

**Shri Manibhai Virani & Smt. Navalben Virani Science College, Rajkot  
(Autonomous)**

**Affiliated to Saurashtra University, Rajkot**

**BOARD OF STUDIES – BIOCHEMISTRY**

**12<sup>th</sup> Meeting of Board of Studies in Biochemistry**

**Programme: B.Sc. Biochemistry**

**Date: 22.05.2023**

**Time: 11.30 am**

**Mode: Hybrid**

**Agenda**

**1. Introductory remarks by Chairperson of the BoS.**

1.1 Confirmation of MoM & ATR of previous BoS held on 12/11/2022.

1.2 Departmental activities and updates.

**2. For B.Sc. Biochemistry program – Batch 2021-22 to 2023-24 and Batch 2022-23 to 2024-25:**

2.1 Scheme of Learning and Evaluation (SLE) for Sem.-5 & 6 of B.Sc. Biochemistry program

(with course title and related details).

2.2 Syllabi of all theory & practical courses including core elective and self-study courses of Sem.-5 & 6 of B.Sc. Biochemistry program.

2.3 Syllabi and evaluation norms of Part-II - Trans Disciplinary Elective (TDE) course offered by the department.

2.4 Question paper pattern for all theory & practical courses of Sem.-5 & 6 of B.Sc. Biochemistry program.

2.5 List of paper setters and examiners for all theory & practical courses of B.Sc. Biochemistry program.

**3. Curriculum credit framework FYUGP – For Students admitted from A.Y. 2023-24 & onwards**

3.1 Regulations for UG program – B.Sc. / B.Sc. (Honours) Biochemistry program.

3.2 Scheme of Learning & Evaluation (SLE) for all semesters and with course title and related details for Sem.-1 of UG program – B.Sc. / B.Sc. (Honours) / B.Sc. (Honours with Research) Biochemistry program (based on the recommendations for 4-year UG program under Curriculum and Credit Framework for Undergraduate

Programs - guidelines / framework/ regulations of UGC, Gujarat Government and affiliating Saurashtra University in light of NEP-2020).

**3.3** Syllabi of all theory & practical courses of Sem.-1 of B.Sc. / B.Sc. (Honours) / B.Sc. (Honours with Research) Biochemistry program.

**3.4** Syllabi for courses offered to other programs / departments in Sem.-1.

**3.5** Syllabi for Value Added courses / Skill Enhancement courses offered by the department in Sem.-1

**3.6** Question paper pattern for all theory & practical courses of Sem.-1 of B.Sc. / B.Sc. (Honours) / B.Sc. (Honours with Research) Biochemistry program.

**3.7** List of paper setters and examiners for all theory & practical courses of Sem.-1 of B.Sc. / B.Sc. (Honours) / B.Sc. (Honours with Research) Biochemistry program.

**3.8** Recommendations for implementation of credit equivalence / transfer for MOOCs including SWAYAM NPTEL platform / e-learning portals.

**4. Any other agenda:** Authorization to the BoS Chairperson for amendment / revision in BoS agenda in line / tune with latest revised guidelines / framework issued by UGC, Gujarat Government and Saurashtra University from time to time.

### **BoS Members:**

<b>S.No.</b>	<b>Name</b>	<b>Membership</b>	<b>Present/Absent</b>
1.	Dr. S. J. Shah	Head of Department, Chairperson	
2.	Dr Krishna Joshi	Subject Expert, VC-Nominee	
3.	Prof . Pushpa Robin	Subject Expert, AC Nominee	
4.	Dr. Abhijeet S.Joshi	Subject Expert, AC Nominee	
5.	Dr Jitendra Wagh	Industry Representative	
6.	Dr. P. G. Bhandari	Member Secretary	
7.	Dr. Dipak V. Parmar	Faculty member	
8.	(Dr.) Mayur P. Parmar	Faculty member	
9.	Mrs Khushboo Mehta	Faculty member	
10.	Ms Jigisha Pancholi	Alumni Representative	

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**Department of Biochemistry**

**B.Sc. BIOCHEMISTRY  
SCHEME OF LEARNING AND EVALUATION**

**For the students admitted from A.Y. 2021-2022 & onwards**

<b>Semester V</b>									
<b>Course Code</b>	<b>Course</b>	<b>Contact Hrs/ week</b>			<b>SEE Duratio n (Hours)</b>	<b>Maximum Marks</b>			<b>Credit(s )</b>
						<b>CI A</b>	<b>SE E</b>	<b>TOTA L</b>	
<b>Part-II</b>		<b>T</b>	<b>T u</b>	<b>P</b>					
21UBCCC501	<b>Core-11: Advanced Mol Bio</b>	4	-	-	3	30	70	100	4

21UBCCC502	<b>Core-12:</b> Genetics	4	-	-	3	30	70	100	4
21UBCCC503	<b>Core-13:</b> Nutritional Biochemistry - Self study	1	-	-	3	30	70	100	4
21UBCCC504	<b>Core-14:</b> Concept Recapitulation Test ( CRT) for Core Courses of Semester I-V	-	-	-	2	50	-	50	1
21UBCCE501/ 21UBCCE 502/ 21UBCCE503	<b>Core Elective 2:</b> Clinical Biochemistry/Bio informatics/ Pharmaceutical Biochemistry  Applied Course	4	-	-	3	30	70	100	4
21UBCTD501	<b>TDE 2:</b>	2	-	-	0	100	0	100	2
21UBCCC505	<b>Core Practical-5</b> Applied Course Practical#	-	-	6	6	40	60	100	3
21UBCCE504/ 21UBCCE 505/ 21UBCCE506	<b>Core Elective Practical-2</b> Clinical Biochemistry/Bio informatics/ Pharmaceutical Biochemistry-  Course Practicals	-	-	3	3	20	30	50	1

	<b>Core Enrichment 3: Internship /Training/Mini Project 2:</b>	-	-	-	-	100	-	100	1
	<b>Core Enrichment 4: Minor Project/Dissertation / Review Article / Instrumental Training/Industrial Tour report</b>	-	-	4	<b>To Be Evaluated in Semester VI</b>				
	<b>Part-II Total</b>	<b>15</b>	<b>0</b>	<b>13</b>	-	<b>430</b>	<b>370</b>	<b>750</b>	<b>24</b>
<b>Part-III: Ability Enhancement Courses</b>									
	<b>FS 3: Community Engagement</b>	-	2*	-	-	Remarks			Audit course
	<b>Part-III Total</b>	<b>0</b>	<b>2*</b>	<b>0</b>	-	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total (Part-I to Part-III)</b>	<b>15</b>	<b>2*</b>	<b>13</b>	-	<b>430</b>	<b>370</b>	<b>750</b>	<b>24</b>
		<b>30</b>			-	<b>750</b>			

\*Out of working Hours

# 3 hours each on Day1 and Day 2.

<b>Semester VI</b>									
<b>Course Code</b>	<b>Course</b>	<b>Contact Hrs/ week</b>			<b>SEE Duration (Hours)</b>	<b>Maximum Marks</b>			<b>Credit(s)</b>
		<b>T</b>	<b>Tu</b>	<b>P</b>		<b>CIA</b>	<b>SEE</b>	<b>Total</b>	
<b>Part- II</b>		<b>T</b>	<b>Tu</b>	<b>P</b>					
21UBCCC601	<b>Core-16: Advanced Cell</b>	4	-	-	3	30	70	100	4

	Biology *								
21UBCCC602	<b>Core-17:</b> Immunology **	5	-	-	3	30	70	100	5
21UBCCC603	<b>Core-18:</b> Plant Biochemistry **	5	-	-	3	30	70	100	5
21UBCCC604	<b>Core Practical-6</b> Advance +Applied Course Practical**			8	6	40	60	100	4
	<b>Core Enrichment – 4</b>  (Continue from Semester – V, Evaluated in Semester – 6)	-			-	100	-	100	4
	<b>Core Enrichment 5:</b> Project **/ Skill training**	-	-	20 /1 4	0	300	0	300	14
	<b>Part-II Total</b>	<b>14</b>	<b>-</b>	<b>8/ 20 - 14</b>		<b>230/ 430</b>	<b>270/ 70</b>	<b>500/5 00</b>	<b>22/22</b>
	<b>Total (Part-II)</b>	<b>14</b>	<b>-</b>	<b>8/ 20 - 14</b>		<b>230/ 430</b>	<b>270/ 70</b>	<b>500/5 00</b>	<b>22/22</b>
		<b>23</b>				<b>500</b>			

Student are given option to choose from any ONE of the following combinations/schemes based on his/her choice for progression either in Research in the same/ allied field (Scheme –

A) or in higher studies and/or placement (Scheme – B)

**A. Core 15 + Core 16 + Core Enrichment-4 + Core Enrichment – 5**

**OR**

**B. Core – 15 + Core – 16 + Core – 17 + Core – 18 + Core Practical + Core Enrichment - 4**

The Research in the form of Project / Start-up/Skill Training will be broadly based on the two verticals keeping in view the Local, National and Global needs: Sustainable development / Health & Wellness.

**Formation of Part-III**

Course Code	Semester	Course / Component	Contact Hrs	No. of Courses	Credit/ Course	Total Credits
<b>A. Ability Enhancement Course (AEC)</b>						
<b>(i) Ability Enhancement Compulsory Course (AECC)</b>						
	I	<b>AECCI:</b> Introduction to SDG (online course)	-	1	Remarks	Audit Course
	I & II	<b>AECC II:</b> Environmental Conservation and Sustainable Development	1 Hr / Week / Semester	1	1+1	2
	I & II	<b>AECC III:</b> Human Values for Holistic Living	1 T + 2 Tu /Week /Semester	1	1+1+1	3
					<b>Sub Total</b>	<b>5 + Audit course</b>
<b>(ii) Skill Enhancement Course (SEC)</b>						
As per	Any	<b>SEC-I</b>				

common list	Semester between II –V/VII	*Value Added Courses	40 Hrs	1	1	1
	Any Semester between III – V/VII	<b>SEC-II</b> **Co-Curricular Course	80 to 120 Hrs	1	2	2
					<b>Sub Total</b>	3
<b>B. Finishing School</b>						
<b>FS I to FS IV Compulsory to Earn Degree.</b>						
	I	<b>FS I:</b> Student Induction Program	3 weeks Phase 1, Phase 2, Phase 3	-	Remark	Audit course
	Across I & II Semesters	<b>FS II:</b> Fundamentals of Design Thinking (Online/Offline)	40 to 60 Hrs	1	Remark	Audit course
	Semesters I to V / VII	<b>FS III:</b> Career Acceleration Programme – CAP (Placement Training)	2 Hrs / Week /Semester	As per syllabus	Remarks	Audit course
	Semester V (3 yrs program) Semester VI (4 yrs program)	<b>FS IV:</b> Community Engagement	Twice a month	1	Remarks	Audit course
<b>FS V to FS VIII Options for Advanced Learners</b>						
	Any semester from II to V/VII	<b>FS V:</b> Indian & Foreign Languages	-	Any number of courses	Remarks	Audit course
	Any semester from II to V/VII	<b>FS VI:</b> Any number of Online course(s) from select MOOC platforms	-	Any number of courses	Remarks	Credit as per provider/ audit course
	Any semester	<b>FS VII:</b> Advanced	-	1	Remarks	Audit course



	from III to V/VII	Design Thinking				
	Any semester from I to VI/VIII	<b>FS VIII: #Extra Credit Course</b> Any number of courses from any UG program across the College	Self-study	Any number of courses	As per course offered	As per credit(s) earned across all courses opted

**\*Value Added Courses** - Option to student to choose at least 1 from a list of courses offered by any department across the Institution.

**\*\*Co-Curricular Courses** - Option to students to choose 1 from a list of courses offered by any department across the Institution.

# Student may opt for any course of the odd/even prevailing semester from any UG program across the Institution with the following guidelines:

- Attending class not mandatory.
- May be mentored by the course teacher.
- Preparation through self-study.
- CIA not mandatory; evaluated for total marks at the end of the semester.
- Indicates options to appear for the course through examination application and payment of examination fees of that course.
- Credits earned through each course indicated in the consolidated mark sheet as extra credits; not included for CGPA, percentage marks and classification.

#### **TOTAL MARKS & CREDIT DISTRIBUTION TO EARN THE DEGREE**

S. No	PART	Total Marks	Total Credits
1.	<b>PART I:</b> Language Course	400	12
2.	<b>PART II:</b> Core, IDC, DSE, TDE	4000	128
3.	<b>PART III:</b> AECC-I, II & III SEC- I & II FS I, II, III & IV	Remarks	08 + Credit audit
<b>TOTAL</b>		<b>4400</b>	<b>148</b>

#### **TRANS DISCIPLINARY ELECTIVE (TDE) OFFERED BY THE DEPARTMENT**

Semester	Course Code	Course Title	Course Duration	Credits
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<b>4</b>	<b>21UBCTD01</b>	<b>Life Style Disorders</b>	40 hrs	2
<b>5</b>	<b>21UBCTD02</b>	<b>Food and Nutrition</b>	40 hrs	2