

## ٢- توصيف البرنامج

الكلية الصحية



Quality Assurance Unit  
Pharm. Organic Chem. Department



Assiut University  
Faculty of Pharmacy

## Programme Specification

### A- Basic Information

- 1- Programme Title: PhD of pharmaceutical sciences (pharmaceutical organic chemistry)
- 2- Programme Type: Single  Double  Multiple
- 3- Department (s) :...Pharmaceutical Organic Chemistry
- 4- Coordinator:...Dr. Hajjaj Hassan Mohamed
- 5- External Evaluator(s) No
- 6- Last date of program specifications approval: 12-6-2010

### B- Professional Information

PhD program in pharmaceutical organic chemistry depends on a study of positive impact on the scientific field, which is presented as a dissertation judged by external evaluators and discussed publicly. The program guarantees studying of specific courses evaluated by final exams, the student also may have to pass an oral exam in such these courses. The program also allows completing parts of the research or collecting scientific materials from abroad in a well equipped, respectable laboratory and under collaborative supervision between local and foreign supervisors. In other cases the PhD student can take his degree from a foreign country according to a personal fund or governmental scholarship regulated by the ministry of higher education, and there the student must follows the rules of the university offering the scholarship.

The PhD student learns the basics of scientific research and how to be up to date in the field of pharmaceutical organic chemistry.

By the end of the Ph. D. program, the graduate should be able to:

- a) Design new plans to solve problems of drug molecules synthesis.
- b) Creative thinking and innovation.
- 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) Use of physical and spectral data in structure elucidation of organic compounds and drug molecules.
- f) Apply the scientific methods in the evaluation and comparison of results
- g) Use information technology programmes in literature survey.

- h) Prepare and publish the scientific results (research paper, oral and poster presentation)
- i) Accept scientific criticism and efficient communication with the scientific community.
- j) Commit to scientific honesty

## **2- Intended Learning Outcomes (ILOs)**

### **a- Knowledge and Understanding:**

Having successfully completed the doctorate program of pharmaceutical sciences (pharmaceutical organic chemistry) the postgraduate should have comprehensive knowledge and adequate skills relevant to the profession as follows:

- a1- Fundamentals of basic sciences of pharmaceutical organic chemistry and the up to date knowledge in the field of specialty and the other relevant fields.
- a2- The relevant laws and ethics in each of scientific research and professional practice.
- a3- Knowledge related to lab safety and waste disposal.

### **b- Intellectual Skills**

At the end of doctorate degree the postgraduate should be able to:

- b1- Analyze and evaluate the information in the field of specialty then integrate and apply it.
- b2- Deal with research problems depending on the available information.
- b3- Be a leader in research projects and be able to take decisions concerning professional specialty.
- b4- Write and publish scientific research papers in local or international scientific journals and conferences organizations.

### **c- Professional and Practical Skills**

At the end of doctorate degree the postgraduate should be able to:

- c1- Apply the lab skills including the basic and the new ones in the field of pharmaceutical organic synthesis.
- c2- Write and designing of a research project.
- c3- Show the ability to use safe design of laboratory experiments.
- c4- Analyze the results and the available information by different methods (digital-statistical)
- c5- Use the advanced technology tools in the field of interest.

### **d- General and Transferable Skills**

- d1- Interactive communication with colleagues, boss, and coworkers.
- d2- Using the information technology in the way serving to improve the scientific research and professional practice.
- d3- How to educate the others, self evaluation and continuous learning.
- d4- Sharing in lectures, scientific conferences and the ability of time management.

d5- Planning for job acquiring and how to make the curriculum vitae to apply to get funds and the chances of doing scientific researches.

### 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

4a- Programme duration..... five years

4.b- Programme structure

-Obligatory Courses for the current theoretical and practical knowledge in

-Advanced Pharmaceutical Organic Chemistry

-Laboratory works and publication

-Written dissertation

-Dissertation submission

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

4.b. ii Practical part of the thesis.

### 5- Programme Courses

5.1- Level/Year of Programme first year.

a. Compulsory

Co de No.	Course Title	No. of Units	No. of hours /week			Programme ILOs Covered (By No.)
			Lect.	Lab.	Exer.	
1-	Advanced Pharmaceutical Organic Chemistry	2	2	----	----	a1, a2, b1, b2,c4,c5, d2
2-	Applied Pharmaceutical Organic Chemistry	2	2	----	----	a2, a3, b1, b2, c1, c4,c5, d2
3-	Advanced Medicinal Chemistry	2	2	----	----	a1, a2, b1, b2,c4,c5, d2

b- Elective -: No

c- Optional-: No

### 6- Programme Admission Requirements

Applicants for the degree of Doctor of Philosophy in Pharmaceutical Sciences:

1-to pursue study for a semester in special courses (maximum of four) determine the denomination by the department after taking the opinion of the Supervisory Committee to the letter. The the total number of hours of these courses is 60 hours of not more than 80 hours and lead the student through the exam before discussing the letter and should receive not less than 60% of the whole material to succeed in it and gives students just one chance to re-exam with flunked it.

2-The innovative research in the subject by the College Board on the proposal by the department and in accordance with the academic plan for

the division for at least two years from the date of approval of the College Board to register the subject.

- 3-Requires the subject to be relevant to the specialization of the student in a master's degree and the College Board on the recommendation of the Supervisory Committee to the letter and after consulting the concerned department to instruct the student to do some research at the Institute for scientific or technical division recognized by the university.
- 4-The student scientific work of the three workshops at least on the subject of research and study one of them during the pre-registration and at the recent presentation of the message in its final form and before the formation of the judging panel and discussion.
- 5-To publish research and at least one or acceptance for publication of the results covered by the communication in a scientific journal specialized or scientific conference specialist.
- 6-To pass the student successfully the English language course or get a certificate of passing from one foreign language institutes, foreign language adopted in accordance with rules established by the University Council in this regard.

Article(26):

Canceling of the Ph.D. registration of the student in the following cases:

- 1-If you do not get a degree within five years from the date of registration, except where the College Board to maintain the registry established by a further period on the proposal of the Supervisory Committee to the letter and the Council of the Section.
  - 2-If you have made to the Oversight Committee reasoned request to the letter accepted by the department concerned and the College Board.
  - 3-If the jury rejected the message is categorically denied.
  - 4-If the student has exhausted the number of times of failure in examinations and special courses in accordance with the provisions of paragraph e of Article (17) of these Regulations.
  - 5-If the student was lost on follow-up study and research in the university for two years without an excuse acceptable after a proposal by the department concerned and the Commission on Graduate Studies and Research and the approval of the faculty and the student will be notified formally to do so.
  - 6-If the supervisor or supervisors for two consecutive non-serious student in search, and after the proposal of the Board and the relevant section of the Graduate Studies Committee and faculty research and the approval of the college student to be notified formally to do so.
- Given of getting a Ph.D. in pharmaceutical sciences certificate indicating the specialization rule and the title of the message.

## **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

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:**

**9- Evaluation of Programme Intended Learning Outcomes**

**Head of Department:** Dr. Mostafa A. Hussein

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

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	Paper and conference reviewers	

**Program Coordinator:** Dr. Hajjaj Hassan Mohamed

**Date:** 16/10/2010