BHARATHIDASAN UNIVERSITY



TIRUCHIRAPPALLI - 620 024.

# **BACHELOR COMPUTER APPLICATIONS**

# **CHOICE BASED CREDIT SYSTEM -**

# LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (CBCS - LOCF)

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

# (Naan Mudhalvan scheme has been implemented from 2nd to 4th semester for the 2023-2024 Batch)

Sem.	art	Course	Title	Ins.	Credits	Exam	Ma		Total
~ • • • • • •	P			Hrs.		Hours	Int.	Ext.	
	Ι	Language Course – I Tamil \$ / Other Languages + #		6	3	3	25	75	100
	II	English Course - I		6	3	3	25	75	100
		Core Course – I (CC)	Programming in C and Data Structures	5	5	3	25	75	100
	III	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			21	-	-	-	600
	Ι	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
II		Add on Course – I ##	Professional English – I	6*	4	3	25	75	100
	IV	Environmental Studies		2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Language Proficiency for Employability – Overview of English Language Communication	2	2	3	25	75	100
	TOTAL			30	29	-	-	-	900

		Language Course III							Ì
	Ι	Language Course – III Tamil \$ / Other Languages + #		6	3	3	25	75	100
	II	English Course - III		6	3	3	25	75	100
	11	Core Course – III (CC)	Programming in Python	5	5	3	25	75	100
	III	Core Practical - III (CP)	Programming in Python Lab	4	4	3	40	60	100
		Second Allied Course – I (AC)	Luo	4	4	3	25	75	100
		Second Allied Course – II (AC)		3	-	-	-	-	-
			Professional English - II	6*	4	3	25	75	100
III	IV	<ul> <li>Non-Major Elective I @ - Those who choose Tamil in Part I can choose a non-major elective course offered by other departments.</li> <li>Those who do not choose Tamil in Part I must choose either</li> <li>a) Basic Tamil if Tamil language was not studied in school level or</li> <li>b) Special Tamil if Tamil language was studied upto 10<sup>th</sup> &amp; 12<sup>th</sup> std.</li> </ul>	Fundamentals of Information Technology	2	2	3	25	75	100
	VI	Naan Mudhalvan Scheme (NMS) @@	Computational Skills for Employability - Foundation of Coding & Cloud Using Python	-	2	3	25	75	100
		TOTAL	30	27	-	-	-	800	
	Ι	Language Course –IV Tamil \$ / Other Languages + #		6	3	3	25	75	100
	II	English Course – IV		6	3	3	25	75	100
		Core Course - IV (CC)	Database Management Systems	5	5	3	25	75	100
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	III	Core Practical - IV (CP)	Database Management Systems Lab	4	4	3	40	60	100
	III	Second Allied Course – II (AC)	Database Management	3	2	3	40 25	60 75	100
	III	Second Allied Course – II (AC) Second Allied Course – III (AC)	Database Management Systems Lab				40	60	
IV	III IV	Second Allied Course – II (AC)	Database Management Systems Lab	3	2	3	40 25	60 75	100
IV		Second Allied Course – II (AC) Second Allied Course – III (AC) 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 <b>or</b> b) Special Tamil if Tamil language was studied upto $10^{\text{th}} \& 12^{\text{th}}$ std. Naan Mudhalvan Scheme (NMS)	Database Management Systems Lab Working Principles of Internet	3 4	2 4 2	3 3 3	40 25 25 25	60 75 75 75	100 100
IV	IV	Second Allied Course – II (AC) Second Allied Course – III (AC) 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 <b>or</b> b) Special Tamil if Tamil language was studied upto $10^{\text{th}} \& 12^{\text{th}}$ std.	Database Management Systems Lab Working Principles of Internet	3 4	24	3 3	40 25 25	60 75 75	100 100

		Core Course - V (CC)	Fundamentals of Algorithms	5	5	3	25	75	100
	III	Core Course – VI (CC)	Computer Networks	5	5	3	25	75	100
		Core Course – VII (CC)	Web Technology	5	5	3	25	75	100
		Core Practical -V (CP)	Web Technology Lab	4	4	3	40	60	100
V		Major Based Elective – I (Any one)	<ol> <li>Multimedia Technologies</li> <li>Data Mining and Warehousing</li> </ol>	5	4	3	25	75	100
		Skill Based Elective I	Mobile Application Development	4	2	3	25	75	100
		Soft Skills Development		2	2	3	25	75	100
		ΤΟΤΑΙ	30	27	-	-	-	700	
		Core Course - VIII (CC)	Operating Systems	6	5	3	25	75	100
	III	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
VI		Major Based Elective II (Any one)	<ol> <li>Software Project Management</li> <li>E-Commerce Technologies</li> </ol>	5	4	3	25	75	100
		Project		4	3	-	20	80	100
	IV	Skill Based Elective – II	Internet of Things	4	2	3	25	75	100
	V	Gender Studies		1	1	3	25	75	100
		Extension Activities **		-	1	-	-	-	-
		TOTAI		30	25	-	-	-	700
	GRAND TOTAL				154	-	-	-	4500

#### List of Allied Courses

#### **First Allied Course**

# Second Allied Course

Mathematics

Accounting and Organizational Behaviour

- \$ For those who studied Tamil upto  $10^{\text{th}} + 2$  (Regular Stream).
- + Syllabus for other Languages should be on par with Tamil at degree level.
- # Those who studied Tamil upto 10<sup>th</sup> +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 2<sup>nd</sup> and 3<sup>rd</sup> 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.

@@ Naan Mudhalvan Scheme as per Government instruction.

S1. 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.		Core Courses	9	45	900
4.		Core Practical	6	24	600
5.		Allied Courses (1 <sup>st</sup> & 2 <sup>nd</sup> )	6	20	600
6.	III	Major Based Elective Courses	2	8	200
7.		Add –on Course (Professional English I & II)	2	8	200
8.	1	Project	1	3	100
9.		Value Education	1	2	100
10.		Environmental Studies	1	2	100
11.	IV	Non-Major Elective Courses	2	4	200
12.		Skill Based Elective Courses	2	4	200
13.		Soft Skills Development	1	2	100
14.	V	Gender Studies	1	1	100
15.	v	Extension Activities	1	1	0
16.	VI	Naan Mudhalvan Scheme	3	6	300
		Total	<b>46</b>	154	<b>4500</b>

### SUMMARY OF CURRICULUM STRUCTURE OF UG PROGRAMMES

### **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 imbibed with ethical values and social concerns to ensure peaceful society.

#### **PROGRAMME SPECIFIC OUTCOMES:**

After completing the Bachelor of Computer Applications Programme, the graduates would have

- Understand and analyze the fundamental knowledge in the domain of computer applications.
- Enhance the logical and analytical thinking to understand the computational systems.
- Ability to comprehend the structure, development methodologies of software systems and to design the software solutions.
- Explore the developing areas in the sphere of computer applications and to enrich themselves to be skilful to meet the diverse expectations of the industry.
- Equip them to be competent to provide optimal and ethical solutions to the technological challenges laid by the professional societies

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