



**Shrimathi Devkunvar Nanalal Bhatt Vaishnav
College for Women (Autonomous)**

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC
Chromepet Chennai-600044



DEPARTMENT OF COMPUTER SCIENCE WITH COGNITIVE SYSTEMS

B.Sc Computer Science with Cognitive Systems

CHOICE BASED CREDIT SYSTEM (CBCS)

&

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)

2022-2025 Batch



B.Sc Computer Science with Cognitive Systems

PROGRAMME OUTCOMES (PO)

After completion of the programme, the student will be able to

PO1	Develop sharp cognizance of concepts, apply the domain knowledge with utmost confidence and be assertive at any given opportunity.
PO2	Possess deeper understanding of life skills to appraise life and draw logical conclusions.
PO3	Design and develop solutions for challenging problems of society.
PO4	Acquire programme centric thought process facilitating further studies in the respective domain.
PO5	Engage in life-long learning to easily adapt to the dynamic environment and obtain clarity and preparedness for field specialization
PO6	Self-actualize and self-regulate, focusing on ethical and moral values to become a compassionate human being.

PROGRAMME SPECIFIC OUTCOMES (PSO)

The students at the time of graduation will

PSO1	Understand the programming concepts, methodologies and apply algorithms, mathematical and scientific reasoning to solve ranged computational problems.
PSO2	Apply emerging software development techniques and tools in providing real-time solutions through logical thinking, problem solving and cognitive skills.
PSO3	Build successful careers through the various recent technical tool knowledge, and have an edge in employment opportunities in the IT sector, as well in higher education



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Curriculum 2022-2025

SEM	PART	COURSE COMPONENT	COURSE CODE	TITLE OF THE PAPER	CREDITS	LECTURE HOURS		CIA	ESE	TOTAL
						TH	PR			
I Year I Semester	I	Foundation Course	20ULTFC1001 / 20ULHFC1001 / 20ULSFC1001 / 21ULFFC1001	Tamil/Hindi/ Sanskrit/French	3	6		40	60	100
	II	Foundation Course	20UGEFC1001	English	3	6		40	60	100
	III	CoreMajor1	21UCGCT1001	Core Major-I Operating Systems	2	5		40	60	100
	III	Core Practical 1	21UCGCP1001	Core Practical-I Programming Lab-Operating Systems	2		4	40	60	100
	III	Core Practical II	21UCGCP1002	Core Practical-II Programming Lab- Introduction to Worksheets	5		3	40	60	100
	III	Allied Theory 1	21UCGAT1001	Allied Theory- I Discrete Mathematics	3	6		40	60	100
	IV	Soft Skill	20USSLC1001	Essentials of Language and Communication Skills	3	-		50	-	50
				TOTAL	21					650
	I	Foundation Course	20ULTFC2002 / 20ULHFC2002 / 20ULSFC2002 / 21ULFFC2002	Tamil/Hindi/ Sanskrit/French	3	6		40	60	100
	II	Foundation Course	20UGEFC2002	English	3	6		40	60	100



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I Ye ar II Se m es ter	III	Core Major II	21UCGCT2002	Core Major – II Computer Network	3	5		40	60	100
	III	Core Practical III	21UCGCP2003	Core Practical- III WEB Technology Lab	2		4	40	60	100
	III	Core Practical IV	21UCGCP2004	Core Practical- IV Computer Networks Lab	2		3	40	60	100
	III	Allied Theory II	21UCGAT2002	Allied Theory – II Numerical Methods	5	6		40	60	100
	IV	Soft Skill	20USSSP2002	Essentials of Spoken and Presentation Skills	3	-		50		50
	IV	Value Education	20UESVE2001	Environmental Studies	2	-		50		50
	IV	Value Education	20UYGVE2002	Yoga and Wellness	2	-		50		50
				TOTAL	25					750
II Ye ar III Se m es te r	I	Foundation Course	20ULTFC3003 / 20ULHFC3003 / 20ULSFC3003 / 21ULFFC3003	Tamil/Hindi/ Sanskrit/French	3	5		40	60	100
	II	Foundation Course	20UGEFC3003	English	3	5		40	60	100
	III	Core Major III	21UCGCT3003	Core Major- III Infrastructure Management	3	4		40	60	100
	III	Core Major IV	21UCGCT3004	Core Major – IV Virtualization And Cloud	4	4		40	60	100
	III	Core Practical V	21UCGCP3005	Core Practical- V Infra structure Management Lab	2		4	40	60	100



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	III	Core Practical VI	21UCGCP3006	Core Practical – VI Virtualization and Cloud Lab	2		3	40	60	100
	III	Allied Theory III	21UCGAT3003	Allied Theory – III Operational Research	5	5		40	60	100
	IV	Non Major Elective	21UCGNE3001	HTML	2	-		50	-	50
				TOTAL	24					750
II Ye ar IV Se m es te r	I	Foundation Course	20ULTFC4004 / 20ULHFC4004 / 20ULSFC4004 / 21ULFFC4004	Tamil/Hindi/ Sanskrit/French	3	5		40	60	100
	II	Foundation Course	20UGEFC4004	English	3	5		40	60	100
	III	Core Major V	21UCGCT4005	Core Major- V RDBMS Using Oracle	4	4		40	60	100
	III	Core Major VI	21UCGCT4006	Core Major- VI Process Management	3	5		40	60	100
	III	Core Practical VII	21UCGCP4007	Core Practical- VII RDBMS- Lab	2		4	40	60	100
	III	Allied Theory IV	21UCGAT4004	Allied Theory- IV Statistical Methods	3	5		40	60	100
	III	Allied Practical 1	21UCGAP4001	Allied Practical I: Statistical Methods	2		2	40	60	100
	IV	Non Major Elective	21UCGNE4002	HTML	2	-		50	-	50
				TOTAL	22					750
	III	Core Theory VII	21UCGCT5007	Core Theory- VII Software Engineering and Testing	4	4		40	60	100
	III	Core Theory VIII	21UCGCT5008	Core Theory- VIII Client	3	4		40	60	100



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				Relationship Management						
III Ye ar V Se m e s t e r	III	Core Theory IX	21UCGCT5009	Core Theory- IX Digital Technology	3	4		40	60	100
	III	Elective I-Theory Classroom / Coursera	21UCGET5IT1	IT Cognition And Problem Solving / Data Mining /Computer Graphics	5	6		40	60	100
	III	Core Practical VIII	21UCGCP5008	Core Practical- VIII Software Testing Lab Using Selenium	2		4	40	60	100
	III	Core Practical IX	21UCGCP5009	Core Practical- IX CRM lab	2		5	40	60	100
	III	Core Practical X	21UCGCP5010	Core Practical- X Digital Technology Lab	2		5	40	60	100
	IV	Skill Based Elective	23USSSB5SM3/ 23USSSB5ST3	Skill Based Elective-Spoken Tutorial -Introduction to Bootstrap	3	-		50		50
				TOTAL	24					750
III Ye ar VI Se m e s t e r	III	CorevTheoryX	21UCGCT6010	Core Theory- X Java Programming	4	6		40	60	100
	III	CorevTheoryXI	21UCGCT6011	Core Theory- XI Python Programming and Data Structure	4	4		40	60	100
	III	Elective II-Theory Coursera	21UCGET6ML2 / 21UCGET6DS2 / 21UCGET6MA2	Machine Learning / Introduction To Data Science / Multimedia And Its Application	5	6		40	60	100



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III	Core Practical XI	21UCGCP0611	Core Practical- XI Java Programming Lab	2	6		40	60	100
III	ElectiveIII-Project	21UCGCPR6001	Mini project	5	6		40	60	100
IV	SkillEnhancement	23USSSE6CR4	Skill Enhancement –Coursera	3			50	-	50
V	Extra-CurricularActivit y	XSP	Sports	1				-	
			TOTAL	24					550
			GRAND TOTAL	140					4200

*** Spoken Tutorial- Introduction to Bootstrap course offered from IIT Mumbai**

***Coursera– LMS course offered from Coursera Course**

Core Electives

<u>List of Courses Offered in V Semester</u>	<u>List of Courses Offered in VI semester</u>
1. IT Cognition And Problem Solving 2. Data Mining 3. Computer Graphics	1. Machine Learning 2. Introduction To Data Science 3. Multimedia And Its Application