



CREDIT BASED CURRICULUM

(Pursuant to the decision: 3434/QĐ-ĐHNL-ĐT, 11 November 2020 of Rector of NLU)

Credit based Training System: Formal Undergraduate (Full-time) Code: 7510401

Faculty : Chemical Engineering Department

Discipline : Chemical Engineering and Processing

Major: Chemical Food Engineering and Pharmaceutical Systems

Minimum GPA: 2.0

Minimum credits: 158 Credits

No	Module	English subjects	Credits	Total num	Theor y	Practi ce	Inter nship	Proje ct	Thesis	Year	SM	Prior study	Prerequisite	Concurrent
1. Fundamental knowledge:														
Required subjects														
1	200101	Philosophy of marxism and Leninism	3	45	45	0	0	0	0	1	1			
2	200102	Political Economics of Marxism and Leninism	2	30	30	0	0	0	0	1	1			
3	202108	Advanced Mathematics A1	3	45	45	0	0	0	0	1	1			
4	202301	General Chemistry	3	45	45	0	0	0	0	1	1			
5	202304	General Chemistry Laboratory	1	30	0	30	0	0	0	1	1			
6	202501	Physical Education 1	1	45	0	0	45	0	0	1	1			
7	202622	General Law	2	30	30	0	0	0	0	1	1			
8	214103	General Informatics	3	60	30	30	0	0	0	1	1			
9	200103	Scientific Socialism	2	30	30	0	0	0	0	1	2	200102		
10	200201	Military training (theory)	3	45	45	0	0	0	0	1	2			
11	200202	Military training (practice)	3	90	0	90	0	0	0	1	2			
12	202109	Advanced Mathematics A2	3	45	45	0	0	0	0	1	2			
13	202502	Physical Education 2	1	45	0	0	45	0	0	1	2			
14	213603	English 1	4	60	60	0	0	0	0	1	2			
15	200107	Ho Chi Minh Ideology	2	30	30	0	0	0	0	2	1	200103		
16	213604	English 2	3	45	45	0	0	0	0	2	1	213603		
17	217301	General Biochemistry	2	30	30	0	0	0	0	2	1			
18	217304	General Microbiology	2	30	30	0	0	0	0	2	1			
19	200105	History of Vietnamese Communist Party	2	30	30	0	0	0	0	4	2	200107		



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<i>Cộng</i>			45	810	570	150	90	0	0					
Elective subject - completed 0101 - accumulated at least 3														
1	202201	General Physics 1	2	30	30	0	0	0	0	1	2			
2	202202	Physics Experiments 1	1	30	0	30	0	0	0	1	2			
3	202302	Analytical Chemistry	2	30	30	0	0	0	0	1	2	202301		
4	202305	Analytical Chemistry Laboratory	1	30	0	30	0	0	0	1	2			
<i>Cộng</i>			6	120	60	60	0	0	0					
2. Fundamental specialized knowledge:														
Required subjects														
1	217111	Physical Chemistry 1	2	30	30	0	0	0	0	2	1			
2	217112	Technical drawing	2	45	15	30	0	0	0	2	1			
3	217307	General Electrical Engineering	2	38	23	15	0	0	0	2	1			
4	217109	Physical Chemistry 2	3	60	30	30	0	0	0	2	2			
5	217202	Introduction to Chemical Engineering	3	45	45	0	0	0	0	2	2			
6	217209	Mechanical Separation Process	3	55	35	20	0	0	0	2	2			
7	217303	Organic Chemistry Synthesis Process	2	30	30	0	0	0	0	2	2	202301		
8	217308	Biochemistry Technology and Application	3	60	30	30	0	0	0	2	2	217301		
9	217116	Physical properties of material	3	60	30	30	0	0	0	3	1	217111		
10	217211	Instrumentation and Process Control	2	35	25	10	0	0	0	3	1			217204
11	217224	Statistics and Experimental Design	3	60	30	30	0	0	0	3	1			



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No	Module	English subjects	Credits	Total num	Theory	Practice	Inter-ship	Project	Thesis	Year	SM	Prior study	Prerequisite	Concurrent
12	217226	Computer Application in Chemical Engineering	3	75	15	60	0	0	0	3	1			
13	217227	Heat and Mass Transfer	4	75	45	30	0	0	0	3	1	217111 217209		
14	217919	Lab safety guidance	2	30	30	0	0	0	0	3	1			
<i>Cộng</i>			<i>37</i>	<i>698</i>	<i>413</i>	<i>285</i>	<i>0</i>	<i>0</i>	<i>0</i>					
Elective subject - completed 0201 - accumulated at least: 14 TC														
1	217107	Inorganic Chemistry	2	45	15	30	0	0	0	2	1			
2	217114	Basic Principles of Colloid Chemistry Nguyên lý cơ sở hóa keo	2	45	15	30	0	0	0	2	1			
3	217117	Organic Chemistry	2	45	15	30	0	0	0	2	1			
4	217101	Instrumental Analytical Chemistry	3	60	30	30	0	0	0	2	2	202305 202302		
5	217108	Analytical Methods for Physio-chemical components	2	38	23	15	0	0	0	2	2	202304 202301		
6	217115	Basic startup	2	60	30	30	0	0	0	2	2			
7	217609	Quality Management for Food- Chemistry Plants	2	30	30	0	0	0	0	2	2	217901		
8	217914	Chemical Engineering Marketing	2	30	30	0	0	0	0	2	2			
9	217222	Freezing Technology and Application	2	38	23	15	0	0	0	3	1			
10	217707	Analytical Methods for Molecular Spectrometry	2	30	30	0	0	0	0	3	1			
11	217708	Methods of Separation & Refinery	2	45	30	15	0	0	0	3	1			
12	217709	Green Chemistry	2	30	30	0	0	0	0	3	1			
<i>Cộng</i>			<i>25</i>	<i>496</i>	<i>301</i>	<i>195</i>	<i>0</i>	<i>0</i>	<i>0</i>					



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3. Specialized knowledge:														
Required subjects														
1	217212	Process Engineering Laboratory	1	30	0	30	0	0	0	3	2			217223
2	217215	Reaction Engineering	2	30	30	0	0	0	0	3	2	217111 217109		
3	217223	Chemical Separation Process	3	60	30	30	0	0	0	3	2	217204		
4	217229	Chemical Separation Process 2	2	30	30	0	0	0	0	3	2	217204		
5	217504	Food Chemistry	2	30	30	0	0	0	0	3	2	217301		
6	217506	Technology of Aromatic Chemicals	2	30	30	0	0	0	0	3	2	217303		
7	217903	Practical Work in Industry	1	30	0	0	30	0	0	3	2	217202		
8	217909	Technical Seminar	1	30	0	30	0	0	0	3	2			
9	217915	Engineering Design Project	5	135	15	0	120	0	0	3	2	217202		217223 217215
10	217513	Fermentation Technology	3	60	30	30	0	0	0	4	1	217301		
11	217515	Food Engineering and Technology	3	60	30	30	0	0	0	4	1	217204		
12	217516	Pharmaceutical Functional food	3	60	30	30	0	0	0	4	1	217504		
<i>Cộng</i>			<i>28</i>	<i>585</i>	<i>255</i>	<i>180</i>	<i>150</i>	<i>0</i>	<i>0</i>					
Nhóm học phần bắt buộc tự chọn 0301 - Phải đạt tối thiểu : 19 TC														
1	217218	Machine and Equipment in Chemical Industry	2	30	30	0	0	0	0	3	2	217204		
2	217219	Surfactant	2	30	30	0	0	0	0	3	2	202301		
3	217225	Applied Membrane Technology	2	38	23	15	0	0	0	3	2	217204		



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4	217305	Analysis of Residues and Toxic In Agriculture Products	2	45	15	30	0	0	0	3	2			
5	217216	Catalyst Technology	2	30	30	0	0	0	0	4	1	217109 217111		
6	217217	Chemical Plant Design	2	45	15	30	0	0	0	4	1	217202 217215 217204		
7	217228	Experimental design and optimization	3	60	30	30	0	0	0	4	1			
8	217414	Quality Management for Chemical Plants	2	30	30	0	0	0	0	4	1	217901		
9	217418	Applied Colloid	3	60	30	30	0	0	0	4	1	217301		
10	217503	Dairy Technology	3	60	30	30	0	0	0	4	1	217504		
11	217507	Pharmaceutical Technology	3	60	30	30	0	0	0	4	1	217204		
12	217509	Oil and Lipid Processing	3	60	30	30	0	0	0	4	1	217504		
13	217510	Fruit and Vegetable Processing	3	60	30	30	0	0	0	4	1	217504		
14	217511	Meat Processing	3	60	30	30	0	0	0	4	1	217504		
15	217601	Natural Pharmaceuticals	2	30	30	0	0	0	0	4	1			
16	217603	Packaging Technology	2	30	30	0	0	0	0	4	1			
17	217604	Pharmaceutical Chemistry	3	60	30	30	0	0	0	4	1	202301		
18	217608	Fishery Products Processing	3	60	30	30	0	0	0	4	1			
19	217612	Natural products chemistry	3	60	30	30	0	0	0	4	1	217303		
20	217916	Management	2	30	30	0	0	0	0	4	1			
21	217920	ISO for Chmistry Lab	2	30	30	0	0	0	0	4	1			
<i>Cộng</i>			<i>52</i>	<i>968</i>	<i>593</i>	<i>375</i>	<i>0</i>	<i>0</i>	<i>0</i>					



BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC NÔNG LÂM TP.HCM

Mẫu in: C2040.004

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Elective subject - completed 0302 - accumulated at least : 12 credits														
1	217917	Research Project	12	180	0	0	0	0	180	4	2			
2	217918	Minor Research project	6	90	0	0	0	0	90	4	2			
<i>Cộng</i>			<i>18</i>	<i>270</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>270</i>					

Total credits of required subjects: 110

Total credits of elective subjects: 48

(*) Compulsory modules, students have to pass them, however they are not accounted in the cumulative overall GPA.

Graduation Methods:

1.Thesis (12 credits)

2.Essay (6 credits) + completion of 6 credits of elective subjects 0301

Note: In addition to the above 158 credits, students must meet the output criteria of Foreign Language and Informatics in accordance with the regulations of the university.

Rector

l of Academic Affairs Depart

Thành phố Hồ Chí Minh, Ngày 11 tháng 11 năm 2020

Trưởng Khoa/ Bộ môn