

Computer Studies

Introduction to Computer Studies

ICS201

This course introduces students to computer programming. Students will plan and write simple computer programs by applying fundamental programming concepts, and learn to create clear and maintainable internal documentation. They will also learn to manage a computer by studying hardware configurations, software selection, operating system functions, networking, and safe computing practices. Students will also investigate the social impact of computer technologies, and develop an understanding of environmental and ethical issues related to the use of computers.

CREDIT: 1

TYPE: Open

GRADE: 10

Introduction to Computer Science

ICS3U1

This course introduces students to computer science. Students will design software independently and as part of a team, using industry-standard programming tools and applying the software development life-cycle model. They will also write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields.

COURSE NOTE: Completing a Grade 10 Academic Mathematics course (MPM2D1 or MPM2DF) is recommended before taking this course.

CREDIT: 1

TYPE: University

GRADE: 11

Computer Programming

ICS4C1

This course further develops students' computer programming skills. Students will learn object-oriented programming concepts, create object-oriented software solutions, and design graphical user interfaces. Student teams will plan and carry out a software development project using industry-standard programming tools and proper project management techniques. Students will also investigate ethical issues in computing and expand their understanding of environmental issues, emerging technologies, and computer-related careers.

CREDIT: 1

TYPE: College

GRADE: 12

Computer Science

ICS4U1

This course enables students to further develop knowledge and skills in computer science. Students will use modular design principles to create complex and fully documented programs, according to industry standards. Student teams will manage a large software development project, from planning through to project review. Students will also analyse algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, areas of research in computer science, and careers in the field.

COURSE NOTE: Completing a Grade 11 University or University/College Mathematics course (MCR3U1 or MCF3M1) is recommended before taking this course.

CREDIT: 1

TYPE: University

GRADE: 12

PREREQUISITE: ICS3U1 - Introduction to Computer Science