MAT8001C  
Technical Mathematics for Computer Science

The study of algebraic and transcendental functions is an essential prerequisite to Calculus. Students manipulate algebraic expressions, solve algebraic equations and linear systems, and learn the properties of and graph algebraic and transcendental functions. Students investigate computer number systems in addition to Boolean algebra and logic to help solve problems involving computer systems.

# ENL1813T Communications I

Communication remains an essential skill sought by employers, regardless of discipline or field of study. Using a practical, vocation-oriented approach, students focus on meeting the requirements of effective communication. Through a combination of lectures, exercises, and independent learning, students practise writing, speaking, reading, listening, locating and documenting information and using technology to communicate professionally.

# CST8215 Introduction to Database

Databases are used to store data and are a core component of many information technology systems. Students learn the fundamentals of relational databases design using Entity Relation Diagrams (ERDs) and use Structured Query Language (SQL) to create, modify and query a database. Students design and create databases that are maintainable, secure, and adaptable to change in business requirements, using normalization.

# CST8116 Introduction to Computer Programming

Possessing the fundamentals of logic, problem-solving and programming language structure provides a solid foundation for further study in the field. Students develop introductory knowledge of computer programming with emphasis on problem analysis and design, using algorithms, pseudocode, flowcharts, UML Class Diagrams and testing, with the Java programming language used as a means to implement problem solution designs.

# CST8101 Computer Essentials

The essentials of computer software, hardware, and laptop management form the foundation for building further technical programming skills. Learn to configure your laptop environment, basic PC and troubleshoot problems. Students create backups, install virus protection, and manage files through a basic understanding of the Windows Operating System.