

Information and Communication Technology (ICT)

Information and Communications Technology is one of the fastest growing economic sectors. More and more careers use and depend on technology therefore there is a great demand for people who are skilled in the hardware and software development side of the industry as well as the more creative side of graphic design and communications. Career opportunities for students interested in the ICT sector **include computer engineer, web designer, broadcast technician, telecommunications line and cable worker, film and video camera operator, computer programmer, information systems analyst and many more.**

The Specialist High Skills Major (SHSM) program in Information and Communications Technology provides students with focused education in sector relevant courses, experiential learning opportunities, reach-ahead experiences and valuable training and certifications. Through their participation in the SHSM ICT program, students gain the knowledge and skills required to pursue many different technology-related post-secondary opportunities that will lead to a fulfilling career in the ICT sector.

Course Package

Each SHSM program offers students a bundle of 8-10 regular Ontario Secondary school courses that been selected as the most relevant courses to take to prepare students for a career in that sector. *As students work towards their OSSD, they are **focusing their education and learning relevant skills** through **sector-recognized certification and training programs and experiences for a multitude of post-secondary programs** in the **Information and Communications Technology** sector.*

The bundle includes:

- **4 major credits** in Information and Communications Technology in grade 11 and 12.
- **Supporting Credits**, which include Contextualized Learning Activities (CLAs).
 - ❖ 1 Grade 12 English credit
 - ❖ 1 Grade 11 Math credit
 - ❖ 1 grade 11 or 12 Art, Business Studies or Science credit
 - ❖ 2 Cooperative Education credits to experience a career in the Information and Communications sector

Approved Major Credits (Minimum of 4):

- ✓ Introduction to Computer Science (ICS 3C/3U, ICS 4C/4U)
- ✓ Construction Technology (TCJ 3E/3C/4E/4C)
- ✓ Technological Design (TDJ 3O/3M, TDJ 4O/4M)
- ✓ Exploring Computer Technology (TEJ 3M, TEJ 4E/4M)
- ✓ Communications Technology (TGJ 3O/3M, TGJ 4O/4M)
- ✓ Communications Technology-TV/VIDEO (TGV 3M/4M)
- ✓ Manufacturing Technology (TMJ 3C/4C)
- ✓ Web Design (IDC 3O/4O)
- ✓ Sports and Entertainment Marketing (IDC 4UB)
- ✓ Money Management-Introduction to Financial Planning (IDC 4UF)
- ✓ Drama Production (ADD 3O)
- ✓ Visual Arts Photography (AWQ 3O/3M/4M)
- ✓ Physics (SPH 3U, SPH 4C/4U)

Approved Supporting Credits:

- ✓ English (ENG 3E/3C/3U, ENG 4E/4C/4U)
- ✓ Mathematics for Work (MEL 3E/4E)
- ✓ Foundations for College Mathematics (MBF 3C)
- ✓ Mathematics for College Technology (MCT 4C)
- ✓ Functions and Applications (MCF 3M)
- ✓ Functions and Relations (MCR 3U)
- ✓ Advanced Functions (MHF 4U)
- ✓ Calculus and Vectors (MCV 4U)
- ✓ Mathematics of Data Management (MDM 4U)
- ✓ Visual Arts (AVI 3M/4M)
- ✓ Visual Arts Photography (AWQ 3M/4M)
- ✓ Entrepreneurship the Venture (BDI 3C)
- ✓ Financial Accounting (BAF 3M)
- ✓ Entrepreneurship-The Enterprising Venture (BDP 3O)
- ✓ Marketing: Goods, Services, Events (BMI 3C)

Approved Supporting Credits Continued:

- ✓ Financial Accounting Principles (BAT 4M)
- ✓ International Business (BBB 4M)
- ✓ Entrepreneurship Studies-Venture Panning in an Electronic Age (BDV 4C)
- ✓ Business Leadership Management Fundamentals (BOH 4M)
- ✓ Understanding Canadian Law (CLU 3M)
- ✓ Canadian and International Law (CLN 4U)
- ✓ Analysing Current Economic Issues (CIA 4U)
- ✓ Biology (SBI 3C/3U, SBI 4U)
- ✓ Chemistry (SCH 3U, SCH 4C/4U)
- ✓ Physics (SPH 3U, SPH 4C/4U)
- ✓ Literacy Course (OLC 4O)
- ✓ Learning Strategies (GLE 3O/GLN 4O)
- ✓ Cooperative Education

Information and Communication Technology Requirement Checklist by Pathway

Credits	Apprenticeship Pathway Grades 11- 12	College Pathway Grades 11-12	University Pathway Grades 11-12	Workplace Pathway Grades 11-12
Major Credit One credit may be substituted with a cooperative education credit (additional to the 2 required co-op credits)	4 Including at least one Gr.11 and one Gr.12 credit	4 Including at least one Gr.11 and one Gr.12 credit	4 Including at least one Gr.11 and one Gr.12 credit	4 Including at least one Gr.11 and one Gr.12 credit
English including a CLA	1	1	1	1
Mathematics including a CLA	1	1	1	1
The Arts or Business Studies or Science including a CLA	1	1	1	1
Cooperative Education	2	2	2	2
Total Number of Credits	9	9	9	9

*Additional Co-op credits can substitute for a Major and/or Other credit.

Sector-recognized Certifications/Training Courses/Programs

Three Compulsory			
CPR	Standard First Aid	Workplace Hazardous Materials Information System (WHIMS) – general	
Three Electives from the list below			
Advanced training in a technique (i.e. website design, coding, digital lighting, search engine optimization)	Basic Electrical Safety	CISCO networking	Computer Hardware
Counterfeit Detection	Customer Service	Electronics – basic	Elevated Work Platforms
Ergonomics	Fall Protection	Health and Safety – basic	Innovation, Creativity and Entrepreneurship (ICE)
Intellectual Property	Interfacing Equipment	Internet Security	Ladder Safety Training
Leadership Skills	Lighting and Sound Equipment Maintenance	Lockout/Tagging	Network Cabling
Network Configuration	Portfolio Development	Project Management	Recording Equipment
Sector-specific Software 1	Sector-specific Software 2	Specialized Skills Training Program/Competition	Technical Support
Working at Heights			

*Many Certifications and Training are completed within regular school course curriculum.

