

*B.Sc., Biochemistry (Students admitted from 2018– 2019 onwards)*

Subject Code	Subject	Hours of Instruction	Exam Duration (Hours)	Maximum Marks			Credit Points
				CA	CE	Total	
<b>First Semester</b>							
<b>Part I</b>							
18UTALA101/ 18UHILA101/ 18UFRLA101	Tamil I/ Hindi I/ French I	5	3	25	75	100	3
<b>Part II</b>							
18UENLA101	Foundation English I	5	3	25	75	100	3
<b>Part III</b>							
18UBCM101	Core I: Biomolecules	6	3	25	75	100	5
18UCHBCA101	Allied I: Chemistry I	4	3	25	75	100	2
18UBCMP101	Core Practical I: Biomolecules	5	6	40	60	100	3
18UCHBCAP101	Allied Practical I: Volumetric and Organic Analysis	3	3	40	60	100	2
<b>Part IV</b>							
18UVE101	Value Education I: Yoga	2	3	25	75	100	2
<b>Total</b>		<b>30</b>				<b>700</b>	<b>20</b>
<b>Second Semester</b>							
<b>Part I</b>							
18UTALA201/ 18UHILA201/ 18UFRLA201	Tamil II/ Hindi II / French II	5	3	25	75	100	3
<b>Part II</b>							
18UENLA201	Foundation English II	5	3	25	75	100	3
<b>Part III</b>							
18UBCM201	Core II: Biochemical Techniques	6	3	25	75	100	5
18UMBBCA201	Allied II: Microbiology	4	3	25	75	100	2
18UBCMP201	Core Practical II: Biochemical Techniques	5	6	40	60	100	3
18UMBBCAP201	Allied Practical II: Microbiology	3	3	40	60	100	2

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<b>Part IV</b>							
18UVE201	Value Education II: Environmental Studies	2	3	25	75	100	2
<b>Total</b>		<b>30</b>				<b>700</b>	<b>20</b>
<b>Third Semester</b>							
<b>Part I</b>							
18UTALA301/ 18UHILA301/ 18UFRLA301	Tamil III/ Hindi III/ French III	5	3	25	75	100	3
<b>Part II</b>							
18UENLA301	Foundation English III	5	3	25	75	100	3
<b>Part III</b>							
18UBCM301	Core III: Enzymology	4	3	25	75	100	4
18UCSBCA301	Allied III: Computer for Biology	4	3	25	75	100	2
18UBCMP301	Core Practical III: Enzymology	3	6	40	60	100	3
18UCSBCAP301	Allied Practical III: Computer for Biology	2	3	40	60	100	2
<b>Part IV</b>							
18UBCSB301	SBC I: Cell Biology	2	3	25	75	100	2
	NMEC I	2	3	25	75	100	2
<b>Non Credit</b>							
18ULS301	Career Competency Skills I	1	-	-	-	-	-
	Add on Course	2	3	-	-	100	-
<b>Total</b>		<b>30</b>				<b>900</b>	<b>21</b>
<b>Fourth Semester</b>							
<b>Part I</b>							
18UTALA401/ 18UHILA401/ 18UFRLA401	Tamil IV/ Hindi IV/ French IV	5	3	25	75	100	3
<b>Part II</b>							
18UENLA401	Foundation English IV	5	3	25	75	100	3
<b>Part III</b>							
18UBCM401	Core IV: Bioenergetics and Intermediary	5	3	25	75	100	5

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	Metabolism						
18UMABCA401	Allied IV: Biostatistics	4	3	25	75	100	2
18UBCMP401	Core Practical IV: Intermediary Metabolism	3	6	40	60	100	3
18UMABCAP401	Allied Practical IV: Statistics (Using MS- Excel)	2	3	40	60	100	2
<b>Part IV</b>							
18UBCSB401	SBC II: Fundamentals of Biochemical Calculations (100 % Internal Evaluation)	2	3	100	-	100	2
	NMEC II	2	3	25	75	100	2
<b>Non - Credit</b>							
18ULS401	Career Competency Skills II	1	-	-	-	-	-
	Add on Course	1	3	-	-	100	-
<b>Total</b>		<b>30</b>				<b>900</b>	<b>22</b>
ALC*							
<b>Fifth Semester</b>							
<b>Part III</b>							
18UBCM501	Core V: Fundamentals of Immunology	5	3	25	75	100	4
18UBCM502	Core VI: Molecular Biology	5	3	25	75	100	5
18UBCM503	Core VII: Clinical Biochemistry	5	3	25	75	100	5
18UBCM504	Core VIII: Endocrinology	4	3	25	75	100	4
	Elective I	4	3	25	75	100	4
18UBCMP501	Core Practical V: Immunology and Clinical Biochemistry	4	6	40	60	100	3
<b>Part IV</b>							
18UBCSB501	SBC III : Pharmacognosy (100 % Internal	2	3	25	75	100	2

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	Evaluation)						
<b>Part V</b>							
18UBCE501	Extension Activity	-	-	-	-		2
<b>Non - Credit</b>							
18ULS501	Career Competency Skills III	1	-	-	-	-	-
<b>Total</b>		<b>30</b>				<b>700</b>	<b>29</b>
ALC *							
<b>Sixth Semester</b>							
<b>Part III</b>							
18UBCM601	Core IX: Plant Biochemistry	5	3	25	75	100	5
18UBCM602	Core X: Pharmaceutical Biochemistry	5	3	25	75	100	5
18UBCM603	Core XI: Genetic Engineering	5	3	25	75	100	5
	Elective II	4	3	25	75	100	4
18UBCMP601	Core Practical VI: Plant Biochemistry and Genetic Engineering	4	6	40	60	100	3
18UBCPR601	Internship	4	-	40	60	100	4
<b>Part IV</b>							
18UBCSB601	SBC IV : Phytochemistry	2	3	25	75	100	2
<b>Non - Credit</b>							
18ULS601	Career Competency Skills IV	1	-	-	-	-	-
<b>Total</b>		<b>30</b>				<b>700</b>	<b>28</b>
<b>Grand Total</b>						<b>4400</b>	<b>140</b>

### ELECTIVE SUBJECT

The students shall choose any one of the following elective subjects in fifth and sixth semester.

S.No.	Semester	Subject code	Subject
1.	V	18UBCEL501	Human Physiology
2.		18UBCEL502	Nutritional Biochemistry
3.	VI	18UBCEL601	Computational Biology
4.		18UBCEL602	Biomedical Instrumentation

### NON MAJOR ELECTIVE COURSE (NMEC)

Non Major Elective Course is conducted for the Students of other Departments.

S.No.	Semester	Course Code	Subject
1.	III	18UBCNM301	Biochemistry in Health and Diseases
2.	IV	18UBCNM401	Functional Biology

### ADD-ON COURSE

The students shall study the following Add-on Course during their Third and fourth semesters.

S.No.	Semester	Subject Code	Subject
1.	III	18UBCAC301	Clinical Laboratory Techniques
2.	IV	18UBCAC401	Medical Terminology (For Medical Coding/Medical Transcription)

### ADVANCED LEARNER COURSE:

The students shall choose any one of the following Advanced Learner Course during their Fourth and Fifth semester.

S.No.	Semester	Subject Code	Subject
1.	IV	18UBCAL401	Food Biochemistry
2.		18UBCAL402	Bioprocess technology
3.	V	18UBCAL501	Soil Biochemistry
4.		18UBCAL502	Microbial Biochemistry

### FOR COURSE COMPLETION

Student shall complete:

- Language subjects (Tamil/Hindi/French, English) in I, II, III and IV semester.
- Value Education: Yoga and Environmental Studies in I and II semester respectively.
- Allied subjects in I, II, III and IV semester.
- Two Add-on Course in III and IV semesters of their course of study.
- Two Non Major Elective Courses in III and IV semesters.
- Four Skill Based Courses in III, IV, V and VI semesters.
- Extension activity in V semester.
- Elective subjects in the V and VI semesters.
- Internship during the VI semester.
- Career Competency Skill in semester III, IV, V and VI.

### TOTAL CREDIT DISTRIBUTION

S.No.	PART	Total Marks	Total Credits
1.	PART I: Language	400	12
2.	PART II: Foundation English	400	12
3.	PART III : Major, Allied, Elective, Internship	2800	98
4.	PART IV: Value Education, SBC, NMEC	800	16
5.	PART V: Extension Activity	-	2
<b>TOTAL</b>		<b>4400</b>	<b>140</b>