

# Department of Mathematics

## Program Outcomes

Mathematics is an exciting and varied degree that can open up a lot of opportunities for students. The study of mathematics makes better at solving problems. It gives skills that one can use across other subjects and apply in many different job roles.

B.Sc. (Hons.) Mathematics is a three-year undergraduate program which is being divided into six semesters. This degree has been awarded to those who complete the program. In this degree, candidates get a deeper knowledge of mathematics through a vast preference of subjects such as algebra, real analysis, analytic geometry, complex analysis, mechanics, set theory, differential equations etc. Mathematics programme covers the full range of mathematics, from classical Calculus to Modern Cryptography, Information Theory, and Network Security. The course lays a structured foundation of Calculus, Real & Complex analysis, Abstract Algebra, Differential Equations (including Mathematical Modelling), Number Theory, Graph Theory, and C++ Programming exclusively for Mathematics.

To broaden the interest for interconnectedness between formerly separate disciplines one can choose from the list of Generic electives for example one can opt for economics as one of the GE papers. Skill enhancement Courses enable the student acquire the skill relevant to the main subject. Choices from Discipline Specific Electives provides the student with liberty of exploring his interests within the main subject.

## Program Specific Outcomes

The well-structured programme empowers the student with the skills and knowledge leading to enhanced career opportunities in industry, commerce, education, finance and research

This programme has a strong foundation in basic and practical aspects of Mathematics enabling the students to venture into research in front-line areas of mathematical sciences, to pursue higher studies in Mathematics, and to enhance their employability for teaching jobs, government jobs, jobs in banking, insurance and investment sectors, data analyst jobs etc.

## Course Outcomes

- i) Ability to communicate mathematics effectively by written, computational and graphic means.
- ii) Ability to acquire knowledge and skills through self-learning that helps in personal development and skill development suitable for changing demands of work place.
- iii) Ability to work independently, ability to search relevant resources and e-content for self-learning and enhancing knowledge in mathematics.
- iv) Ability to use and learn techniques, skills and modern tools for scientific practices
- v) Capacity to use ICT tools in solving problems or gaining knowledge; capacity to use appropriate softwares and programming skills to solve problems in mathematics,