



DPG DEGREE COLLEGE
(Affiliated to MDU Rohtak)
Sector-34, Near Marble Market, Gurugram 122001

B.Sc. Program outcomes listed as follows:

B.Sc.: Zoology

1. Main objective of course botany is to clear vision about plants by imparting knowledge of plant diversity (algae, fungi, lichen, bacteria, viruses, cryptogams, gymnosperms, pteridophytes etc.), plant anatomy, embryology, physiology, Ecology.
2. Main objective of the course of Chemistry is to study about the small macroscopic phenomenon of particles in terms of time and energy, study of organometallic compounds and structure, properties, and chemical composition of organic compounds.
3. Main objective of course of Geology is to clear the vision about the earth and its relation to other planets. Importance of earth science to mankind.
4. Main objective of the course of Zoology is to study about all the life forms, animal kingdom, various types study, their relation with the environment, physiology and evolution.
5. Main objective of course of English is to reinvent the students in response to the changing demands of society with high moral values as a good citizen.
6. Main objective of course of Hindi is to understand the origin of Hindi language and its literature.

COURSE OBJECTIVES & COURSE OUTCOMES

S.No.	COURSE OBJECTIVES	COURSE OUTCOMES
1.	ZOOLOGY: B.SC Medical - IST SEMESTER	
	Paper: Life and Diversity from Protozoa to Helminths	
	1. The students will learn about the diversity and classification of animals 2. The students will learn about the characteristics of lower non-chordates. They will also learn about the structure, life-cycle and control of Plasmodium, Fasciola hepatica, Taenia solium, and Ancylostoma 3. The students will learn about the locomotion in Protozoa, Canal system in sponges, Organization of coelom and its types 4. The expected outcome is to provide the students an in-depth understanding of colonial and social life in invertebrates	After the completion of the course, students will be able to 1. Students will understand the structure and function of biological molecules, cellular energetics, cellular metabolism, and photosynthesis. 2. Students will have an enhanced knowledge and appreciation of mammalian physiology. 3. Students will be prepared for a number of courses, principally Physiology, Development & Neuroscience, but also Pharmacology, Pathology and Zoology, among others 4. Students will be able to compare, contrast and integrate knowledge of the major organ-function and their complexity of the major body-systems.
	Paper: Cell Biology	

	<ol style="list-style-type: none">1. Students will learn the structure and internal organization of the cell2. Students will understand function and regulation of different cell organelles and their mechanism3. Students will understand the Cell Membrane, cell wall and transport across the cell membrane4. Students will understand the functioning of	<p>After the completion of the course, Students will be able to</p> <ol style="list-style-type: none">1. Students will understand the structure and function of cell, its internal compartments biological molecules, and their functions2. Students will have an enhanced knowledge and appreciation of cell biology and its genetics.
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	enzymes and protein associated with these organelles	<p>3. Students will be able to understand the integrate knowledge of the major organ-function and their complexity and functioning of each part of the cell organelles</p> <p>4. Students will understand the physiology of cell, cell division and disease associated with the cell functioning</p>
2.	ZOOLOGY: B.SC Medical - IInd SEMESTER	
	Subject: Life and Diversity Of Annelida To Hemichordata	
	<p>1. Students will learn principles of the function of the different animal classes</p> <p>2. Students will understand biodiversity and economic importance of different classes up to order Level</p> <p>3. Students will understand the characteristics features of diverse group of animals</p> <p>4. Students will understand their habitat nutrition and metabolism and diversity among them</p>	<p>After the completion of the course, students will be able to</p> <p>1. Students will understand the structure and function of various classes of animal from Annelida to Hemichordata</p> <p>2. Students will have an enhanced knowledge about the classification and general characters of animal in the phylum.</p> <p>3. Students will be able to integrate knowledge of the major animal group and their complexity and can compared it with different phylum according to their complexity.</p>
	Paper: Genetics	
	<p>1. The objective of this course is to develop the understanding of use principal of heredity and variations</p> <p>2. Students will be able to understand the Cell division processes: Mitotic and meiotic studies, Chromosomes and its types</p> <p>3. Students will learn the human genetics, function of genetic material and gene mapping etc</p>	<p>1. After the completion of the course, students will be able to</p> <p>They will have knowledge of genetic basis of cell and can evaluate Cell division: Mitosis and meiosis</p> <p>3. Students will understand the types of chromosomes as polytene chromosomes and their inheritance</p> <p>4. They can make and analyze Blood smear – differential staining, Buccal smear – Barr bodies in genetics</p>

3.	ZOOLOGY: B.SC Medical - -IIIrd SEMESTER	
	Paper: Life and diversity of chordates-I	
	<ol style="list-style-type: none"> 1. Students will classify the animals according to their characteristics feature 2. Students will understand biodiversity and economic importance of different classes 3. Students will understand the parental care and migration in animals 4. Students will understand their habitat nutrition and metabolism and diversity among them 	<p>After the completion of the course, Students will be able to</p> <ol style="list-style-type: none"> 1. Understand the structure and function of various classes of animal Chordata 2. Understand the classification and general characters of animal in the phylum. 3. Understand the diversity and economic importance 4. Analyze the major animal group and their complexity according to their phylum
	Paper: Mammalian physiology-I	
	<ol style="list-style-type: none"> 1. Students will learn principles of the function of the human body as a mammal 2. Students will understand function and regulation of neuromuscular, cardiovascular, respiratory, endocrine, digestive, and excretory systems. 3. Students will understand the Cell Membrane, Molecular Transport. 4. Students will understand Nutrition, Metabolism and Thermoregulation 	<ol style="list-style-type: none"> 1. Understand the structure and function of biological molecules, cellular energetics, cellular metabolism, and photosynthesis. 2. Have an enhanced knowledge and appreciation of mammalian physiology. 3. Prepared for a number of courses, principally Physiology, Development & Neuroscience, but also Pharmacology, Pathology and Zoology, among others 4. Compare, contrast and integrate knowledge of the major organ- function and their complexity of the major body-systems.
4.	ZOOLOGY: B.SC Medical - IVth SEMESTER	
	Paper: Life and diversity of chordates-II	
	<ol style="list-style-type: none"> 1. Students will understand to classify the animals with respect to evolutionary tree 2. Students will understand the parental care in different classes of animals 3. Students will understand the migration and adaptation in animals 	<p>After the completion of the course, students will be able to</p> <ol style="list-style-type: none"> 1. Understand the structure and function of various classes of higher animals 2. Acquire the knowledge of parental cares in animals of higher classes 3. Understand the types and classification of mammals 4. Analyze the evolutionary tree and classification of animals on the basis of evolution

	Paper: Mammalian physiology-II	
	<p>1. To study the Endocrine glands and their functions</p> <p>2. To study the Nature of hormones; Regulation of hormone secretion; Mode of action of hormones.</p> <p>3. To study the Reproductive system: testis, ovary, Spermatogenesis, Oogenesis, Totipotency.</p>	<p>After the completion of the course, Students will be able to</p> <p>1. Understand the process of digestion and absorption in mammals</p> <p>2. Acquire the knowledge of blood and cardiovascular system.</p> <p>3. Gain the knowledge of the muscle system, nervous system.</p> <p>4. Taught the detailed concepts of respiration, excretion and osmoregulation.</p> <p>5. Gain fundamental knowledge of reproductive and endocrine systems.</p>
5.	ZOOLOGY: B.SC Medical - Vth SEMESTER	
	Paper: Fish and Fisheries	
	<p>1. The objective of this course is to have a firm foundation in the fundamentals of different animal phyla</p> <p>2. They will understand to learn slide preparation and identification.</p>	<p>After the completion of the course, students will be able to Understand</p> <p>1. The students will learn about the transmission, prevention and control of diseases</p> <p>2. The students will get an in-depth knowledge of life cycle and pathogenicity of animal and human</p> <p>3. The students will learn about the life cycle and control of various vectors and pests</p>
	Paper: Ecology & Evolution	
	<p>1. The objective of this course is to have a firm foundation in the evolution of fauna and its habitat.</p> <p>2. To learn biotic and abiotic factors of environment and ecological concept.</p> <p>3. To learn about the population growth and their control.</p>	<p>After the completion of the course, students will be able to Understand,</p> <p>1. The students will learn the animal distribution and the factors affecting their distribution.</p> <p>2. The students will learn about the Origin of life and theories related to it</p> <p>3. The students will learn about the concept of evolution and theory of natural as well as sexual selection.</p> <p>4. The expected outcome is to provide the students an in-depth understanding of species concept.</p>

6.	ZOOLOGY: B.SC Medical - VIth SEMESTER	
Paper: Entomology		
	<ol style="list-style-type: none"> 1. This course is designed to develop the understanding of basics of insect diversity among crops and vegetables 2. They will learn the pest physiology, classification and types of pests 3. They will understand the pest nature, habitat along with integrated pest management. 	<p>After the completion of the course, Students will be able to Understand,</p> <ol style="list-style-type: none"> 1. Student learn the General Features and distribution of Insects on the Earth, Basis of Insect classification up to orders 2. Students will understand the physiology of Insect body systems, Sensory receptors, Growth and Metamorphosis. 3. Student acquire the knowledge of Different phases of pest control and their use in pest surveillance
Paper: Developmental Biology		
	<ol style="list-style-type: none"> 1. The objective is to learn the foundation of developmental Biology and its scope in biology 2. They will understand the fertilization process in vertebrates and invertebrates 3. They will understand the different phase of embryonic development 	<p>After the completion of the course, Students will be able to</p> <ol style="list-style-type: none"> 1. The students will learn about the concept of developmental biology, history and scope 2. The students will get an in-depth knowledge of fertilization process in vertebrates and invertebrates 3. The students will learn about the embryonic development and regeneration process in detail

