



# Course Specification

— (Postgraduate)

Course Title: M.Sc. Thesis
Course Code: CHEM 600
Program: Master of Science in Chemistry
Department: Chemistry
College: Science
Institution: King Saud University
Version: TP-153-2023
Last Revision Date: 15 October 2023



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## A. General information about the course:

### 1. Course Identification:

#### 1. Credit hours: (0+6)

6 Credit hours.

#### 2. Course type

A.  University  College  Department  Track

B.  Required  Elective

#### 3. Level/year at which this course is offered: (level 4)

#### 4. Course general description:

This course is intended for Master's level students to create a Master's Thesis work and project. In this practical course, students will work with their thesis supervisors to make any necessary research works to the thesis proposal and produce the M.Sc. thesis. Each student is given a supervisor (or more) who will advise the student in the research task included in the course and in the writing of the thesis.

#### 5. Pre-requirements for this course (if any):

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#### 6. Co-requirements for this course (if any):

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#### 7. Course Main Objective(s):

The main objective of this course is to design and execute a meaningful and significant research work in one area of chemistry applications and uses the knowledge and skills learned in the program.

### 2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom		
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• E-learning</li> </ul>		
4	Distance learning		





### 3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	
2.	Laboratory/Studio	100%
3.	Field	
4.	Tutorial	
5.	Others (specify).....	
Total		

### B. Course learning outcomes (CLOs), teaching strategies & assessment methods:

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and understanding</b>			
1.1	To enhance knowledge in the areas of chemistry relevant to their research topic.	K1	Review of Relevant Research	Thesis discussion
1.2	To understand one area of specialization in the field of chemistry via research and professional practice.	K2	Review of Relevant Research	Thesis discussion
1.3	To increase the awareness about the emerging trends in research related to the field of chemistry.	K3	Review of Relevant Research	Thesis discussion
<b>2.0</b>	<b>Skills</b>			
2.1	To collect, represent, and interpret the research data.	S1	Research work	Thesis discussion
2.2	To apply theoretical and practical information in planning and decision-making skills in solving research problems.	S2	Research work	Thesis discussion
2.3	To develop their own small research project, design and conduct the appropriate experiments and analysis.	S3	Research work	Thesis discussion
2.4	To be creative in identifying and solving the problems through creative scientific methods, data analysis, and interpretation.	S4	Research work	Thesis discussion
2.5	To work, effectively both as an individual and as a collaborative group member in dealing with chemical topics.	S5	Research work	Thesis discussion





Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.6	To communicate research results effectively in oral and written formats to specialist and non-specialist audiences.	S6	Research work	Thesis discussion
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	To deal with ethical issues and regulations in academic and professional contexts.	V1	Research work	Thesis discussion
3.2	To demonstrate safe handling of laboratory research.	V2	Research work	Thesis discussion

### C. Course Content:

No	List of Topics	Contact Hours
1.	NA	
2.		
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<b>Total</b>		

### D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	NA		
2.			
3.			
...			

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

### E. Learning Resources and Facilities:

#### 1. References and Learning Resources:

Essential References	
Supportive References	
Electronic Materials	
Other Learning Materials	



## 2. Educational and Research Facilities and Equipment Required:

Items	Resources
<b>Facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Laboratories, Instrument, Chemicals
<b>Technology equipment</b> (Projector, smart board, software)	
<b>Other equipment</b> (Depending on the nature of the specialty)	Scientific data bases

## F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of students assessment		
Quality of learning resources		
The extent to which CLOs have been achieved		
Other		

**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval Data:

<b>COUNCIL /COMMITTEE</b>	
<b>REFERENCE NO.</b>	
<b>DATE</b>	

