

Date: 23.04.2021

MINUTES OF MEETING OF THE BOARD OF STUDIES in MSc BIOINFORMATICS

The meeting of the Board of Studies in M.Sc. Bioinformatics (PG program) of the Department of Bioinformatics, School of Life Science, VISTAS held on 23.04.2021 at 2.00 pm in Bioinformatics Lab to discuss the revision of PG Program Curriculum & Syllabus of M.Sc. Bioinformatics.

I. Members Present:

S.No	Name with Designation	Role
1.	Dr. Radha Mahendran, Professor & Head, Department of Bioinformatics, VISTAS, Chennai	Chairman
2.	Dr.J. Suganya Assistant Professor, Department of / Bioinformatics, VISTAS, Chennai	Internal Member
3.	Dr. D. Velmurugan, Professor, Dept of Crystallography and Biophysics, University of Madras, Guindy, Chennai	Academic Expert
4.	Dr. P. Gautam, Professor, Centre for Biotechnology.	Academic Expert
5.	Dr.M.N Ponnusamy, Emeritus Professor, Dept of Crystallography and Biophysics, University of Madras, Guindy, Chennai	Academic Expert
6.	Dr.M.Menaga, Managing Director, BioNeem Tech, Sipcot IT park, Siruseri Chennai	Industrial Expert
7.	Mr. Aganl Vincent Paul	Alumni
8.	Ms. Abinaya.B	Alumni
9.	Ms. Jyotsna.A	Student

II. Objective of the Revision:

- To develop the curriculum based on Learning Outcome based Curriculum Framework (LOCF)
- To consider present trend in the respective fields and industry relevant interdisciplinary courses.
- To implement the guidelines and suggestions of the new education policy while preparing the curriculum.
- To eliminate the obsolete syllabus contents and introducing the latest / updated technologies, new knowledge and practices.
- To design the curriculum focussing on skill development, Employability and Entrepreneurship

III. Feedback from Stakeholders:

- The syllabus is to be revised with the current trends of programming companies, pharma Industries and Academia
- More hands-on exposure to be provided to students to link theory with practice

IV. Number of New Courses Introduced:

6 New Courses in PG

V. % of Syllabus Revision in the Program:

PG 46% (Minimum 20% revision is mandatory)

VI. Status of Implementation of CBCS, ECS and LOCF:





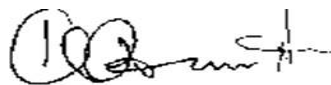

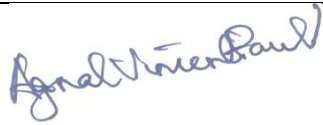
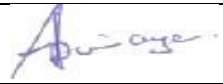
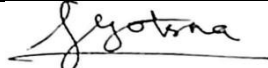
Revised Curriculum and Syllabus is based Choice Based Credit System (CBCS), Elective Course System (ECS) and following Learning outcome-based curriculum framework (LOCF) guidelines and template.

Considered the Program Curriculum and Syllabus presented before the Board of Studies and discussed in details and resolved as follows:

VII. Resolution:

Resolved to recommend that the Curriculum & Syllabus for the M.Sc. designed as per the guidelines and Model Curriculum Framework of UGC for the Academic year 2021 - 2022 be approved.

VIII. Signature of the Members:

S.No	Name with Destination	Role	Signature
1.	Dr. Radha Mahendran, Professor & Head, Department of Bioinformatics, VISTAS, Chennai	Chairman	
2.	Dr.J. Suganya, Assistant Professor, Department of Bioinformatics, VISTAS	Internal Member	
3.	Dr. D. Velmurugan, Professor, Dept of Crystallography and Biophysics, University of Madras, Guindy, Chennai	Academic Expert	
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8.	Ms. Abinaya.B	Alumni	
9.	Ms. Jyotsna.A	Student	

IX. Annexure I (Revision of PG Programmes/courses focussed on employability/entrepreneurship/skill development and New courses introduced during the Academic year 2021-22)

Name of the Program	Name of the Course	Year of Introduction	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
M.Sc. Bioinformatics	Genomics and Transcriptomics	2021-22	Employability
	Proteomics	2021-22	Employability
	Plant bioinformatics	2021-22	Employability
	Concepts in Artificial Intelligence	2021-22	Skill development
	Molecular evolution and phylogeny	2021-22	Skill development
	Recent technologies in omics sciences	2021-22	Employability

X. Annexure II:**COURSES OF STUDY AND SCHEME OF ASSESSMENT**

(MINIMUM CREDITS TO BE EARNED: 90)

M.Sc Bioinformatics Course Components

Component	I Sem	II Sem	III Sem	IV Sem	Total Credits
Core Courses	12	14	12	20	58
Ability Enhancement Courses (AEC)	-	-	-	-	-
Discipline Specific Elective (DSE)	12	10	8	-	30
Generic Elective (GEC)	-	-	2	-	2
Total Credits	24	24	22	20	90

M.Sc. BIOINFORMATICS COURSE
COURSES OF STUDY AND SCHEME OF ASSESSMENT

(MINIMUM CREDITS TO BE EARNED: 90)

SEMESTER I

Code No.	Course	Hours/Week			Credits	Maximum Marks		
		Lecture	Tutorial	Practical		CA	SEE	Total
CORE 1	Introduction To Bioinformatics	4	0	0	4	40	60	100
CORE 2	Computer Programming in C and C++	4	0	0	4	40	60	100
CORE	Practical 1 - Biological Databank and Sequence Analysis –	0	0	4	2	40	60	100
CORE	Practical 2 – Bio programming in C and C++ -	0	0	4	2	40	60	100
DSE 1	Genomics and Transcriptomics	4	0	0	4	40	60	100
DSE 2	Proteomics: Principles and Techniques	4	0	0	4	40	60	100
DSE 3	Enzymes And Metabolisms	4	0	0	4	40	60	100
Total		20	0	8	24			

SEMESTER III

Code No.	Course	Hours/Week			Maximum Marks			
		Lecture	Tutorial	Practical	Credits	CA	SEE	Total
CORE 5	Computer Aided Drug Designing	4	0	0	4	40	60	100
CORE 6	Advanced Programming in Java	4	0	0	4	40	60	100
CORE	Practical 5 - Computer Aided Drug Designing –	0	0	4	2	40	60	100
CORE	Practical 6 - Programming In Java And BioJava -	0	0	4	2	40	60	100
DSE 7	Python for Bioinformatics	4	0	0	4	40	60	100
DSE 8	Recent Technologies in OMICS Sciences	4	0	0	4	40	60	100
GE	Generic Elective I	2	0	0	2	40	60	100
Total		18	0	8	22			

CA - Continuous Assessment

SEE - Semester End Examination

UGC Recommended Generic Electives

1. Consumer Affairs
2. Disaster Management
3. Universal Human Values

SEMESTER IV

Code No.	Course	Hours/Week			Maximum Marks			
		Lecture	Tutorial	Practical	Credits	CA	SEE	Total
CORE 7	Operating Systems	4	0	0	4	40	60	100
CORE 8	Clinical Research	4	0	0	4	40	60	100
CORE	Main Project	0	0	22	12	40	60	100
Total		8	0	22	20			