CAUVERY COLLEGE FOR WOMEN (AUTONOMOUS)

Nationally Accredited with 'A' Grade by NAAC ISO 9001:2015 Certified

PG AND RESEARCH DEPARTMENT OF MATHEMATICS



B.Sc., MATHEMATICS (2022-2023 and ONWARDS)

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEOs	Statements
PEO1	LEARNING ENVIRONMENT
	To facilitate value-based holistic and comprehensive learning by integrating innovative learning practices to match the highest quality standards and train the students to be effective leaders in their chosenfields.
PEO2	ACADEMIC EXCELLENCE
	To provide a conducive environment to unleash their hidden talents and to nurture the spirit of critical thinking and encourage them to achieve their goal.
PEO3	EMPLOYABILITY
	To equip students with the required skills in order to adapt to the changing global scenario and gain access to versatile career opportunities in multidisciplinary domains.
PEO4	PROFESSIONAL ETHICS AND SOCIAL RESPONSIBILITY
	To develop a sense of social responsibility by formulating ethics and equity to transform students into committed professionals with a strong attitude towards the development of the nation.
PEO5	GREEN SUSTAINABILITY
	To understand the impact of professional solutions in societal and environmental contexts and demonstrate the knowledge for an overall sustainable development.

PROGRAMME OUTCOMES FOR B.Sc Mathematics, B.Sc Physics, B.Sc Chemistry PROGRAMME

After completing a B.Sc., Programme, a learner will be able to

PO NO.	On completion of B.Sc Mathematics / B.Sc Physics / B.Sc Chemistry				
	Programme, the students will be able to				
PO1	DOMAIN KNOWLEDGE				
	Analyze, design and develop solutions by applying from fundamental concepts o				
	basic sciences and expertise in discipline.				
PO2	PROBLEM SOLVING				
	Ability to think abstractly, to evaluate and concentrates effectively on problem-				
	solving, as well as knowledge of global challenges.				
PO3	CREATIVE THINKING AND TEAM WORK				
	Develop prudent decision-making skills and mobility to work in teams to solve				
	multifaceted problems.				
PO4	EMPLOYABILITY				
	Self-study acclimatize them to observe effective interactive practices for practical				
	learning enabling them to be a successful science graduate.				
PO5	LIFE LONG LEARNING				
	Assure consistent improvement in the performance and arouse interest to pursue				
	higher studies in premium institutions.				

PROGRAMME SPECIFIC OUTCOMES FOR B.Sc MATHEMATICS

PSO NO.	The Students of B.Sc Mathematics will be able to	POs Addressed
PSO1	Procure a precise understanding of the mathematical concepts.	PO1, PO3
PSO2	Excel by enhancing interpersonal skills, overcoming procedural challenges and intending career paths.	PO3, PO4
PSO3	Recognize, strengthen and analyze mathematical problems in order to acquire better conclusion.	PO4, PO5
PSO4	Manipulate numerical abilities across a variety of domains.	PO2, PO5
PSO5	Develop and desire to learn more about advanced mathematics and its applications.	PO5

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PG AND RESEARCH DEPARTMENT OF MATHEMATICS



M. Sc. MATHEMATICS AUTONOMOUS SYLLABUS 2022 – 2023 and onwards

CAUVERY COLLEGE FOR WOMEN (AUTONOMOUS) PG AND RESEARCH DEPARTMENT OF MATHEMATICS

VISION

To strive for excellence in the mathematical sciences in addition to encourage people to undertake opportunities in transdisciplinary domains.

MISSION

- To enhance analytical and logical problem-solving capabilities.
- To provide excellent mathematical science knowledge for a suitable career and to groom students for national prominence.
- To teach students how to use data analytics.
- To prepare students for transdisciplinary research and applications.
- Value-based education and service-oriented training programmes are used to acquire life skills.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEOs	Statements
PEO1	LEARNING ENVIRONMENT
	To facilitate value-based holistic and comprehensive learning by integrating innovative learning practices to match the highest quality standards and train the students to be effective leaders in their chosen fields.
PEO2	ACADEMIC EXCELLENCE
	To provide a conducive environment to unleash their hidden talents and to nurture the spirit of critical thinking and encourage them to achieve their goal.
PEO3	EMPLOYABILITY
	To equip students with the required skills in order to adapt to the changing global scenario and gain access to versatile career opportunities in multidisciplinary domains.
PEO4	PROFESSIONAL ETHICS AND SOCIAL RESPONSIBILITY
	To develop a sense of social responsibility by formulating ethics and equity to transform students into committed professionals with a strong attitude towards the development of the nation.
PEO5	GREEN SUSTAINABILITY
	To understand the impact of professional solutions in societal and environmental contexts and demonstrate the knowledge for an overall sustainable development.

PROGRAMME OUTCOMES FOR M.Sc MATHEMATICS

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PO NO.	On completion of M.Sc Mathematics, the students will be able to
PO 1	Problem Analysis Provide opportunities to develop innovative design skills, including the ability to formulate problems, to think creatively, to synthesize information, and to communicate effectively.
PO 2	Scientific Skills Create and apply advanced techniques and tools to solve the societal environmental issues.
PO 3	Environment and Sustainability Ascertain eco-friendly approach for sustainable development and inculcate scientific temper in the society.
PO 4	Ethics Imbibe ethical and social values aiming towards holistic development of learners.
PO 5	Life long learning Instill critical thinking, communicative knowledge which potentially leads to higher rate of employment and also for higher educational studies.

PROGRAMME SPECIFIC OUTCOMES FOR M.Sc MATHEMATICS

PSO NO.	The Students of M.Sc Mathematics will be able to	POs Addressed
DCO1	Make a significant contribution to society's development through	PO1 PO2
P301	mathematical study	PO2 PO3
PSO2	Provide an in-depth and extensive functional understanding of mathematical basics.	PO1
PSO3	Develop the experimental abilities in order to solve scientific and technical problems.	PO1 PO5
PSO4	Promote the learners and explore the potential in emerging fields.	PO4 PO5
PSO5	Enhance problem-solving, thinking, and creative skills through assignments and project work.	PO4 PO5