



# **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 APPLICATIONS**

### **BCA**

### **CHOICE BASED CREDIT SYSTEM (CBCS)**

**&**

### **LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)**

**2023 - 2026 Batch**



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### PROGRAMME OUTCOMES (PO)

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

<b>PO1</b>	Develop sharp cognizance of concepts, apply the domain knowledge with utmost confidence and be assertive at any given opportunity.
<b>PO2</b>	Possess deeper understanding of life skills to appraise life and draw logical conclusions.
<b>PO3</b>	Design and develop solutions for challenging problems of society.
<b>PO4</b>	Acquire programme centric thought process facilitating further studies in the respective domain.
<b>PO5</b>	Engage in life-long learning to easily adapt to the dynamic environment and obtain clarity and preparedness for field specialization.
<b>PO6</b>	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

<b>PSO1</b>	Attain the ability to understand the basic principles and concepts to acquire knowledge of mathematical foundations and computer applications.
<b>PSO2</b>	Ability to adopt the rapid changes in tools and technology and to explore technical skills in diverse areas of computer applications.
<b>PSO3</b>	Explore technical comprehension in varied areas of computer applications and experience a conducive environment in cultivating skills for thriving career and higher studies.



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## CURRICULUM 2023 – 2026 Batch

SEM	PART	COURSE COMPONENT	COURSE CODE	TITLE OF THE PAPER	CREDIT S	LECTURE HOURS		CIA	ESE	TOTAL
						TH	PR			
I Ye ar - Se m es te r I	I	Foundation Course	22ULTFC1001/ 22ULHFC1001/ 22ULSFC1001/ 21ULFFC1001	Tamil –I/ Hindi –I/ Sanskrit-I/ French-I	3	6		40	60	100
	II	Foundation Course	20UGEFC1001	General English -I	3	6		40	60	100
	III	Core Theory -I	22UACT1001	Programming in C and C++	4	4		40	60	100
		Core Practical-I	22UCACP1001	Programming in C and C++ Lab	2		3	40	60	100
		Core Practical-II	20UCACP1002	Web Designing Lab	2		3	40	60	100
		Allied Theory - I	20UCAAT1001	Allied Mathematics-I	5	6		40	60	100
	IV	Soft Skill I	23USSEC1001	Soft Skills - Essentials of Communication Skills	2	2		50	-	50
Total					21					650
I Ye ar - Se m es te r II	I	Foundat ion Course	22ULTFC2002 22ULHFC2002 22ULSFC2002 21ULFFC2002	Tamil –II/ Hindi –II/ Sanskrit-II/ French-II	3	6		40	60	100
	II	Foundation Course	20UGEFC2002	General English -II	3	6		40	60	100
	III	Core Theory -II	23UACT2002	Data Structures and Algorithms using Python	4	4		40	60	100
		Core Practical-III	23UCACP2003	Data Structures and algorithm using Python Lab	2		3	40	60	100
		Core Practical-IV	20UCACP2004	UNIX Lab	2		3	40	60	100
		Allied Theory - II	20UCAAT2002	Allied Mathematics-II	5	6		40	60	100



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	IV	Value Education	20UESVE2001	Environmental Studies	2			50	-	50
			20UYGVE2002	Yoga and Wellness	2			50	-	50
			23UUHVE2003	Universal Human Values	2	2		50	-	50
	Total				25					750
II Year - Semester III	III	Core Theory -III	23UACT3003	Programming in Java	4	5		40	60	100
		Core Theory - IV	23UACT3004	Cloud Computing	4	5		40	60	100
		Core Theory -V	23UACT3005	Fundamentals of Machine Learning	4	4		40	60	100
		Core Practical-V	23UCACP3005	Java Programming Lab	2		4	40	60	100
		Core Practical-VI	23UCACP3006	Accounting Software and data Analytics Lab	2		4	40	60	100
		Allied III	20UACT3003	Financial Accounting	5	6		40	60	100
	IV	NME I	20UCANE3001	Introduction to Cyber Security	2	2		50	-	50
	Total				23					650
II Year - Semester IV	III	Core Theory -VI	24UACT4006	Computer Architecture	4	6		40	60	100
		Core Theory –VII	23UACT4007	Relational Database Management System(RDBMS)	4	5		40	60	100
		Core Theory -VIII	23UACT4008	Data Visualization	4	6		40	60	100
		Core Practical-VI I	20UCACP4007	RDBMS Lab	2		5	40	60	100
		Allied IV	20UCAAT4004	Cost and Management Accounting	5	6		40	60	100
	IV	NME II	20UCANE4002	Introduction to Cyber Security	2	2		50	-	50



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		Life Skills 3	23ULSLM4003	Leadership and Management Skills	2	-		-	-	-
		Student Progression Bodies	23USP_4_1	Students Progression Activities	2	-		-	-	-
		<b>Total</b>			<b>25</b>					<b>550</b>
III Year - Semester V	III	Core Theory -IX	23UACT5009	Operating System	4	5		40	60	100
		Core Theory -X	20UACT5010	Programming in PHP and MYSQL	4	5		40	60	100
		Core Theory -XI	20UACT5011	Software Engineering and Testing	4	5		40	60	100
		Core Practical-VI II	23UCACP5008	PHP and MYSQL Lab	2		4	40	60	100
		Core Practical-IX	23UCACP5009	Node JS Lab	2		4	40	60	100
		Elective I – Theory Coursera	24UCAET5A01/ 24UCAET5B01	Data mining / Internet of Things	5	5		40	60	100
	IV	Skill Based Elective	23USSSB5SM3	SWAYAM-MOOC / NPTEL	3	2		50	-	50
		Life Skill- 4	23ULSPF5004	Professional Skills	2			50	-	50
		Ability Enhancement-1	23UAE__5001	Spoken Tutorial LaTeX	2			50	-	50
		<b>Total</b>			<b>28</b>					<b>750</b>
III Year - Semester VI	III	Core Theory-XII	20UACT6012	Web Technology	4	6		40	60	100
		Core Theory-XI I	23UACT6013	Data Communication and Network	4	6		40	60	100
		Core Practical-X	23UCACP6010	Web Technology Lab	2		5	40	60	100
		Elective II -Theory Coursera	24UCAET6A02/ 24UCAET6B02	Security in Information Technology /Computer Graphics	5	5		40	60	100



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		Elective III - Project	20UCAPR6001	Mini Project	5	6		40	60	100
	IV	Skill Enhancement	23USSSE6CR4	Coursera	3	2		50	-	50
		Ability Enhancement-2 (Coursera)	23UA ECS6002	Essential of Computing Skill	2			50	-	50
		Skill Enhancement	23UAD__6001	Add on Courses	2			50	-	50
	V	Extra Curricular Activity	XSP	Sports	1			-	-	-
				<b>Total</b>	<b>28</b>					<b>650</b>
				<b>GRAND TOTAL</b>	<b>150</b>					<b>4000</b>

\* Spoken Tutorial- LMS course offered from IIT Mumbai

\* Coursera– LMS course offered from Coursera

## List of Electives:

1. Resource Management Techniques
2. Internet of Things
3. Artificial Intelligence
4. Security in Information Technology
5. Computer Graphics
6. Data Mining