



## **St Paul High School Specialist High Skills Major (SHSM) Program in INFORMATION AND COMMUNICATIONS TECHNOLOGY**

The **Specialist High Skills Major (SHSM)** encourages you to focus your secondary school education toward a career area of your choice. SHSM fits every pathway, whether you plan to go to work, apprenticeship, or college/university, you can earn a SHSM. The SHSM symbol on your diploma lets employers and postsecondary education know that you have knowledge, skills, and industry-recognized qualifications related to a particular career field.

For more information, please contact this SHSM's Staff Team: **Champion Teacher:** Mr. Dorey  
**Co-operative Education Teacher:** Ms. Baird **Guidance Counsellor:** Ms. Caringi

### **Occupations in the ICT Sector**

The following table provides examples of occupations in the ICT sector, with corresponding National Occupational Certifications (NOCs), sorted according to the type of postsecondary education or training the occupations would normally require.

Apprenticeship Training	College
<ul style="list-style-type: none"> <li>• Computer Network Technician 2281</li> <li>• Help Desk Technology Support Analyst 2282</li> <li>• Telecommunications Installation and Repair/ Network Cabling Specialist 7246</li> <li>• Telecommunications Line and Cable Worker 7245</li> </ul>	<ul style="list-style-type: none"> <li>• Audio and Video Recording Technician 5225</li> <li>• Broadcast Technician 5224</li> <li>• Electrical and Electronics Engineering Technologist and Technician 2241</li> <li>• Electronic Service Technician 2242</li> <li>• Film and Video Camera Operator 5222</li> <li>• Graphic Designer, Illustrator, Animator 5241</li> <li>• Systems Testing Technician 2283</li> <li>• User Support Technician 2282</li> <li>• Web Designer and Developer 2175</li> </ul>
University	Workplace
<ul style="list-style-type: none"> <li>• Computer Engineer 2147</li> <li>• Computer Programmer and Interactive Media Developer 2174</li> <li>• Information Systems Analyst 2171</li> <li>• Software Engineer and Designer 2173</li> <li>• Technical Sales Specialists 6221</li> </ul>	<ul style="list-style-type: none"> <li>• Desktop Publishing Operator 1423</li> <li>• Residential and Commercial Installer and Servicer – Satellite Dish Installer 7441</li> <li>• Retail Salesperson and Sales Clerk 6421</li> <li>• Telecommunications Cable Installer Helper and Splicer Helper 7612</li> </ul>

### **How can a SHSM help students?**

St Paul students receive the SHSM seal on their graduation diploma when they:

- complete a specific bundle of Grade 11 and 12 courses (including English and Math) in the field of ICT
- earn certifications and training, including first aid and CPR qualifications
- participate in reach ahead and career exploration activities
- gain essential skills and work habits on the job through cooperative education placements, and at school
- obtain additional experience and knowledge to list on their resume, on personal statements of experience and to include on scholarship and bursary applications.

The required components of the Information Communications Technology (ICT) sector are as follows: four **major** courses, one **other** course, two credits in **co-operative education**, and six **certifications**, as well as participation in '**reach ahead and career exploration activities**' within the sector. Note that students must still complete their required English, math and religion courses. There is no charge for any of these activities.

### **Course Selection (\*\*subject to change)**

Student must choose any FOUR of the following 'major' courses (at least one in grade 11, at least one in grade 12, and the other two in grade 11 or 12).

SHSM Major Subjects							
Apprenticeship		College		University		Workplace	
11	12	11	12	11	12	11	12
ASM3O	TCJ4E	ASM3M	ASM4M	SPH3U	SPH4U	AWQ3O	TGJ4O
AWQ3O	TGJ4O	TCJ3C	AWQ4M	ICS3U	ICS4U	TCJ3E	
TCJ3E		ICS3C	TCJ4C			TGJ3O	
TGJ3O		TGG3M	ICS4C				
		TGV3M	TGG4M				
			TGV4M				

Student must also choose **ONE** of the following 'other' courses (either grade 11 or grade 12, student's choice)

Other Required Credits (refer to Ontario.ca/SHSM)							
Apprenticeship		College		University		Workplace	
11	12	11	12	11	12	11	12
AWQ3O	SCH4C	ADA3M	ADA4M	ASM3M	CIA4U	ASM3O	GLE4O
BMI3C		AMU3M	AMU4M	SBI3U	CLN4U	AWQ3O	GLS4O
BMX3E		AVI3M	AVI4M	SCH3U	SBI4U	BMX3E	OLC4O
SBI3C		AWQ3M	AWQ4M	SPH3U	SCH4U		
		BAF3M	BAT4M		SPH4U		
		CLU3M	SPH4C				

Students must also choose a **2 credit co-op** (in grade 11 or grade 12, or in the summer if it does not fit otherwise).

NOTE - double co-op (4 credit) is also possible, and if this is done then this replaces 1 of the 4 major credits, and it also replaces the science/business credit requirement.

Outside of this, the student must choose math in grade 11, and English in grade 11 and 12, along with religion in grade 11 and 12.

### **Possible reach ahead and career exploration opportunities**

- Carleton University
- Loyalist College
- Algonquin College (Radio Station)
- University of Ottawa

## Specialist High Skill Major Certification Breakdown for INFORMATION AND COMMUNICATIONS TECHNOLOGY

Three (3) compulsory		
<b>Cardiopulmonary Resuscitation (CPR) Level C – includes automated external defibrillation (AED)</b>	<b>Standard First Aid</b>	<b>Workplace Hazardous Materials Information System (WHMIS) – generic (i.e., not site-specific) instruction --achieved through co-operative education class</b>

Three (3) electives from the list below			
advanced training in a technique (e.g., website design, coding, digital lighting, search engine optimization)	basic electrical safety	CISCO networking	computer hardware
counterfeit detection	<b>customer service</b>	electronics – basic	elevated work platforms
ergonomics	fall protection	<b>health and safety – basic --achieved through co-operative education class</b>	<b>Innovation, Creativity and Entrepreneurship (ICE)</b>
intellectual property	interfacing equipment	internet security	<b>ladder safety training --online</b>
leadership skills	lockout/ tagging	<b>lighting and sound equipment maintenance --Capital Lighting and Sound</b>	network cabling
network configuration	portfolio development	project management	recording equipment
sector-specific software 1	sector - specific software 2	<b>specialized skills training program or competition --Henry's Basic Camera Certification</b>	technical support
<b>Working at Heights</b>			

\*highlighted certifications will be offered, however, in order to specialize the experience, other certifications may be a possibility. Speak with Mr. Dorey for further information.