



Date: 29/4/2021

**MINUTES OF MEETING OF THE BOARD OF STUDIES in
BIOCHEMISTRY**

The meeting of the Board of Studies in **Biochemistry** (UG & PG) of the Department of **Biochemistry**, School of Life Science, VISTAS held on 29/4/2021 at 11.30 am online to discuss the **revision of UG & PG Program Curriculum & Syllabus** of **B.Sc. & M.Sc Biochemistry.**

Members Present:

1. Dr. R. Padmini, Assistant Professor & Head, Department of Biochemistry, VISTAS
2. Dr. Usharavi, Assessor at NABET, Quality council of India, Chennai, India
3. Dr. P. Kalaiselvi, Associate Professor, Department of Medical Biochemistry, Dr. ALPGIBMS, University of Madras, Taramani Campus, Chennai
4. Dr. S. Perumal, Assistant Professor, Department of Biochemistry, VISTAS
5. Ms. Sathya, Alumni student member

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 introduce the latest / updated technologies, new knowledge and practices.

- To design the curriculum focussing on skill development, Employability and Entrepreneurship

Feedback from Stakeholders:

S. No	Name & Designation	Comments	Role
1	Dr. R. Padmini Assistant Professor & Head Department of Biochemistry VISTAS, Chennai	The current content of syllabus adequately covers all the fundamentals aspects as well as advanced concepts in Biochemistry for the benefit of both BSc and MSc Biochemistry students. This new curriculum will improve the knowledge of theoretical and practical aspects, stimulating the creativity and innovation in students.	Chair Person
2	Dr. P. Kalai selvi Associate Professor, Department of Medical Biochemistry, Dr. ALPGIBMS, University of Madras, Taramani Campus, Chennai	The revised syllabus may enhance the employability, skill development and entrepreneurship of UG students. This revision is in consideration to increase the Employability of students. The adoption of LOCF with the CBCS pattern will enlighten the bright future of the students.	Academic Expert
3	Dr. Usharavi, Assessor at NABET, Quality Council of India, Chennai, India	The revised syllabus framed as per LOCF meets the Programme Specific Outcomes and Course Learning Outcomes. This revision is considered with the present need of industry requirement and increase the Employability of the Biochemistry students	Academic Expert
4	Dr. S. Perumal, Assistant Professor, Department of Biochemistry, VISTAS, Chennai	The revisions done in existing syllabuses are very much needed for the Skill development, Employability and Entrepreneurship for the UG & PG students as per the new education policy.	Internal Member
5	Ms. Sathya Medical Coder, Omega Health Care Chennai	The revisions done in existing syllabuses are very much needed for the Employability and Entrepreneurship of the UG and PG students and it also improves the technical knowhow among students.	Alumni

Number of New Courses Introduced:

a) FOR B.Sc BIOCHEMISTRY: 12 COURSES INTRODUCED

CORE -5;
DSE- 5;
SEC-2

Following are the New courses introduced in B.Sc Biochemistry:

S. No	Category	Title of the Paper
1	Core	Basics of Nutrition
2	Core	Bioenergetics and membrane biology
3	Core	Cell & Developmental Biology
4	Core	Practical- Methods in cell biology
5	Core	Environmental Biochemistry
6	DSE	Forensic Biochemistry
7	DSE	Protein Biochemistry
8	DSE	Practical – Immunology Lab
9	DSE	Biochemistry of Cell Signaling
10	DSE	Inheritance Biology
11	SEC	Enterpreneurship Development
12	SEC	Soft Skill III

b) NUMBER OF NEW COURSES INTRODUCED IN MSc BIOCHEMISTRY: 10

**CORE -6;
DSE- 1;
SEC-3**

Following are the New courses introduced in M.Sc Biochemistry:

S. No	Category	Title of the Paper
1	Core	Cellular Biochemistry
2	Core	Enzyme & Enzyme Technology
3	Core	Molecular Developmental Biology
4	Core	Plant and Animal tissue Culture
5	Core	Practical- Genetics and Molecular Biology
6	Core	Practical Enzymology
7	DSE	Research Methodology
8	SEC	Soft Skill I, II, III

% of Syllabus Revision in the Program:

40% revision in BSc Biochemistry

20% revision in MSc Biochemistry

Status of Implementation of CBCS, ECS & 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:

B.Sc. Biochemistry		
Existing Subjects		Current Subjects
S.No.	2018-2019	2021-2022
1	Tamil I/ Hindi / French I	Tamil I/ Hindi I/ French I
2	English I	English I
3	Biomolecules I	Biomolecule I
4	Nutritional Biochemistry	Basics of Nutrition
5	Practical I- Qualitative Analysis of Biomolecules	Human Physiology
6	Practical II- Nutritional Biochemistry	PRACTICAL1- Qualitative analysis of Biomolecules
7	Tamil II / Hindi II/ FrenchII	PRACTICAL 2- Nutritional Biochemistry
8	English II	Communication Skills
9	Biomolecules II	Tamil II / Hindi II/ French II
10	Biochemical Techniques	English II
11	Practical III- Biochemical Preparation Techniques	Biomolecules II
12	Practical IV Biochemical Separation Techniques	Analytical Biochemistry
13	Tamil III / Hindi III / French III	Bioenergetics & Membrane Biology
14	English – III	PRACTICAL 3 – Biomolecule Separation
15	Enzymes & Intermediary Metabolism I	PRACTICAL 4- Biomolecule Preparation
16	Clinical Biochemistry I	Soft Skills - I / Sector Skill Council Course
17	Practical V- Hematology	Tamil III / Hindi III/ French III
18	Practical VI – Enzymology & Clinical Biochemistry I	English – III
19	Soft Skill – I	Enzymes & Intermediary Metabolism I
20	Tamil IV / Hindi IV/ French IV	Clinical Biochemistry I
21	English IV	Cell & Developmental biology
22	Enzymes & Intermediary Metabolism II	Environmental Studies
23	Clinical Biochemistry II	PRACTICAL 5- Enzyme & Clinical Biochemistry I
25	Practical VII-Enzymology & Clinical Biochemistry II	Soft Skills - II / Sector Skill Council Course
26	Environmental Studies	Tamil IV / Hindi IV / French IV
27	Soft Skill – II	English IV
28	Discipline Specific Elective – 1	Enzymes & Intermediary Metabolism II
29	Discipline Specific Elective – 2	Clinical Biochemistry II
30	Discipline Specific Elective - 3	Hormonal Biochemistry
31	Practical VIII - DSE	PRACTICAL 6 - Enzyme & Clinical Biochemistry II
32	Generic Elective -1	PRACTICAL 7- Methods in Cell Biology
33	NSS	Soft Skills III / Sector Skill Council Course

34	Discipline Specific Elective - 4	Internship / Capability Enhancement Programme
35	Discipline Specific Elective – 5	Molecular Biology
36	Generic Elective -2	DSE 1
37	Project Work	DSE 2
38	-	DSE 3
39	-	DSE 4
40	-	PRACTICAL 8
41	-	PRACTICAL 9
42	-	Internship / Mini Project / Sector Skill Council Course
43	-	DSE 5
44	-	DSE 6
45	-	DSE 7
46	-	DSE / GE
47	-	Entrepreneurship Development
48	-	Project Work
49	-	Technical Seminar / Innovation Council / Start up Initiative

Other revisions carried out for Courses in BSc Biochemistry:

S. No	Existing	Current	Content
1	Endocrinology	Hormonal biochemistry	Title alone changed
2	Biochemical techniques	Analytical Biochemistry	Title alone changed
3	Nutritional Biochemistry	Basics of nutrition	Title and units revised


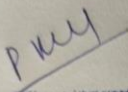
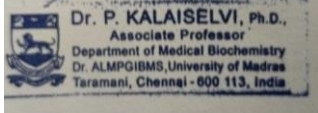

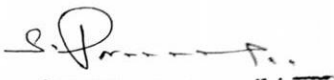
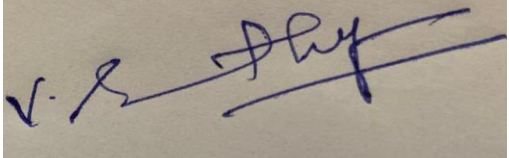
For MSc Biochemistry

MSc Biochemistry		
S.No	Existing Subjects (2018-2019)	Current Subjects (2021-2022)
1	Chemistry of Biomolecules	Core 1 – Chemistry of Biomolecules
2	Advanced Instrumental Techniques	Core 2- Advanced Instrumental techniques
3	Practical I Biochemistry & Instrumentation Lab	Core 3 – Cellular Biochemistry
4	Discipline Specific Elective 1	Core 4 – Biochemistry & Instrumentation
5	Discipline Specific Elective 2	DSE 1
6	Generic Elective 1	DSE 2
7	Enzymology	Soft Skill 1/ Sector Skill Course
8	Intermediary metabolism	Core 5- Enzyme & Enzyme Technology
9	Practical II Biotechnology Lab	Core 6 - Intermediary Metabolism
10	Practical III Microbiology Lab	Core 7 – Clinical Biochemistry
11	Discipline Specific Elective 3	Core 8 – Practical Enzymology
12	Discipline Specific Elective 4	Core 9- Practical Clinical Biochemistry
13	Generic Elective 2	DSE 3
14	Generic Elective 3	Internship
15	Genetics and Molecular Biology	Soft Skill 2/ Sector Skill Course
16	Clinical biochemistry	Core 10 – Genetics & Molecular Biology
17	Practical III Clinical Biochemistry Lab	Core 11- Molecular Developmental Biology
18	Discipline Specific Elective 5	Core 12- Plant & Animal Tissue culture
19	Discipline Specific Elective 6	Core 13 – Practical Genetics & Molecular Biology
20	Generic Elective 4	DSE 5
21	Internship	DSE 6

22	Toxicology and Forensic Biochemistry	Soft Skill 3/ Sector Skill Course
23	Project	Core 14 –Toxicology & Forensic Biochemistry
24	-	Generic elective
25	-	Project Work

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

Signature of the Members:

S. No.	Members	Signature
1	Dr. R. Padmini Assistant Professor & Head Department of Biochemistry VISTAS, Chennai	 HOD Dept. Of Biochemistry VISTAS Pallavaram, Chennai - 609 117.
2	Dr. P. Kalai selvi Associate Professor, Department of Medical Biochemistry, Dr. ALPGIBMS, University of Madras, Taramani Campus, Chennai	  Dr. P. KALAI SELVI, Ph.D., Associate Professor Department of Medical Biochemistry Dr. ALMPGIBMS, University of Madras Taramani, Chennai - 600 113, India
3	Dr. Usharavi, Assessor at NABET, Quality council of India, Chennai, India	
4	Dr. S. Perumal, Assistant Professor, Department of Biochemistry, VISTAS, chennai	 Dr. S.PERUMAL Assistant Professor Dept. of Biochemistry VISTAS Pallavaram, Chennai - 600117.
5	Ms. Sathya Medical Coder, Omega Health Care Chennai	

Annexure

(Revision of UG & 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
B.Sc., Biochemistry	Bioenergetics & Membrane Biology	2021-22	Skill development
	Cell & Developmental Biology	2021-22	Skill development
	Environmental Biochemistry	2021-22	Employability
	Protein Biochemistry	2021-22	Skill development
	Forensic Biochemistry	2021-22	Employability
	Inheritance Biology	2021-22	Skill development
	Biochemistry of Cell Signaling	2021-22	Skill development
M. Sc., Biochemistry	Cellular Biochemistry	2021-22	Skill development
	Research methodology	2018-19	Skill development
	Developmental Biology	2021-22	Skill development
	Plant and Animal tissue culture	2014-2015	Skill development