1st Semester B.Sc Zoology

Core Course Content

Course Title: Cytology Genetics And Infectious Diseases

Course outcome(cos):

1. Acquired the basic concept of the cell organals in animal cell.
2. Obtain the knowledge abouth the gene , regulation of cell cycle and cell division.
3. Students will learned abouth the genetic disorders, basic concepts of genetic laws and pedigree analysis that helps to understand the relationships between family members.
4. Helps to find out the different types of diseases causeing agents and their types, also stud the about their life cycle.

Lab course:

1. At the end of the course students will able to understand the microscopes and their parts.
2. Identify the different stages of mitosis and meosis.
3. Human Parasite structure, disease and preventive measures.
4. Learned the pedigree chart construction and drosophila mutants identification.

2nd Semester B.Sc Zoology

Core Course Content

Course Title: Biochemistry And Animal Physiology

Course outcome(cos):

1. The course will mainly focus on the digestion, respiration, circulation, excreation and all the physiological function of the human body.
2. To understand how the biomolecules are divided and the types of biomolecules present in our food source.
3. Acquaint knowledge on the regulation of some of the enzymes and the metabolisom of carbohydrate, proteins, lipids.
4. At the end of the course students understand the basic concept of nervous system, muscular system and the human related hormonal actions.

Lab course:

1. Students will understand the basic concept of detection of present or absent of biomolecules in the food particles.
2. Zoologist will also get some of the knowledge about blood related experiments like HB count, RBC & WBC count, sugar test (diagnostic laboratory tests).

3rd Semester B.Sc Zoology

Core Course Content

Course Title: **Molecular Biology, Bioinstrumentation, And Techniques In Biology**

Course Outcomes (COs):

At the end of the course the student should be able to understand:

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.

Lab course:

Course Outcomes (COs):

At the end of the course the student should be able to:

1. At the end of the course, students will be able to understand the applications of biophysics and principle involved in bio-instruments.
2. Understand the methodology involved in bio techniques.
3. Students can Demonstrate knowledge and practical skills of using instruments in biology and medical field.
4. They can perform techniques involved in molecular biology and diagnosis of diseases.

4th Semester B.Sc Zoology

Core Course Content

Course Title: Gene Technology, Immunology And Computational Biology

Course Outcomes (COs):

At the end of the course the student should be able to:

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 a fundamental working knowledge of the basic principles of immunology.
4. To understand how these principles, apply to the process of immune function.
5. Use, and interpret results of, the principal methods of statistical inference and design; helps to communicate the results of statistical analyses accurately and effectively; helps in usage of appropriate tool of statistical software.

Lab course:

Course Outcomes (COs):

At the end of the course the student should be able to:

1. Accurately, safely and appropriately use all the equipment regularly used in Molecular Biology (DNA manipulation, including balances, pipettes, electrophoresis and centrifuges).
2. Prepare chemical solution and reagents to the precision appropriate to the task.
3. Demonstrate knowledge of the biochemical basis underpinning the molecular biology techniques.