

J.J College of Arts and Science(Autonomous)
Sivapuram post, Pudukkottai-622 422
(Re-Accredited by NAAC-4th cycle)
Affiliated to Bharathidasan University, Tiruchirappalli

PG and Research Department of Biochemistry

Minutes of the Board of Studies Meeting

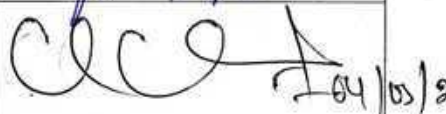
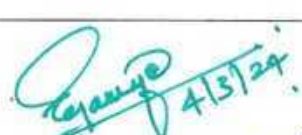
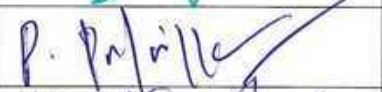
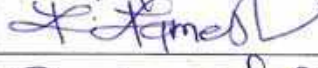
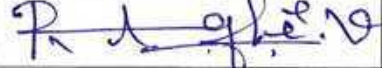
Meeting No:8

Date: 04.03.2024

Time: 11.00 a.m.

The meeting of the Board of Studies in Biochemistry (U.G. and P.G.) for the eighth revision of the curricula to be implemented from 2023-2024, was conducted at 11.00 a.m. on Monday 04.03.2024.

Members Present

S.No.	Name	Designation	Signature
1.	Dr. S. Kanitha Asst. Professor & Head	Chairperson	
2.	Dr. V. Ravikumar Associate Professor & Head Department of Biochemistry Bharathidasan University Tiruchirappalli	University Nominee	
3.	Dr.K.Pandima Devi Professor, Department of Biotechnology Alagappa University Karaikudi	Subject Expert	ABSENT
4.	Dr. S. Sivasangari Ramya , Principal Sri Sarada Niketan College for Women Karaikudi	Subject Expert	
5.	Mr. P. Palaniappan	Faculty member	
6.	Dr. R. Ramesh	Faculty member	
7.	Ms. V. Raghavi	Faculty member	
8.	Dr. M. Sathuvan	Faculty member	
9.	Dr. M. Sivakumar Managing Director Ariviya Technology Pvt. Ltd., Pattukkottai	Representative from Industry	
9.	Dr. J. Christinal Reader Department of Biochemistry Rajas Dental College and Hospital Kavalkinaru, Tirunelveli	Alumnus	

The Chairperson Dr. S. Kanitha chaired the meeting and welcomed all the members to the eighth BOS meeting.

Resolutions of the BOS in Biochemistry

1. In his notification No: 1616, dated 10.08.2021, the Chief Secretary, Department of Higher Education, Government of Tamil Nadu, has given the Autonomous Colleges, the freedom to retain / reframe their syllabi, Course Structure etc., in keeping with their perceptions on Institutional / local needs.
2. The College Council at its meeting held on 16.09.2023 resolved that our Institution will gratefully accept the academic freedom and empower the Boards of Studies either to retain or to reframe their Curriculum for various Programmes under CBCS and UGC - LOCF.
3. However, the Course Structure for the U.G. & P.G. programmes at Institutional level will have to follow a uniform pattern with minor variations depending on the discipline specific needs.
4. It is Resolved to modify and follow a total of 43 courses, 4300 marks and 141 credits for the U.G. Programmes and 21 courses, 2100 marks and 90 credits for the P.G. Programmes.

Distribution of Courses - U.G.

Sl. No.	Part	Courses	No. of Courses	No. of Credits	Marks
1.	I	Language Courses	4	12	400
2.	II	English Courses	4	12	400
3.	III	Core Courses	8	37	800
4.		Core Practical	6	28	600
5.		Project Work	1	04	100
6.		Discipline Specific Elective Courses	8	24	800
7.	IV	Internship	1	02	100
8.		Skill Enhancement Courses	7	14	700
9.		Value Education	1	02	100
10.		Environmental Studies	1	02	100
11.		Foundation Course	1	02	100
12.	V	Gender Studies	1	01	100
13.		Extension Activity	-	01	-
Total			43	141	4300

Distribution of Courses - P.G.

Sl. No.	Types of the Courses	No. of Courses	No. of Credits	Marks
1.	Core Courses	12	58	1200
2.	Project Work	01	10	100
3.	Discipline Specific Elective Courses	05	15	500
4.	Internship	01	03	100
5.	Skill Enhancement Courses	02	04	200
Total		21	90	2100

5. The Revised Syllabus has been implemented from the Academic Year 2023 – 2024 onwards. In the previous Boards of Studies meeting, the Syllabus for first two Semesters have been passed. Now in the light of the Government Communication, cited in Point No. 1, the Chairman of the Boards of Studies have introduced some changes in the Syllabus for Semester I and Semester II. Such modifications are approved and passed by this Board.
6. The Course Structure mentioned in Point No: 4 for U.G. & P.G. Programmes have already been approved and passed by the Boards of studies in Biochemistry.
7. In the present revision and modification, the General instructions on Curriculum Design, Course Structure, Uniformity of standards etc., given by the UGC - LOCF, AICTE, NAAC, TANSCH and the Parent University have been scrupulously followed.
8. Following the suggestion given by the Honorable members of the Academic Council in its last meeting, a course on Gender Studies has been included.
9. Resolved to include various online courses like SWAYAM - MOOCs with extra credits. The credits thus earned will be reflected in the Cumulative Mark Statement of the students.
10. Resolved to continue offering Value Added Courses.
11. It is resolved to have the following 15 core courses for UG semester-wise.

Semester-I

- **Biomolecules (U1R3BCCC1):** It is the Core Course of the previous curriculum with modifications.
- **Core Practical-I (U1R3BCCC2P):** It is the Core Course of the previous curriculum with modifications.

Semester-II

- **Cell Biology (U2R3BCCC3):** It is the Core Course newly introduced.
- **Core Practical-II (U2R3BCCC4P):** It is the Core Course newly introduced.

Semester-III

- **Biochemical Techniques (U3R3BCCC5):** It is the Core Course of the

previous curriculum with modifications.

- **Core Practical-III (U3R3BCCC6P):** It is the Core Course of the previous curriculum with modifications.

Semester-IV

- **Clinical Biochemistry (U4R3BCCC7):** It is the Core Course of the previous curriculum with modifications.
- **Core Practical-IV (U4R3BCCC8P):** It is the Core Course of the previous curriculum with modifications.

Semester-V

- **Enzymology (U5R3BCCC9):** It is the Core Course of the previous curriculum with modifications.
- **Intermediary Metabolism (U5R3BCCC10):** It is the Core Course of the previous curriculum with modifications.
- **Human Physiology (U5R3BCCC11):** It is the Core Course of the previous curriculum with modifications.
- **Core Practical-V (U5R3BCCC12P):** The It is the Core Course of the previous curriculum with modifications.

Semester-VI

- **Molecular Biology (U6R3BCCC13):** The Core Course of previous curriculum is retained as such as it matches almost 100% with the TANSHE syllabus.
- **Plant Biochemistry and Plant Therapeutics (U6R3BCCC14):** The Core Course of previous curriculum is retained as such as it matches almost 100% with the TANSHE syllabus.
- **Project Work (U6R3BCCC15PW):** It is the Core Course newly introduced.

12. It is resolved to have the following Discipline Specific Elective Courses for UG semester-wise

Semester-I

- **Chemistry-I (U1R3BCDSE1):** It is the Discipline Specific Elective Course newly introduced.

Semester-II

- **Chemistry-II (U2R3BCDSE2):** It is the Discipline Specific Elective Course newly introduced.

Semester-III

- **Fundamentals of Biology(U3R3BCDSE3:1):** It is the Discipline Specific Elective Course newly introduced.
- **Genetics(U3R3BCDSE3:2):** It is the Discipline Specific Elective Course newly introduced.

Semester-IV

- **Immunology (U4R3BCDSE4:1):** It is the Discipline Specific Elective Course newly introduced.
- **Life Style Disorders (U4R3BCDSE4:2):** It is the Discipline Specific Elective Course newly introduced.

Semester-V

- **Biochemical Pharmacology (U5R3BCDSE5:1):** It is the Discipline Specific Elective Course newly introduced.
- **Bioethics and patenting (U5R3BCDSE5:2):** It is the Discipline Specific Elective Course newly introduced.
- **Bio-entrepreneurship (U5R3BCDSE6:1):** It is the Discipline Specific Elective Course newly introduced.
- **Pain relief formulation and cosmetics(U5R3BCDSE6:2):** It is the Discipline Specific Elective Course newly introduced.

Semester-VI

- **Bioinformatics (U6R3BCDSE7:1):** It is the Discipline Specific Elective Course newly introduced.
- **Tissue culture (U6R3BCDSE7:2):** It is the Discipline Specific Elective Course newly introduced.
- **Biotechnology (U6R3BCDSE8:1):** It is the Discipline Specific Elective Course newly introduced.
- **Research Methodology (U6R3BCDSE8:2):** It is the Discipline Specific Elective Course newly introduced.

13. It is resolved to offer the following Non-Major Elective Courses

- **Medicinal Diet:** It is the Non-Major Elective Course newly introduced.
- **Lifestyle diseases :**It is the Non-Major Elective Course newly introduced.
- **Health and Nutrition :**It is the Non-Major Elective Course newly introduced.

14. It is resolved to offer the following Skill Enhancement Courses Semester wise

Semester-I

- **Office Automation (U1R3CSEC1):** To be opted from another department.

Semester-II

- **Computer Skill Development Course (U2R3CSEC2):** To be opted from another department.
- **Biomedical Instrumentation (U2R3CSEC 3:1):** It is the Skill Enhancement Course newly introduced.
- **First Aid (U2R3CSEC 3:2):** It is the Skill Enhancement Course newly introduced.

Semester-III

- **Medical Laboratory technology (U3R3CSEC4:1):** It is the Skill Enhancement Course newly introduced.
- **Microbiology (U3R3CSEC4:2):** It is the Skill Enhancement Course newly introduced.

Semester-IV

- **Biostatistics (U4R3CSEC5:1):** It is the Skill Enhancement Course newly introduced.
- **Nutrition (U4R3CSEC5:2):** It is the Skill Enhancement Course newly introduced.
- **Medical Coding (U4R3CSEC6:1):** It is the Skill Enhancement Course newly introduced.
- **Biophysics (U4R3CSEC6:2):** It is the Skill Enhancement Course newly introduced.

Semester-VI

- **Basics of forensic science (U6R3CSEC7:1):** It is the Skill Enhancement Course newly introduced.
- **Microbial Techniques (U6R3CSEC7:2):** It is the Skill Enhancement Course newly introduced.

15. It is resolved to newly introduce the “Foundation Course” in the first semester

for the undergraduate students.

16. It is resolved to newly introduce "Internship Programme" for the undergraduate students in their 5th semester for the undergraduate students.

17. It is resolved to have the following 14 Core Courses for PG Programme semester-wise.

Semester-I

- **Basics of Biochemistry (P1R3BCCC1):** It is the Core Course of the previous curriculum with modifications.
- **Biochemical and Molecular Biology Techniques (P1R3BCCC2):** It is the Core Course of the previous curriculum with modifications.
- **Practical-I (P1R3BCCC3P):** It is the Core Course of the previous curriculum with modifications.

Semester-II

- **Enzymology (P2R3BCCC4):** It is the Core Course of the previous curriculum with modifications.
- **Cellular Metabolism (P2R3BCCC5):** It is the Core Course of the previous curriculum with modifications.
- **Practical-II (P2R3BCCC6P):** It is the Core Course of the previous curriculum with modifications.

Semester-III

- **Clinical Biochemistry (P3R3BCCC7):** It is the Core Course of the previous curriculum with modifications.
- **Molecular Biology (P3R3BCCC8):** It is the Core Course of the previous curriculum with modifications.
- **Immunotechnology (P3R3BCCC9):** It is the Core Course of the previous curriculum with modifications.
- **Practical-III (P3R3BCCC10P):** It is the Core Course of the previous curriculum with modifications.

Semester-IV

- **Industrial Microbiology (P4R3BCCC11):** This Core Course is introduced newly.
- **Pharmaceutical Biochemistry (P4R3BCCC13):** This Core Course is introduced newly.
- **Project Work (P4R3BCCC14PW):** It is the Core Course of the previous curriculum.

18. It is resolved to offer the following Discipline Specific Elective courses for the PG Programme

- **Microbiology and Immunology (P1R3BCDSE1):** This Discipline Specific Elective Course is introduced newly.
- **Communication and Scientific writing (P1R3BCDSE2):** This Discipline Specific Elective Course is introduced newly.
- **Biostatistics and Data Science (P2R3BCDSE3):** This is the Discipline Specific Elective Course of previous curriculum which is modified.
- **Biosafety, Lab safety and IPR (P2R3BCDSE4):** This Discipline Specific

Elective Course is introduced newly.

- **Nutritional Biochemistry (P3R3BCDSE5:1):** This Discipline Specific Elective Course is introduced newly.
- **Biochemical Toxicology(P3R3BCDSE5:2):** This Discipline Specific Elective Course is introduced newly.

19. It is resolved to offer the following Skill Enhancement Courses for the PG Programme

- **Bioinformatics (P2R3BCSEC1):** This Skill Enhancement Course of previous curriculum is retained as such.
- **Molecular basis of diseases & therapeutic Strategies (P3R3BCSEC2:1):** This Skill Enhancement Course is introduced newly.
- **Developmental Biology(P3R3BCSEC2:2):** This Skill Enhancement Course is introduced newly.

20. It is resolved to retain the Internship Programme at the end of 2nd semester for PG Programme.

J.J College of Arts and Science(Autonomous)
Department of Biochemistry
BSc Biochemistry
Proposed Course Structure under autonomous status
Under choice based credit system
(Applicable for the candidates Admitted from the academic year 2023-2024 Onwards)

Sl. No.	Course Category	Course Code	Course	Credits	Hours /Week	Marks		
						CIA	ESE	Total
Semester I								
1	Part - I	U1R3TL1/HL1/FL1	Language - I (Tamil/Hindi/French)	3	6	25	75	100
2	Part - II	U1R3EL1	Language - II (English)	3	6	25	75	100
3	Part - III	U1R3BCCC1	Biomolecules	5	5	25	75	100
4		UIR3BCCC2P	Practical I – Covering CC1	5	5	40	60	100
5		U1R3BCDSE1	Chemistry-I	3	4	25	75	100
6	Part - IV	U1R3CSSEC1	(NME - 1) Office Automation	2	2	25	75	100
7		U1R3BCFC	Foundation Course	2	2	25	75	100
Total				23	30	-	-	700

S.No.	Course Category	Course Code	Course	Credits	Hours /Week	Marks		
						CIA	ESE	Total
Semester II								
1	Part - I	U2R3TL2/ HL2/FL2	Language - I (Tamil/Hindi/French)	3	6	25	75	100
2	Part - II	U2R3EL2	Language - II (English)	3	6	25	75	100
3	Part - III	U2R3BCCC3	Cell Biology	5	5	25	75	100
4		U2R3BCCC4P	Practical II - (Covering CC3)	5	5	40	60	100
5		U2R3BCDSE2	Chemistry-II	3	4	25	75	100
6	Part - IV	U2R3CASEC2	(NME -- 2) Computer Skill Development Course	2	2	25	75	100
7		U2R3BCSEC 3:1 / 3:2	Biomedical Instrumentation/ First Aid	2	2	25	75	100
Total				23	30	-	-	700

Dr. V. Ravi Kumar
by 10/1/24

Dr. S. Sivasankari Ranga

Dr. J. Chinmayi
4/3/24

Dr. M. Singaram
4/3/24

Sl.No.	Course Category	Course Code	Course	Credits	Hours /Week	Marks		
						CIA	ESE	Total
Semester III								
1	Part - I	U3R3TL3/ HL3/FL3	Tamil	3	6	25	75	100
2	Part - II	U3R3EL3	English	3	6	25	75	100
3	Part - III	U3R3BCCC5	Biochemical Techniques	5	5	25	75	100
4		U3R3BCCC6P	Practical - III (Covering CC5)	5	5	40	60	100
5		U3R3BCDSE3:1/ U3R3BCDSE3:2	Fundamentals of Biology/ Genetics	3	4	25	75	100
6	Part - IV	U3R3VE	Value Education	2	2	25	75	100
7		U3R3BCSEC4:1/ U3R3BCSEC4:2	Medical Laboratory technology/ Microbiology	2	2	25	75	100
Total				23	30	-	-	700

Sl.No.	Course Category	Course Code	Course	Credits	Hours /Week	Marks		
						CIA	ESE	Total
Semester IV								
1	Part - I	U4R3TL4/HL4/FL4	Tamil	3	5	25	75	100
2	Part - II	U4R3EL4	English	3	5	25	75	100
3	Part - III	U4R3BCCC7	Clinical Biochemistry	5	5	25	75	100
4		U4R3BCCC8P	Practical – IV (Covering CC7)	5	5	40	60	100
5		U4R3BCDSE4: 1 / 4:2	Immunology/ Life Style Disorders	3	4	25	75	100
6	Part - IV	U4R3BCSEC5:1 / 5:2	Biostatistics/Nutrition	2	2	25	75	100
7		U4R3BCSEC6:1 / 6:2	Medical Coding/Biophysical Chemistry	2	2	25	75	100
8		U4R3ES	Environmental Studies	2	2	25	75	100
Total				25	30			800

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Dr. V. Ravi Kumar

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Dr. S. Sivasangari Raniya

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Dr. J. Chinmoy

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Dr. M. Sivasankar

Sl.No.	Course Category	Course Code	Course	Credits	Hours /Week	Marks		
						CIA	ESE	Total
Semester V								
1	Part - III	U5R3BCCC9	Enzymology	5	5	25	75	100
2		U5R3BCCC10	Intermediary Metabolism	4	5	25	75	100
3		U5R3BCCC11	Human Physiology	4	5	25	75	100
4		U5R3BCCC12P	Practical – V (Covering CC9)	4	5	40	60	100
5		U5R3BCDSE5:1 / 5:2	Biochemical Pharmacology/ Bioethics and patenting	3	5	25	75	100
6		U5R3BCDSE6:1 / 6:2	Bio-entrepreneurship/ Pain relief formulation and cosmetics	3	5	25	75	100
7	Part - IV	U5R3BCINT	Internship	2	-	-	-	100
Total				25	30			700

Sl.No.	Course Category	Course Code	Course	Credits	Hrs/ Week	Marks		
						CIA	ESE	Total
Semester VI								
1	Part - III	U6R3BCCC13	Molecular Biology	4	6	25	75	100
2		U6R3BCCC14	Plant Biochemistry and Plant Therapeutics	4	5	25	75	100
3		U6R3BCCC15PW	Project Work	4	6	-	-	100
4		U6R3BCDSE7:1/ 7:2	Bioinformatics/ Tissue culture	3	5	25	75	100
5		U6R3BCDSE8:1 / 8:2	Biotechnology/Research Methodology	3	5	25	75	100
6	Part - IV	U6R3BCSEC7:1 / 7:2	Basics of forensic science/ Microbial Techniques	2	2	25	75	100
7	Part - V	U6R3GS	Gender Studies	1	1	25	75	100
		-	Extension Activity	1	-	-	-	-
Total				22	30	-	-	700
Grand Total				141	-	-	-	4300

Dr. V. Ravi Kumar

Dr. S. Sivasangari Ramya

Dr. J. Chinnai

Dr. M. Sivasama

J.J College of Arts and Science (Autonomous)
Department of Biochemistry
M.Sc. Biochemistry
Proposed Course Structure under autonomous status
Under choice based credit system
(Applicable for the candidates Admitted from the academic year 2023-2024 Onwards)

Sl.No.	Course Code	Course	Credits	Hours /Week	Marks		
					CIA	ESE	Total
Semester I							
1	P1R3BCCC1	Basics of Biochemistry	5	7	25	75	100
2	P1R3BCCC2	Biochemical and Molecular Biology Techniques	5	7	25	75	100
3	P1R3BCCC3P	Practical-I(Covering CC1)	4	6	40	60	100
4	P1R3BCDSE1	Microbiology	3	5	25	75	100
5	P1R3BCDSE2	Scientific Writing and Communication	3	5	25	75	100
Total			20	30			500

Sl.No.	Course Code	Course	Credits	Hours/ Week	Marks		
					CIA	ESE	Total
Semester II							
1	P2R3BCCC4	Enzymology	5	6	25	75	100
2	P2R3BCCC5	Cellular Metabolism	5	6	25	75	100
3	P2R3BCCC6P	Practical II - (Covering CC4, CC5)	4	6	40	60	100
4	P2R3BCDSE3	Biostatistics and Data Science	3	4	25	75	100
5	P2R3BCDSE4	Biosafety, Lab Safety and IPR	3	4	25	75	100
6	P2R3BCSEC1	Bioinformatics	2	4	25	75	100
Total			22	30			600

Dr. N. K. Kulkarni
4/13/24

Dr. S. Sivasankari
4/13/24

Dr. J. Chinnai
4/13/24

Dr. M. Sankar
4/13/24

Sl.No.	Course Code	Course	Credits	Hours /Week	Marks		
					CIA	ESE	Total
Semester III							
1	P3R3BCCC7	Clinical Biochemistry	5	6	25	75	100
2	P3R3BCCC8	Molecular Biology	5	6	25	75	100
3	P3R3BCCC9	Immunology	5	6	25	75	100
4	P3R3BCCC10P	Practical III (Covering CC7 & CC8)	5	6	40	60	100
5	P3R3BCDSE5:1/5:2	Nutritional Biochemistry/ Biochemical Toxicology	3	3	25	75	100
6	P3R3BCSEC2:1/2:2	Molecular basis of diseases & therapeutic Strategies/ Developmental Biology	2	3	25	75	100
7	P3R3BCINT	Internship	3	-	-	-	100
Total			28	30			700

Sl.No.	Course Code	Course	Overall Credits	Total Contact Hours/Week	Marks		
					CIA	ESE	Total
Semester IV							
1	P4R3BCCC11	Industrial Microbiology	5	6	25	75	100
2	P4R3BCCC12	Pharmaceutical Biochemistry	5	6	25	75	100
3	P4R3BCCC13PW	Project Work	10	18	-	-	100
Total			20	30			300
Grand Total			90	120			2100

Dr. V. Navin Kumar
4/13/24

Dr. S. Simangari Ranya
4/13/24

Dr. J. Chinnai
4/13/24

Dr. M. Simangari
4/13/24