

## PhD program in Petrochemistry (2013)

The total minimum required number of credits:	104 credits
- Coursework:	24 credits
+ Basic courses:	12 credits
• Required:	09 credits
• Elective:	3/9 credits
+ Advanced foreign languages for academic purposes:	04 credits
+ Advanced courses:	06 credits
+ Overview:	02 credits
- Research	
- PhD Thesis:	80 credits

### Available curriculum :

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
<b>I</b>	<b>Part 1. Coursework</b>						
<b>I.1</b>	<b>Basic courses</b>		<b>12</b>				
<b>I.1.1</b>	<b>Required</b>		<b>9</b>				
1	CHE8110	<i>Shape selectivity theory in petrochemistry and refinery</i>	3	30	15		
2	CHE8111	<i>Adsorption</i>	3	30	15		
3	CHE8112	<i>Infrared technique for characterizing catalysts</i>	3	30	15		
<b>I.1.2</b>	<b>Elective</b>		<b>3/9</b>				
4	CHE8113	<i>Chemistry of Catalysis</i>	3	30	15		

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
5	CHE8114	<i>Fischer-Tropsch Synthesis</i>	3	30	15		
6	CHE8115	<i>Biofuels</i>	3	30	15		
<b>I.2</b>	<b>Advanced foreign languages for academic purposes</b>		<b>4</b>				
7	ENG8001	<i>Advanced English for Academic Purposes</i>	4			60	
<b>I.3</b>	<b>Advanced courses</b>		<b>6/18</b>				
8	CHE8116	<i>Technology for treatment of organic pollution</i>	3	30	15		
9	CHE8117	<i>Heterogeneous Catalysis and Characteristic methods for solid catalysts</i>	3	30	15		
10	CHE8118	<i>Polymer materials and application</i>	3	30	15		
11	CHE8119	<i>Lubricants and additives</i>	3	30	15		
12	CHE8120	<i>Clean energy: Basic and Technology</i>	3	30	15		
13	CHE8121	<i>Pollution control in petrochemical industry</i>	3	30	15		
<b>I.4</b>	<b>Overview</b>		<b>2</b>				
14	CHE8122	Overview	2			30	
<b>II</b>	<b>Part 2. Research (research planning, publishing ...)</b>						
<b>III</b>	<b>Part 3. Doctoral Thesis</b>						
15	CHE9005	Doctoral Thesis	80				
		<b>Total</b>	<b>104</b>				