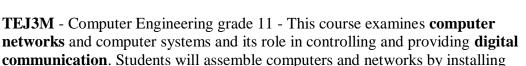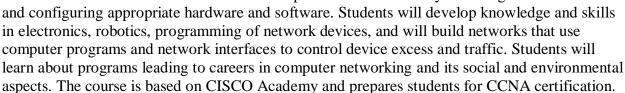# EHSS Computer Studies

It is 21st century learning experience to help students develop the foundational ICT skills needed to design programs, build, and manage computers and networks, along with career skills such as problem solving, electronic collaboration, and critical thinking.
Computer Courses expose students to professional ICT training and materials preparing them fill a growing need for information technology professionals around the world.
Along with school credits students receive CISCO and SAS Academy certificates

TEJ2O – Computer Technology grade 10- covers the fundamentals of computer hardware and software and advanced concepts such as security, networking, and the responsibilities of an IT professional. Students are enrolled in CISCO Academy and work towards IT Essentials certification.

TEJ3M - Computer Engineering grade 11 - This course examines **computer networks** and computer systems and its role in controlling and providing **digital communication**. Students will assemble computers and networks by installing and configuring appropriate hardware and software. Students will develop knowledge and skills in electronics, robotics, programming of network devices, and will build networks that use computer programs and network interfaces to control device excess and traffic. Students will learn about programs leading to careers in computer networking and its social and environmental aspects. The course is based on CISCO Academy and prepares students for CCNA certification.

ICS2O – Introduction to Computer Studies, Grade 10 -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.

ICS3U – Introduction to Computer Science, Grade 11 - 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 study **Game development** and its multimedia interface. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields.

ICS4U – Introduction to Computer Science, Grade 12 –Students will study advanced programming theory using Object Oriented programming language – such as Python, C++, SAS and standard documentation approaches. This course will also center on the development of software utilizing OOP concepts. A research component will investigate computer issues pertaining to the ethical use of computers and the use of information technology and its impact in the community.