

**Standard Master program in Chemistry
(Theoretical and Physical Chemistry)**

(Dated October 29th, 2015)

The total minimum required number of credits:	64 credits
- General courses (required):	7 credits
- Fundamental and core courses:	39 credits
+ <i>Required</i> :	18 credits
+ <i>Elective</i> :	21/43 credits
- Master Thesis:	18 credits

Available curriculum

	Code	Subjects	Credits	Credit hours			Prerequisite
				<i>Lecture</i>	<i>Practice</i>	<i>Self-study</i>	
I		Khối kiến thức chung	7				
1	PHI5001	<i>Philosophy</i>	3	30	15	0	
2	ENG5001	<i>General English</i>	4	30	30	0	
II		Khối kiến thức cơ sở và chuyên ngành					
II.1.		Các học phần bắt buộc	18				
3	ENG6001	<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	35	10	0	
6	CHE6002	<i>Modern Methods for Structure Analysis</i>	3	35	0	10	
7	CHE6400	<i>Thermodynamics and Statistical thermodynamics)</i>	3	45	0	0	
8	CHE6402	<i>Kinetics of electrode process and applications</i>	3	26	19	0	
II.2.		Các học phần tự chọn	21/43				
9	CHE6401	<i>Spectroscopy of multiatomic molecules</i>	3	29	8	8	

	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
10	CHE6403	<i>Chemical kinetics and catalysis</i>	3	30	15	0	
11	CHE6404	<i>Adsorption and chemistry of surface</i>	3	30	15	0	
12	CHE6405	<i>Methods for the synthesis of polymers and copolymers with controlled architectures</i>	3	35	0	10	
13	CHE6406	<i>Physical Chemistry Seminar</i>	3	30	0	15	
14	CHE6407	<i>Polymer Characterization Techniques</i>	2	24	0	6	
15	CHE6408	<i>Simulations method of molecular dynamics of solutions</i>	2	20	10	0	
16	CHE6409	<i>Molecular structure and bioactivity</i>	3	35	10	0	CHE6001
17	CHE6410	<i>Physical Chemistry of Surfaces</i>	2	25	0	5	
18	CHE6411	<i>Thermoplastic Polymers</i>	2	24	0	6	
19	CHE6412	<i>Electrochemical technologies and applications</i>	2	24	6	0	CHE6401
20	CHE6413	<i>Computer application to electrochemical studies</i>	2	20	10	0	
21	CHE6414	<i>Enzyme kinetics</i>	2	24	0	6	
22	CHE6415	<i>Structure analysis by X- Ray diffraction</i>	2	20	10	0	CHE6002
23	CHE6102	<i>Nanomaterials</i>	3	45	0	0	
24	CHE6103	<i>Radiochemistry</i>	3	45	0	0	
25	CHE6104	<i>Rare earth element chemistry</i>	3	45	0	0	
III	CHE7204	Master thesis	18				
		Total	64				