

Machilipatnam, Vijayawada, Krishna District, AP-520 000

Board of Studies - AY: 2022-23



313: B.Sc., MBC
309: B.Sc., M.B.F.

Department of Biochemistry

PREFACE

S.R.R. & CVR Govt. Degree College (Autonomous), Vijayawada, is one of the prestigious educational institutions located in a historically significant place like Vijayawada in Krishna District, Andhra Pradesh. Vijayawada is a place of historical and cultural significance and importance. In the same way, S.R.R. & CVR Govt. Degree College has also acquired its reputation and prominence in and around Vijayawada by molding the lives of many students to become great personalities. This college is named after late Sri Raja Rangayyappa Rao and late Sri Chunduru Venkata Reddy, who have been great and noble donors of the city Vijayawada, by whose generosity the college has reached and attained such and this elevated status by way of shaping the lives of many generations of students making them worthy citizens of the country. This college has acquired excellent standards academically by the contributions of great teachers because, in the history of any educational institution, its teachers play a vital role. The college was established in 1937. It offers 27 undergraduate and ten postgraduate academic programmes with 86 regular faculty members. The college has a total strength of around 2,800 students, including 1550 boys and 650 girl students. The Institution was accredited with grade B+ with C.G.P.A 2.6 during March 2017 by NAAC and got ISO 9001: 2015 certificate during 2019. The college was ranked by NIRF in 101-150 band at NIRF-2020 & 151-200 band at NIRF 2019.

Biochemistry is the application of chemistry for understanding biological processes at the cellular and molecular levels. It uses physical, chemical, and advanced techniques in biology to study the structure and behavior of biomolecules and to find complex chemical reactions in biological systems. It helps to discover the explanations for the causes of many diseases in humans, animals, and plants. The department of biochemistry in S.R.R. and C.V.R Government Degree College, Machavaram, Vijayawada established as restructure course in 1998. The B.Sc. course in Biochemistry with the combination of Microbiology, Chemistry/Food technology is of 03/04 years duration. According to the Semester system, the choice-based credit system (CBCS) has been implemented since 2017. UGC COP MLT certificate courses are also offered by the department since 2005. Department lab is well equipped with electronic balance, water distillation unit, electronic pH meter, Incubator, autoclave, light microscopes, hot air oven, microtome, and colorimeter to facilitate the U.G.'s practical and project works. In addition to the central library of the college, the departmental library is well maintained with reference books of national and international editions and P.G. entrance exam practice books. The department is also provided with a projector to deliver ICT-based lectures. The department's objectives are to achieve excellence in teaching through adopting the best teaching and learning practices by conducting seminars, workshops, guest lectures, field trips, student internships, and study projects. The department practices potential evaluation methods periodically. The Students will be motivated and guided for higher studies. They will also be informed about the competitive exams in their field of study.

S.R.R. & CVR Government Degree College

An Autonomous & ISO 9001: 2015 Certified Institution: Ranked by NIRF in 101-150 band at NIRF-2020 & 151-200 band in NIRF 2019

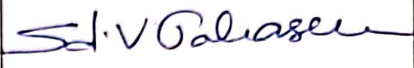
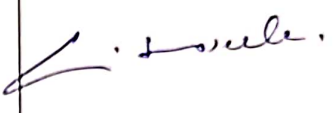
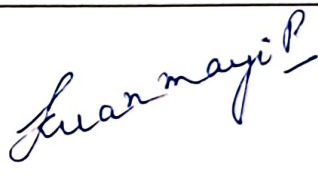
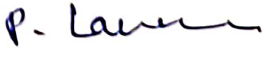
NAAC accredited Institution with grade B+ with C.G.P.A 2.6 during March 2017

Machavaram, Vijayawada, Krishna District, AP-520 004

Department of Biochemistry

Report on 7th Board of Studies Meeting for U.G. Programmes of the Department for AY-2022-23

Composition of the BOS of Biochemistry as Per U.G.C. Guidelines

S.No	Name of the Faculty	Designation	Signature
1	Smt. Syed Vaziha Tahaseen, Lecturer Department of Biochemistry S.R.R. & CVR Government Degree College, Vijayawada Mobile: 9948740949, Email: vazeehatahaseensuraj@gmail.com	Chairperson	
2	Dr.L.Suseela Assistant professor Department of Biotechnology & Biosciences Krishna University Machilipatnam	University Nominee	
3	Dr. P.Kiranmayi Assistant professor Department of Biochemistry Acharya Nagarjuna University, Nagarjuna Nagar, Guntur	Subject Expert	
4	Mrs. D. Vijayasree, Lecturer Department of Biochemistry GDC for Women, Guntur.	Subject Expert	
5.	Dr. Kisore Babu Govada Laila Nutraceuticals, Vijayawada Mobile:9908630910, Email: kishorempharm@gmail.com	Industrial Expert	
6.	Lavanya Studying P.G. in Biochemistry Acharya Nagarjuna University Nagarjuna Nagar, Guntur	Postgraduate student	
7.	E. Sarojini Devi Lecturer in Biochemistry SRR&CVR GDC, Vijayawada.	Member	

S.R.R. & CVR Government Degree College

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Machavaram, Vijayawada, Krishna District, AP-520 004

Department of Biochemistry

BOARD OF STUDIES MEETING FOR BIOCHEMISTRY COURSE

AGENDA

ACADEMIC YEAR: 2022-23

The 7th meeting of the Board of Studies in Biochemistry course was convened on 15th July 2022 at 10.30 a.m. in the Department of Biochemistry, Science block, under Chairmanship of Syed Vaziha Tahaseen, In-Charge of the department, with the following agenda:

Agenda:

1. To consider and approve course Structure of Biochemistry with course codes BCN-1325 BCN-2325 for the admitting batch -2022-23.
2. To consider and approve BC N-3325, BCN-4325-1, and BC N-4325-2 Syllabi for Courses in Semester III & IV under CBCS with Learning Outcomes-based Curriculum Framework (LOCF) for the academic year 2022-23 onwards.
3. To consider and approve BCN-5325-A1, BCN-5325-A2, BCN-5325-B1, BCN-5325-B2, Both theory and practical Syllabi for Courses in Semester V/ Semester VI under CBCS
4. To windup the existing UGC sponsored COPMLT course from the academic year 2022-2023.
5. To consider and approve Medical Lab Technology as a Certificate course for Undergraduate students of all programs.
6. To approve the syllabus for life skill course Environmental education
7. To consider and approve the Student Evaluation Policy and Procedure and split-up of C.I.A. & SEE.
8. To consider and approve the list of Question paper setters and examiners.
9. To consider and approve the Departmental Activities Calendar.
10. To consider and approve the Students Centered Pedagogy Policy to enrich the curriculum.
11. Any other with the permission of the chair.

Structure of BIOCHEMISTRY Syllabus
(Under CBCS for 3-year B.Sc. Programme)

(With domain subject covered during the first 4 Semesters with 5 Courses)

Year	Semester	Courses	Title of the Course	Marks	No. of Hrs/Week	No. of Credits
I	I	I	BCN-1325 Biomolecules	100	4	04
			BCN-1325P Biomolecules	50	2	01
	II	II	BCN-2325 Analytical techniques	100	4	04
			BCN-2325P Analytical Techniques	50	2	01
II	III	III	BCN-3325 Enzymology, Bioenergetics, and Intermediary Metabolism	100	4	04
			BCN-3325P Enzymology and Bioenergetics	50	2	01
	IV	IV-1	BCN-4325-1 Physiology, Nutritional and Clinical Biochemistry	100	4	04
			BCN-4325-1P Nutritional and Clinical Biochemistry	50	2	01
		IV-2	BCN-4325-2 Microbiology and Immunology	100	4	04
			BCN-4325 2P Human Physiology & Endocrinology	50	2	01
	III V/VI	VA1	BCN-5325-A1 Molecular Biology & rDNA Technology-	100	4	04
			BCN-5325-A1P Molecular Biology & rDNA Technology-	50	2	01
		VA2	BCN-5325-A2 Bioinformatics & Biostatistics	100	4	04
			BCN-5325-A2P Bioinformatics & Biostatistics	50	2	01
III V/VI		VB1	BCN-5325B1 Animal Biotechnology and Biostatistics	100	4	04
			BCN-5325-B1P Animal Biotechnology and Biostatistics	50	2	01
		VB2	BCN-5325B2 Cell biology, Genetics, Molecular biology and Evolution	100	4	04
			BCN-5325B2P Cell biology, Genetics, Molecular biology and Evolution	50	2	01

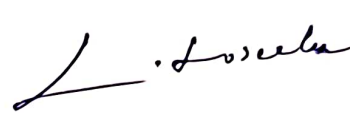
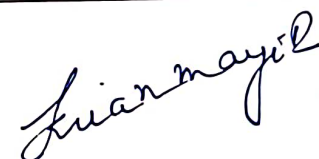
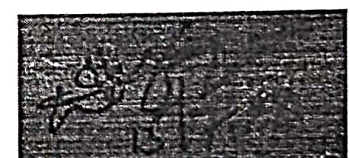
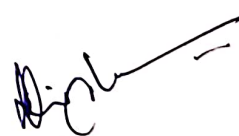
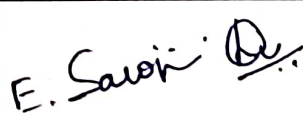
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Composition of the BOS of Biochemistry as Per U.G.C. Guidelines

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2	Dr.L.Suseela Assistant professor Department of Biotechnology & Biosciences Krishna University Machilipatnam	University Nominee	
3	Dr. P.Kiranmayi Assistant professor Department of Biochemistry Acharya Nagarjuna University, Nagarjuna Nagar, Guntur	Subject Expert	
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6.	Lavanya Studying P.G. in Biochemistry Acharya Nagarjuna University Nagarjuna Nagar, Guntur	Postgraduate student	
7.	E. Sarojini Devi Lecturer in Biochemistry SRR&CVR GDC, Vijayawada.	Member	

Machavaram, Vijayawada, Krishna District, AP-520 004

Department of Biochemistry

7th BOARD OF STUDIES MEETING FOR BIOCHEMISTRY
COURSE CONDUCTED ON 15th JULY 2022

MINUTES

ACADEMIC YEAR: 2022-23

The Minutes of the 7th Board of Studies meeting in Biochemistry was convened on 15th July 2022 at 10.30 a.m. under the Chairmanship of Syed Vaziha Tahaseen; In-Charge of the department is as follows:

Minutes and Resolutions of Board of Studies Meeting

Agenda 1: To discuss about the outline of the course.

Proposal: The Chairperson, Syed Vaziha Tahaseen, the In-Charge of the department, welcomed BoS members and initiated discussion on agenda points.

Discussion: The Chairman B.O.S. Syed Vaziha Tahaseen explained about the programs existing in the academic year 2021-22, conveyed about the 2020-2021 academic year introduced M.B.F. course, admissions. Appreciated the achievement of the out went batch students as two of them were selected for P.G. courses at Central universities and 6 students selected for PG courses in regional universities and one student present studying final year got AIR 54 rank in GATB.

The outline of course structure, theory, practical course, credits, and allotted lecture hours are discussed with the members. University Nominee Dr. Suseela enquired about the titles of the papers. E Sarojini conveyed that in the semester V/VI two sets of papers were introduced with the title Molecular biology & rDNA technology, Biostatistics & Bioinformatics as set "A" and Animal biotechnology & Biostatistics, Cell biology, Genetics, Molecular biology and Evolution as set "B"

were introduced with the title Molecular biology & rDNA technology, Biostatistics & Bioinformatics as set "A" and Animal biotechnology & Biostatistics, Cell biology, Genetics, Molecular biology and Evolution as set "B"

Agenda 2: To consider and approve the course Structure of Biochemistry with course codes BCN-1325 and BCN-2325 for the admitted batch - 2022-23

✓ Discussion: Mrs. Vijayasree asked to mention the name of the protein buffer in the first unit of paper 1 and Dr. Suseela asked to introduce P_{Ka} value for amino acids

Resolution 1: It is resolved to approve the biochemistry course structure for the semester I and II with the suggested modifications. The concepts Galactomannans and micells are kept as additional inputs for units 2, 3 respectively.

✓ Resolution 2: The Woodward Fieser rule was introduced in Spectrophotometry in unit 3.

Proposal: Dr. Suseela proposed to introduce the topic 2D Gel electrophoresis in syllabus.

Resolution 3. 2 D Gel electrophoresis is added in the syllabus for Semester II, in the unit 4.

Agenda 3: To consider and approve BC-N-3325, BCN-4325-1, BCN-4325-2,, and BCN-5325A1, BCN-5325-A2, BCN-5325-B1, BCN-5325-B2 Syllabi for Semester III & IV ,V,VI courses for the academic year 2022-23 onwards

Discussion: The board members discussed about the syllabus in detail. Each concept was thoroughly checked.

Proposal: To introduce at least 2 inborn errors in each metabolism in course 4

Resolution 4: Inborn errors were introduced in course 4

✓ Proposal: Dr. Suseela, university nominee, proposed introducing the mechanism of nerve impulse transmission in course 4

Discussion: Students will understand the structure of neuron, resting potential, action potential and further they will learn the mechanism of nerve signal transmission.

Resolution 5: The concept of nerve impulse transmission was introduced.

Proposal: Mrs. Vijayasree, the subject expert, proposed to take include the serum markers.

Resolution 6: The above-suggested proposal was accepted.

Agenda 4: To consider and approve BCN-5325 A1, BCN-5325 A2, BCN-5325 B1, and BCN-5325 B2 courses.

24 VI Proposal: The chairperson BoS proposed to accept the newly proposed syllabus for the courses as Molecular biology & rDNA technology, Bioinformatics & Biostatistics for set A

Resolution 7: The titles of the courses are accepted

Proposal: To introduce the splicing concept in posttranscriptional modifications

Resolution 8: The suggested modification is done

Proposal: Mrs. Vijayasree proposed that in Bioinformatics & Biostatistics paper the global alignment is explained by taking dynamic programming concept

Resolution 9: The above suggested change is included

Proposal: The chairperson BoS proposed to accept the newly proposed syllabus for the courses as Animal Biotechnology and Biostatistics, Cell biology, Genetics, Molecular biology and Evolution for set B

Discussion: The syllabus for the above two papers was accepted

Agenda: To wind up the existing UGC sponsored MLT course

To consider and approve syllabus for Medical Lab Technology as a certificate course from the academic year 2022-23 for Undergraduate students of all programs in semester III

Proposal: To discuss the syllabus for the certificate course in Medical Lab Technology [Certificate course in MLT] with more practical orientation, approval for issue of notification by the COE, SRR&CVR GDC, conduct of the final examination by the COE autonomous cell SRR&CVR GDC, and issue of certification.

Discussion: BoS university nominee, Dr. Suseela Madam and other members of BoS appreciated for successfully conducting the UGC sponsored MLT course since 2005 in biochemistry department. As the course is not recognized in paramedical board the, students who completed the course are not interested to take the final

certificates as they have to fulfill the payment of course fee. In these circumstances the department proposed to wind up this UGC sponsored COPMLT add-on course and to start the new practical oriented certificate course in MLT.

Resolution 10: The syllabus for practical oriented certificate course in medical lab technology was approved by the BoS committee, it is resolved to conduct the course under autonomy for issue of notification and conduct of examination.

Agenda: To approve the syllabus for life skill course Environmental education.

Resolution: It is resolved to implement the syllabus prescribed by APSHE without any changes for academic year 2022-23.

Agenda: To consider and approve the Student Evaluation Policy and Procedure and split up of C.I.A. & SEE.

Proposal: The chairman proposed that the evaluation system in each course be 40: 60 for Continuous Internal Evaluation (C.I.A.) and Semester End Evaluation (SEE).

Discussion: Faculty members of the department expressed their willingness to frame question papers based on the active verbs used to prepare question paper patterns on Bloom's Taxonomy.

Resolution 11: It is resolved to approve the Student Evaluation Policy and Procedure and split-up of C.I.A. & SEE as per the Rc. No. 003/Academic Cell/AC-10/ 2022

Agenda: To consider and approve the list of Question paper setters and examiners.

Resolution 12: The list of Question paper setters and examiners was approved.

Agenda 8: To consider and approve the Departmental Activities Calendar.

Resolution 13: The departmental activity calendar was appreciated by board members.

Sd. V. G. Gaseen
Chairman, Bos