



M.O.P. Vaishnav College for Women
(Autonomous)



(College affiliated to University of Madras & Re-accredited at "A++" grade by NAAC)

Chennai - 600034



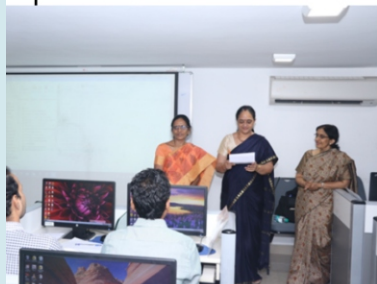
B.Sc. Mathematics

Mathematics – The Root & Route to Success

ABOUT THE PROGRAMME

B.Sc. Mathematics programme provides a platform to understand the fundamental concepts of mathematics, develop logical, analytical, heuristic, lateral thinking skills and apply mathematical techniques in various spheres of life. The multidisciplinary and application oriented curriculum caters to students with specific interest in Mathematics, Computer Science, Actuaries, Banking, Finance and Insurance.

Established in 1992, the department has been a part of M.O.P. Vaishnav College for Women from the very inception of the institution. Ever since, the department has carved a niche for itself among the science fraternity and the society as a whole.



MISSION OF THE DEPARTMENT

- To provide a strong conceptual knowledge and develop applicable skills
- To inculcate research and journalistic skills
- To create a self-sustained and empowered woman
- To blossom with a humane heart

USP

- Core courses provide a strong foundation in mathematics and integrates domain specific knowledge with computational techniques, essential for pursuing higher studies and research.
- Core course **Mathematical Modelling** instills the ability to implement appropriate techniques in varied fields to develop models that predict the effect of environmental changes and contribute to sustainable development.
- To bridge the gap between Academia and the IT Industry, Allied courses, **C Programming** and **Computer Oriented Numerical Methods** are included in the curriculum.
- Elective courses, **Mathematics for Life Insurance** and **Financial Mathematics** help the students to pursue their career in Actuaries, Banking, Finance and Insurance.
- **Number Theory & Cryptography** provides the base for Internet Security and Coding theory.

ELIGIBILITY CRITERIA

- Studied Mathematics in Plus Two.
- Passed in the Higher Secondary Examination (Tamil Nadu State Board / CBSE / Any other board accepted as equivalent thereof by the Syndicate of the University of Madras).



CORE AND ALLIED COURSES

- Algebra and Trigonometry
- Differential Calculus
- Integral Calculus and Fourier series
- C Programming (Theory and Practical)
- Computer Oriented Numerical Methods (Theory and Practical)
- Differential Equations and its Applications
- Number Theory & Cryptography
- Mathematical Statistics (Theory and Practical)
- Mechanics
- Vector Analysis and Co-ordinate Geometry of Three Dimensions
- Modern Algebra
- Integral Transforms and its applications
- Discrete Mathematics
- Real Analysis
- Mathematical Modelling
- Linear Algebra
- Optimization Techniques
- Graph Theory
- Complex Analysis

ELECTIVE COURSES

- Mathematics for Life Insurance
- Financial Mathematics
- Fuzzy Mathematics

For Programme Specific Outcomes and course outcomes the college website can be referred <https://mopvc.edu.in/pos-psos-cos/>



TEACHING METHODOLOGY

Lecture method is supplemented by

- Brain Teasers
- Quiz
- Case Study
- Audio Visual Aids
- Group Discussions
- Real time Projects
- Check in Check out
- Class Seminars
- e-Contents
- Brain Storming
- Peer Teaching

INTERNSHIPS

ACADEMICS

- Out of 1500 applicants from all over the country, students from the department have been selected to attend the Mathematics Training and Talent Search program continuously for more than a decade.
- Indian Institute of Technology, Madras
- Chennai Mathematical Institute

BANKING, FINANCE & INSURANCE

- Standard Chartered Bank
- Indian Overseas Bank
- REPCO Bank
- TNSC Bank
- Goldman Sachs
- LIC of India

INFORMATION TECHNOLOGY

- HCL
- TCS
- CTS
- DFM Sim Pvt. Ltd.
- WIPRO
- Infosys

CORPORATE

- Angarai International Inc, USA
- TVS Logistics
- Wheels India Limited
- Volkswagen

MEDIA

- The Hindu
- Sun TV
- Vijay TV
- Radio Mirch

$\pi - \beta$ Club



$\pi - \beta$ Club is a platform to scout the inherent talents of students and provides them with an opportunity to develop their latent skills in co-curricular activities. To enhance the logical and heuristic skills, Intramural and Intercollegiate competitions with several thought provoking activities are conducted. Students participate in various intercollegiate competitions and bring back laurels. To enrich the students' intellect, State/National level conferences and Workshops are organized where eminent academicians and experts from industry share their expertise.

Journal: Research and journalistic skills of the students are enhanced through the department journal 'ELIXIR'. The journal is based on a different theme each year.

Student Achievements in Co-Curricular Activities

FIRST PRIZE

75

SECOND PRIZE

77

THIRD PRIZE

26



SEMINARS, GUEST LECTURES & WORKSHOPS CONDUCTED



- Faculty Development programme on Curriculum Design and Development
- Optimization Techniques and its real time applications
- Career Management skills and the Significance of Entrepreneurship
- Career Counselling Session
- Combinatorics
- Mathematics Embedded in Tamil Culture & Literature
- Graph Labelling and applications
- Data Analysis using R
- Actuaries
- Trends in Mathematical Analysis
- Intelligence Squared
- Statistical Analysis using R
- Area Problems
- Regression Analysis
- Mathematics - Abstract Cognizance

PROMINENT PLACEMENTS

- PATNI COMPUTERS
- WIPRO
- CTS
- RBS
- HCL
- TCS
- SOUTHERN RAILWAYS
- RBS
- INFOSYS
- GOLDMAN SACHS
- ERNST & YOUNG
- IGATE

SUCCESSFUL ENTREPRENEURS

Ms. Ilakkiya Maran

Founder, Artesenia- The Memory Makers, Chennai

Ms. Divya N

Founder, Bejeweled Befab, Chennai



Ms. Vanipriya J

Director, Product Management, Full Potential Solutions, Chennai



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The multidisciplinary curriculum and soft skills training imparted has yielded 100% placements through the placement cell of the college.

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COMMUNITY SERVICE

Understanding the importance of social responsibility, students of the department enthusiastically participate in several community service initiatives, a few of which are listed here

1. The Department in line with the year's motto **Thozhil Seiyalam Thozhi** conducted a skill training programme to empower rural women at Government High School, Kanniyampakkam on August 16, 2019. Skills such as Jewellery making, Paper bag making, Quilling, Organic soap making, Blouse Designing, Embroidery, Public speaking, basic computer skills were imparted to rural women.
2. Remedial teaching is undertaken as part of our initiatives '**Ganith Daan**' and '**Pagir - Knowledge Sharing**' at:
 - M.O.P. Vaishnav Primary School, Triplicane
 - Assumption Higher Secondary School, Nungambakkam



PROMINENT ALUMNI

Ms. Sripriya Venkatraman

Director, HCL Technologies Sholinganallur
Chennai

Ms. Amelia Betsy

Assistant Director, Ministry of Health and Family
Welfare, Government of India, New Delhi.

Ms. Ramya Radhakrishnan

Business Analyst, Syntel, USA

Ms. Ankitha Davey

Assistant Manager,
Bank of New York, Mellon

Ms. Swetha S

Senior Associate, Hey Math, The Hindu, Chennai

Dr. Arathi P

Assistant Professor, Dr. Abdur Rehman
College, Chennai

Dr. Poorna Pushkala

Postdoctoral Fellow, International Centre for
Theoretical Sciences, Bengaluru

Ms. Nithya S

Judicial Magistrate, Fast track court,
Karur, Tamil Nadu



A Mathematics Graduate from M.O.P. is a multifaceted, empowered woman with a humane heart who can excel in diversified fields.



GALLERY



MOP College talks digits

Express Features

As part of their silver jubilee celebrations, MOP Vaishnav College's Department of Mathematics organised Euphoria 2016, an intercollegiate event with over 20 colleges participating. The event was divided into five parts, which included paper presentations, a quiz, potpourri round, junk art and a quiz. All events were based on mathematical concepts. "This is an annual event and this year, we're celebrating it at a very grand scale. The girls of the Pi-Beta club formed the questions and nearly 10 papers were presented," explained Fernandez Jayashree Felix, HOD Mathematics. Interestingly, in 1998 the college started a mathematical journal, *The Elixir*, which is run by the students today.

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