



**BIOCHEMISTRY PROGRAM CURRICULUM**

(From 2015 Batch)

**Total: 148 credits**

**Level AE1**

No.	Course	Course code	Credits			Prerequisite
			Theory	Practice	Total	
<b>SEMESTER I</b>			<b>19</b>	<b>2</b>	<b>21</b>	
1	Calculus 1	MA001IU	4	0	4	
2	Biology	BT155IU	3	1	4	
3	Chemistry for Engineers	CH011IU	3	0	3	
	Chemistry Laboratory	CH012IU	0	1	1	
4	Academic English 1	EN007IU EN008IU	4	0	4	
5	Physics 1	PH013IU	2	0	2	
6	Physical Training 1	PT001IU	3	0	3	
<b>SEMESTER II</b>			<b>19</b>	<b>2</b>	<b>21</b>	
1	Academic English 2	EN011IU EN012IU	4	0	4	Academic English 1
2	Biostatistics	BT152IU	3	0	3	
3	Critical Thinking	PE008IU	3	0	3	
4	Inorganic Chemistry	BC101IU	3	1	4	Chemistry for Engineers
5	Physics 2	PH014IU	2	0	2	Physics 1
6	Introduction to Biochemistry	BC102IU	2	0	2	
7	Physical Training 2	PT002IU	3	0	3	
<b>SUMMER SEMESTER (1ST YEAR)</b>			<b>8</b>	<b>0</b>	<b>8</b>	
1	Principles of Marxism	PE011IU	5	0	5	
2	Environmental Science	PE014IU	3	0	3	
<b>SEMESTER III</b>			<b>17</b>	<b>0</b>	<b>17</b>	
1	Fundamentals of Analytical Chemistry	BC202IU	3	0	3	Chemistry for Engineers
2	General Biochemistry 1	BC203IU	3	0	3	Chemistry for Engineers
3	Human and Animal Physiology	BT163IU	3	0	3	
4	Ho Chi Minh's Thoughts	PE012IU	3	0	3	
5	Scientific Writing Workshop	BT200IU	2	0	2	
6	Organic Chemistry 1	BC201IU	3	0	3	Chemistry for Engineers
<b>SEMESTER IV</b>			<b>14</b>	<b>8</b>	<b>22</b>	
1	Organic Chemistry Lab	BC207IU	0	2	2	
2	General Biochemistry 2	BC205IU	3	2	5	General Biochemistry 1
3	Instrumental Analysis	BC204IU	3	1	4	

4	Organic Chemistry 2	BC206IU	3	2	5	Organic Chemistry 1
5	Microbiology	BT164IU	3	1	4	
6	Revolutionary Lines of Vietnamese Communist Party	PE013IU	2	0	2	
<b>SEMESTER V</b>			<b>15</b>	<b>3</b>	<b>18</b>	
1	Methods in Biochemistry 1	BC303IU	3	1	4	General Biochemistry 2
2	Bioinformatics	BT203IU	3	1	4	
3	Biophysical Chemistry	BC302IU	3	0	3	General Biochemistry 2
4	Biopharmaceutics	BC304IU	3	0	3	
5	Enzymology	BC301IU	3	1	4	General Biochemistry 2
<b>SEMESTER VI</b>			<b>15</b>	<b>3</b>	<b>18</b>	
1	Methods in Biochemistry 2	BC305IU	3	1	4	Methods in Biochemistry 1
2	Fermentation Technology	BC405IU	3	1	4	Enzymology
3	Cell culture Technology	BC307IU	3	1	4	
4	<i>6 credits for Free Electives courses</i>		6	0	6	
<b>SUMMER SEMESTER (3RD YEAR)</b>			<b>0</b>	<b>2</b>	<b>2</b>	
1	Internship	BC309IU	0	2	2	Accumulated at least 90 credits
<b>SEMESTER VII</b>			<b>12</b>	<b>4</b>	<b>16</b>	
1	Clinical Biochemistry	BC403IU	3	1	4	
2	<i>12 credits from Professional Elective courses</i>		9	3	12	
<b>SEMESTER VIII</b>			<b>0</b>	<b>12</b>	<b>12</b>	
1	Thesis	BT179IU	0	12		Min 114 credits accumulated
<b>TOTAL</b>			<b>148 credits</b>			

No	Course	Course code	Credits			Prerequisite
			Theory	Practice	Total	
<b>Elective course (min 6 credits)</b>						
1	Project Management	IS050IU	3	0	3	
2	Production and Operation management	BA164IU	3	0	3	
3	Logistics and Supply chain Management	IS029IU	3	0	3	
4	Principles of Marketing	BA003IU	3	0	3	
<b>Professional Elective courses (min 12 credits)</b>						
1	Drug Design and Simulation	BT209IU	3	1	4	
2	Nutritional Biochemistry	BC302IU	3	1	4	
3	Nutrition Therapy	BC402IU	3	1	4	
4	Molecular Diagnostics	BT184IU	3	1	4	
5	Clinical Nutrition	BC406IU	3	1	4	
6	Drug Synthesis	BC403IU	3	1	4	

