

CERTIFICATE IN BIOTECHNOLOGY

Year: First / Semester: Second (Even Semester)

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes								United Nations Sustainable Development Goals (SDGs)	
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics			
1	B100201T/BS115	Human Physiology	Theory	Core	3	1	0	15	10	25	75	100	04	✓		✓							
2	B100203T/BS110	Plant structure and Physiology	Theory		3	1	0	15	10	25	75	100	04	✓					✓				
3	B100202P/BS152	Human Physiology Lab	Practical		0	0	4	15	10	25	75	100	02	✓		✓							
4	B100204P/BS119	Plant structure and Physiology lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓		✓					
5	B030202T/MT148	Basic Mathematics and Statistics	Theory	Minor Elective	5	1	0	15	10	25	75	100	06	✓	✓	✓							
6	LN110/A040203T	Aspects & Approaches to Communication	Theory		4	2								✓		✓							
7	B100205V/BS381	Food Adulteration	Theory + Practical	Vocational	2	0	1	-	-	-	100	100	03	✓	✓	✓			✓	✓			
8	Z020201T/NS110	First Aid and Health	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓			✓	✓			
9	B100208T/BS116	Artificial Intelligence in Biological Sciences	Theory	Compulsory	0	0	0	0	0	0	0	0	00	✓	✓	✓			✓	✓			
TOTAL					15	3	9	90	60	150	550	700	23										



Integral University, Lucknow
Department of Biosciences

Evaluation Scheme of Under Graduate & Post Graduate Program as per NEP-2020 Guidelines



Integral University, Lucknow

DIPLOMA IN BIOTECHNOLOGY

Year: Second / Semester: Third (Odd Semester)

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes							United Nations Sustainable Development Goals (SDGs)	
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics		
1	B100301T/BS207	Molecular Biology	Theory	Core	3	1	0	15	10	25	75	100	04	✓		✓					3 GOOD HEALTH AND WELL-BEING	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
2	B100303T/BS208	Basics of Microbiology	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓					3 GOOD HEALTH AND WELL-BEING	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
3	B100302P/ BS209	Molecular Biology Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓					3 GOOD HEALTH AND WELL-BEING	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
4	B100304P/BS210	Microbiology Lab	Practical		0	0	4	15	10	25	75	100	02	✓		✓		✓		✓	3 GOOD HEALTH AND WELL-BEING	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
5	B020305T/CH245	Concepts of Advanced Chemistry-I	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓		✓		✓	3 GOOD HEALTH AND WELL-BEING	
6	B020306P/CH246	Concepts of Advanced Chemistry-I Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓		✓		✓	3 GOOD HEALTH AND WELL-BEING	
7	B100303V/BS247	Molecular diagnostics	Theory	Vocational	3	0	0	-	-	-	100	100	03	✓	✓	✓					3 GOOD HEALTH AND WELL-BEING	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
8	Z030301T/ES225	Human Values and Environment studies	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02				✓	✓	✓	✓	3 GOOD HEALTH AND WELL-BEING	10 REDUCED INEQUALITIES
TOTAL					14	3	12	105	70	175	625	800	23									



Integral University, Lucknow
Department of Biosciences

Evaluation Scheme of Under Graduate & Post Graduate Program as per NEP-2020 Guidelines

DIPLOMA IN BIOTECHNOLOGY

Year: Second / Semester: Fourth (Even Semester)

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes							United Nations Sustainable Development Goals (SDGs)
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
1	B100401T/BS218	Industrial Biotech and Bioprocess Technology	Theory	Core	3	1	0	15	10	25	75	100	04	✓	✓	✓		✓		✓	
2	B100403T/BS256	Infection and immunity	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓					
3	B100402P/BS219	Industrial Biotechnology Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓		✓		✓	
4	B100404P/BS258	Immunological Techniques Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓					
5	B020405T/CH247	Concepts of Advanced Chemistry-II	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓		✓		✓	
6	B020406P/CH248	Concepts of Advanced Chemistry-II Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓	
	B030402T/MT237	Numerical analysis and testing of hypothesis	Theory	Minor	3	1	0	15	10	25	75	100	04	✓	✓	✓					
7	F010404TA/BM292	Entrepreneurship Development												✓	✓	✓			✓	✓	
8	B110405V/BS259	Molecular medicine	Theory	Vocational	3	0	0	-	-	-	100	100	03	✓	✓	✓		✓		✓	
9	Z040401T/PH201	Physical Education and Yoga	Theory	Co-curricular Compulsory	2	0	0	15	10	25	75	100	02	✓	✓	✓		✓	✓	✓	

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Year: Third / Semester: Fifth (Odd Semester)

**Integral University, Lucknow
Department of Biosciences
Graduate & Post Graduate Program
w.e.f. Session 2022-23**

S. N. Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes						United Nations Sustainable Development Goals (SDGs)
				Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Employability				Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
1	B100501T /BS309	Theory	Major Course	3	1	0	15	10	25	75	100	04	✓	✓					
2	B100503 T /BS319	Theory		3	1	0	15	10	25	75	100	04	✓	✓			✓		
3	B100502 P /BS390	Practical		0	0	4	15	10	25	75	100	02	✓	✓					
4	B100504P /BS320	Practical		0	0	4	15	10	25	75	100	02	✓	✓			✓		
5	B100505 T/BS300	Theory		3	1	0	15	10	25	75	100	04	✓	✓			✓		
6	B100506T /BS391	Theory	Co-curricular (Compulsory)	3	1	0	15	10	25	75	100	04	✓	✓			✓		
7	Z050501/ MT337	Theory		2	0	0	15	10	25	75	100	02	✓	✓			✓		
8	B100507R /BS392	Practical		0	0	8	0	0	0	0	100	04	✓	✓			✓		
TOTAL				14	4	16	105	70	175	625	800	26							



B.S.C. BIOTECHNOLOGY (HONS)

Year: Third / Semester: Sixth

Semester (Even Semester)

S. N.	Course Code	Course Title	Theory / Practical	Course Type	Periods/ Per week			Continuous Assessment			End Semester Examination (ESE)	Subject Total	Total Credit Points	Attributes					United Nations Sustainable Development Goals (SDGs)
					Lecture (L)	Tutorial (T)	Practical (P)	Class Test (CT)	Teacher Assessment (TA)	Total				Employability	Entrepreneurship	Skill Development	Environmental Sustainability	Human Values	
1	B100601T/BS317	Essentials of Environmental Biotechnology	Theory	Core Major (Compulsory)	3	1	0	15	10	25	75	100	04	✓	✓	✓	✓	8 Quality Education, 9 Industry, Innovation and Infrastructure	9 Industry, Innovation and Infrastructure
2	B100603T/BS318	Food microbiology and Biotechnology	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓	✓	3 Quality Education, 9 Industry, Innovation and Infrastructure	3 Quality Education, 9 Industry, Innovation and Infrastructure
3	B100607T/BS313	Bionanotechnology	Theory		3	1	0	15	10	25	75	100	04	✓	✓	✓	✓	3 Quality Education, 9 Industry, Innovation and Infrastructure	3 Quality Education, 9 Industry, Innovation and Infrastructure
4	B100602P/BS393	Fundamentals of Environmental Biotechnology Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓	✓	12 Responsible Consumption and Production, 3 Quality Education	3 Quality Education, 9 Industry, Innovation and Infrastructure
5	B100604P/BS310	Food microbiology and Biotechnology Lab	Practical		0	0	4	15	10	25	75	100	02	✓	✓	✓	✓	9 Industry, Innovation and Infrastructure, 3 Quality Education	3 Quality Education, 9 Industry, Innovation and Infrastructure
6	B100605T/BS394	Applied Biotechnology	Theory	Major Elective	3	1	0	15	10	25	75	100	04	✓	✓	✓	✓	3 Quality Education, 9 Industry, Innovation and Infrastructure	3 Quality Education, 9 Industry, Innovation and Infrastructure
7	B100606T/BS395	Genomics, Proteomics and Metabolomics			3	1	0	15	10	25	75	100	04	✓	✓	✓	✓	3 Quality Education, 9 Industry, Innovation and Infrastructure	3 Quality Education, 9 Industry, Innovation and Infrastructure
8	Z060601/LN343	Communication Skills and Personality Development	Theory	Co-curricular (Compulsory)	2	0	0	15	10	25	75	100	02	✓	✓	✓	✓	4 Quality Education, 8 Decent Work and Economic Growth, 10 Reduced Inequalities	4 Quality Education, 8 Decent Work and Economic Growth, 10 Reduced Inequalities
9	B100508R/BS396	Research Project (minor) and seminar (4+2 Credit)	Practical	Core Major	0	0	12	0	0	0	100	100	06	✓	✓	✓	✓	12 Responsible Consumption and Production, 9 Industry, Innovation and Infrastructure	9 Industry, Innovation and Infrastructure
TOTAL					14	4	20	105	70	175	625	800	28						