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

57 YEARS

DEPARTMENT OF MATHEMATICS

M.Sc. Applicable Mathematics

CHOICE BASED CREDIT SYSTEM (CBCS)

&

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)

2023 -2025 Batch

PROGRAMME OUTCOMES (PO)

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

PO1	Identify and analyze the complex problems reaching substantiated conclusions using domain knowledge.
PO2	Apply investigative research, specialize in problem identification, formulate research design, utilise analytical tools, draw valid inferences and provide suggestions leading to nation building initiatives.
PO3	Strengthen professional ethics and career planning with systematic building of intrapersonal and interpersonal skills to participate in the intellectual diasporas.
PO4	Establish oneself as a self-reliant, empowered individual to have an inclusive, healthy and compassionate understanding towards life and society.
PO5	Equipped with technical / managerial expertise to innovate and critically analyse various attributes which constitute pivotal issues in a multidisciplinary scenario.
PO6	Emerge as innovators and pioneers to create new avenues of employment catering to the global trends as well as demands.

PROGRAMME SPECIFIC OUTCOMES (PSO)

The students at the time of graduation will

PSO1	Acquire advanced Theoretical knowledge, Practical skills applicable to diverse industries.
PSO2	Gain experience in applying Mathematical and computational techniques to solve real-world problems through Projects, Internship, Industry collaborations.
PSO3	Prepare for Doctoral studies, Research-oriented careers in academia, Industry roles in areas such as Data science and Finance.

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57 YEARS

M.Sc. Applicable Mathematics

CURRICULUM FRAMEWORK 2023 – 2025 Batch

SEM	PART	COURSE TYPE	COURSE CODE	COURSE TITLE	CREDITS	HOURS	CIA	ESE	TOTAL
SEMESTER I									
I	I	Major	20PAMCT1001	ALGEBRA-I	4	6	40	60	100
I	I	Major	20PAMCT1002	REAL ANALYSIS	4	6	40	60	100
I	I	Major	20PAMCT1003	PROGRAMMING IN C++	4	6	40	60	100
I	I	Major	20PAMCP1001	COMPUTATIONAL LABORATORY I	4	6	40	60	100
I	I	Elective	22PAMET1001	PROBABILITY AND DISTRIBUTIONS	3	6	40	60	100
I	II	SKILL BASED ELECTIVE	22PSSCS1001	CYBER SECURITY	3		50	-	100
SEMESTER II									
II	I	Major	20PAMCT2004	ALGEBRA II	4	6	40	60	100
II	I	Major	20PAMCT2005	TOPOLOGY	4	6	40	60	100
II	I	Major	20PAMCT2006	PROGRAMMING IN JAVA	4	6	40	60	100
II	I	Major	20PAMCP2001	COMPUTATIONAL LABORATORY II	4	6	40	60	100
II	I	Elective	20PAM ET2002	MATHEMATICAL STATISTICS	3	6	40	60	100
II	II	SKILL BASED ELECTIVE	18MOOC2002	SWAYAM (MOOC)	4		50	-	100
SEMESTER III									
III	I	Major	20PAMCT3007	COMPLEX ANALYSIS	4	6	40	60	100

III	I	Major	20PAMCT3008	DIFFERENTIAL EQUATIONS	**4**	6	40	60	100
III	I	Major	20PAMCT3009	CLASSICAL MECHANICS	**4**	6	40	60	100
III	I	Elective	24PAMET3A03	PYTHON PROGRAMMING	**3**	6	40	60	100
III	I	Major	20PAMCP3003	COMPUTATIONAL LABORATORY III	**4**	6	40	60	100
III	II	SKILL BASED ELECTIVE	18PSSRS3003	RESEARCH SKILLS	**3**		50	-	100
SEMESTER IV									
IV	I	Major	20PAMCT4010	FUNCTIONAL ANALYSIS	**4**	6	40	60	100
IV	I	Major	20PAMCT4011	DIFFERENTIAL GEOMETRY AND TENSOR CALCULUS	**4**	6	40	60	100
IV	I	Elective	24PAMET4A04	CALCULUS OF VARIATIONS AND INTEGRAL EQUATIONS	**3**	6	40	60	100
IV	I	Major	20PAMPR4001	PROJECT (Pure/Interdisciplinary)	**4**	6	40	60	100
IV	I	Elective	24PAMET4A05	OPERATIONS RESEARCH	**3**	6	40	60	100
IV	II	SKILL BASED ELECTIVE	18MOOC4004	SWAYAM (MOOC)	**4**		50	-	100