

**B.Sc.COMPUTERSCIENCE****CHOICE BASED CREDIT SYSTEM –****LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (CBCS - LOCF)**

(Applicable to the candidates admitted from the academic year 2022-2023 onwards)

(NaanMudhalvan scheme has been implemented from 2nd to 5th semester for the 2023-2024 Batch)

Sem.	Part	Course	Title	Ins. Hrs	Credits	Exam Hours	Marks		Total	
							Int.	Ext.		
I	I	Language Course – I Tamil \$ / Other Languages + #		6	3	3	25	75	100	
	II	English Course - I		6	3	3	25	75	100	
	III		Core Course – I (CC)	Programming in C and Data Structures	5	5	3	25	75	100
			Core Practical – I (CP)	Programming in C Lab	4	4	3	40	60	100
			First Allied Course – I (AC)		4	4	3	25	75	100
		First Allied Course – II (AC)		3	-	-	-	-	-	
	IV	Value Education		2	2	3	25	75	100	
TOTAL				30	21	-	-	-	600	
II	I	Language Course - II Tamil \$ / Other Languages + #		6	3	3	25	75	100	
	II	English Course - II		4	3	3	25	75	100	
	III		Core Course – II (CC)	Programming in Java	5	5	3	25	75	100
			Core Practical – II (CP)	Programming in Java Lab	4	4	3	40	60	100
			First Allied Course – II (AC)		3	2	3	25	75	100
		First Allied Course – III (AC)		4	4	3	25	75	100	
		Add on Course – I ##	Professional English – I	6*	4	3	25	75	100	
IV	Environmental Studies		2	2	3	25	75	100		
VI	NaanMudhalvan Scheme (NMS) @@	Language Proficiency for Employability – Overview of English Language Communication	2	2	3	25	75	100		
TOTAL				30	29	-	-	-	900	

III	I	Language Course – III Tamil \$ / Other Languages + #		6	3	3	25	75	100	
	II	English Course - III		6	3	3	25	75	100	
	III	Core Course – III (CC)	Programming in Python	5	5	3	25	75	100	
		Core Practical - III (CP)	Programming in Python Lab	4	4	3	40	60	100	
		Second Allied Course – I (AC)		4	4	3	25	75	100	
		Second Allied Practical (AP)		3	-	-	-	-	-	
		Add on Course – II ##	Professional English - II	6*	4	3	25	75	100	
	IV	Non-Major Elective - I @ Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level or b) Special Tamil if Tamil language was studied up to 10 th & 12 th std.	Fundamentals of Information Technology	2	2	3	25	75	100	
	VI	NaanMudhalvan Scheme (NMS) @@	Computational Skills for Employability - Foundation of Coding & Cloud Using Python	-	2	3	25	75	100	
	TOTAL				30	27	-	-	-	800
IV	I	Language Course –IV Tamil \$ / Other Languages + #		6	3	3	25	75	100	
	II	English Course – IV		6	3	3	25	75	100	
	III	Core Course - IV (CC)	Database Management Systems	5	5	3	25	75	100	
		Core Practical - IV (CP)	Database Management Systems Lab	4	4	3	40	60	100	
		Second Allied Practical (AP)		3	2	3	40	60	100	
		Second Allied Course – II (AC)		4	4	3	25	75	100	
	IV	Non-Major Elective II @ Those who choose Tamil in Part I can choose a non-major elective course offered by other departments. Those who do not choose Tamil in Part I must choose either a) Basic Tamil if Tamil language was not studied in school level or b) Special Tamil if Tamil language was studied up to 10 th & 12 th std.	Working Principles of Internet	2	2	3	25	75	100	
	VI	NaanMudhalvan Scheme (NMS) @@	Fundamentals of Web Development	-	2	3	25	75	100	
	TOTAL				30	25	-	-	-	800

V	III	Core Course - V (CC)	Fundamentals of Algorithms	5	5	3	25	75	100
		Core Course – VI (CC)	Computer Networks	5	5	3	25	75	100
		Core Course – VII (CC)	Digital Electronics and Microprocessor	5	5	3	25	75	100
		Core Practical -V (CP)	Digital Electronics and Microprocessor Lab	4	4	3	40	60	100
		Major Based Elective – I (Any one)	1. Artificial Intelligence and Expert Systems 2. Computer Graphics	5	4	3	25	75	100
	IV	Skill Based Elective I	Web Technology	4	2	3	25	75	100
		Soft Skills Development		2	2	3	25	75	100
	VI	NaanMudhalvan Scheme (NMS) @@	Generative AI with IBM	-	2	3	25	75	100
TOTAL			30	29	-	-	-	800	
VI	III	Core Course - VIII (CC)	Operating Systems	6	5	3	25	75	100
		Core Course - IX (CC)	Programming in PHP	6	5	3	25	75	100
		Core Practical – VI (CP)	Programming in PHP Lab	4	4	3	40	60	100
		Major Based Elective - II (Any one)	1. Software Engineering 2. Big Data Analytics	5	4	3	25	75	100
		Project		4	3	-	40	60	100
	IV	Skill Based Elective – II	Mobile Application Development	4	2	3	25	75	100
	V	Gender Studies		1	1	3	25	75	100
		Extension Activities **		-	1	-	-	-	-
TOTAL			30	25	-	-	-	700	
GRAND TOTAL			180	156	-	-	-	4600	

List of Allied Courses

First Allied Course

Second Allied Course

Mathematics

Applied Physics

\$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 2nd and 3rd Semester (only for 2022-2023 Batch) 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. (As per G.O. No. 76, Higher Education (K2) Department dated: 18.07.2020).

* The Extra 6 hrs / cycle as per the G.O. 76/2020 will be utilized for the Add on Professional English Course.

@ 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.

@@ NaanMudhalvan Scheme.

SUMMARY OF CURRICULUM STRUCTURE OF UG PROGRAMMES

Sl. No.	Part	Types of the Courses	No. of Courses	No. of Credits	Marks
1.	I	Language Courses	4	12	400
2.	II	English Courses	4	12	400
3.	III	Core Courses	9	45	900
4.		Core Practical	6	24	600
5.		Allied Courses I & II	4	16	400
6.		Allied Practical	2	4	200
7.		Major Based Elective Courses	2	8	200
8.		Add-on Course (Professional English I & II)	2	8	200
9.		Project	1	3	100
10.	IV	Non-Major Elective Courses	2	4	200
11.		Skill Based Elective Courses	2	4	200
12.		Soft Skills Development	1	2	100
13.		Value Education	1	2	100
14.		Environmental Studies	1	2	100
15.	V	Gender Studies	1	1	100
16.		Extension Activities	1	1	---
17.	VI	Naan Mudhalvan Scheme	4	8	400
Total			47	156	4600

PROGRAMME OUTCOMES:

- Graduates will be able to comprehend the basic concepts learnt and apply in real life situations with analytical skills.
- Graduates with acquired skills and enhanced knowledge will be employable / become entrepreneurs or will pursue higher Education.
- Graduates with acquired knowledge of modern software tools will be able to contribute effectively as software engineers.
- Graduates will be able to comprehend the related concepts to Computer Science with Allied papers
- Graduates will be imbued with ethical values and social concerns to ensure peaceful society.

PROGRAMME SPECIFIC OUTCOMES:

- Acquired the required knowledge in the Hardware and Software aspects of Computer Science domain and the art of programming.
- Understood the development methodologies of software systems and the ability to analyze design and develop computer applications for real life problems.
- Gained knowledge and skills to collaborate and communicate with peers in IT/ITES industries
- The ability to understand, adjust and adapt with the dynamic technical environment for the growth of IT industry.
- The capacity to transfer the skills gained, to provide innovative and novel solutions by maintaining ethical norms for the betterment of human society.
