Integral University, Lucknow
Department of Biosciences
Study and Evaluation Scheme

Program: B.Sc.-ZBC

Semester V B.Sc. (Botany, zoology)

(w.e.f. 2024-25)

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Max. Marks	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	BS321	Plant Anatomy and Embryology	Core	3	1	0	40	20	60	40	100	3:1:0	4								
2	BS366	Plant Ecology, Phytogeography and Economic Botany	Core	2	0	0	40	20	60	40	100	2:0:0	2			√		√			
3	BS302	Plant Biotechnology	Core	3	1	0	40	20	60	40	100	3:1:0	4								
4	BS361	Applied and Economic Zoology	Core	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√		√			
5	BS362	Ecology and Animal Behaviour	Core	3	1	0	40	20	60	40	100	3:1:0	4					√			
6	BS363	Fundamentals of Biomolecules	Core	2	0	0	40	20	60	40	100	2:0:0	2								
PRACTICAL																					
7	BS364	Applied Zoology Lab	Practical	0	0	4	40	20	60	40	100	0:0:2	2	√	√	√		√			
8	BS365	Applied Botany lab	Practical	0	0	4	40	20	60	40	100	0:0:2	2	√	√	√		√			
Total				**16**	**04**	**08**	**320**	**160**	**480**	**320**	**800**	**24**	**24**								

Semester VI B.Sc. (Botany, Zoology)

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Max. Marks	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	BS371	Immunology and Toxicology	Core	3	1	0	40	20	60	40	100	3:1:0	4	√		√		√			
2	BS376	Horticulture Practices	Elective	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√		√			
3	BS373	Soil Science and Plant Pathology										3:1:0	4	√		√		√			
4	BS372	Biology of Insecta and Pest Management	Elective	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					
5	BS374	Biological Techniques and Biostatistics											4	√	√	√					
6	BS331	Computational Sciences and Bioinformatics	Core	3	0	0	40	20	60	40	100	0:0:3	3	√	√	√					
7	BS212	Molecular Biology	Core	3	0	0	40	20	60	40	100	0:0:2	2	√	√	√					
8.	BS375	Botany/Zoology Project	Core	0	0	8	00	00	00	200	200	0:0:4	4	✓	✓	✓			√	√	
			Total	**15**	**05**	**08**	**200**	**100**	**300**	**400**	**700**	**24**	**24**								

Semester V B.Sc. (Botany, chemistry)

. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Max. Marks	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	BS321	Plant Anatomy and Embryology	Core	3	1	0	40	20	60	40	100	3:1:0	4								
2	BS366	Plant Ecology, Phytogeography and Economic Botany	Core	2	0	0	40	20	60	40	100	2:0:0	2					√			
3	BS302	Plant Biotechnology	Core	3	1	0	40	20	60	40	100	3:1:0	4								
4	CH314	Advance Inorganic Chemistry	Core	3	1	0	40	20	60	40	100	2:1:0	3	√							
5	CH315	Advance Organic Chemistry	Core	2	1	0	40	20	60	40	100	2:1:0	3	√	√						
6	CH319	Basics of Chromatographic Techniques	Core	3	1	0	40	20	60	40	100	3:1:0	4								
PRACTICAL																					
7	CH316	Chemistry practical-V	Practical	0	0	4	40	20	60	40	100	0:0:3	2	√	√	√		√			
8	BS365	Applied Botany Lab	Practical	0	0	4	40	20	60	40	100	0:0:2	2			√		√			
			Total	**14**	**05**	**10**	**320**	**160**	**480**	**320**	**800**	**24**	**24**								

Semester VI B.Sc. (Botany, chemistry)

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Max. Marks	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	CH308	Spectroscopic Techniques	Core	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					
2	CH309	Chemical Process Industry	Elective	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√				√	
3	CH317	Chemistry of Polymers		3	1	0	40	20	60	40				√	√	√				√	
4	BS376	Horticulture Practices	Elective	3	1	0	40	20	60	40	100	3:1:0	4								
5	BS373	Soil Science and Plant Pathology		3	1	0	40	20	60	40								√			
6	BS331	Computational Sciences and Bioinformatics	Core	3	1	0	40	20	60	40	100	3:1:0	4	√		√					
7	BS212	Molecular Biology	Core	3	0	0	40	20	60	40	100	3:1:0	4								
8	CH318	Chemistry Project	Core	0	0	8	00	00	00	200	200	0:0:4	4	✓	✓	✓					
	BS375	Botany/Zoology Project	Core	0	0	8	00	00	00	200	200	0:0:4	4	✓	✓	✓					
			Total	**15**	**05**	**08**	**200**	**100**	**300**	**400**	**700**	**24**	**24**								

Semester V B.Sc. (Zoology, chemistry)

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Max. Marks	Credit	Total Credits	Attributes							nited Nations Sustainable Developmen Goals (SDGs
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	BS361	Applied and Economic Zoology	Core	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√		√			
2	BS362	Ecology and Animal Behaviour	Core	2	1	0	40	20	60	40	100	2:1:0	4					√			
3	BS363	Fundamentals of Biomolecules	Core	2	1	0	40	20	60	40	100	2:1:0	2								
4	CH314	Advance Inorganic Chemistry	Core	3	1	0	40	20	60	40	100	3:1:0	4	√							
5	CH315	Advance Organic Chemistry	Core	2	1	0	40	20	60	40	100	2:1:0	3	√	√						
6	CH319	Basics of Chromatographic Techniques	Core	2	1	0	40	20	60	40	100	2:1:0	3	√	√	√		√			
Practicals																					
7	CH316	Chemistry practical-V	Practical	0	0	6	40	20	60	40	100	0:0:2	2								
8	BS364	Applied Zoology Lab	Practical	0	0	4	40	20	60	40	100	0:0:2	2	√	√	√		√			
			Total	**14**	**05**	**10**	**320**	**160**	**480**	**320**	**800**	**24**	**24**								

Semester VI B.Sc. (Zoology, chemistry)

S. No.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Max. Marks	Credit	Total Credits	Attributes							United Nations Sustainable Development Goals (SDGs)
				L	T	P	CT	TA	Total	ESE				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES																					
1	BS371	Immunology and Toxicology	Core	3	1	0	40	20	60	40	100	3:1:0	4	√		√		√			
2	CH308	Spectroscopic Techniques	Core	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					
3	CH309	Chemical Process Industry	Elective	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√				√	
4	CH317	Chemistry of Polymers						20	60	40				√	√	√				√	
5	BS372	Biology of Insecta and Pest management	Elective	3	1	0	40	20	60	40	100	3:1:0	4								
6	BS374	Biological Techniques and Biostatistics						20	60	40				√	√	√					
7	BS212	Molecular Biology	Core	3	1	0	40	20	60	40	100	3:1:0	4	√	√	√					
8	CH318	Chemistry Project	Core	0	0	8	00	00	00	200	200	0:0:4	4	✓	✓	✓					
	BS375	Botany/Zoology Project	Core	0	0	8	00	00	00	200	200	0:0:4	4	✓	✓	✓					
			Total	**15**	**05**	**08**	**200**	**100**	**300**	**400**	**700**	**24**	**24**								