



# Jamal Mohamed College (Autonomous) Trichy

## Department of Mathematics

### B.Sc. Mathematics

#### Students will be able to

- ✚ Discuss the foundation and history of mathematics, perform computations in calculus, Trigonometry, Algebra and number theory.
- ✚ Apply analytical and theoretical skills and mathematical ideas to solve mathematical problems and to model real-world problems.
- ✚ Recognize a variety of examples where mathematics or statistics helps accurately explain abstract or physical phenomena.
- ✚ Utilize technology to address mathematical ideas, and mathematical programming using C++ and statistical calculations.
- ✚ Demonstrate an ability to use working knowledge of mathematics in their careers and progress to higher education.



# Jamal Mohamed College (Autonomous) Trichy

## M.Sc. Mathematics

### Students will be able to

- ✚ Describe the origin of Graph Theory, different types of graph theory and advanced operations on graphs.
- ✚ Discuss the topology in mathematics, differential equations, numerical analysis and fuzzy analysis and their applications to perform mathematical calculations.
- ✚ Recognize and appreciate the connections between theory and applications and mathematical methods in Biology and Python programming.
- ✚ Apply quantitative methods such as the modern probability theory, measure theory fluid dynamics and integral equations to solve mathematical and real world problems.
- ✚ Create employment prospects through application of mathematical concepts and work independently and be a perpetual learner.

## M.Phil Mathematics

### Students will be able to

- ✚ Analyse and judge the validity of rigorous mathematical arguments and carry out research in mathematical problems and formulate complete, concise, and correct mathematical proofs.
- ✚ Utilize a variety of teaching techniques and classroom strategies to positively influence student learning and also for one's own development.
- ✚ Transcribe mathematical ideas, terminology and notation as a report and oral also make oral presentations.
- ✚ Apply domain knowledge, conceptual and practical knowledge of mathematics in various fields and real time situations and execute a research study ethically.
- ✚ Conceive employability and professional development through problem solving skills and become a continual learner.