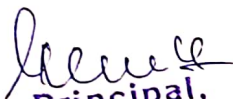



DEPARTMENT OF ZOOLOGY
COURSE OUTCOME OF I,II,III,IV SEMESTERS

Course	Outcomes
Cytology, Genetics and Infectious Diseases	<p>At the end of the course the students will be able to understand:</p> <ol style="list-style-type: none"> 1: The structure and function of the cell organelles 2: The chromatin structure and its location 3: The basic principle of life, how a cell divides leading to the growth of an organism and also reproduces to form a new organisms. 4: How a cell communicates with its neighbouring cells. 5: The principles of inheritance, Mendel's laws and the deviations. 6: How environment plays an important role by interacting with genetic factors.
Biochemistry and Physiology	<p>At the end of the course, students will be able to understand:</p> <ol style="list-style-type: none"> 1. Basic structure of bio molecules through model making. 2. Develop the skills to identify different types of blood cells. 3. Enhance basic laboratory skill like keen observation, analysis and discussion. 4. Learn the functional attributes of biomolecules in animal body. 5. Know uniqueness of enzymes in animal body and their importance through enzyme kinetics.
Molecular Biology, Bioinstrumentation & Techniques in Biology	<p>At the end of the course, students will be able to:</p> <ol style="list-style-type: none"> 1. After successful accomplishment of the course, the learners will be able to acquire better understanding and comprehensive knowledge regarding most of the essential aspects of Molecular Biology subject which in turn will provide a fantastic opportunity to develop professional skill related to the field of molecular biology. 2. The course will mainly focus on the study of principal molecular events of cell incorporating DNA Replication, Transcription and Translation in prokaryotic as well as eukaryotic organisms. 3. Acquiring knowledge on instrumentation and techniques in biology.

<p>Gene Technology Immunology and Computational Biology</p>	<p>At the end of the course, students will be able to:</p> <ol style="list-style-type: none"> 1.Acquaint knowledge on versatile tools and techniques employed in genetic engineering and recombinant DNA technology. 2.An understanding on application of genetic engineering techniques in basic and applied experimental biology 3.To acquire fundamental working knowledge of the basic principles of immunology. 4.To understand howtheseprinciple,apply to the process of the immune function 5. Use and interpret results of, statistical analyses accurately accurately and effectively; helps in usage of appropriate tool of statistical software.
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DEPARTMENT OF ZOOLOGY

Course Module : Bachelor of Science (B.Sc)

First Basic Language : English

Second Basic Languages : Kannada/Hindi/Additional English.

Compulsory Papers:

1. Indian Constitution (I Semester)
2. Fundamentals of Computer Applications (III & IV Semester)
3. Environmental Studies (II Semester)
4. Open Elective Papers: Totally, there are 21 open elective papers. Of which the student shall study any three papers in II, III & V semesters according to their choices. Flexibility is provided to the students in choosing OEP.

Optional Subjects:

The student shall opt any one of the subject combinations given below. Each combination consists of three optional subjects with the same weightage.

Subject Combinations:

1. Chemistry, Botany, Zoology
2. Chemistry, Zoology, Biotechnology

Programme Outcome

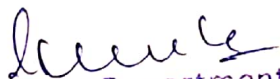
The students who are studying B.Sc in Life Sciences will have ample opportunities to do higher education like B.Ed, Master degree in Chemistry, Zoology, Botany, Microbiology, Biotechnology, Bio-Informatics, Molecular Biology, Environmental Science, Wildlife Zoology & Management, Food & Nutrition and Marine Biology. After Master's degree they can pursue their Ph.D (Research) in any one of the above listed subjects. Later they can become Scientists by continuing their research in universities and R & D wings of Life Science related industries. Another better opportunity for Life Science students is to obtain jobs in food industries as quality control officers, technicians, experts etc. One more potential area which provides excellent job opportunities in R & D wing and marketing field by offering handsome salary is Pharmaceutical industries and Biotech industries also provide some opportunities on par with pharmaceutical industries.

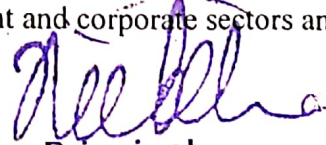
In spite of all these opportunities in the field of Science they can also appear for UPSC & KPSC and other competitive examinations.

One more interesting thing is that they can start self employment activities like Dairy, Poultry, Apiculture, Sericulture, Aquaculture etc.

Specific Programme Outcome

After the completion of course, students are enabled to acquire sufficient knowledge, variety of laboratory skills, art of applying knowledge and experiences to solve problems, ability to get jobs, capacity to establish industries related to livestock rearing and intun become self reliant. By the virtue of the knowledge, skills and experiences acquired during six semesters. The student can work in various capacities efficiently both in government and corporate sectors and


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in other private organizations with attractive packages. Apart from all, the student ultimately develop a multi-faceted personality to lead his life in the society.

Department Of Zoology

Course	Outcomes
B.Sc – I Sem Z-1 Biology of Non-Chordata	Students will learn about primitive creatures and other advanced invertebrate animals living in the nature along with their general characters, nomenclature, identification, significances and association with human beings.
B.Sc – II Sem Z-2 Biology of Chordata & Comparative Anatomy	In this course students will learn about the characters of higher animals including human beings and their interactions with others. In comparative anatomy they compare the different systems in different animals and it helps them to understand the evolutionary significances, similarities, dissimilarities and advancement of organisms from lower level to higher level.
B.Sc – III Sem Z-3 Economic Zoology & Histology	In economic zoology subject all units are directly related to economical aspects of the human welfare and make the students to develop their own farms like Dairy, Poultry, Sericulture, Apiculture & Aquaculture. Apart from that histology portion teaches the structure and nature of tissues of organisms including human beings which helps in studying pathological aspects of human diseases and are eligible to work in clinical laboratories.
B.Sc – IV Sem Z-4 Physiology & Bio-Chemistry	These two parts of the paper are highly essential to understand the body systems, their mechanisms and metabolic activities of the human body. Bio-Chemistry part deals with the chemical composition of cells, tissues, organs and systems, interaction of chemical substances, importance of these as nutrients in providing energy, build up of body mass, strength etc. The knowledge acquired in these units help the students to get ability to work in medical field, pharmaceutical field, clinical laboratory field as scientists, experts and many more.
B.Sc – V Sem Z-5.1 Cell Biology & Developmental Biology	This paper makes the students to enrich the knowledge in Life Sciences especially about the fundamental, functional & structural unit of life i.e., cell. The second part of this paper Developmental biology gives thorough information about the development and continuation of organisms including human beings.
B.Sc –V Sem Z-5.2 Environmental Biology & Wildlife Zoology	This paper enables the students to understand our habitats, ecosystems, natural resources, pollutions, anthropogenic pressure on nature, ecological imbalances, causes and solutions of all these and life of wild animals, threats to wild animals, conservation, climate changes, green house effect etc. The knowledge of all these aspect in present days is highly essential for conservation of nature & wild animals and sustainable development.

B.Sc – VI Sem
Z-6.1
Genetics &
Biotechnology

Modern and advanced knowledge of the biology will be obtained by studying this paper. Students will get the information about the genes, gene structure, inheritance, gene regulation in protein synthesis, abnormalities of genes and genetic disorders etc. Genetics is emerged as most potential subject in biology by dealing with genes and their inheritance.

Biotechnology is a multidisciplinary subject which employs modern technology in dealing of genes & their manipulations in various fields. As a result of which most essential products like human insulin, Bt cotton, Golden rice, hormone production, synthesis of desired proteins & enzymes and other products for the welfare of human beings at lower cost.

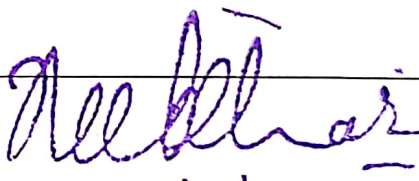
B.Sc – VI Sem
Z-6.2
Ethology &
Evolution

Ethology is recently bifurcated branch of the biology which deals with behavior of organisms. By learning the ethology students will come to know the life activities, nature, mental status etc which help the animals in better survival, identification of its own species and mates, escaping from predators, finding preys etc. To understand the successful survival, adaptation and continuation of living beings, on this planet earth from generation to generation can be possible by studying this paper.

Evolution paper makes the students to enrich their knowledge in origin of life on the planet earth and evolutionary history of life from single cell to present day advanced plants & animals with the help of their fossil remains.

By the end of this course student will gain utmost knowledge about the living organisms and ability to lead life on his own by developing skills in various fields of life.


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