

Course Specifications

Programme(s) on which the course is given **M. Sc. Chemistry**

Major or Minor element of programmers **Major**

Department offering the programmer: **Chemistry**

Department offering the course: **Chemistry**

Academic year / Level:

Date of specification approval: 2010

A- Basic Information

| | | |
|----------------------------------|---------------------|-----------------|
| Title: Polymer Chemistry. | Code: CH6611 | |
| Credit Hours: 2 h | Lecture:2 | |
| Tutorial: 2 | Practicals:0 | Total: 2 |

B- Professional Information

1 – Overall Aims of Course

Addition of new knowledge and understanding about polymer chemistry. The fundamental of this science have to be gained at different polymer. The course aims also to make abridge between fundamental and application in various fields.

2 – Intended Learning Outcomes of Course (ILOs)

c- Knowledge and Understanding:

After completing the course the student should be able to

a1- Define of terminology of polymer science.

a2- Know the fundamentals and classification of different types of polymer.

a3- Know Some industrial application of polymer chemistry

d- Intellectual Skills

b1- Know Importance of studying the polymer chemistry.

b2- Characterize Preparation and characterization of different polymer

b3- Understand the surrounding polymer phenomena

e- Professional and Practical Skills

c1- Understand the means of determination molecular weights of polymer.

c2- The ability to apply the knowledge at small and large scales.

c3- The ability to prepare different types of polymer.

f- General and Transferable Skills

d1) Enhancing the writing and oral communication capability of the students.

d2) Capability of solving the problems.

3- Contents

| Topic | No. of hours | Lecture | Tutorial/Practical |
|---|--------------|---------|--------------------|
| Introduction to polymer science | 4 | 3 | 2 |
| Classification of polymer | 4 | 3 | 2 |
| Types of initiators | 4 | 3 | 2 |
| Chemical and physical properties of polymer | 4 | 3 | 2 |
| Synthesis of different types of polymer | 4 | 3 | 2 |
| Application of polymer in industry | 4 | 3 | 2 |

4- Teaching and Learning Methods

4.1-lectures

5- Student Assessment Methods

5.1 **class discussions** to assess **performance**

5.2-**mid term exams** to assess **mid term performance**

5.3**final term** to assess **final term performance**

5.4 to assess

Assessment Schedule

Assessment 1 **discussions** Week **on class time**

Assessment 2 **mid term** Week **7th week**

Assessment 3 **final term** Week **14th week**

Weighting of Assessments

| | | |
|----------------------------------|----|------|
| Mid-Term Examination | 20 | % |
| Final-term Examination | 60 | % |
| Oral Examination. | 20 | % |
| Practical Examination | | % |
| Semester Work | | % |
| <u>Other types of assessment</u> | | % |
| Total | | 100% |

6- List of References

6.1- Text Book of Polymer science

6.2- Periodicals, Web Sites, ... etc ...Journal of polymer composites and Journal of polymer science

Facilities Required for Teaching and Learning

Data show

Course Coordinator: Prof .Dr. Sabrinal El- Hamoly

Head of Department: Prof. Dr. Ahmed Abdel-Meged

Date: / /