



**Course Curriculum for Master Degree in Applied
Chemical sciences
Thesis Track**

The Master Degree in Applied Chemical Sciences, is awarded by the Faculty of Graduate Studies at Jordan University of Science and Technology (JUST) upon the fulfillment of the following requirements:

- 1) Compliance with the J.U.S.T. Master Degree regulations approved by the Dean Council (No. 492/2006), dated 8/8/2006.
- 2) Successful completion of (34) credit hours in one of the following tracks:

First: Thesis Track

1. Compulsory Requirements: (16) credit hours as follows:

Course Symbol and Number	Course Name	Credit
CHEM 711	Structure and Reaction Mechanisms of Organic Reactions	3
CHEM 712	Reaction and Synthesis of Organic Compounds	3
CHEM 721	Physicochemical Methods in Inorganic Chemistry	3
CHEM 731	Methods of Chemical Analysis	3
CHEM 741	Quantum Chemistry and Molecular Spectroscopy	3
CHEM 791	Seminar	1

2. Elective Requirements: (9) credit hours from the following* :

Course Symbol and Number	Course Name	Credit
CHEM 713	Heterocyclic Chemistry	3
CHEM 714	Advanced Polymer Chemistry	3
CHEM 723	Advanced Organometallic Chemistry	3
CHEM 724	Solid State Chemistry	3
CHEM 732	Advanced Chemical Separation Methods	3
CHEM 734	Environmental Analytical Chemistry	3
CHEM 742	Industrial Electrochemistry	3
CHEM 743	Chemical Kinetics	3
CHEM 761	Metabolism of Bimolecules	3
CHEM 746	Biochemical Techniques	3
CHEM 790	Special Topics in Applied Chemistry	3

* The student may study not more than 3 credit hours from courses of 700 or 800 level offered by other programs related to his field of study upon approval of the Dean of Graduate Studies based on the recommendation of the departmental graduate studies committee.

3. Master Thesis (CHEM 799): total of 9 credit hours as follows:

Course Symbol and Number	Course Name	Credit
CHEM 799 A	Master Thesis	9
CHEM 799 B	Master Thesis	6
CHEM 799 C	Master Thesis	3
CHEM 799 D	Master Thesis	0