	Code	Course Title	Credits
		SEMESTER 1	
1	CY101	Engineering Chemistry	4
2	MA103/	Mathematics /Life Science*	4
_	BT101	(*MA103 is for students having Biology in 10+2 and BT101 for students having Math in 10+2)	•
3	CS101	Fundamentals of Computer Programming	4
4	BT103	Introduction to Biotechnology	3
5	EN101	English Proficiency	2
6	SS101	Human Values and Buddhist Ethics	2
7	BT105	Laboratory I: Basic Biotechnology	2
8	CY103	Laboratory II: Chemistry	1
9	CS181	Laboratory III: Computer Programming	1
10		General Proficiency	0
		TOTAL	23
		SEMESTER 2	
1	PH101	Applied Physics	4
2	MA104	Mathematics II	4
3	BT102	Biomolecules	3
4	EN102	Professional Communication	2
5	ES101	Environmental Studies	3
6		Open Elective	_
		<ol> <li>BT104 Biotechnology and Human Welfare   2. Courses offered by other schools of studies</li> </ol>	2
7	PH104	Laboratory I: Physics	1
8	BT104	Laboratory II: Biomolecules	2
9		General Proficiency	0
		TOTAL	21
	DT004	SEMESTER 3	1 4
1	BT201	Cell Biology and Genetics	4
2	BT203	Fundamentals of Biochemistry	3
3	BT205	Fundamentals of Microbiology	3
4	BT207	Introductory Bioinformatics	3
5	MA203	Quantitative Technique in Biotechnology	4
6		Open Elective (Choose any <b>One</b> )	3
		1. BT209 Biodiversity, Bioprospecting & Organic farming   2. BT211 Ecology and Environment   3. Course offered by other school of studies	ر
7	BT213	Laboratory I: Cell Biology, Microbiology and Biochemistry	3
8	BT215	Laboratory II: Basic Bioinformatics	2
		General Proficiency	0
'		TOTAL	25

BT202	SEMESTER 4			
ST204	1	BT202		3
BT206   Bioanalytical Techniques   3   3   3   3   3   3   3   5   5   5			,	
BT208   Immunobiology   Generic Elective (Choose any One)   1. BT210 Bimolecular Fluid Mechanics & Biotrafficking   2. BT212 Cell   Physiology   P				
Semeric Elective (Choose any One)   1. BT210 Bimolecular Fluid Mechanics & Biotrafficking   2. BT212 Cell Physiology   Skill Enhancement Course (Choose any One Theory/Lab combination)   1. EE202 Measurement and Instrumentation   2. EE216 Measurement and Instrumentation Lab   3. BT214 Medical LabTechnology   4. BT216 Medical LabTechnology Lab   3. BT214 Medical LabTechnology   4. BT216 Medical LabTechnology Lab   2. BT318 Laboratory II: Skill Enhancement Course   1. BT301 Molecular Biology   2. BT303 Biophysical Chemistry   3. BT304 BT303 Biophysical Chemistry   3. BT305 Developmental Biotechnology   3. BT307 Food Biotechnology   3. BT307 Food Biotechnology   3. BT309 Environmental Biotechnology   3. BT310 Elective (Choose any One)   3. BT315 Laboratory II: Molecular Biology   2. BT315 Laboratory II: Pharma and Food Industry   2. BT317 Laboratory II: Provinomental Biotechnology   2. BT317 Laboratory II: Provinomental Biotechnology   2. BT317 Laboratory II: Provinomental Biotechnology   3. BT306 Vaccine Biotechnology   3. BT307 Food Biotechnology   3. BT308 Virology   3. BT309 Flant & Animal Biotechnology   3. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology   3. BT318 Laboratory I: Genomics and Proteomics   3. BT318 Laboratory I: Genomics and Proteomics			,	
1. BT210 Bimolecular Fluid Mechanics & Biotrafficking   2. BT212 Cell Physiology   Skill Enhancement Course (Choose any One Theory/Lab combination)   1. EE202 Measurement and Instrumentation   2. EE216 Measurement and Instrumentation Lab   3. BT214 Medical LabTechnology   4. BT216   Medical LabTechnology Lab   State   Medical LabTechnology Lab   State   Laboratory I: Bioenergetics   2   Laboratory II: Skill Enhancement Course   1   General Proficiency   0   TOTAL   21		D1200		J
Physiology				4
Skill Enhancement Course (Choose any One Theory/Lab combination)   1. EE202 Measurement and Instrumentation   2. EE216 Measurement   2. EE216 Measurement				'
1. EE202 Measurement and Instrumentation   2. EE216 Measurement and Instrumentation Lab   3. BT214 Medical LabTechnology   4. BT216 Medical LabTechnology Lab Medical LabTechnology Lab Laboratory II: Bioenergetics   2	6		,	
And Instrumentation Lab   3. BT214 Medical LabTechnology   4. BT216   Medical LabTechnology Lab			, , , , , , , , , , , , , , , , , , , ,	
Medical LabTechnology Lab			·	2
SEMESTER 5   1				
SEMESTER 5   TOTAL   21	7	BT218	Laboratory I: Bioenergetics	2
SEMESTER 5   SEMESTER 5   3   Significant   Significant	8		Laboratory II: Skill Enhancement Course	1
BT301	9		General Proficiency	0
1 BT301 Molecular Biology 2 BT303 Biophysical Chemistry 3 BT305 Developmental Biotechnology 3 BT307 Food Biotechnology 3 BT309 Environmental Biotechnology 3 Generic Elective (Choose any One) 4 BT319 Laboratory I: Bourdour Biotechnology 5 BT315 Laboratory II: Environmental Biotechnology 6 BT317 Laboratory II: Environmental Biotechnology 7 BT315 Laboratory II: Environmental Biotechnology 8 BT317 Laboratory II: Environmental Biotechnology 9 General Proficiency 0 DTOTAL 22  SEMESTER 6  1 BT302 Genomics and Proteomics 4 Plant & Animal Biotechnology 4 BT304 Plant & Animal Biotechnology 3 BT306 Vaccine Biotechnology 4 BT308 Virology 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT316 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT316 Training Seminar 7 Educational Tour 8 BT318 Laboratory I: Genomics and Proteomics			TOTAL	21
2       BT303       Biophysical Chemistry       3         3       BT305       Developmental Biotechnology       3         4       BT307       Food Biotechnology       3         5       BT309       Environmental Biotechnology       3         6        Generic Elective (Choose any One)       3         1       BT311 Developments in Therapeutics   2. BT313 Microbiology Quality Control in Pharma and Food Industry       2         7       BT315 Laboratory II: Molecular Biology       2         8       BT317 Laboratory II: Environmental Biotechnology       2         9        General Proficiency       0         SEMESTER 6         1       BT302 Genomics and Proteomics       4         2       BT304 Plant & Animal Biotechnology       4         3       BT306 Vaccine Biotechnology       3         4       BT308 Virology       3         5        Generic Elective (Choose any One)         1       BT316 Training Seminar       2         6       BT316 Training Seminar       2         6       BT318 Laboratory I: Genomics and Proteomics       3			SEMESTER 5	
BT305 Developmental Biotechnology BT307 Food Biotechnology ST309 Environmental Biotechnology Generic Elective (Choose any One)  1. BT311 Developments in Therapeutics   2. BT313 Microbiology Quality Control in Pharma and Food Industry  BT315 Laboratory I: Molecular Biology BT317 Laboratory II: Environmental Biotechnology General Proficiency  TOTAL  22  SEMESTER 6  BT302 Genomics and Proteomics BT304 Plant & Animal Biotechnology BT306 Vaccine Biotechnology ABT308 Virology ST308 Virology ST308 Virology ST309 Seneric Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT316 Training Seminar TH318 Laboratory I: Genomics and Proteomics	1	BT301	Molecular Biology	3
4 BT307 Food Biotechnology 5 BT309 Environmental Biotechnology 6 Generic Elective (Choose any One) 1. BT311 Developments in Therapeutics   2. BT313 Microbiology Quality Control in Pharma and Food Industry 7 BT315 Laboratory I: Molecular Biology 2 BT317 Laboratory II: Environmental Biotechnology 9 General Proficiency  TOTAL 22  SEMESTER 6  1 BT302 Genomics and Proteomics 4 Plant & Animal Biotechnology 4 BT304 Plant & Animal Biotechnology 5 Plant & Animal Biotechnology 7 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 7 Educational Tour 8 BT318 Laboratory I: Genomics and Proteomics	2	BT303	Biophysical Chemistry	3
4 BT307 Food Biotechnology 5 BT309 Environmental Biotechnology 6 Generic Elective (Choose any One) 1. BT311 Developments in Therapeutics   2. BT313 Microbiology Quality Control in Pharma and Food Industry 7 BT315 Laboratory I: Molecular Biology 2 BT317 Laboratory II: Environmental Biotechnology 9 General Proficiency  TOTAL 22  SEMESTER 6  1 BT302 Genomics and Proteomics 4 Plant & Animal Biotechnology 4 BT304 Plant & Animal Biotechnology 5 Plant & Animal Biotechnology 7 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 7 Educational Tour 8 BT318 Laboratory I: Genomics and Proteomics	3	BT305	Developmental Biotechnology	3
5 BT309 Environmental Biotechnology 6 Generic Elective (Choose any One) 1. BT311 Developments in Therapeutics   2. BT313 Microbiology Quality Control in Pharma and Food Industry 7 BT315 Laboratory I: Molecular Biology 2 Laboratory II: Environmental Biotechnology 9 General Proficiency	4	BT307	Food Biotechnology	3
1. BT311 Developments in Therapeutics   2. BT313 Microbiology Quality Control in Pharma and Food Industry  7 BT315 Laboratory I: Molecular Biology 2 8 BT317 Laboratory II: Environmental Biotechnology 9 General Proficiency  TOTAL 22  SEMESTER 6  1 BT302 Genomics and Proteomics 4 Plant & Animal Biotechnology 4 BT304 Plant & Animal Biotechnology 4 BT306 Vaccine Biotechnology 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical BT316 Training Seminar 7 Educational Tour 8 BT318 Laboratory I: Genomics and Proteomics 3	5	BT309	Environmental Biotechnology	3
Control in Pharma and Food Industry  BT315 Laboratory I: Molecular Biology 2  BT317 Laboratory II: Environmental Biotechnology 2  General Proficiency 0  TOTAL 22  SEMESTER 6  BT302 Genomics and Proteomics 4  BT304 Plant & Animal Biotechnology 4  BT306 Vaccine Biotechnology 4  BT308 Virology 3  Generic Elective (Choose any One)  1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology  BT316 Training Seminar 2  Teducational Tour 0  BT318 Laboratory I: Genomics and Proteomics 3	6			3
7BT315Laboratory I: Molecular Biology28BT317Laboratory II: Environmental Biotechnology29General Proficiency0  SEMESTER 61BT302Genomics and Proteomics42BT304Plant & Animal Biotechnology43BT306Vaccine Biotechnology34BT308Virology35Generic Elective (Choose any One)1BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology36BT316Training Seminar27Educational Tour08BT318Laboratory I: Genomics and Proteomics3			1. BT311 Developments in Therapeutics   2. BT313 Microbiology Quality	
BT317 Laboratory II: Environmental Biotechnology 9 General Proficiency  SEMESTER 6  1 BT302 Genomics and Proteomics 2 BT304 Plant & Animal Biotechnology 4 BT306 Vaccine Biotechnology 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT316 Training Seminar 7 Educational Tour 8 BT318 Laboratory II: Environmental Biotechnology 2 Constant Seminar   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology   3. BT314 Biofuel and Alcohol Technology   3. BT318 Laboratory II: Genomics and Proteomics   3. BT318 Laboratory II: Genomics and Proteomics   3. BT318 Laboratory IIII Genomics   3. BT318 Laboratory III Geno			Control in Pharma and Food Industry	
9 General Proficiency  SEMESTER 6  1 BT302 Genomics and Proteomics 4 2 BT304 Plant & Animal Biotechnology 4 3 BT306 Vaccine Biotechnology 3 4 BT308 Virology 3 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 2 7 Educational Tour 0 8 BT318 Laboratory I: Genomics and Proteomics 3	7	BT315	Laboratory I: Molecular Biology	2
SEMESTER 6  SEMESTER 6  Genomics and Proteomics 4 Plant & Animal Biotechnology 4 BT304 Plant & Animal Biotechnology 3 BT306 Vaccine Biotechnology 3 BT308 Virology 3  Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology  BT316 Training Seminar 2  Educational Tour 0 BT318 Laboratory I: Genomics and Proteomics 3	8	BT317	Laboratory II: Environmental Biotechnology	2
SEMESTER 6  1 BT302 Genomics and Proteomics 4 2 BT304 Plant & Animal Biotechnology 4 3 BT306 Vaccine Biotechnology 3 4 BT308 Virology 3 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 2 7 Educational Tour 0 8 BT318 Laboratory I: Genomics and Proteomics 3	9		General Proficiency	0
1 BT302 Genomics and Proteomics 4 2 BT304 Plant & Animal Biotechnology 4 3 BT306 Vaccine Biotechnology 3 4 BT308 Virology 3 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 2 7 Educational Tour 0 8 BT318 Laboratory I: Genomics and Proteomics 3			TOTAL	22
BT304 Plant & Animal Biotechnology  BT306 Vaccine Biotechnology  4 BT308 Virology  5 Generic Elective (Choose any One)  1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology  6 BT316 Training Seminar  7 Educational Tour  8 BT318 Laboratory I: Genomics and Proteomics  3 4  4 3 4  4 4 3 4  4 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7				
BT306 Vaccine Biotechnology 3 4 BT308 Virology 3 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 2 7 Educational Tour 0 8 BT318 Laboratory I: Genomics and Proteomics 3	1	BT302	Genomics and Proteomics	4
4 BT308 Virology 5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology 6 BT316 Training Seminar 7 Educational Tour 8 BT318 Laboratory I: Genomics and Proteomics 3 2 3 3 4 5 6 6 7 7 8 8 8 8 7 8 7 8 8 8 8 7 8 7 8 8 8 8 7 8		BT304	Plant & Animal Biotechnology	
5 Generic Elective (Choose any One) 1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology  6 BT316 Training Seminar 2 7 Educational Tour 8 BT318 Laboratory I: Genomics and Proteomics 3		BT306	Vaccine Biotechnology	
1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical Biotechnology   3. BT314 Biofuel and Alcohol Technology  Training Seminar  Educational Tour  BT318 Laboratory I: Genomics and Proteomics	4	BT308	Virology	3
Biotechnology   3. BT314 Biofuel and Alcohol Technology  Training Seminar  Educational Tour  BT318 Laboratory I: Genomics and Proteomics  BT318 Laboratory I: Genomics and Proteomics	5		Generic Elective ( <u>Choose any <b>One</b></u> )	
6 BT316 Training Seminar 2 7 Educational Tour 0 8 BT318 Laboratory I: Genomics and Proteomics 3			1. BT310 Material Science & Biomaterials   2. BT312 Pharmaceutical	3
7 Educational Tour 0 8 BT318 Laboratory I: Genomics and Proteomics 3				
8 BT318 Laboratory I: Genomics and Proteomics 3		BT316		
·				
9 BT320 Laboratory II: Plant & Animal Biotechnology 3				
		BT320		
10 General Proficiency 0	10		<u> </u>	
TOTAL 25			TOTAL	25

SEMESTER 7				
1	BT507	Microbiology	3	
2	BT509	Plant and Animal Cell Culture Technology	2	
3	BT517	Principles of Bioreaction Engineering	3	
4	MA415	Biostatistics	3	
5		Discipline Specific Elective 1	3	
		(Students opting MBA will choose a course offered by the School of Management)  1. BT519 Nanobiotechnology   2. BT521 Molecular Medicine   3. Course offered by the School of Management	3	
6		Discipline Specific Elective 2 (Students opting MBA will choose a course offered by the School of Management)  1. BT523 Molecular Modeling & Drug Design   2. BT525 Molecular Toxicology   3. Course offered by the School of Management	3	
7	BT527	Laboratory I: Cell Culture Technology	4	
8	BT529	Laboratory II: Microbiology & Bioprocessing Technology	4	
9		General Proficiency	0	
		TOTAL	25	
		SEMESTER 8		
1	BT502	Genetic Engineering	3	
2	BT504	Immunology	3	
3	BT506	Bioprocess Engineering and Technology		
4	BT508	Downstream Processing in Biotechnology	3	
5	BT510	Bioreactor Operations	3	
6	BT512	Computational Biology	3	
7	BT514	Laboratory I: Molecular Biology & Genetic Engineering	4	
8	BT516	Laboratory II: Immunology	3	
9		General Proficiency	0	
		TOTAL	25	
	l	SEMESTER 9	_	
1	BT601	Bioprocess Equipment Design and Economics	3	
2	BT603	Bioenterpreneurship	3	
3	BT605	Instrumentation and Control	2	
4	BT607	Research Methodology and Scientific Communication Skills	2	
5	BT609	Intellectual Property Rights, Biosafty and Bioethics	2	
6	BT611	Project Proposal Preparation and Presentation	2	
7	BT613	Laboratory I: Downstream Processing in Biotechnology	2	
8	BT615	Dissertation I	6	
9		Discipline Specific Elective ( <u>Choose any <b>One</b></u> )	2	
		1. BT617 Metabolic and Systems Biology   2. BT619 Medical Devices and Automation   3. BT621 Pharmacogenomics   4. BT623 OMICS Technologies   5. BT625 Protein Engineering   6. BT627 Systems & Synthetic Biology   7. BT629 Product Development & Drug Delivery		
10		General Proficiency	0	
10		TOTAL	24	
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SEMESTER 10					
1	BT602	Dissertation II	22		
2		General Proficiency	0		
		TOTAL	22		

**Total Credits= 233**