

FATIMA MATA NATIONAL COLLEGE

AUTONOMOUS

(Reaccredited with 'A' Grade by NAAC)
Affiliated to University of Kerala



DEPARTMENT OF ZOOLOGY
BOARD OF STUDIES MEETING
HELD ON 02-03-2019

IQAC INTERNAL QUALITY
ASSURANCE CELL

Minutes of Board of Studies meeting
in Zoology held at the Department
of Zoology on 2/3/19 at 10 am.

Members Present

1. Dr. G. Prasad ~~Prasad~~
2. Dr. Santhosh B ~~Santhosh~~
3. Dr. K. B. Padmakumar ~~Padmakumar~~
4. Dr. B. Santhosh
5. Dr. A. Akhila Thomas ~~Akhila~~
6. Dr. Sheryl Williams G ~~Sheryl Williams~~
7. Ms. Nisha Thomas P ~~Nisha~~
8. Dr. Sarin P. J. ~~Sarin~~
9. Dr. Nijaysee A.S. ~~Nijaysee~~
10. Dr. Sreelekshmi S.B. ~~Sreelekshmi~~
11. Ms. Jennifer Ann Thomas ~~Jennifer~~
12. Dr. Mumtaz ~~Mumtaz~~

Board of Studies Meeting held on 2-03-19: Minutes

The Board of studies meeting in Zoology commenced at 10.15 am with silent prayer at the Department staff room. The meeting was chaired by the Head of the Department Dr. Antony Akhila Thomas and 11 members were present. The Chairman welcomed the gathering and briefed the members regarding the developments post Board of studies meet of 21/2/19. All the recommendations and suggestions that precipitated as a result of the discussion in the previous meeting have been well accepted and incorporated in the syllabus tabled today. Next, Dr. Sherly Williams introduced the agenda for the day. The spiral bound copy of the syllabus for UG (Main and complementary – Botany, Psychology) PG and Add on programmes were tabled for reference and discussions. Dr. Prasad G. University nominee, the subject experts and the faculty actively participated in the discussions that followed.

The major changes suggested and discussed by the Board that resulted in the restructuring of the selected core papers were -

- **Core Course III: 19UZO341: Experimental Zoology, Instrumentation, Biostatistics and Bioinformatics**

(Semester III:

Core Course III: 19UZO341: Methodology and Perspectives of science paper has been restructured into existing frame work.)

Bioinformatics

19 Hrs

Module VI

Overview of Information Technology – features of the modern personal computer and peripherals networks and internet. Introduction to operating system. DOS/Windows/Linux. Purchase of Technology, License, Guarantee, Warranty

Module VII

Definition, Nature and scope of bioinformatics, Contrast between Bioinformatics and computational biology; key bio-sequences in molecular biology- DNA, RNA and amino acid sequences. Popular data bases in bioinformatics- NCBI, DDBJ, PDB, OMIM; BLAST and FASTA Sequence file formats, Approach of comparative Biology based on sequence comparison, the basic idea of sequence comparison (Algorithms not required). – Idea of scoring matrices.

Module VIII

The Blast search engine – Important features – Idea of multiple sequence Alignment – Proteomics: Basic ideas of protein structure prediction- concept of homology modeling, idea of molecular phylogenetics – Advantages and computational procedure (only description of use of a package of PHYLIP). Basic concepts of computer aided drug discovery. General description of drug discovery pipeline concept of personalized medicine.

Bioinformatics Tools : (1) Molecular visualization software – RASMOL (basic features only) (2) ORF finding (3) Gene Finding (4) BLAST (5) Hydrophobicity Prediction (6) Single Nucleotide Polymorphism (SNP) prediction using GENSNIP – Central drug Research Institute .

- **Core Course IV:19UZO441: Environmental Biology, Habitat destruction and Disaster Management**

Module V: Habitat destruction and Conservation Biology

Introduction,

Background - information for conservation initiations. (Habitat loss, and fragmentation, poaching of wild life and trade, Man wild life conflicts, Invasive Alien Species) Endangered and Endemic species (IUCN red list). Environmental movements: Chipko, Narmada bhachao Andolan, Silent valley movement. Environmental reports: Maghav Gadgil, Kasthurirangan report

Module VII: Disaster Management

Introduction to Disaster Management, Classification of disaster-Natural and Anthropogenic mediated Hazards: causes, consequences and mitigation measures for: Earthquake, Tsunami, Cyclone, Flood, Drought and Landslides.

- **Core Course X 19UZO643: Ethology, Evolution and Zoogeography**

Module II Sound as communication system in the animal world

Vibrations of insect wing, stipulations in insect, sound production in Cicada, Ultra sonic sound of animals, communication by infrasonic sounds, echolocation, evasion of insects to ultrasonic sounds, sounds of deep sea animals, Sounds of maintenance of territory, sounds and courtship behavior.

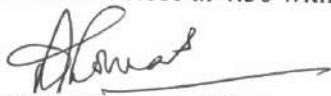
Module III Light as a device for animal communications

Light of visible spectrum, colour, black and white vision, UV Vision, Infra-red vision, Phosphorescence, Fluorescence, Bioluminescence – in insects, in mollusc, deep sea fish.

Energy efficiency of bio-luminescent organs. Physiology of bioluminescence and bio-electricity.

The alterations suggested per paper were once again discussed and finalised . The UG-Core, Complimentary and ,Elective Course syllabus, the Add on course Syllabus and the PG syllabus was unanimously approved and finalized .

The meeting came to a close at 4:30 with Dr. Sarlin P.J. proposing the vote of thanks



Dr Antony Akhila Thomas (HOD)
Chairman, Board of studies in Zoology

Date:2/03/2019