(150-SCI-06-03) M.SC. - APPLIED MATHEMATICAL COMPUTING

Significance of the Program

The Applied and Computational Mathematics, prepares students for a career in data analytics, one of today's hottest and most in-demand fields. We offer unique, modern coursework that integrates computational methods, mathematical models, and data science with a strong focus on the foundations in mathematics and the sciences, as well as options for concentrations in Mathematical Modelling and Scientific Computation. You'll gain a fundamental, transferrable skill set and the ability to create innovative computing solutions, mathematical models, and analyse complex systems to solve problems in engineering, scientific and technical consulting, insurance, biotech and life sciences, artificial intelligence, data science, and other emerging fields

Career Options

Pursuing a professional course in Applied Mathematical and Computing, Students can explore the following opportunities:

- Data Analyst
- Supply chain Analyst
- Underwriter
- Financial Analyst
- Risk Analyst
- Investment Analyst
- Benefits Manager
- Program Manager
- Statistician

Outputs:	Outcomes:
• Strong Mathematical Foundation: Graduates will possess a solid foundation in mathematics, including algebra, calculus, probability, statistics, and numerical methods. They will be able to apply these concepts to solve complex mathematical problems. • Computational Skills: Graduates will be proficient in programming languages and computational tools used in applied mathematics. They will be able to develop and implement algorithms to solve mathematical problems and analyze data. • Problem-Solving Skills: Graduates will develop strong problem-solving skills, enabling them to identify and analyze complex problems, formulate mathematical models, and apply computational methods to find solutions.	• Critical Thinking and Analytical Skills: Graduates will be able to think critically and analytically, evaluating information, identifying patterns, and drawing meaningful conclusions. • Effective Communication Skills: Graduates will be able to communicate their ideas and findings clearly and effectively, both orally and in writing. They will be able to tailor their communication style to different audiences. • Adaptability and Flexibility: Graduates will be adaptable and flexible, capable of learning new concepts and technologies quickly. They will be able to adjust their approach to different problem-solving situations

Major Course Outline

- Linear Algebra and Matrix Analysis
- Calculus and Differential Equations
- Numerical Analysis and Scientific Computing
- Probability and Statistics
- Programming for Applied Mathematics