

**College of Engineering**  
**Chemical Engineering Department**  
**Master in Chemical Engineering**

1- Master of Science (MSc) in Chemical Engineering (**Thesis**)

Level	Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
				Theoretical	Tutorial	Exercises	Total			
Level 1	CHE712	Advanced Thermodynamics	None	3	0	0	3	3	Department	Mandatory
	CHE714	Applied Mathematics in Chemical Engineering	None	3	0	0	3	3	Department	Mandatory

	CHE715	Process Modelling and Control	None	3	0	0	3	3	Department	Mandatory
Level 2	CHE711	Advanced Transport Phenomena	None	3	0	0	3	3	Department	Mandatory
	CHE721	Advanced Reaction Engineering	None	3	0	0	3	3	Department	Mandatory
	CHE---	Elective 1 (Choose from group A)	None	3	0	0	3	3	Department	Elective
Level 3	CHE---	Elective 2 (Choose from group B)	None	3	0	0	3	3	Department	Elective
	CHE---	Elective 3 (Choose from group B)	None	3	0	0	3	3	Department	Elective
	CHE761	Research Thesis - Project	None	3	0	0	3	3	Department	Mandatory
Level 4	CHE711	Continuation of Research Thesis	None	3	0	0	3	3	Department	Mandatory

## Elective Courses

### 1. Elective Course1

Student should choose one of the following (**Group A**)

Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
			Theoretical	Tutorial	Exercises	Total			
CHE742	Industrial Safety & Risk Assessment	None	3	0	0	3	3	Department	Elective
CHE732	Polymer Science and Engineering	None	3	0	0	3	3	Department	Elective
CHE725	Particle Engineering	None	3	0	0	3	3	Department	Elective
CHE722	Heterogeneous catalysis	None	3	0	0	3	3	Department	Elective

CHE751	Project Management	None	3	0	0	3	3	Department	Elective
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## 2. Elective Courses 2 & 3

Student should choose two courses from the following (**Group B**)

Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
			Theoretical	Tutorial	Exercises	Total			
CHE752	Technology Management	None	3	0	0	3	3	Department	Elective
CHE744	Energy Systems and Sustainability	None	3	0	0	3	3	Department	Elective
CHE743	Advanced Wastewater Treatment Technologies	None	3	0	0	3	3	Department	Elective
CHE733	Corrosion and its Control	None	3	0	0	3	3	Department	Elective
CHE724	Advanced oil Refining Engineering	None	3	0	0	3	3	Department	Elective
CHE723	Biochemical Engineering	None	3	0	0	3	3	Department	Elective
CHE734	Nanotechnology	None	3	0	0	3	3	Department	Elective
CHE735	Mineral Processing	None	3	0	0	3	3	Department	Elective

## 2- Master of Science (MSc) in Chemical Engineering (**Non-Thesis**)

Level	Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
				Theoretical	Tutorial	Exercises	Total			
Level 1	CHE712	Advanced Thermodynamics	None	3	0	0	3	3	Department	Mandatory
	CHE714	Applied Mathematics in Chemical Engineering	None	3	0	0	3	3	Department	Mandatory
	CHE715	Process Modelling and Control	None	3	0	0	3	3	Department	Mandatory

	CHE---	Elective 1 (choose from group A)	None	3	0	0	3	3	Department	Elective
Level 2	CHE711	Advanced Transport Phenomena	None	3	0	0	3	3	Department	Mandatory
	CHE721	Advanced Reaction Engineering	None	3	0	0	3	3	Department	Mandatory
	CHE713	Advanced Separation Processes	None	3	0	0	3	3	Department	Mandatory
	CHE---	Elective 2 (Choose from group B)	None	3	0	0	3	3	Department	Elective
Level 3	CHE731	Advanced Materials Engineering	None	3	0	0	3	3	Department	Mandatory
	CHE741	Industrial Pollution Control	None	3	0	0	3	3	Department	Mandatory
	CHE ---	Elective 3 (choose from group C)	None	3	0	0	3	3	Department	Elective
Level 4	CHE771	Project	None	3	0	0	3	3	Department	Mandatory
	CHE ---	Elective 4 (choose from group D)	None	3	0	0	3	3	Department	Elective

	CHE ---	Elective 5 (choose from group D)	None	3	0	0	3	3	Department	Elective
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## Elective Courses

### 1. Elective Course1

Student should choose one of the following (**Group A**)

Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
			Theoretical	Tutorial	Exercises	Total			
CHE742	Industrial Safety & Risk Assessment	None	3	0	0	3	3	Department	Elective
CHE732	Polymer Science and Engineering	None	3	0	0	3	3	Department	Elective
CHE725	Particle Engineering	None	3	0	0	3	3	Department	Elective

## 2. Elective Course 2

Student should choose one of the following (**Group B**)

Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
			Theoretical	Tutorial	Exercises	Total			
CHE722	Heterogeneous catalysis	None	3	0	0	3	3	Department	Elective
CHE751	Project Management	None	3	0	0	3	3	Department	Elective
CHE752	Technology Management	None	3	0	0	3	3	Department	Elective



### 3. Elective Course 3

Student should choose one of the following (**Group C**)

Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
			Theoretical	Tutorial	Exercises	Total			
CHE744	Energy Systems and Sustainability	None	3	0	0	3	3	Department	Elective
CHE743	Advanced Wastewater Treatment Technologies	None	3	0	0	3	3	Department	Elective
CHE733	Corrosion and its Control	None	3	0	0	3	3	Department	Elective

#### 4. Elective Courses 4 & 5

Student should choose two courses from the following (**Group D**)

Subject Code	Subject	Pre-Required	Credit Hours				Contact Hours	Required Univ/College	Mandatory/ Elective
			Theoretical	Tutorial	Exercises	Total			
CHE724	Advanced oil Refining Engineering	None	3	0	0	3	3	Department	Elective
CHE723	Biochemical Engineering	None	3	0	0	3	3	Department	Elective
CHE734	Nanotechnology	None	3	0	0	3	3	Department	Elective
CHE735	Mineral Processing	None	3	0	0	3	3	Department	Elective

