٢- توصيف البرنامج

Quality Assurance Unit
Pharm. Organic Chem. Department

Assiut University
Faculty of Pharmacy

Programme Specification

A- Basic Information

1- Programme Title: **Master of Pharmaceutical Sciences**

(Pharmaceutical Organic Chemistry)

2- Programme Type: Single [√] Double [ ] Multiple [ ]

3- Department (s):

1- Faculty of Pharmacy Departments:

a) Pharmaceutical Organic Chemistry (main department for the program and teaching general and elective courses)
b) Pharmaceutical Analytical Chemistry (teaching general courses)
c) Pharmaceutices (teaching general courses)

II- Faculty of Science Departments

a) Mathematics Department (teaching general courses)
b) Chemistry Department (teaching general courses)

4- Coordinator: Dr. Samia Galal Ahmed Abdel Moty

5- External Evaluator(s) No

6- Last date of programme specifications approval: 12-6-2010

B- Professional Information

1-Programme Aims

By the end of the M. Sc. program, the graduate should be able to:

a) Understand the different reactions mechanisms that deals with organic compounds and interactions of the molecules.
b) Design experiments to solve problems of drug molecules synthesis.
c) Use effectively the principles of Scientific research in dealing with the problems of organic compounds synthesis
d) Understand the physical and chemical properties of pharmaceutical molecules and their importance in therapeutic action.
e) Define the stereochemistry of compounds.
f) Use of physical and spectral data in structure elucidation of organic compounds and drug molecules.
g) Apply the scientific methods in the evaluation and comparison of results
h) Use information technology programmes in literature survey.
i) Accept scientific criticism
j) Commit to scientific honesty

2- Intended Learning Outcomes (ILOs) a- Knowledge and Understanding:

By the end of the M.Sc. program, the graduate should be able to:

a1- Be aware of the basics of sciences related to the field of chemistry, design, synthesis drugs and study of their biological activity.

a2- Be aware of the basics of reactions mechanisms, physico-chemical properties in addition to instrumental analysis and application of quality basics in routine scientific performance.

a3- Define basics of good laboratory practice (GLP) in chemistry lab.

a4- Be aware of concepts and basics of laboratory safety and waste disposal.

a5- Be aware of basic research ethics.

b- Intellectual Skills

By the end of the M.Sc. program, the graduate should be able to:

b1- Make a research plan and write scientific methodology for the synthesis of pharmaceutical organic chemistry project.

b2- Learn the ways to analyze, resolve the problems and select the appropriate solutions for them.

b3- Evaluate risk factors and indicators of success of a suggested study in the field of the synthesis of pharmaceutical organic molecules.

b4- Self-evaluation of own research and offer a vision for the development and continuity of dealing with problems.

b5- Support decisions with documents and references.

b6- Interpret the results and data.

c- Professional and Practical Skills

By the end of the M.Sc. program, the graduate should be able to:

c 1- Master practical research procedures according to the good laboratory practice (GLP) basics in chemistry and biotechnological labs.

c2- Perform experiments safely and environmentally hazardless.

c3- Test equipments and methods used in chemistry research.

c4- Write and present research data and reports efficiently.

c5- Manage time efficiently.

d- General and Transferable Skills

By the end of the M.Sc. program, the graduate should be able to:

d1- Use efficiently information technology techniques in literature survey and computer-aided drug design in the field of the specialization.

d2- Communicate efficiently with colleagues and coworkers.

d3- Work in a team and offer expertise and advice to others.

d4-Improve knowledge continuously through self-learning.

d5- Participate in scientific seminars and conferences

3- Academic Standards

3a- External References for Standards (Benchmarks)

The National Academic Reference Standards 2009 (NARS 2009) were

adopted

3b- Comparison of Provision to External References

4- Curriculum Structure and Contents

4.a- Programme duration .....3-5 years .....

4.b- Programme structure

4.b.i- No. of hours per week: Lectures 5 Lab./Exercise 11 total 16

4.b.ii- No. of credit hours: Compulsory 9 Elective 6 Optional --

4.b.iii-No. of credit hours of basic sciences courses: No 9 % 42.9

4.b.iv- No. of credit hours of courses of social sciences and humanities: No. - %

4.b.v- No. of credit hours of specialized courses: No 6 % 57.1

4.b.vi- No. of credit hours of other courses: No %

4.b.vii Practical part of the thesis

4.b.viii-Program Levels (in credit-hours system):

5- Programme Courses

5.1- Level/Year of Programme…first year

a. Compulsory

Code No.	Course Title	No. of Units	No. of hours /week			Programme ILOs Covered (By No.)
			Lect.	Lab.	Exer.	
1	Physical Chemistry	1	1	----	----	a1, a2, b2, b4, c4, d2, d4
2	Statistics	1	1	----	----	b2, b6, c4, c5, d3
3	Computer Sciences	2	2	----	----	b6, c5, d1
4	Laboratory Safety and Waste Disposal	1	1	----	----	a3, a4, c1, c3
5	Molecular Biology	2	2			a1, a2, c1
6	Instrumental analysis	2	2	----	----	a1, a2, a3, b2, b4, b6, c3, d4
Total		**9**	**9**	----	----	

5.2- Level/Year of Programme ... second year

b- Elective - number required

Code No.	Course Title	No. of Units	No. of hours /week			Programme ILOs
			Lect.	Lab.	Exer.	

						Covered (By No.)
1	Adv. Pharm. Org. Chemistry	2	2	---	---	a1, a2, b1, b2, b3
2	Advanced Med. Org. Chemistry	2	2	---	---	a1, a2, d2
3	Applied Org. Chem.	2	1.5	0.5	---	a3, a4, a5, b1, b2, c1, c3, c4, d3
Total		**6**	**5.5**	**0.5**		

c-Optional – number required : no

6- Programme Admission Requirements

1 - Holding a bachelor's degree in pharmaceutical sciences from a university in the Arab Republic of Egypt or an equivalent degree from another scientific institute recognized by the Supreme Council of Universities.

2 - Having a grade of "good" at least in the bachelor's degree, and "very good" at least in the programme specialty.

3 - Submitting a registration form to the Department Board in the beginning of the academic year (on September), then to the Faculty Board after department's approval.

4- Official approval of the student's work organization on a full-time enrollment in this programme (for those not working in research centers or universities)

7- Regulations for Progression and Programme Completion

First Year/Level/Semester

7.1. A minimum 60 % of the maximum grade is the passing grade for any course

7.2. A student fails in any course if attended less than 75% of the hours of the course

Second Year/Level/Semester

A minimum 60 % of the maximum grade is the passing grade for any course

1. A student must perform a research project approved by the department board
2. A student must present at least three seminars during his study including the one for thesis defense
3. A student must prepare and submit a research paper for a journal or a scientific conference.
4. After passing all courses, a student can submit a thesis to a discussion committee and discussed in public

8- Methods for evaluation of the program students:

Method	ILOs
Written exams	Knowledge and understanding and intellectual skills
Seminars	Intellectual, general and transferable skills
Published scientific research	Intellectual, professional and practical skills
Public discussion of thesis	Intellectual, professional, practical, general and Transferable skills

9- Evaluation of Programme Intended Learning Outcomes

Evaluator	Tool	Sample
1- Senior students	Periodic seminars	
2- Alumni	Questionnaire	
3- Stakeholders (Employers)	----------	
4-External Evaluator(s) (External Examiner(s))	Thesis evaluation Discussion Report	
5- Other		

Program Coordinator: Dr. Samia Galal Ahmed Abdel Moty
Head of Department: Dr. Mostafa A. Hussein
Date: 16/10/2010