%	Very Good	1	33.3%
Good	-	-	Pass	-	-

<u>C- Professional Information</u>:

1- Course Teaching:

Week number	Lecture content (4 hr/w)	Lecturer
1	 Drug stability (Overview – importance) 	Prof. Dr/ Mahmoud Abdel Ghany
2	• Stability regulations	

Faculty: Pharmacy

	(overview)	
3	• Critical regulatory requirements for a stability program	
4	Global stability practices	
5	• Understanding and predicting pharmaceutical product shelf life	
6	• Stability methodologies (overview)	
7	 Development of stability indicating methods (Presentation) 	
8	• Overview of USP-NF requirements for stability	
9	• Non chromatographic methods for stability program	
10	• Vibrational spectroscopic methods for quantitative analysis	Prof.Dr/Hanaa El-Ghamry
11	• Evaluation of stability data	
12	• Qualification, calibration and maintenance of stability chambers	
13	Stability operation practices	
14	 Stability studies in biologics 	

	• (Final Presentation)	
15	• Written exam	

>90 %	\checkmark	70 – 90 %	<70%	

- 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:	

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	Will be considered
management strategies for stability	will be considered

problems

7- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
The course needs some refining and	References are updated and
C	course will include activities in
update.	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

Course Report

Good practice for analysis of drugs and quality control

ME2

(Pre-master)

2018-2019

University: Zagazig Faculty: Pharmacy Department: Medicinal chemistry

<u>A – Basic Information:</u>

1- Title and code: Good practice for analysis of drugs and quality control **ME-3 2- Program(s) on which this course is given:** Pre-master

3- Year / Level of programs: Pre-master

4- Credit hours:

Lectures 4hrs/week

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:

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

Results:					
Passed	No. 8	88.89 %	Failed	1	11.12%

Grading o	f successfu	l students:	-		
Excellent	2	22.22%	Very Good	No. 6	66.67 %
Good	-	-	Pass	-	-

<u>C- Professional Information</u>:

Торіс	No of hours	Lecturers
Validation parameters in analysis	4	Prof.Dr/ Sobhy
Application of quantitative analysis for	4	ElAdl

different drugs.			
Quality control and how to minimize the	4		
synthesis errors.			
Quality assurance and basic requirement.	4		
Applications of Spectrophotometric	4		
analysis for dosage forms			
Activity			
$H^{1}, C^{13}, N^{15}, F^{19}$ - NMR	4		
Advanced techniques in mass	4	Prof.Dr/Abdallah El-	
spectroscopy			
Atomic absorption	4	- shanawany	
Fluorimetric analysis	4		
Radioimmune Assay	4		
Electrophoresis	4		
Advanced GC-MS chemistry	4		
Activity		Du/Mahan and ash air	
Spectrodenistometric (TLC scanner)	4	Dr/Mahmoud sebaiy	
Forensic chemistry	4		
Revision & Open Discussion	4		
Taniag taught ag a nangantaga of the san	· · · · · · · · · · · · · · · · · · ·	P• 1	

$>90\%$ $\sqrt{70-90\%}$ $<70\%$

• 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:	

3- Student Assessment:

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

Members of examination committee:

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

4- Facilities and Teaching Materials:

Totally adequate	
Adequate to some extent	\checkmark
Inadequate	

5- Administrative Constraints: No permenant 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
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:

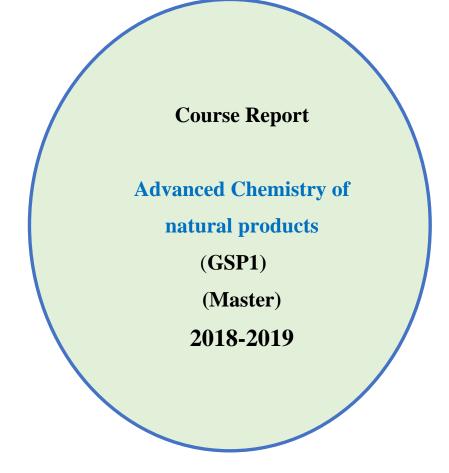
Action required	Completion date	Person responsible
Continuous development of course content to cope with program ILOS and labour market needs.	2019- 2020	Course coordinator & head of department

Course Coordinator:

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

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





Faculty: Pharmacy

University: Zagazig **Department:** Pharmacognosy

gnosy

<u>A – Basic Information:</u>

- 1- Title and Code: Advanced Chemistry of natural products GSP1
- 2- Program(s) on which this course is given: Master
- 3- Year / Level of programs: Master
- 4- Credit hours: ------

Lectures 4hrs/week

5-Names of lecturers contributing to the delivery of the course:

- Prof. Dr./ Mahmoud Abdel Aal
- Ass. Prof.Dr./Gamal Dorrah
- 6- Course coordinator:

Prof. Dr. Mahmoud Abdel Aal

- 7- External evaluator:
- Prof.Dr. Mona Zaghlool (Faculty of Pharmacy Mansoura University)

<u>B- Statistical Information:</u>

No. of students attending the course:	1	100%
No. of students completing the course:	1	100%

Results:					
Passed	1	100%	Failed	-	-

Grading o	f successfu	l students:			
Excellent	-	-	Very Good	-	-
Good	1	%100	Pass	-	-

<u>C-Professional Information</u>:

Торіс	No of hours	Lecturers
	110415	

Chemistry of the irregular monoterpenes - Chemistry of diterpenes- Natural Products for Pest Management- Recent Advances in the Chemistry of Insect Pheromones and their applicationsRecent Trends of Some Natural Sweet Substances- from Plants- Natural Antioxidant (NAO) of plants acting as scavengers of free radicals Potential Anticancer Natural Products from- Plant- Associated Fungi- Plant Fungal Endophytes: Interactions, Metabolites and Biosyntheses	30	Prof. Dr. Mahmoud Abdel Aal
The Origin and the Nature of Natural Products Plant-Derived Natural Products As a Source of Drug Discovery and Development Plant and Brain Cannabinoids: The Chemistry of phytocannabinoidsBioactive marine metabolite from red sea water Toxins of Marine Invertebrates and Microorganisms	30	Ass.Prof.Dr./ Gamal Dorrah

$>90\%$ $\sqrt{70-90\%}$ $<70\%$

- 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:	
3- Student assessment:	
Method of Assessment	Percentage of total %

Written examination	75
Oral examination	15
Activity	10

Members of examination committee:

- Prof. Dr./ Mahmoud Abdel Aal
- Ass. Prof.Dr./Gamal Dorrah

4- Facilities and Teaching Materials:

Totally adequate	
Adequate to some extent	
Inadequate	

5- Administrative Constraints: no constrain

6- Comments from external evaluator(s):

Comments from external evaluator	Response of course team
 1- يفضل ترقيم الصفحات في توصيف البرنامج -1 والمقررات. 2- والمقررات. 2- حسن الراضي المراجع الخارجي -2 للبرنامج الي prof.D. Hassan-Elrady A. Saad. 3- Page (8) in Course specification : No of credit hours for program courses. 4- التاكد من اكواد المقررات الاختياريه -4 	تم تعديل كل المقترحات المقدمه من ا.د / مني ز غلول

7- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Revision	Complete

8- Action plan for academic year 2019–2020:

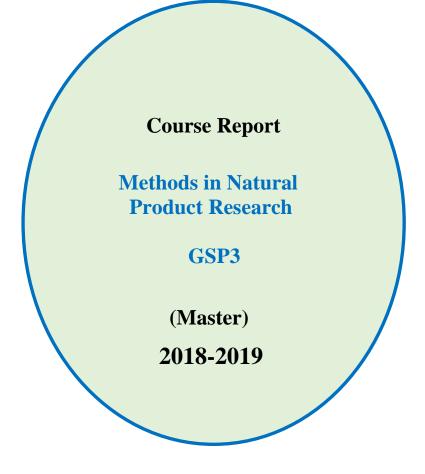
Action required	Completion date	Person responsible

Adding some Practical Activities	<mark>2019- 2020</mark>	Course coordinator & head of department
Continuous development of course content to cope with program ILOS and labour market needs.	<mark>2019- 2020</mark>	Course coordinator & head of department

Course Coordinator: Prof.Dr. / Mahmoud Abd Al Aal

Head of Department: Prof. Dr./ Amal Al-Gendy

Signature: Date:



Faculty: Pharmacy

University: Zagazig **Department:** Pharmacognosy

<u>A – Basic Information:</u>

- 1- Title and Code: Methods in Natural Product Research GSP3
- 2- Program(s) on which this course is given: Master
- 3- Year / Level of programs: Master
- 4- Credit hours: ------

Lectures 4hrs/week

5-Names of lecturers contributing to the delivery of the course:

- Prof. Dr./ Samia Salah Hafez
- Prof.Dr./Afaf El-Sayed

6- Course coordinator:

Prof. Dr. Samia Salah Hafez

7- External evaluator:

• Prof.Dr. Mona Zaghlool (Faculty of Pharmacy – Mansoura University)

B- Statistical Information:

No. of students attending the course:	1	100%
No. of students completing the course:	1	100%

Results:					
Passed	1	100%	Failed	-	-

Grading o	f successfu	l students:			
Excellent	-	-	Very Good	-	-
Good	1	100%	Pass	-	-

<u>C- Professional Information</u>:

Торіс	No of hours	Lecturers
Information sources: Chemical abstract, text book, internet resources flora books- Herbarium setting and structure-Authorization of identified plants: plant authors and binomial system-Preparation of a plant sample	60	Prof. Dr. Samia salah Hafez Prof. Dr. Afaf El-Sayed

for herbarium-Extraction: methods	
and solvents	
Isolation: blind phytochemical versus	
biological guiding	
reactions and different mechanisms	
Chromatography: classical methods	
new techniques for analysis and	
isolation-Crystallization:	
methodology- Derivatization:	
reasons and different types	
Isolation: fractionation and	
purification	

- 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:	

3- Student assessment:

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

Members of examination committee:

- Prof. Dr./ Samia Salah Hafez
- Prof.Dr./Afaf El-Sayed

4- Facilities and Teaching Materials:

Totally adequate	\checkmark	
Adequate to some extent		

Inadequate	

5- Administrative Constraints: no constrain

6- Comments from external evaluator(s):

1- يفضل ترقيم الصفحات في توصيف البرنامجوالمقررات.2- والمقررات.2- تعديل اسم د/ حسن الراضي المراجع الخارجي2- تعديل اسم د/ حسن الراضي المراجع الخارجي2- نا.د /بن ا.د /بن ا.د /2- من الراضي المراجع الخارجي2- من الراضي المراجع الخارجي3- Page (8) in Course specification :No of credit hours for programcourses.4- التاكد من اكواد المقررات الاختياريه -4	تم تعديل كل المقترحات المقدمه م مني ز غلول

7- Course Enhancement:

Action required	State whether or not complete and give reasons for any non-completion
Revision	Complete

8- Action plan for academic year 2019–2020:

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

Course Coordinator: Prof.Dr. / Afaf El-Sayed Head of Department: Prof. Dr./ Amal Al-Gendy

Signature:

Date: