

INFORMATION TECHNOLOGY



INTRO TO INFORMATION TECHNOLOGY (Grade 10) (1 Credit)

This class starts off with an introduction to cyber security, where students will learn basic cybersecurity principles, protecting data, hacking, threats, malware, cyberattacks, and staying safe online. Students will then move into hardware, where they'll learn computer components, cabling, and networking equipment. Software will follow hardware where students will learn to install, deploy, configure, and secure Windows 10 in a virtual environment.

IT ESSENTIALS I (2 Credits)

This class starts off with an introduction to cybersecurity, where students will learn basic cybersecurity principles, protecting data, hacking, threats, malware, cyberattacks, and staying safe online. Students will then move into hardware, where they'll learn computer components, cabling, and networking equipment. Software will follow hardware where students will learn to install, deploy, configure, and secure both Windows 10 and Linux Operating systems within a virtual environment. Students will be exposed to DOS, PowerShell, and Bash commands as well as exploring programming languages such as Python and Javascript.

IT ESSENTIALS II - NETWORK/SERVER ESSENTIALS (2 Credits)

Students will learn to install, configure, and secure a domain using Windows Server. Once they build their own domain they'll learn about Active Directory, Group Policy, DNS, DHCP, and print management. Students will get familiar with networking hardware such as routers, switches, UPS, rack servers, and VoIP. Concepts such as OSI model, network types, TCP/IP, subnetting, and wireless standards will be covered. Students will also explore new commands like traceroute and netstat to help troubleshoot networking issues. They'll also build unattended installation scripts and use remote access tools to manage systems. **Prerequisite:** IT Essentials

