



JOY UNIVERSITY
semper paratus

School of Arts and Natural Sciences

Department of Sciences

B.Sc, Biology– I Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BIO101	Chemistry	1	0	1	5	3
2.	BIO102	Zoology I	2	1	1	5	4
3.	BIO103	Botany I	2	1	0	5	4
4.	BIO104	English communication	1	1	0	5	2
5.	*OE1####	Open Elective 1	2	0	0	5	3
6.	BIO1	Chemistry Lab	0	0	1	3	2
7.	BIO2	Zoology Lab I	0	1	1	3	2
8.	BIO3	Botany Lab I	0	1	1	3	2
		TOTAL	8	5	5	34	22

* Open Elective course (3 credits) can be selected from any department

B.Sc, Biology– II Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BIO201	Elementary Statistics	1	0	1	5	3
2.	BIO202	Zoology II	2	1	1	5	4
3.	BIO203	Botany II	2	1	1	5	4
4.	BIO204	Biophysics	1	1	0	5	4
5.	OE2####	Open Elective 2	1	1	0	5	3
6.	BIO206	Environmental Science	1	0	0	3	2
7.	BIO3	Zoology Lab II	0	1	1	3	1
8.	BIO4	Botany Lab II	0	1	1	3	1
		TOTAL	8	6	5	34	22

B.Sc, Biology– III Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BIO301	Biodiversity	1	1	1	5	4
2.	BIO302	Proteins and Enzymes	1	1	1	5	4
3.	BIO303	Cell Biology	1	1	0	5	4
4.	BIO304	Ecology	1	1	0	5	3
5.	BIO305	Immunology	1	1	0	5	3
6.	OE3####	Open Elective 3	1	1	0	3	3
7.	BIO5	Proteins and Enzymes Lab	0	0	1	3	1
8.	BIO6	Immunology Lab I	0	0	1	3	1
		TOTAL	6	6	4	34	22

B.Sc, Biology– IV Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BIO401	Microbiology	1	1	1	5	4
2.	BIO402	Molecular Biology	1	1	1	5	4
3.	BIO403	Metabolism and integration	1	1	0	5	3
4.	BIO404	Growth and reproduction	1	1	0	5	3
5.	BIO###	DSE1	2	1	0	5	4
6.	BIO###	SE1	1	1	0	4	4
7.	BIO7	Microbiology lab	0	0	1	3	1
8.	BIO8	Molecular biology lab	0	0	1	3	1
		TOTAL	7	6	4	35	24

List of Discipline Specific Elective (DSE) for the Semester

DSE-1: Analytical Techniques in Plant Sciences

DSE-2: Animal Behavior and Chronobiology

DSE-3: Natural Resource management

DSE-4: Wild Life Conservation

Skill Enhancement Elective Courses

SE-1: Medicinal Botany

SE-2: Public Health and Management

SE-3: Medical Diagnostics

B.Sc, Biology– V Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BIO501	Genetics	1	2	1	5	4
2.	BIO502	Evolutionary biology	1	1	0	5	3
3.	BIO503	Bioinformatics	1	1	1	5	3
4.	BIO504	Systems Physiology and anatomy	1	1	0	5	3
5.	BIO###	DSE2	1	1	0	5	4
6.	BIO###	SE2	1	1	0	4	3
7.	BIO9	Genetics lab	0	1	1	3	1
8.	BIO10	Bioinformatics lab	0	1	1	3	1
		TOTAL	6	9	4	35	22

List of Discipline Specific Elective (DSE) for the Semester

DSE-1: Stress Biology

DSE-2: Endocrinology

DSE-3: Biomaterials

DSE-4: Microbiology

DSE- 5: Plant Biochemistry

Skill Enhancement Elective Courses

SE-1: Biofertilizers

SE-2: Biochemical Techniques

SE-3: Recombinant DNA Technology

B.Sc, Biology– VI Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BIO601	Plant Biotechnology	1	2	1	5	4
2.	BIO602	Animal Biotechnology	1	2	1	5	4
3.	BIO603	IPR, BIOETHICS AND BIOSAFETY	1	1	0	5	3
6.	BIO11	Project and Seminar	0	0	6	6	6
		TOTAL	3	5	8	21	17

Semester-wise Credit Load

S. no	Semester	L	T	P	Credits
1	I	8	5	5	22
2	II	8	6	5	22
3	III	6	6	4	22
4	IV	7	6	4	24
5	V	6	9	4	22
6	VI	3	5	8	17
	Total	38	37	30	129