SPECIALIST HIGH SKILLS MAJOR

SHSM

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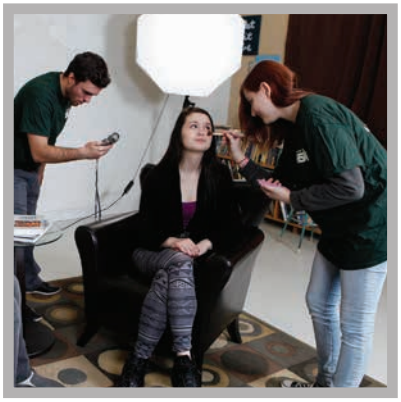
Information and Communications Technology



Is this your future career?

Experiential learning, reach ahead activities, certification and more... at **NO COST** to you.

Rainbow Schools

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SPECIALIST HIGH SKILLS MAJOR

SHSM

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About the Specialist High Skills Major (SHSM)

The Specialist High Skills Major (SHSM) is a specialized program approved by the Ministry of Education that allows students to focus their learning on a specific economic sector while meeting the requirements of the Ontario Secondary School Diploma (OSSD).

SHSMs assist students in their transition from secondary school to apprenticeship training, college, university or the workplace.

These programs enable students to gain sector-specific skills and knowledge in engaging, career-related learning environments, and prepare in a focused way for graduation and postsecondary education, training or employment.

Profile - Information and Communications Technology

Information and communications technology (ICT) is the sector that processes information (which includes capturing, transmitting and displaying information) using electronic systems.[1] The ICT sector continues to transform our economy and everyday life. According to Industry Canada, the total number of ICT workers in Canada increased by 10.7 per cent between 2002 and 2008. Employees in the ICT sector are well compensated. On average, an ICT worker earned $58,618 in 2007 - 46 per cent more than the economy-wide average of $40,083.[2]

Students enrolled in the SHSM - Information and Communications Technology will be involved in today's rapid and exciting changes in technology and will contribute to new and emerging media and technologies in the years to come.

For more information, news articles and where this program is being offered, visit SHSM.rainbowschools.ca

1 Organisation for Economic Co-operation and Development, cited in Introduction to Information and Communications Technology (ICT) (Ottawa: Information and Communications Technology Council, March 2008), p. 2.

2 Industry Canada, Canadian ICT Sector Profile, www.ic.gc.ca/eic/site/ICT-tic.nsf/eng/h_it05840.html.

Information and Communications Technology

Required Components for the SHSM – Information and Communications Technology

The SHSM – Information and Communications Technology has the following five required components:

1. A bundle of nine Grade 11 and Grade 12 credits.

These credits make up the bundle:

- Four ICT major credits that provide sector-specific knowledge and skills
- Three other required credits from the Ontario curriculum, in English, mathematics and a choice of business studies, science or the arts, in which some expectations are met through learning activities contextualized to the arts and culture sector
- Two co-operative education credits that provide authentic learning experiences in a workplace setting, enabling students to refine, extend, apply and practise sector-specific knowledge and skills

Exception: If a student obtains a four (4) credit co-op, they may choose to use one additional co-operative education credit to substitute for one "major credit" and/or one "other required credit" (not from the Math or English categories).

Required Credits	Information and Communications Technology Major	English*	Mathematics*	The Arts or Business Studies or Science*	Co-operative Education
Grade 11	2		1	1	2
Grade 12	2	1			
Number of credits (Total = 9)	4	1	1	1	2

** Includes content delivered in the sector's context.*

There are NO extra credits required to complete this program.

All required credits may be obtained within the 30 required credits for the Ontario Secondary School Diploma (OSSD).

2. Six sector-recognized certifications and/or training courses/programs

The SHSM in ICT requires students to complete six sector-recognized certifications and/or training courses/programs. Of these, three are compulsory and the remaining three are electives that must be chosen from the list in the following table. Note that items in the list that are capitalized are the proper names of specific certifications or training courses/programs that are appropriate for the SHSM. Items that are lowercased are names of the areas or categories within which specific certifications or training courses/programs should be selected by the school or board.

The requirements are summarized in the table below.

Three Compulsory:		
Cardiopulmonary Resuscitation (CPR) Level A	generic (i.e. not site specific) instruction about the Workplace Hazardous Materials Information System (WHMIS)	Standard First Aid

Three Electives from the list below:			
computer hardware	counterfeit detection	customer service	digital lighting
electrical safety	electronics – basic	elevated work platforms	equipment interfacing
ergonomics	fall protection	health and safety – basic	intellectual property
Internet security	lighting and sound equipment maintenance	network cabling	network configuration
photography	recording equipment	software	technical support

3. Experiential learning and career exploration activities

Experiential learning and career exploration opportunities relevant to the sector might include:

- one-on-one observation of a co-operative education student at a placement in the ICT sector (example of job twinning)
- a day-long observation of an ICT sector worker (e.g. telecommunications technician) (example of job shadowing)
- a one-or two-week work experience with a member of an industry association or a professional in the ICT sector (e.g. a computer game developer) (example of work experience)
- attendance at a sector trade show, conference, symposium or job fair
- participation in a local, provincial or national contest or competition with a focus on ICT
- a tour of a local television/film studio or networking monitoring centre

Experiential learning activities are at NO COST.
(Exceptions may apply to out of town trips.)

Information and Communications Technology

Digital Broadcasting

4. Reach ahead experiences

Students are provided one or more reach ahead experiences – opportunities to take the next steps along their chosen pathway – as shown in the following examples:

- Apprenticeship: visiting an approved apprenticeship delivery agent in the sector
- College: interviewing a college student enrolled in a sector-specific program
- University: observing a university class in a sector-related program
- Workplace: interviewing an employee in the sector

Reach ahead activities are at NO COST.
(Exceptions may apply to out of town trips.)

5. Essential Skills and work habits and the OSP

Students will develop Essential Skills and work habits required in the sector and document them using the Ontario Skills Passport (OSP), a component of the SHSM.

Seven Key Benefits for Students

Pursuing a SHSM enables students to:

1. Customize their secondary school education to suit their interests and talents
2. Develop specialized knowledge and skills that are valued by the sector and postsecondary education institutions
3. Earn credits that are recognized by the sector and postsecondary education institutions
4. Gain sector-specific and career-relevant certification and training
5. Develop Essential Skills and work habits that are valued by the sector, recorded using the tools in the Ontario Skills Passport (OSP)
6. Identify, explore and refine their career goals and make informed decisions about their postsecondary destination
7. Remain flexible, with the option to shift between pathways should their goals and plans change

Exploration (Grades 9 and 10)

In addition, students considering this SHSM can be encouraged to enroll in the following courses to become better informed about careers and postsecondary options in the sector:

- **Exploring Technologies:** This Grade 9 course is recommended for all students following SHSM pathways that have a technological education focus. The course provides students with opportunities to explore a variety of technologies, including ICT, by engaging in activities related to them.
- **Communications Technology (TGJ2O), Introduction to Computer Studies (ICS2O), or Computer Technology (TEJ20):** These courses are recommended for any Grade 10 student who is considering enrolling in a SHSM – Information and Communications Technology program. They provide students with opportunities to explore the ICT sector, identify personal interests and aptitudes, and gain a better understanding of the program.

Occupations in the Information and Communications Technology Sector

The following table provides examples of occupations in the information and communications technology sector, with corresponding National Occupation Classifications, sorted according to the type of postsecondary education or training the occupations would normally require.

Apprenticeship Training
• Computer Network Technician 2281 • Help Desk Technology Support Analyst 2282 • Telecommunications Installation and Repair/ Network Cabling Specialist 7246 • Telecommunications Line and Cable Worker 7245
University
• Computer Engineer 2147 • Computer Programmer and Interactive Media Developer 2174 • Information Systems Analyst 2171 • Software Engineer and Designer 2173 • Technical Sales Specialists 6221

Note: *Some of the names of occupations in this table may differ slightly from the names given in the National Occupation Classification system.*

The names listed here reflect common usage by institutions and organizations in this sector in Ontario.

Information and Communications Technology

College

- Audio and Video Recording Technician 5225
- Broadcast Technician 5224
- Electrical and Electronics Engineering Technologist and Technician 2241
- Electronic Service Technician 2242
- Film and Video Camera Operator 5222
- Graphic Designer, Illustrator, Animator 5241
- Systems Testing Technician 2283
- User Support Technician 2282
- Web Designer and Developer 2175

Workplace

- Desktop Publishing Operator 1423
- Residential and Commercial Installer and Servicer – Satellite Dish Installer 7441
- Retail Salesperson and Sales Clerk 6421
- Telecommunications Cable Installer Helper and Splicer Helper 7612

Film and Animation

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REGISTRATION FORM

Limited Enrolment!

Specialist High Skills Major – Information and Communications Technology

Personal Information: *Please print neatly and provide the information below.*

Legal Name: _____
Surname First Name Middle Initial

Current School: _____ Student ID #: _____

Home Address: _____

City/Town: _____ Postal Code: _____

Home Telephone: _____ Cell: _____ E-Mail: _____

Which pathway do you plan to pursue? *(Please check one.)*

❑ Apprenticeship Training ❑ Workplace ❑ College ❑ University

Are you currently enrolled as an OYAP student? ❑ Yes ❑ No

Have you taken or are you currently enrolled in any Dual Credit courses? ❑ Yes ❑ No

If yes, please provide details: Course Code _____ Course Name _____
Currently enrolled: ❑ Yes ❑ No
Completed: ❑ Yes ❑ No If yes, provide date of completion: _____

_____ _____
Student's Signature Parent/Guardian Signature

_____ _____
Print name (Student) *Print name (Parent/Guardian)*

_____
Date

Once you have completed the Registration Form, please submit it to the Guidance Department at your school for processing.
A member of the SHSM team will be in contact with you shortly to set up your file and get you started on your journey to success.

In accordance with the Municipal Freedom of Information and Protection of Privacy Act, personal information is being collected under the authority of the Education Act and will be used to register students in a Specialist High Skills Major. For more information, please contact the Principal.

Congratulations on choosing an exciting future!

School Contact Information:

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