



CREDIT BASED CURRICULUM

(Pursuant to the decision: 3000/QD-DHNL-DT, November -24-2014 of President)

Credit based Training System: Formal Undergraduate (Full - time)

Faculty : Chemical Engineering Department

Discipline : Chemical Engineering and Processing

Major: Chemical-Food Engineering and Pharmaceutical Systems

Minimum credits : 135 Credits

Minimum GPA: 2.0

No	Module	English subjects	Credits	Total Number	Theory	Practice	Internship	Project	Thesis	Year	SM	Prior study	Prerequisite	Concurrent
I. Fundamental knowledge :														
<i>I.1 Required subjects</i>														
1	200104	History of the Communist's Party of Vietnam	3.0	45.0	45.0	0.0	0	0.0	0.0	1	1			
2	202108	Advanced Mathematics A1	3.0	45.0	45.0	0.0	0	0.0	0.0	1	1			
3	202301	General Chemistry	3.0	45.0	45.0	0.0	0	0.0	0.0	1	1			
4	202304	General Chemistry Laboratory	1.0	30.0	0.0	30.0	0	0.0	0.0	1	1			
5	202501	Physical Education 1	1.0	45.0	0.0	45.0	0	0.0	0.0	1	1			
6	202622	General Law	2.0	30.0	30.0	0.0	0	0.0	0.0	1	1			
7	214103	General Informatics	3.0	60.0	30.0	30.0	0	0.0	0.0	1	1			
8	200106	Phylosophy of Marxism and Leninism	5.0	75.0	75.0	0.0	0	0.0	0.0	1	2			
9	200201	Military training (theory)	3.0	45.0	45.0	0.0	0	0.0	0.0	1	2			
10	200202	Military training (practice)	3.0	90.0	0.0	90.0	0	0.0	0.0	1	2			
11	202109	Advanced Mathematics A2	3.0	45.0	45.0	0.0	0	0.0	0.0	1	2			
12	202502	Physical Education 2	1.0	45.0	0.0	45.0	0	0.0	0.0	1	2			
13	213603	English 1	4.0	60.0	60.0	0.0	0	0.0	0.0	1	2			
14	213604	English 2	3.0	45.0	45.0	0.0	0	0.0	0.0	2	1	213603		
15	217301	General Biochemistry	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
16	217304	General Microbiology	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
17	200107	Ho Chi Minh Ideology	2.0	30.0	30.0	0.0	0	0.0	0.0	4	2			
Total			44.0	795.0	555.0	240.0	0	0.0	0.0					



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<i>1.2 Elective subject - completed 0101/accumulated at least 2 credits : 3 credits</i>														
1	202201	General Physics 1	2.0	30.0	30.0	0.0	0	0.0	0.0	1	2			
2	202202	Physics Experiments 1	1.0	30.0	0.0	30.0	0	0.0	0.0	1	2			
3	202302	Analytical Chemistry	2.0	30.0	30.0	0.0	0	0.0	0.0	1	2	202301		
4	202305	Analytical Chemistry Laboratory	1.0	30.0	0.0	30.0	0	0.0	0.0	1	2			
Total			6.0	120.0	60.0	60.0	0	0.0	0.0					
II. Fundamental specialized knowledge :														
<i>II.1 Required subjects</i>														
1	206428	Technical drawing	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
2	217111	Physical Chemistry 1	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
3	217109	Physical Chemistry 2	3.0	60.0	30.0	30.0	0	0.0	0.0	2	2			
4	217202	Introduction to Chemical Engineering	3.0	45.0	45.0	0.0	0	0.0	0.0	2	2			
5	217209	Mechanical Separation Process	3.0	55.0	35.0	20.0	0	0.0	0.0	2	2			
6	217302	Biochemistry Technology and Application	2.0	30.0	30.0	0.0	0	0.0	0.0	2	2	217301		
7	217303	Organic Chemistry Synthesis Process	2.0	30.0	30.0	0.0	0	0.0	0.0	2	2	202301		
8	217307	General Electrical Engineering	2.0	38.0	23.0	15.0	0	0.0	0.0	2	2			
9	217901	Study Tours in Industry	1.0	30.0	0.0	0.0	30	0.0	0.0	2	2			
10	217110	Physical properties of material	2.0	38.0	23.0	15.0	0	0.0	0.0	3	1	217111		
11	217204	Heat and Mass Transfer	3.0	60.0	30.0	30.0	0	0.0	0.0	3	1	217111 217209		
12	217211	Instrumentation and Process Control	2.0	35.0	25.0	10.0	0	0.0	0.0	3	1			
13	217224	Statistics and Experimental Design	3.0	60.0	30.0	30.0	0	0.0	0.0	3	1			
14	217226	Computer Application in Chemical Engineering	3.0	60.0	15.0	45.0	0	0.0	0.0	3	1			217204
15	217306	Biochemistry Technology and Application Laboratory	1.0	30.0	0.0	30.0	0	0.0	0.0	3	1	217302		
Total			34.0	631.0	376.0	225.0	30	0.0	0.0					

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<i>II.2 Elective subject - completed 0201/accumulated at least 2 credits : 6 credits</i>														
1	217106	Organic Chemistry	2.0	45.0	15.0	30.0	0	0.0	0.0	2	1			
2	217107	Inorganic Chemistry	2.0	45.0	15.0	30.0	0	0.0	0.0	2	1			
3	217101	Instrumental Analytical Chemistry	3.0	60.0	30.0	30.0	0	0.0	0.0	2	2	202302 202305		
4	217108	Analytical Methods for Physio-chemical components	2.0	38.0	23.0	15.0	0	0.0	0.0	2	2	202301 202304		
5	217222	Freezing Technology and Application	2.0	38.0	23.0	15.0	0	0.0	0.0	3	1			
6	217707	Analytical Methods for Molecular Spectrometry	2.0	30.0	30.0	0.0	0	0.0	0.0	3	1			
7	217708	Methods of Separation & Refinery	2.0	38.0	23.0	15.0	0	0.0	0.0	3	1			
Total			15.0	294.0	159.0	135.0	0	0.0	0.0					
III. Specialized knowledge :														
<i>III.1 Required subjects</i>														
1	217212	Process Engineering Laboratory	1.0	30.0	0.0	30.0	0	0.0	0.0	3	2			217223
2	217215	Reaction Engineering	2.0	30.0	30.0	0.0	0	0.0	0.0	3	2	217111 217109		
3	217223	Chemical Separation Process	3.0	60.0	30.0	30.0	0	0.0	0.0	3	2	217204		
4	217504	Food Chemistry	2.0	30.0	30.0	0.0	0	0.0	0.0	3	2	217301		
5	217506	Technology of Aromatic Chemicals	2.0	30.0	30.0	0.0	0	0.0	0.0	3	2	217303		
6	217902	Engineering Design Project	2.0	45.0	15.0	0.0	0	30.0	0.0	3	2	217202		217223 217215
7	217903	Practical Work in Industry	1.0	30.0	0.0	0.0	30	0.0	0.0	3	2	217202		
8	217909	Technical Seminar	1.0	30.0	0.0	30.0	0	0.0	0.0	3	2			
9	217502	Food Engineering and Technology	2.0	30.0	30.0	0.0	0	0.0	0.0	4	1	217204		
10	217513	Fermentation Technology	3.0	60.0	30.0	30.0	0	0.0	0.0	4	1	217301		
11	217514	Functional Food	2.0	30.0	30.0	0.0	0	0.0	0.0	4	1	217504		

