

**B.Sc. Biochemistry: Course Structure under CBCS****(For the candidates admitted from the academic year 2016-2017 onwards)****(NAAN MUDHALVAN SCHEME was Implemented from 4th onwards for 2021-22 Batch)**

Sem	Part	Course	Title	Inst. Hours/ Week	Credit	Exam	Marks		Total
						Hours	Int	Ext	
I	I	Language Course–I (LC) – Tamil*/Other Languages + #		6	3	3	25	75	100
	II	English Language Course - I (ELC)		6	3	3	25	75	100
	III	Core Course–I (CC)	Biomolecules	6	6	3	25	75	100
		Core Practical – I (CP)	Biomolecules(P)	3	-	-	-	-	-
		First Allied Course–I (AC)	Chemistry I	4	4	3	25	75	100
		First Allied Practical –II (AP)	Chemistry (P)	3	-	***	-	-	-
		Add on Course – I ##	Professional English I	6	4	3	25	75	100
	IV	Value Education	Value Education	2	2	3	25	75	100
Total				30	22				600
II	I	Language Course–II (LC)– Tamil*/Other Languages + #		6	3	3	25	75	100
	II	English Language Course–II (ELC)		6	3	3	25	75	100
	III	Core Course–II (CC)	Human Physiology	6	6	3	25	75	100
		Core Practical – I (CP)	Biomolecules(P)	3	3	3	40	60	100
		First Allied Practical–II (AP)	Chemistry (P)	3	3	3	40	60	100
		First Allied Course–III (AC)	Chemistry II	4	2	3	25	75	100
		Add on Course – II ##	Professional English II	6	4	3	25	75	100
	IV	Environmental Studies	Environmental Studies	2	2	3	25	75	100
Total				30	26				800

III	I	Language Course – III (LC)– Tamil*/Other Languages + #		6	3	3	25	75	100	
	II	English Language Course-III (ELC)		6	3	3	25	75	100	
	III	Core Course – III (CC)	Biochemical Techniques	6	6	3	25	75	100	
		Core Practical – II (CP)	Biochemical Techniques and Instrumentation (P)	3	-	-	-	-	-	
		Second Allied Course – I (AC)	Biology - I	4	4	3	25	75	100	
		Second Allied Practical-II (AP)	Microbial, Plant and Cell Biology (P)	3	-	***	-	-	-	
	IV	Non Major Elective I - for those who studied Tamil under Part-I	Health and diseases @	2	2	3	25	75	100	
		a) Basic Tamil for other language students b) Special Tamil for those who studied Tamil upto +2 but opt for other languages in degree programme								
		Total			30	18				500
	IV	I	Language Course –IV (LC) - Tamil*/Other Languages + #		6	3	3	25	75	100
II		English Language Course – IV (ELC)		6	3	3	25	75	100	
III		Core Course – IV (CC)	Enzymes	5	5	3	25	75	100	
		Core Practical – II (CP)	Biochemical Techniques and Instrumentation (P)	3	3	3	40	60	100	
		Second Allied Practical - II (AP)	Microbial, Plant and Cell Biology (P)	3	3	3	40	60	100	
		Second Allied Course – III(AC)	Biology- II	3	2	3	25	75	100	
IV		Skill based elective -I	Skill based elective - I	2	2	3	25	75	100	
		Non Major Elective II-for those who studied Tamil under Part I	Hospital Management @	2	2	3	25	75	100	
		a) Basic Tamil for other language students								
		b) Special Tamil for those who studied Tamil upto +2 but opt for other languages in degree programme								
VI		Naan Mudhalvan Scheme (NMS) @@	Digital Skills for Employability	-	2	3	25	75	100	
Total			30	25				900		

V	III	Core Course – V (CC)	Bioenergetics and Metabolism	5	5	3	25	75	100
		Core Course – VI (CC)	Cell and Molecular biology	5	5	3	25	75	100
		Core Course – VII (CC)	Microbiology	6	5	3	25	75	100
		Core Practical – III (CP)	Food and Enzyme Biochemistry (P)	3	3	3	40	60	100
		Major Based Elective – I	Pharmaceutical Biochemistry	5	5	3	25	75	100
	IV	Skill based elective – II	Skill based elective - II	2	2	3	25	75	100
		Skill based elective - III	Skill based elective – III	2	2	3	25	75	100
		Soft Skills Development	Soft Skills Development	2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Advanced Technology for Employability in Life Science – Chemistry	-	2	-	25	75	100
	Total			30	31				900
VI	III	Core Course – VIII (CC)	Immunology	6	6	3	25	75	100
		Core Course – IX (CC)	Clinical Biochemistry	6	6	3	25	75	100
		Core Practical – IV (CP)	Haematology and Clinical Biochemistry (P)	5	4	3	40	60	100
		Major Based Elective II	Endocrinology	6	6	3	25	75	100
		Major Based Elective III	Basic Biotechnology	6	6	3	25	75	100
	V	Extension Activities **	Extension Activities	-	1	-	-	-	-
		Gender Studies	Gender Studies	1	1	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Bioinformatics for Employability	-	2	-	25	75	100
	Total			30	32				700
	Grand Total			180	154				4400

List of Allied Courses

Allied Course I

Chemistry

Language Part – I	-	4
English Part –II	-	4
Core Paper	-	9
Core Practical	-	4
Add-on Course	-	2
Allied Paper	-	4
Allied Practical	-	2
Non-Major Elective	-	2
Skill Based Elective	-	3
Major Based Elective	-	3
Environmental Studies	-	1
Value Education	-	1
Soft Skill Development	-	1
Gender Studies	-	1
Extension Activities	-	1
Naan Mudhalvan Scheme	-	3

Allied Course II

Biology

(Credit only)

- * for those who studied Tamil upto 10th +2 (Regular Stream)
- * For those who studied Tamil upto 10th +2 (Regular Stream).
- + Syllabus for other Languages should be on par with Tamil at degree level.
- # Those who studied Tamil upto 10th +2 but opt for other languages in degree level under Part- I should study special Tamil in Part – IV.
- ## The Professional English – Four Streams Course is offered in the 1st and 2nd Semester in all UG Courses. It will be taught apart from the Existing hours of teaching / additional hours of teaching (1 hour /day) as a 4 credit paper as an add on course on par with Major Paper and completion of the paper is must to continue his / her studies further. The Extra 6 hrs / cycle will be utilized for the Add on Professional English Course. (As per G.O. No. 76, Higher Education (K2) Department dated: 18.07.2020).
- @ NCC Course is one of the Choices in Non-Major Elective Course. Only the NCC cadets are eligible to choose this course. However, NCC Course is not a Compulsory Course for the NCC Cadets.
- ** Extension Activities shall be outside instruction hours.
- @@ Naan Mudhalvan Scheme as per Government instruction.

Non Major Elective I & II – for those who studied Tamil under Part I

- a) Basic Tamil I & II for other language students
- b) Special Tamil I & II for those who studied Tamil up to 10th or +2 but opt for other languages in degree programme

Note:

	Internal Marks	External Marks
1. Theory	25	75
2. Practical	40	60
3. Separate passing minimum is prescribed for Internal and External marks		

FOR THEORY

The passing minimum for CIA shall be 40% out of 25 marks [i.e. 10 marks]

The passing minimum for University Examinations shall be 40% out of 75 marks [i.e. 30 marks]

FOR PRACTICAL

The passing minimum for CIA shall be 40% out of 40 marks [i.e. 16 marks]

The passing minimum for University Examinations shall be 40% out of 60 marks [i.e. 24 marks]
