

## Standard Master program in Chemical Engineering

(Dated October 29<sup>th</sup>, 2015)

The total minimum required number of credits:	<b>64 credits</b>
- General courses (required):	<b>07 credits</b>
- Fundamental and core courses:	<b>39 credits</b>
+ Required:	<b>18 credits</b>
+ Elective:	<b>21/42 credits</b>
- Master thesis:	<b>18 credits</b>

### Available curriculum

No	Code	Subjects	Credits	Credit hours			Prerequisite
				<i>Lecture</i>	<i>Practice</i>	<i>Self-study</i>	
<b>I</b>		<b>General courses</b>	<b>7</b>				
1	PHI5001	<i>Philosophy</i>	3	30	15	0	
2	ENG5001	<i>General English</i>	4	30	30	0	
<b>II</b>		<b>Fundamental and core courses</b>					
<b>II.1.</b>		<b>Required</b>	<b>18</b>				
3	ENG 6001	<i>English for Academic Purposes</i>	3	45	0	0	
4	CHE6000	<i>Chemometrics</i>	3	45	0	0	
5	CHE6001	<i>Quantum method in Chemistry</i>	3	45	0	0	
6	CHE6002	<i>Modern methods for structure analysis</i>	3	45	0	0	
7	CHE6500	<i>Advanced chemical</i>	3	45	0	0	

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
		<i>engineering thermodynamics</i>					
8	CHE6501	<i>Advanced chemical reaction engineering</i>	3	45	0	0	
<b>II.2.</b>		<b><i>Elective</i></b>	<b>21/42</b>				
9	CHE6502	<i>Unit operations in chemical engineering</i>	3	45	0	0	
10	CHE6503	<i>Industrial chemical processes</i>	3	45	0	0	
11	CHE6504	<i>Advanced simulation of chemical engineering processes</i>	3	45	0	0	
12	CHE6505	<i>Process control</i>	3	45	0	0	
13	CHE6506	<i>(Membrane technology and applications</i>	2	30	0	0	
14	CHE6507	<i>Nano materials technology and applications</i>	2	30	0	0	
15	CHE6508	<i>Polymers and polymer nanocomposites</i>	2	30	0	0	
16	CHE6509	<i>Adsorption and ion exchange engineering</i>	2	30	0	0	
17	CHE6510	<i>Biochemical engineering</i>	2	30	0	0	
18	CHE6412	<i>Electrochemical technologies and applications</i>	2	30	0	0	

No	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
19	CHE6602	<i>Industrial catalysis</i>	3	45	0	0	
20	CHE6603	<i>chemistry of catalysis</i>	3	45	0	0	
21	CHE6604	<i>Chemistry of petrochemical process</i>	3	45	0	0	
22	CHE6703	<i>Fundamentals of Industrial Wastes</i>	3	45	0	0	
23	CHE6704	<i>Environmental Engineering</i>	3	45	0	0	
24	CHE6705	<i>Environmental Pollution and Control in Chemical Process Industries</i>	3	45	0	0	
<b>III</b>	CHE7205	<b>Master Thesis</b>	<b>18</b>				
		<b>Total</b>	<b>64</b>				