

PROGRAM FOR ENGINEER DEGREE IN BIOLOGICAL ENGINEERING

No	CODE	SUBJECTS	CREDITS
1.	MI1110	Analytics I	4(3-2-0-8)
2.	MI1120	Analytics II	3(2-2-0-6)
3.	MI1130	Analytics III	3(2-2-0-6)
4.	MI1140	Algebra	4(3-2-0-8)
5.	PH1110	Physics I	3(2-1-1-6)
6.	PH1120	Physics II	3(2-1-1-6)
7.	EM1010	General management	2(2-0-0-4)
8.	IT1110	General informatics	4(3-1-1-8)
9.	CH3223	Organic chemistry	3(2-1-1-6)
10.	CH3080	Physical chemistry	3(2-1-2-6)
11.	CH3306	Analytical chemistry	3(2-1-1-6)
12.	EE2012	Electrotechniques	2(2-1-0-4)
13.	ME2015	Descriptive geometry	3(3-1-0-6)
14.	BF2112	Introduction to biotechnology	2(2-0-1-4)
15.	CH3402	Mechanical process and equipments	3(2-1-1-6)
16.	CH3431	Mass and heat transfer process and equipments	4(3-1-1-8)
17.	BF3121	Process and equipments in biotechnology	2(2-0-0-4)
18.	BF3125	Techniques for mesuaring and Control of technological processes	2(2-0-1-4)
19.	BF3124	Quality product management in biotechnology	2(2-1-0-4)
20.	BF2110	Biochemistry	4 (4-0-0-8)
21.	BF2111	Expriments in biochemistry	2 (0-0-4-4)
22.	BF3111	Microbiology	3 (3-0-0-6)
23.	BF3112	Expriments in microbiology	2 (0-0-4-4)
24.	BF3113	Cell biology and immunology	4 (3-1-1-8)
25.	BF3114	Environmental ecology	3(3-0-0-6)
26.	BF3115	Genetics and molecular biology	3(2-2-0-6)
27.	BF3116	Genetic engineering	3 (2-0-2-6)
28.	BF3123	Bioinformatics	2(1-0-2-4)
29.	BF3117	Analytical methods in biotechnology	2 (2-0-1-4)
30.	CH3441	Project of processing and equipments	1 (0-2-0-2)
31.	BF3122	Project of specialization	2 (0-4-0-4)
32.	BF4181	Technical practice	2 CREDITS
33.		Selective subjects (14 / 25CRE)	

34.	BF4151	Biological techniques for Waste treatment	3(3-1-0-6)
35.	BF4161	Practical work in Biological techniques for Waste treatment	2(0-0-4-4)
36.	BF4152	Microbial technology	3(3-0-0-6)
37.	BF4162	Practical work in Microbial technology	2(0-0-4-4)
38.	BF4153	Animal cell technology	2(2-0-0-4)
39.	BF4163	Practical work in DNA recombinant technology	2(0-0-4-4)
40.	BF4154	Enzyme technology	3(3-0-0-6)
41.	BF4164	Practical work in Enzyme technology	2(0-0-4-4)
42.	BF4155	Techniques for producing Plant bioactive compounds	2(2-1-0-4)
43.	BF4165	Practical work in Techniques for producing Plant bioactive compounds	2(0-0-4-4)
44.		Selective 8 CREDITS from program offered in HUST	8 credits
45.	<i>BF5011</i>	<i>Process Optimization and production organization</i>	<i>2(2-1-0-4)</i>
46.	<i>BF5020</i>	<i>Building Project for enterprise</i>	<i>4(3-2-0-8)</i>
47.	<i>EM2104</i>	<i>Business Administration</i>	<i>2(2-1-0-4)</i>
48.	BF5920	<i>Graduation practicum and Graduation thesis (biotechnology)</i>	<i>12 credits</i>
49.		Selective subjects (14 / 25CRE)	14 credits
50.	BF5110	Toxicology	2(2-1-0-4)
51.	BF5111	Vaccine Technology	2(2-1-0-4)
52.	BF5112	Bio-treatment of Solid Waste	2(2-1-0-4)
53.	BF5113	Waste Water Bio-Treatment	3(3-1-0-6)
54.	BF5120	Technology of Biofertilizers	3(2-1-1-6)
55.	BF5130	Technology of products for Plant Protection	3(2-1-1-6)
56.	BF5140	Antibiotics technology	3(2-1-1-6)
57.	BF5151	Amino acid Technology	3(2-1-1-6)
58.	BF5160	Technology for Organic Acids and Solvents	3(2-2-0-6)
59.	BF5170	Plant tissue culture technology	3(2-1-1-6)
60.	BF5191	Automatic Control in biotechnology	2(2-1-0-4)
61.	BF4174	Fermented product technology	2(2-0-0-4)
62.	BF4175	Microbial biomass technology	2(2-0-0-4)
		TOTAL	160