DEVA MATHA COLLEGE KUAVILANGAD

MSc.ZOOLOGY: COURSE OUTCOME

SEMESTER I

ZY1CT01: Biosystematics and Animal Diversity

- To give a thorough understanding in the principles and practice of systematics.
- To help students acquire an in-depth knowledge on the diversity and relationships in animal world
- To develop an holistic appreciation on the phylogeny and adaptations in animals

ZY1CT02: Evolutionary Biology and Ethology

- To provide an understanding on the process and theories in evolutionary biology
- To help students develop an interest in the debates and discussion taking place in the field of evolutionary biology
- To equip the learners to critically evaluate the debates and take a stand based on science and reason
- To expose students to the basics and advances in ethology, and generate an interest in the subject in order to understand the complexities of both animal and human behaviour.

ZY1CT03: Biochemistry

- To understand the chemical nature of life and life process
- To provide an idea on structure and functioning of biologically important molecules
- To generate an interest in the subject and help students explore the new developments in
- biochemistry

ZY1CT04: Biostatistics, Computer Application and Research Methodology

- To impart concepts, generate enthusiasm and make awareness about the tools/gadgets and accessories of biological research
- To equip the learner to carry out original research in biology
- To help the students to improve analytical and critical thinking skills through problem solving.
- To provide hands on training in the use of various tools and techniques suggested in the course.

SEMESTER II

ZY2CT06: Ecology: Principles and Practices

- To provide an understanding on the basic theories and principles of ecology
- To help study various disciplines in ecology
- To learn current environmental issues based on ecological principles
- To gain critical understanding on human influence on environment

ZY2CT07: Genetics And Bioinformatics

- To give an in-depth understanding on the principles and mechanisms of inheritance
- To help study the fine structure and molecular aspects of genetic material
- To provide an opportunity to learn the importance of inheritance in Man
- To expose the learners to the emerging field of bioinformatics and equip them to take up bioinformatics studies

ZY2CT08: Developmental Biology

- To introduce the concepts and process in developmental biology
- To help students understand and appreciate the genetic mechanisms and the unfolding of the same during development
- To expose the learner to the new developments in embryology and its relevance to Man

ZY2CT09: Biophysics, Instrumentation And Biological Techniques

- To learn the biophysical properties and functioning of life processes
- To introduce the tools and techniques available for studying biochemical and biophysical nature of life
- To equip the learner to use the tools and techniques for project work/ research in biology

SEMESTER III

ZY3CT11: Animal Physiology

- To study and compare the functioning of organ systems across the animal world
- To give an over view of the comparative functioning of different systems in animals
- To learn more about human physiology

ZT3CT12: Cell and Molecular Biology

- To help study the structural and functional details of the basic unit of life at the molecular level
- To motivate the learner to refresh and delve into the basics of cell biology
- To introduce the new developments in molecular biology and its implications in human Welfare

ZY3CT 13: Microbiology and Biotechnology

- To provide an over view of the microbial world, its structure and function
- To familiarize the learner with the applied aspects of microbiology
- To give students an intensive and in-depth learning in the field of biotechnology
- To understand the modern biotechnology practices and approaches with an emphasis in technology application, medical, industrial, environmental and agricultural areas
- To familiarize the students with public policy, biosafety, and intellectual property rights issues related to biotechnology

ZY3CT14: Immunology

- To provide an intensive and in-depth knowledge to the students in immunology
- To help the learner to understand the role of immunology in human health and well-being
- To familiarize the students the new developments in immunology

SEMESTER IV

ZY4C ET01: Environmental Science: Concepts and Approaches

- To provide a broad and deep understanding on environment and influence of man on environment
- To equip the students to use various tools and techniques for the study of environment
- To enable the learner to understand, think and evolve strategies for management and conservation of environment for sustaining life on earth
- To take up further studies and research in the field

ZY4C ET02: Environmental Pollution and Toxicology

- To contribute to the general knowledge of the harmful actions of chemical substances, to study their mechanisms of action, and to estimate their possible risks to humans on the basis of experimental work on biological test systems

ZY4C ET03: Environmental Management and Development

- To balance our economic, environmental and social needs, allowing prosperity for now and future generations
- To improve human life quality. It involves the mobilization of resources and the use of government to administer the use of both natural and economic goods and services. It is based on the principles of ecology