



**SEETHALAKSHMI RAMASWAMI COLLEGE**

**(Autonomous)**

**Affiliated to Bharathidasan University**

**Tiruchirappalli**

*Accredited with A+ by NAAC (4<sup>th</sup> Cycle)*



**REVISED CURRICULUM**

**FOR**

**M.Sc. BIOCHEMISTRY Programme**

**(For Students admitted from 2021 onwards)**

**BY**

**DEPARTMENT OF BIOCHEMISTRY**



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## M.Sc. BIOCHEMISTRY

### Revised CBCS - OBE - BASED Curriculum Structure

(For students admitted from 2021 onwards)

SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/ EXT	INT	EXT	TOT
I	Core course - I		Chemistry of Biopolymers	6	5	EXT	25	75	100
	Core course - II		Analytical Biochemistry	6	5	EXT	25	75	100
	Core course - III		Cellular Mechanism	6	5	EXT	25	75	100
	MBE - I		Microbial Biochemistry	4	4	EXT	25	75	100
	Core Practical - I		<b>Practical - I :</b> Biochemical Analysis	4	-	-	-	-	-
	Core Practical - II		<b>Practical - II :</b> Assay of Enzyme activity	4	-	-	-	-	-
			<b>TOTAL</b>	<b>30</b>	<b>19</b>				<b>400</b>
II	Core course - IV		Hormonal Regulation	6	5	EXT	25	75	100
	Core course - V		Enzyme and Enzyme Technology	6	5	EXT	25	75	100
	MBE - II		Pharmaceutical and Neuro Biochemistry	5	4	EXT	25	75	100
	Core Practical - I		<b>Practical- I :</b> Biochemical Analysis	4	4	EXT	40	60	100
	Core Practical - II		<b>Practical - II :</b> Assay of Enzyme activity	4	4	EXT	40	60	100
	NME		Offered by the other Departments	5	4	INT	25	75	100
			<b>TOTAL</b>	<b>30</b>	<b>26</b>				<b>600</b>

SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	INT	EXT	TOT
III	Core course - VI		Energetics and Metabolic Regulation	6	5	EXT	25	75	100
	Core course - VII		Genetics and Molecular Biology	6	5	EXT	25	75	100
	Core course - VIII		Advanced clinical Biochemistry	6	5	EXT	25	75	100
	MBE - III		Bioinformatics and Nanotechnology	4	4	EXT	25	75	100
	Core Practical - III		<b>Practical - III :</b> Clinical Biochemistry	4	-	-	-	-	-
	Core Practical - IV		<b>Practical - IV :</b> Plant and Microbial Biochemistry	4	-	-	-	-	-
			<b>TOTAL</b>	<b>30</b>	<b>19</b>				<b>400</b>
IV	Core course - IX		Immunology	6	5	EXT	25	75	100
	Core course - X		Genetic Engineering	6	5	EXT	25	75	100
	MBE - IV		Phytochemistry and applications	4	4	EXT	25	75	100
	Core Practical - III		<b>Practical - III :</b> Clinical Biochemistry	4	4	EXT	40	60	100
	Core Practical - IV		<b>Practical - IV:</b> Plant and Microbial Biochemistry	4	4	EXT	40	60	100
	Project		Project	6	4	EXT	20	80	100
			<b>TOTAL</b>	<b>30</b>	<b>26</b>				<b>600</b>
			<b>GRAND TOTAL</b>	<b>120</b>	<b>90</b>				<b>2000</b>

**MAJOR BASED ELECTIVE COURSES**

<b>SEM</b>	<b>PART</b>	<b>GROUP</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>HRS</b>	<b>CRD</b>	<b>INT/EXT</b>	<b>CIA</b>	<b>SE</b>	<b>TOT</b>
I	III	Group – I (Choose any one Course)		<b>Course-I: Microbial Biochemistry/</b> Nutritional Biochemistry	4	4	EXT	25	75	100
II	III	Group – II (Choose any one Course)		<b>Course–II:</b> <b>Pharmaceutical and Neuro Biochemistry/</b> Herbal drug development	5	4	EXT	25	75	100
III	III	Group – III (Choose any one Course)		<b>Course–III:</b> <b>Bioinformatics and Nanotechnology/</b> Human physiology	4	4	EXT	25	75	100
IV	III	Group – IV (Choose any one Course)		<b>Course–III:</b> <b>Phytochemistry and application/</b> Ecology and Environmental science	4	4	EXT	25	75	100
<b>TOTAL</b>					<b>17</b>	<b>12</b>				<b>400</b>

**NON MAJOR ELECTIVE OFFERED TO OTHER DEPARTMENTS**

<b>SEM</b>	<b>COURSE</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>HRS</b>	<b>CRD</b>	<b>INT/EXT</b>	<b>INT</b>	<b>EXT</b>	<b>TOTAL</b>
II	NME		Biochemistry of diseases	5	4	EXT	25	75	100

**M.Sc. BIOCHEMISTRY**  
**Revised CBCS - OBE - BASED Curriculum Structure**

<b>Subject</b>	<b>Number of Courses</b>	<b>Credit</b>
<b>Core Course</b>	<b>10</b>	<b>50</b>
<b>Core Practical</b>	<b>4</b>	<b>16</b>
<b>Major Based Elective</b>	<b>4</b>	<b>16</b>
<b>Non Major Elective</b>	<b>1</b>	<b>4</b>
<b>Project</b>	<b>1</b>	<b>4</b>
<b>Total</b>	<b>20</b>	<b>90</b>