



**CREDIT BASED CURRICULUM**

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

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

Faculty : Department of Biotechnology

Discipline : Biotechnology

Minimum credits : 135 Credits

Minimum GPA: 2.0

Major : Environmental Biotechnology

No	Module	English subjects	Credits	Total Number	Theory	Practice	Internship	Project	Thesis	Year	SM	Prior study	Prerequisite	Concurrent
<b>I. Fundamental knowledge :</b>														
<i>I.1 Required subjects</i>														
1	202113	Advanced Mathematics B2	2.0	30.0	30.0	0.0	0	0.0	0.0	1	1			
2	202301	General Chemistry	3.0	45.0	45.0	0.0	0	0.0	0.0	1	1			
3	202304	General Chemistry Laboratory	1.0	30.0	0.0	30.0	0	0.0	0.0	1	1			202301
4	202401	General Biology	2.0	30.0	30.0	0.0	0	0.0	0.0	1	1			
5	202402	General Biology Laboratory	1.0	30.0	0.0	30.0	0	0.0	0.0	1	1			202401
6	202501	Physical Education 1	1.0	45.0	0.0	45.0	0	0.0	0.0	1	1			
7	202622	General Law	2.0	30.0	30.0	0.0	0	0.0	0.0	1	1			
8	213603	English 1	4.0	60.0	60.0	0.0	0	0.0	0.0	1	1			
9	214103	General Informatics	3.0	60.0	30.0	30.0	0	0.0	0.0	1	1			
10	200104	History of the Communist's Party of Vietnam	3.0	45.0	45.0	0.0	0	0.0	0.0	1	2			
11	200201	Military training (theory)	3.0	45.0	45.0	0.0	0	0.0	0.0	1	2			
12	200202	Military training (practice)	3.0	90.0	0.0	90.0	0	0.0	0.0	1	2			
13	202201	General Physics 1	2.0	30.0	30.0	0.0	0	0.0	0.0	1	2			
14	202502	Physical Education 2	1.0	45.0	0.0	45.0	0	0.0	0.0	1	2			
15	213604	English 2	3.0	45.0	45.0	0.0	0	0.0	0.0	1	2			
16	200106	Phylosophy of Marxism and Leninism	5.0	75.0	75.0	0.0	0	0.0	0.0	2	1			
17	202121	Probability and Statistics	3.0	45.0	45.0	0.0	0	0.0	0.0	2	1	202113		
18	200107	Ho Chi Minh Ideology	2.0	30.0	30.0	0.0	0	0.0	0.0	2	2			
<b>Total</b>			<b>44.0</b>	<b>810.0</b>	<b>540.0</b>	<b>270.0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>					



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<b>II. Fundamental specialized knowledge :</b>														
<i>II.1 Required subjects</i>														
1	211107	Introduction of Biotechnology	2.0	30.0	30.0	0.0	0	0.0	0.0	1	2	202401		
2	211215	Molecular Genetics	3.0	60.0	30.0	30.0	0	0.0	0.0	1	2			
3	211506	Biological Laboratory Management	1.0	15.0	15.0	0.0	0	0.0	0.0	1	2			
4	212104	Environmental ecology	2.0	30.0	30.0	0.0	0	0.0	0.0	1	2	202401		
5	211134	Biodiversity and Conservation of Genetic Resources	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1	211215		
6	211138	Microbial Biology	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
7	211139	Experiment in Microbial Biology	1.0	30.0	0.0	30.0	0	0.0	0.0	2	1			211138
8	211106	Molecular Biology	4.0	75.0	45.0	30.0	0	0.0	0.0	2	2		211107	
9	211133	Ecological Technology	3.0	60.0	30.0	30.0	0	0.0	0.0	2	2			
10	211906	Research Methodology	3.0	60.0	30.0	30.0	0	0.0	0.0	2	2	202121		
11	211123	English for Biotechnology 1	1.0	15.0	15.0	0.0	0	0.0	0.0	3	1			
12	211124	English for Biotechnology 2	1.0	15.0	15.0	0.0	0	0.0	0.0	3	2			
13	211127	English for Environmental Biotechnology	2.0	30.0	30.0	0.0	0	0.0	0.0	4	1	211124		
14	211403	ISO quality management	1.0	15.0	15.0	0.0	0	0.0	0.0	4	1			
<b>Total</b>			<b>28.0</b>	<b>495.0</b>	<b>345.0</b>	<b>150.0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>					
<i>II.2 Elective subject - completed 0101/accumulated at least 2 credits : 3 credits</i>														
1	211321	Climate and Climate Change	1.0	15.0	15.0	0.0	0	0.0	0.0	2	1			
2	211324	Environmental Resources Management	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
3	211420	Clean Energy and Bioical Energy	2.0	30.0	30.0	0.0	0	0.0	0.0	2	1			
<b>Total</b>			<b>5.0</b>	<b>75.0</b>	<b>75.0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>					