

PDM UNIVERSITY
FACULTY OF HUMANITIES AND SOCIAL SCIENCES
COURSE: B.Sc. Botany, Zoology and Chemistry (BZC)
Scheme of course as per choice based credit system

Semester I					
Course Type	Course Name	L	T	P	C
AEC-I	ENGLISH COMMUNICATION	2	0	0	2
CORE-I	BIODIVERSITY	4	0	4	6
CORE-II	ANIMAL DIVERSITY	4	0	4	6
CORE-III	CONCEPTUAL ORGANIC CHEMISTRY	4	0	4	6
	<i>Foreign Language-I</i>	2	0	0	2
	Total	16	0	12	22

Semester II					
Course Type	Course Name	L	T	P	C
AEC-II	ENVIRONMENTAL SCIENCE	2	0	0	2
CORE-IV	PLANT ECOLOGY AND TAXONPMY	4	0	4	6
CORE-V	COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY OF VERTIBRATES	4	0	4	6
CORE-VI	MOLECULES OF LIFE	4	0	4	6
	<i>Foreign Language-II</i>	2	0	0	2
	Total	16	0	12	22

Semester III					
Course Type	Course Name	L	T	P	C
CORE-VII	PLANT ANATOMY AND EMBRYOLOGY	4	0	4	6
CORE-VIII	PHYSIOLOGY AND BIOCHEMISTRY	4	0	4	6
CORE-IX	CHEMICAL BONDING	4	0	4	6
SEC-I	SKILL ENHANCEMENT COURSE-I (....)	2	0	0	2
	Minor Group Project*	1	0	4	3
	Total	15	0	16	23

Semester IV					
Course Type	Course Name	L	T	P	C
CORE-X	PLANT PHYSIOLOGY AND METABOLISM	4	0	4	6
CORE-XI	GENETICS AND EVOLUTIONARY BIOLOGY	4	0	4	6
CORE-XII	PHYSICAL CHEMISTRY FOR BIOSCIENCES	4	0	4	6
SEC-II	SKILL ENHANCEMENT COURSE-II (...)	2	0	0	2
	Minor Individual Project*	1	0	4	3
	Total	15	0	16	23

** partial guidance will be provided*

Semester V					
Course Type	Course Name	L	T	P	C
SEC-III	SKILL ENHANCEMENT COURSE-III (...)	2	0	0	2
DSE-I	DISCIPLINE SPECIFIC ELECTIVE-I (BOTANY-I)	4	0	4	6
DSE-II	DISCIPLINE SPECIFIC ELECTIVE-II (ZOOLOGY-I)	4	0	4	6
DSE-III	DISCIPLINE SPECIFIC ELECTIVE-III (CHEMISTRY-I)	4	0	4	6
	<i>Major Group Project*</i>	2	0	4	4
	Total	16	0	16	24

Semester VI					
Course Type	Course Name	L	T	P	C
SEC-IV	SKILL ENHANCEMENT COURSE-IV (...)	2	0	0	2
DSE-IV	DISCIPLINE SPECIFIC ELECTIVE-IV (BOTANY-II)	4	0	4	6
DSE-V	DISCIPLINE SPECIFIC ELECTIVE-V (ZOOLOGY-II)	4	0	4	6
DSE-VI	DISCIPLINE SPECIFIC ELECTIVE-VI (CHEMISTRY-II)	4	0	4	6
	Major Individual Project*	2	0	4	4
	Total	16	0	16	24

Total Credits	138
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** partial guidance will be provided*

Structure of B.Sc. Life Sciences under CBCS

	CORE COURSE(12)	Ability Enhancement Compulsory Courses (2)	Skill Enhancement Courses (SEC) (2)	Discipline Specific Elective DSE (4)
I	CC-Botany I	English communication		
	CC-Zoology I			
	CC-Chemistry I			
II	CC-Botany II	Environmental Science		
	CC-Zoology II			
	CC-Chemistry II			
III	CC-Botany III		SEC-I	
	CC-Zoology III			
	CC-Chemistry III			
IV	CC-Botany IV		SEC-II	
	CC-Zoology IV			
	CC-Chemistry IV			
V			SEC-III	DSE-Botany I
				DSE- Zoology I
				DSE-3 Chemistry I
VI			SEC-IV	DSE-Botany II
				DSE- Zoology II
				DSE-3 Chemistry II

Details of Courses

Core Courses –Botany

1. Biodiversity (Microbes, Algae, Fungi and Archegoniate)
2. Plant Ecology and Taxonomy
3. Plant Anatomy and Embryology
4. Plant Physiology and Metabolism

Discipline Specific Electives-Botany (Any two)

1. Cell and Molecular Biology
2. Economic Botany and Biotechnology
3. Analytical Techniques in Plant Sciences
4. Bioinformatics
5. Research Methodology

Core Courses: Zoology

- 1.
2. Animal Diversity
3. Comparative Anatomy and Developmental Biology of Vertebrates
4. Physiology and Biochemistry
5. Genetics and Evolutionary Biology

Discipline Specific Electives: Zoology (Any two)

1. Applied Zoology
2. Animal Biotechnology
3. Aquatic Biology
4. Immunology
5. Reproductive Biology
6. Insect, Vector and Diseases

Core Courses-Chemistry

1. Conceptual Organic Chemistry
2. Molecules of Life
3. Chemical Bonding
4. Physical Chemistry for the Biosciences

Discipline Specific Electives-Chemistry (Any two)

1. Analytical Methods in Chemistry
2. Molecular Modelling & Drug Design
3. Research Methodology for Chemistry
4. Green Chemistry
5. Bio-inorganic & Environmental Chemistry
6. Instrumental Methods of Analysis

Ability Enhancement Compulsory Courses

1. Environmental Science
2. English/MIL Communication

Skill Enhancement Courses (Any four)

Botany

1. Biofertilizers
2. Herbal Technology
3. Nursery and Gardening
4. Floriculture
5. Medicinal Botany
6. Plant Diversity and Human Welfare
7. Ethnobotany
8. Mushroom Culture Technology
9. Intellectual Property Rights

Chemistry

1. IT Skills for Chemists
2. Basic Analytical Chemistry
3. Chemical Technology & Society
4. Chemoinformatics
5. Business Skills for Chemists
6. Analytical Clinical Biochemistry
7. Green Methods in Chemistry
8. Pharmaceutical Chemistry
9. Chemistry of Cosmetics & Perfumes
10. Pesticide Chemistry
11. Fuel Chemistry

Zoology

1. Apiculture
2. Aquarium Fish Keeping
3. Aquatic Biology
4. Medical Diagnostics
5. Public Health and Hygiene

5. Sericulture

Scheme of B.Sc. Life Sciences under CBCS

SEMESTER	COURSE OPTED	COURSE NAME	Credits
I	Ability Enhancement Compulsory Course-I	English Communications/ Environmental Science	2
	Core Course Botany I	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	4
	Core Course Botany I Practical	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	2
	Core Course Zoology I	Biodiversity- Animals	4
	Core Course Zoology I Practical	Biodiversity- Animals	2
	Core course Chemistry I	Conceptual Organic Chemistry	4
	Core Course Chemistry I Practical	Conceptual Organic Chemistry	2
II	Ability Enhancement Compulsory Course-II	English Communications/ Environmental Science	2
	Core course Botany II	Plant Ecology and Taxonomy	4

	Core Course Botany -II Practical	Plant Ecology and Taxonomy	2
	Core Course Zoology II	Comparative Anatomy and Developmental Biology of Vertebrates	4
	Core Course Zoology II Practical	Comparative Anatomy and Developmental Biology of Vertebrates	2
	Core Course Chemistry II	Molecules of Life	4
	Core Course Chemistry II Practical	Molecules of Life	2
III	Core Course Botany III	Anatomy and Embryology of Angiosperms	4
	Core Course Botany III Practical		2
	Core Course Zoology III	Physiology and Biochemistry	4
	Core Course Zoology III Practical	Physiology and Biochemistry	2
	Core Course Chemistry III	Chemical Bonding	4
	Core Course Chemistry III Practical	Chemical Bonding	2

	Skill Enhancement Course-I	SEC-I	2
IV	Core Course Botany IV	Plant Physiology and Metabolism	4
	Core Course Botany -IV Practical	Plant Physiology and Metabolism	2
	Core Course Zoology IV	Genetics and Evolutionary Biology	4
	Core Course Zoology IV Practical	Genetics and Evolutionary Biology	2
	Core Course Chemistry IV	Physical Chemistry for the Biosciences	4
	Core Course Chemistry IV Practical	Physical Chemistry for the Biosciences	2
	Skill Enhancement Course-II	SEC-II	2
V	Discipline Specific Elective Botany -I	DSE Botany 1	4
	Discipline Specific Elective Botany I Practical	DSE Botany 1	2
	Discipline Specific Elective Zoology I	DSE Zoology I	4
	Discipline Specific Elective Zoology I Practical	DSE Zoology I	2
	Discipline Specific Elective Chemistry I	DSE Chemistry I	4
	Discipline Specific Elective Chemistry I Practical	DSE Chemistry I	2
	Skill Enhancement Course -III	SEC-III	2

VI	Discipline Specific Elective Botany -II	DSE Botany II	4
	Discipline Specific Elective Botany II Practical	DSE Botany II	2
	Discipline Specific Elective Zoology II	DSE Zoology II	4
	Discipline Specific Elective Zoology II Practical	DSE Zoology II	2
	Discipline Specific Elective Chemistry III	DSE Chemistry II	4
	Discipline Specific Elective Chemistry III Practical	DSE Chemistry II	2
	Skill Enhancement Course -IV	SEC-IV	2
Total: 120			