

## Learning Outcomes

LO	Description
LO 1	LO 1 Demonstrate proficiency in fundamental areas of mathematical knowledge including calculus, discrete mathematics, linear algebra and probability and statistics by applying skills to solve problems.
LO 2	LO 2 Demonstrate in depth knowledge and skill in areas of mathematics and mathematically related fields, and mathematically related fields related to a chosen interest.
LO 3	LO 3 Demonstrate breadth of knowledge of mathematics and mathematically related such as financial mathematics, graph theory, operations research, mathematical biology and fluid dynamics.
LO 4	LO 4 Apply mathematical concepts and tools and strategies to other fields such as biology, chemistry, economics, finance or computer science.
LO 5a	LO 5a Apply known mathematical models to various fields.
LO 5b	LO 5b Apply mathematical models to obtain results and make predictions in various fields.
LO 5c	LO 5c Formulate Innovative mathematical models arising in various fields to achieve novel results.
LO 6	LO 6 Solve concrete problems through the application of mathematics and provide contextual interpretations of the solutions.
LO 7a	LO 7a Communicate the solutions of problems conceptually to others.
LO 7b	LO 7b Communicate the solutions of problems to others using appropriate notation and present mathematical arguments, concepts, and their relationships, via definitions, theorems and proofs
LO 7c	LO 7c Formally present mathematical arguments, concepts, and their relationships, via definitions, theorems and proofs in verbal form.
LO 7d	LO 7d Work and communicate effectively and confidently in collaborative settings.
LO 8	LO 8 Apply essential programming skills to solve applied mathematical problems.
Op1	Option 1 Specialized option: computer science or economics consisting of specified courses (enrolment required)

Option 2 Minor : Communicate concepts and apply skills in an area of specialization through selection of

Op2            open electives (depends on courses selected)