



# **HAMMARSKJOLD HIGH SCHOOL**



2023-2024  
**COURSE  
CALENDAR**

*Welcome Bienvenue Biindigen*

# HAMMARSKJOLD HIGH SCHOOL

**School Colours**  
Red & Gold

**School Team**  
Vikings

**Student Population**  
850

**Founded**  
1962

**Principal**  
Mr. D. DiBlasio

**Vice Principal**  
Mrs. K. Andrews  
Mrs. Z. Black

**Student Services Chair**  
Mrs. R. Lucas

## Family of Schools

École Elsie MacGill (FI) • Algonquin Avenue • C.D. Howe • Claude E. Garton (FI)  
École Gron Morgan • Woodcrest

## Grade 9 at Hammarskjold High School | 2023-24

Students along with parents/guardians determine compulsory course type during Grade 9 Registration in February. French Immersion students will have some compulsory course preselected for them.

Mathematics - Pre AP  
Mathematics - Destreamed  
Mathematics - Locally Developed  
English - Academic  
English - Locally Developed  
Science - Destreamed  
Science - Locally Developed  
French - Academic

MTH1WA  
MTH1W1  
MAT1L1  
ENG1D1  
ENG1L1  
SNC1W1  
SNC1L1  
FSF1D1

Français - FI - Académique  
Geography - Academic  
Géographie - FI - Académique  
Health and Physical Education - Open  
Éducation Physique - FI - Open  
FNMI Languages - Open

FIF1D1  
CGC1D1  
CGC1DF  
PPL101  
PPL10F  
LNOA01

Students along with parents/guardians will select two (2) electives. A third choice will be indicated on the Welcome to Grade 9 form as a record for us in the event that a student's timetable does not allow for the first two choices.

Drama - Open  
Information & Communication Technology in Business - Open  
Exploring Technology - Open  
Expressions of Aboriginal Culture - Open  
Music - Open  
Music - Guitar - Open  
Music - Strings - Open  
Visual Arts, Open

ADA101  
BTT101  
TIJ101  
NAC101  
AMI101  
AMG101  
AMS101  
AVI101

# HAMMARSKJOLD

## HIGH SCHOOL

### A TRADITION OF EXCELLENCE

Hammar skjold offers a full range of secondary programs to address the needs of all career pathways and post secondary destinations. Whether your destination is university, college, apprenticeship or work, you will find a selection of courses to meet your needs. Hammar skjold offers a comprehensive and diverse Fine Arts program. Hammar skjold is also fully equipped with new technology including Smartboards and WiFi throughout the school.

Hammar skjold's Advanced Placement courses are available in English and French Immersion and may qualify for university recognition. Our broad-based technology department offers college and workplace courses in four different areas. As Lakehead Public Schools French Immersion high school, students are able to earn their certification in French Immersion by completing 10 credits from a number of courses available in French.

Our innovative and exciting Specialist High Skills Major Programs in two areas include: Construction and Justice, Community Safety and Emergency Services. These programs allow students to concentrate their studies on credit bundles made up of sector-specific courses.

A broad spectrum of support programs is offered to our students. Our Breakfast Club, offered daily, is supported by the Red Cross and Breakfast Canada. Recognizing that personal health is vital to student success, we have a partnership with the Thunder Bay District Health Unit to serve the health needs of our students. Hammar skjold is indeed an inclusive high school with a wide range of programs including the Hearing Impaired Program, Pre-Workplace Program (PWP) and a Special Needs Class designed for students with developmental disabilities.

Hammar skjold has active student leadership. Students engage in many activities including leadership development for Grade 9 and Grade 10 students held at the Kingfisher Lake Outdoor Education Centre. Furthermore, Student Council members actively support community activities and a wide range of co-curricular opportunities, particularly in the area of clubs and athletics. Other groups include, but are not limited to, Yearbook, Natural Helpers, Hammbassadors, and Gender & Sexuality Alliance (GSA).

Hammar skjold students participate in a variety of sports at all levels: cross-country running, football, wrestling, track and field, volleyball, basketball, biking, soccer and more. Hammar skjold is proud to compete in all SSSAA athletic activities.

### SPECIALIST HIGH SKILLS MAJORS

Senior students at Hammar skjold have the option of selecting a Specialist High Skills Major focus in two areas:

- Construction
- Justice, Community Safety and Emergency Services

Students who achieve a "bundle" of Grade 11 and 12 credits for a university, college, apprenticeship, or workplace pathway leave our school with sector recognized certifications and training as well as experiential learning within the selected sector. Experiential learning through a cooperative education opportunity enables students to refine, extend, apply, and practice the sector specific knowledge and skills acquired in the bundle of credits.

Students who successfully complete all requirements receive the Specialist High Skills Major designation on their Ontario Secondary School diploma.



**Facta non Verba**  
**Deeds not Words**



**HOME OF THE**  
**VIKINGS!**



# FRENCH IMMERSION & ADVANCED PLACEMENT



## French Immersion

Hammarskjold High School offers a French Immersion Diploma to students wishing to continue their study of the French language. To obtain the Diploma, students are required to take ten credits with French as the language of instruction. Four of these credits must be French Immersion language credits. The French Immersion program offers compulsory courses in French, including:

Geography of Canada | Grade 9;  
Healthy Active Living Education | Grade 9;  
Civics | Grade 10;  
Career Studies | Grade 10; and  
Canadian History since WWI | Grade 10.

For the other French credits, students choose additional courses from the following:

Food and Nutrition | HFN20F;  
Cooperative Education | DCO30F;  
Healthy Active Living Education | PPL20F;  
Food and Culture | HFC3MF; and  
Introduction to Anthropology, Sociology, and  
Psychology | HSP3UF.

The variety of course offerings and full immersion experiences provide students with ample opportunities to enhance and refine their oral and written French language skills through structured and unstructured daily interaction. In addition, students will expand their knowledge of the language through the study of francophone culture and literature.

By the end of the four year program, students will participate easily in conversations and discussions, will be able to take courses at the college or university level in which French is the language of instruction, and will be able to accept employment where French is the working language.

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Hammarskjold is proud to be a partner in the Centre DELF-DALF du Nord Ouest Ontario (Accredited Testing Centre) providing the opportunity for our Grade 12 students, upon successful completion of the DELF scolaire test, to obtain an internationally-recognized DELF certificate.

Exchange programs through ISE Ontario are available to further enhance language proficiency skills.



## Advanced Placement

Hammarskjold High School is pleased to offer students Advanced Placement courses at the senior level. Advanced Placement is a cooperative educational partnership between the high school and post secondary institutions. Advanced Placement provides students with an enriched learning experience by enhancing the depth and/or breadth of additional academic content as identified by post secondary institutions. Successful completion of the external AP examination(s) may exempt students from certain university courses. AP courses offered at Hammarskjold include Grade 11 English and Grade 12 English, and Grade 12 French. Students may also choose to challenge an AP exam in any subject area offered by the AP College Board. This can be facilitated through the school's AP coordinator.

## Pre-Advanced Placement

Grade 9 and 10 students considering AP subjects at the senior level begin preparing and challenging themselves in the methods of AP skills development in academic English and French.

Final evaluation is based upon the successful completion of subject specific Ontario curriculum expectations. Enrichment opportunities within these subject areas allow students to challenge themselves and determine whether they wish to further pursue AP opportunities.



# SELECTION & PLANNING

## Diplomas and Certificates

### Ontario Secondary School Diploma (OSSD)

In order to earn an Ontario Secondary School Diploma (OSSD), a student must earn a minimum of 30 credits accumulated as follows:

#### 18 Compulsory Credits

- 4 credits in English (1 per Grade)\*
- 3 credits in Mathematics (at least 1 in Gr 11 or 12)
- 2 credits in Science
- 1 credit in the Arts\*\*
- 1 credit in Canadian Geography (Gr 9)
- 1 credit in Canadian History (Gr 10)
- 1 credit in French as a Second Language or Native Language\*\*\*
- 1 credit in Health and Physical Education
- 0.5 credit in Career Studies
- 0.5 credit in Civics

3 additional credits, consisting of 1 credit from each of the following groups:

Group 1 - English (including the Ontario Secondary School Literacy Course), French as a second language, classical languages, international languages, Native languages, Canadian and world studies, FNMI studies, social sciences and humanities, guidance and career education, cooperative education.

Group 2 - French as a second language, the arts, business studies, health and physical education, cooperative education.

Group 3 - French as a second language, science (Grade 11 or 12), computer studies, technological education, cooperative education.

The following conditions apply to selections from the above three groups: A maximum of 2 credits in French as a second language may count as additional compulsory credits, 1 credit from Group 1, and 1 credit from either Group 2 or 3.

A maximum of 2 credits in cooperative education may count as additional compulsory credits, selected from any of Groups 1, 2, or 3.

#### 12 elective credits

#### 40 hours of community involvement activities

### Ontario Secondary School Literacy Requirement

\* The Ontario Secondary School Literacy Course (OSSLC) may be used to meet either the Grade 11 or 12 English compulsory credit requirement. The Grade 11 Understanding First Nation, Métis, and Inuit Voices course may be used to meet the Grade 11 English compulsory credit requirement. For English language learner, the requirement may be met through earning a maximum of 3 credits in English as a second language (ESL) or English Literacy Development (ELD); the fourth must be a Grade 12 compulsory English course.

\*\* The Grade 9 Expressing Aboriginal Cultures course may be used to meet the compulsory credit requirement in the arts.

\*\*\* Students who have taken Native languages in the place of French as a second language in elementary school may use a Level 1 or 2 Native language course to meet the compulsory credit requirement for French as a second language.

### What is an Individual Education Plan?

An Individual Education Plan is a written plan that describes the special education program and/or services required by a particular student. It may identify accommodations, modified learning expectations and/or alternative learning expectations.

### Ontario Secondary School Certificate (OSSC)

In order to earn an Ontario Secondary School Certificate (OSSC), a student must achieve 14 credits distributed as follows:

#### Compulsory Credits

- 2 credits in English
- 1 credit in Canadian Geography or Canadian History
- 1 credit in Mathematics
- 1 credit in Science
- 1 credit in Health & Physical Education
- 1 credit in the Arts or Technological Education

#### Elective Credits

7 credits selected by the student from available courses

### Certificate of Accomplishment

Students who leave school before fulfilling the requirements for the Ontario Secondary School diploma or the Ontario Secondary School Certificate may be granted a Certificate of Accomplishment.

The Certificate of Accomplishment may be a useful means of recognizing achievement for students who plan to take certain vocational programs (i.e. March of Dimes) or other kinds of further training, or who plan to find employment after leaving school.

## XELLO

Xello is the web-based planner you will use to manage your IPP. It is also the course selection tool that will help you set up your high school courses in alignment with your graduation requirements and career goals.

xello

## Your Individual Pathways Plan (IPP)

All Ontario secondary students will create their own Individual Pathways Plan (IPP). This is the primary planning tool that you will use as you move through school to your initial post-secondary destination.

**Your Individual Pathways Plan (IPP) will help you find the answers.**

Everything you learn about courses, careers and pathways will be stored in your IPP. You will be able to access all this valuable information as you begin planning your life after high school.

**A career is your path through life.**

In high school, you will have to make decisions about education, learning, different jobs, work (paid and unpaid), family life, friendships, community involvement and leisure activities.

Career development requires you to understand who you are and what opportunities you have in both the world and the workplace, so that you can begin to make decisions about your future. Career development involves understanding your own strengths and interests, goal-setting, decision-making and awareness of opportunities.

Jobs in the future will belong to people with skills, attitudes and behaviours that include academic abilities, personal management skills and teamwork strategies.

You will need to have good work habits and the ability to make sound decisions, solve problems, plan effectively, work independently, communicate well, do research, evaluate yourself realistically, and explore new educational and career opportunities.

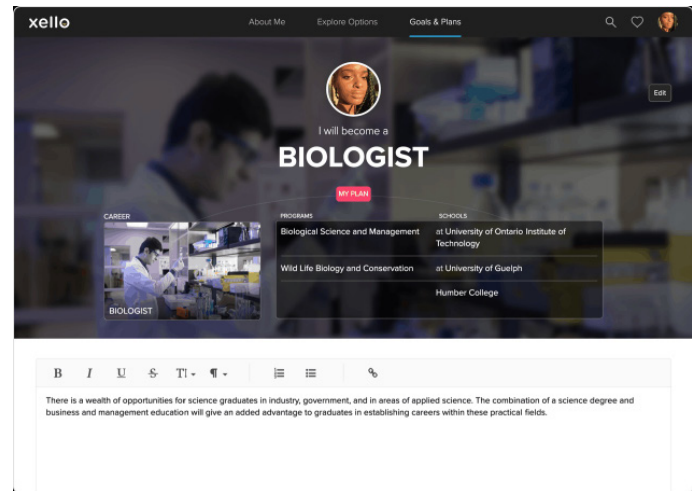
**Student Services Guidance Counsellors will be a valuable resource for searches, course selection, career exploration, support and so much more. Talk to your counsellor about your ideas, goals, and dreams.**

## Explore Options, Goals & Plans

Use this walkthrough to learn about Explore Options and Goals & Plans. These activities help students open their eyes to the many different futures available to them. Once they've been introduced to the wide range of careers, have delved into self-knowledge, and have defined a goal, Xello prompts them to come full circle and narrow the pathways required to reach those future goals.

### Explore Options

Whether you want to start your journey by exploring careers, schools, or majors, you can start from Explore Options. Let's start with Careers.



### Explore Careers

- Select *Explore Options* in the top menu.
- Select *Careers* and you'll see your top 20 best-matched careers. By default, careers are sorted by the strength of your match to the career: Excellent, Good, Fair, or Poor.
- Browse through the list and select *View More* to see another 20 careers. You can keep expanding the list.



**TIP:** Explore the dynamic filters by clicking More Filters. You can narrow your list based on factors like earnings, related clusters, and job outlook.

### Deep Dive on a Career

Xello includes hundreds of career profiles that are accessible and engaging. To view a career profile, select a career that interests you. Select *Find Out Why* to see how the answers you gave in your assessments contributed to your match score.

Select *Save* next to the heart icon to save a favourite career, indicate how you feel about it, and explore further with investigative prompts.

Make your way to the bottom of the career profile page, scrolling past the job description, earnings, and down to the education and training; you'll see a list of links under Related Programs. Choose one to take you to Explore Programs.



**TIP:** Saving your options will help you experience a curated Xello journey as activities are specially tuned to your interests and favourites. You can visit your saved options from any page by clicking the heart icon in the top menu bar.

### Explore Programs

Once on the Explore Programs page, the link you chose from the career profile will be applied as a filter to the program results. Apply other filters to further narrow results.

## Time to Explore!

Choose a program to bring up its profile. On each program you will see details such as admission requirements, costs, similar programs, at this and other schools. From the right of the profile, select *Save* to record it to your favourites.



TIP: You can access Programs and Schools from the top of any page.

## Explore Schools

To explore more about the specific school, select the school name under the section titled *Offered By*. From here you can learn about cost, enrollment, programs, campus housing, similar schools, and even the local weather, and an interactive campus map. Select *Save* to record it to your favourites.

Xello works hard to prompt you to discover a path that parallels your skills and interests, but sometimes your best inspiration will be stumbled upon by surprise. So if you'd like to cut loose and browse all careers, schools, and programs, select the *Explore Options* link again and select the appropriate section to begin exploring, applying filters, and saving your favourites.

## Goals & Plans

Once you've explored your career, program, and school options, bring your knowledge full circle and build a plan to connect all the dots. From the navigation bar at the top of the page, select *Goals & Plans* and then *Create Plan*.

Choose one of the three starting points: career, school, or program; and give your plan a name. Select *Next* and use your saved options to choose a path in your future.

Once completed, you can personalize your plan by adding comments and media to your storyboard. Create multiple plans and compare them on the Goals & Plans page.



Stay up-to-date on everything that's happening at school with Edsby. Edsby is an online learning management system that connects students, parents and teachers. Login to Edsby to stay up to date on classwork, grades and learning resources.

Edsby will even remind you when something is due

- whether it is to hand in an assignment, or to go to soccer practice.

Use your Office ID to login to Edsby at [lakehead.edsby.com](https://lakehead.edsby.com) or download the Edsby app from your app store.

## Need2Know

### Current Grade 9s

For Grade 10, you will have five compulsory courses plus three electives.

### Current Grade 10s

You will take an English and a Math course, plus six other elective credits. You should be considering your Groups 1, 2, and 3, as well as prerequisites you may be required to take in Grade 12 for Apprenticeship, College or University programs after high school.

### Current Grade 11s

You are choosing your one English and at least five other courses. You must ensure you will graduate with a minimum of 30 credits including 18 compulsory credits.

*If you have attempted the Ontario Secondary School Literacy Test at least twice and have been unsuccessful, you should include OLC40 as a course choice.*

**Please note: If you received 50% in a course, you should talk to your subject teacher about the appropriate next step.**

**Students wishing to attend college or university are reminded that they must meet specific entrance requirements:**

University – at least six (6) Grade 12 “U” or “M” courses and in many cases a designated overall average (70% for Lakehead University).

Students must also meet courses prerequisites for certain post secondary programs.

For a comprehensive list of Universities and programs, as well as prerequisites and admissions requirements, visit: [www.ontariouniversitiesinfo.ca](https://www.ontariouniversitiesinfo.ca)

College – at least Grade 12, College English. Specific senior mathematics courses are also required for technology programs.

To explore college programs and admissions requirements, visit: [www.ontariocolleges.ca](https://www.ontariocolleges.ca)

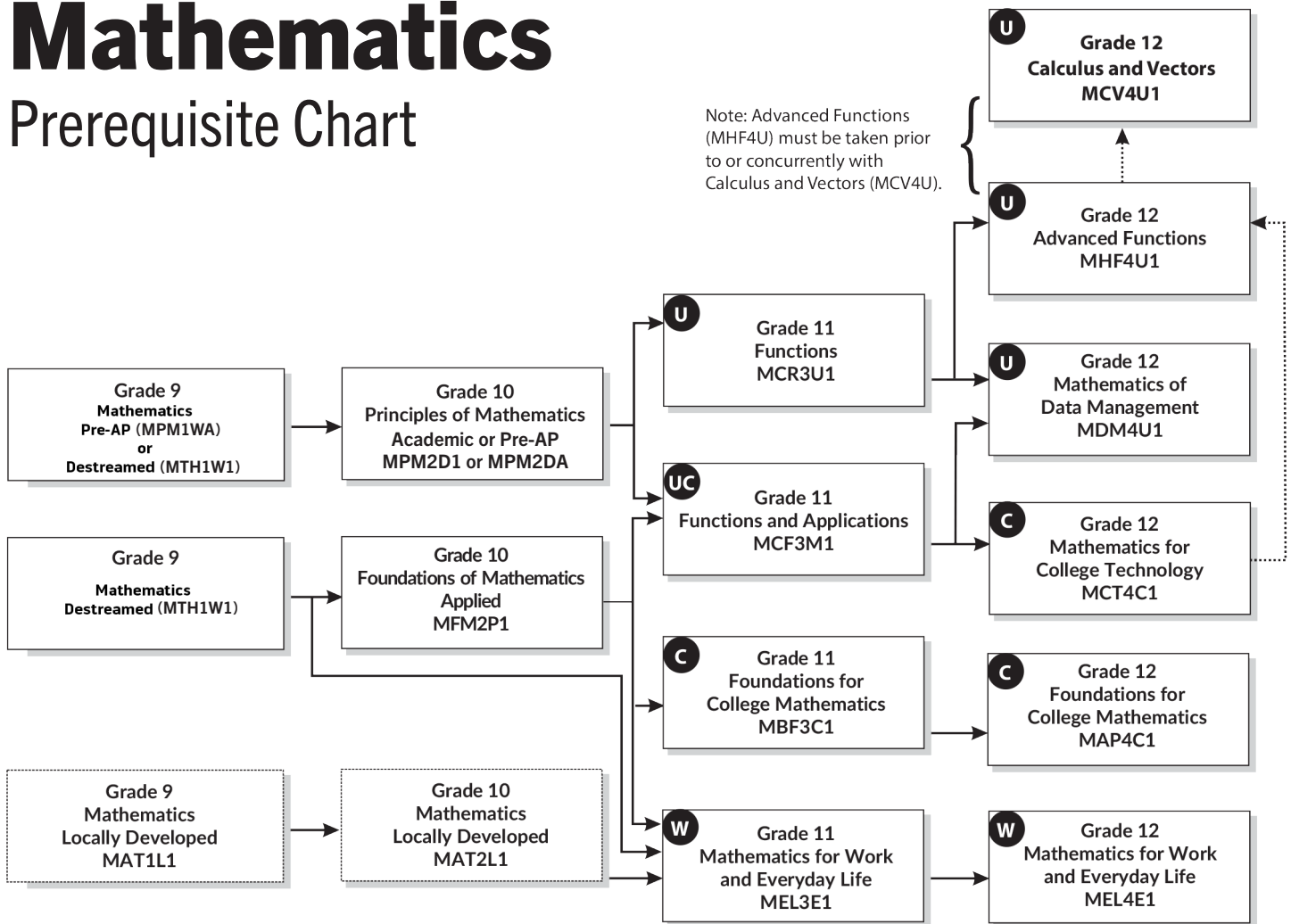
For more information on trades, visit: [www.skilledtrades.ca](https://www.skilledtrades.ca)

General information: [www.osca.ca](https://www.osca.ca)



# Mathematics

## Prerequisite Chart





# COURSE LISTING

## The Arts

Course Descriptions: p.14-15

		Code	Prerequisite
<b>Drama</b>			
Drama - Open		ADA201	
Drama - U/C		ADA3M1	ADA101 or 201
Drama - U/C		ADA4M1	ADA3M1
<b>Music</b>			
Music - Open	Band*	AMI201	
Music - Open	Guitar	AMG201	
Music - Open	Guitar - No previous experience required	AMG20R	
Music - Open	Strings*	AMS201	
Music - Open	Vocal/Coral	AMV201	
Music - U/C	Band	AMI3M1	AMI201
Music - Open	Guitar	AMG301	AMG201 or 20R
Music - U/C	Repertoire	AMR3M1	AMI201 or AMS201
Music - U/C	Strings	AMS3M1	AMS201
Music - U/C	Vocal/Coral	AMV3M1	
Music - U/C	Band	AMI4M1	AMI3M1
Music - U/C	Guitar	AMG4M1	AMG301
Music - U/C	Repertoire	AMR4M1	AMS3M1 or AMI3M1 or AMR3M1
Music - U/C	Strings	AMS4M1	AMS3M1
Music - U/C	Vocal/Coral	AMV4M1	
<b>Visual Arts</b>			
Visual Arts		AVI201	
Visual Arts		AVI3M1	AVI101 or AVI201
Visual Arts		AVI4M1	AVI3M1 or 301

## Business Studies

Course Descriptions: p.15

		Code	Prerequisite
<b>Business</b>			
Introduction to Business - Open		BBI201	
<b>International Business</b>			
International Business Fundamentals - U/C		BBB4M1/E	
<b>Marketing</b>			
Marketing: Goods, Services, and Events - College		BMI3C1	
<b>Business Leadership</b>			
Business Leadership Management - U/C	eLearning	BOH4ME	

\* Previous musical experience highly recommended.

# Canadian and World Studies

Course Descriptions: p.15-16

Code

Prerequisite

## Civics (Politics)

Civics & Citizenship - Open	½ Credit	CHV205	
Civics & Citizenship - FI - Open	½ Credit	CHV20F	
Civics & Citizenship - Open	½ Credit	eLearning CHV20E	Eligibility: Open to all students

## Geography

The Environment and Resource Management - U/C	eLearning	CGR4ME	See Page 16
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## History

Canadian History since World War I - Academic	CHC2D1	
Canadian History since World War I - FI - Academic	CHC2DF	
Canadian History since World War I - Applied	CHC2P1	
First Nations, Métis, and Inuit Peoples in Canada - Open	NAC201	
World History to the End of the Fifteenth Century - U/C	CHW3M1	CHC2D1 or 2P1
World History since the Fifteenth Century - U	CHY4U1	See Page 16

## Law

Understanding Canadian Law - U/C	CLU3M1/S	CHC2D1 or 2P1
Canadian and International Law - University	CLN4U1	See Page 16
Legal Studies - College	CLN4C1	CHV205

# Computer Studies

Course Descriptions: p.16

Code

Prerequisite

Introduction to Computer Studies - Open	ICD201 (Youth Fusion Program - Video Game Design, Robotics)	
Introduction to Computer Science - University	ICS3U1	
Introduction to Computer Programming - College	ICS3C1	
Computer Science - University	ICS4U1	ICS3U1
Computer Programming - College	ICS4C1	ICS3C1

# English

Course Descriptions: p.17-18

Code

Prerequisite

Compulsory English - Academic	ENG2D1	ENG1D
Compulsory English - Applied	ENG2P1	ENG1D1
Compulsory English - LDCC	ENG2L1	ENG1L1
English: Understanding First Nations, Métis and Inuit Voices - University	NBE3U1*	ENG2D1
English - University (Advanced Placement)	ENG3UA	ENG2D1
Compulsory English - College	ENG3C1	ENG2D1 or 2P1
Compulsory English - Workplace	ENG3E1	ENG2P1 or 2L1
Compulsory English - University	ENG4U1	ENG3U1, 3UA or NBE3U1
Compulsory English - University (eLearning)	ENG4UE	ENG3U1 or NBE3U1

6th Character Designations

A=Advanced Placement D=Dual Credit E=eLearning F=French Immersion R=No Previous Experience Required

5th Character Course Pathways

S=Specialist High Skills Major X=Females Y=Males 1=1 Credit 2=2 Credit 5= ½ Credit

Academic (D) Applied (P) University (U) College (C) Workplace (E)

Abbreviations LDCC=Locally Developed Compulsory Course (L) U/C=University/College (M)

English - University	Advanced Placement	ENG4UA	ENG3U1 or 3UA or NBE3U1
Compulsory English - College		ENG4C1	ENG3C1 or 3U1 or NBE3C1
Compulsory English - Workplace		ENG4E1	ENG3E1 or 3C1 or NBE3E1
The Writer's Craft - University	eLearning	EWC4UE	ENG3U1 or 3UA or NBE3U1
Ontario Secondary School Literacy Course - Open		OLC401	See Page 18

## First Nations, Métis, and Inuit Languages

Course Descriptions: p.18

	Code	Prerequisite
FNMI Languages: Ojibwe, Level 1 - Open	LN0A01	
FNMI Languages: Ojibwe, Level 2 - Open	LN0B01	See Page 18

## First Nations, Métis, and Inuit Studies

Course Descriptions: p.18

	Code	Prerequisite
Expressions of First Nations, Métis, and Inuit Cultures - Open	NAC101	
First Nations, Métis, and Inuit in Canada - Open	NAC201	
English: Understanding Contemporary First Nations, Métis, and Inuit Voices - University	NBE3U1*	ENG2D1
English: Understanding Contemporary First Nations, Métis, and Inuit Voices - Open	NBE3C1*	ENG2P1
English: Understanding Contemporary First Nations, Métis, and Inuit Voices - Open	NBE3E1*	ENG2L1

## French as a Second Language

Course Descriptions: p.18-19

	Code	Prerequisite
<b>Core</b>		
Core French - Academic	FSF2D1	FSF1D1 or 1P1
Core French - University	FSF3U1	FSF2D1
Core French - University	FSF4U1	FSF3U1
<b>French Immersion</b>		
French Immersion - Academic	FIF2D1	FIF1D1
French Immersion - University	FIF3U1	FIF2D1
French Immersion - University	FIF4U1	FIF3U1
French Immersion - University	Advanced Placement FIF4UA	FIF3U1

## American Sign Language (ASL)

Course Description: p.19

ASL as a Second Language, Level 1 - Open	LASB01	
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\* Credit may be used to meet the Grade 11 English, Compulsory credit requirement

## Guidance and Career Education

Course Descriptions: p.19

			Code	Prerequisite
Career Studies - Open	½ Credit		GLC205	
Career Studies - FI - Open	½ Credit		GLC20F	
Career Studies - Open	½ Credit	eLearning	GLC20E	Eligibility: open to all students
Creating Opportunities through Cooperative Education- Open (2 Credit)			DC0302	
Creating Opportunities through Cooperative Education - FI - Open (2 Credit)			DC030F	
Cooperative Education - Open	2 Credit		COP4X2	
Cooperative Education - FI - Open	2 Credit		COP4XF	
Cooperative Education - Army Reserve - Open	2 Credit		COP4XA	See Page 25
Cooperative Education - Navy Reserve - Open	2 Credit		COP4XN	See Page 25

## Health and Physical Education

Course Descriptions: p.19-20

			Code	Prerequisite
Healthy Active Living Education - Open			PPL201	
Healthy Active Living Education (French Immersion) Open			PPL20F	
Healthy Active Living Education - Open			PPL301	
Personal and Fitness Activities - Open			PAF301	
Healthy Active Living Education - Open			PPL401	
Introductory Kinesiology - University			PSK4U1	See Page 19
Personal and Fitness Activities - Open			PAF401	

## Mathematics

Course Descriptions: p.20

			Code	Prerequisite
Principles of Mathematics - Academic			MPM2D1	MPM1WA or MTH1W1
Principles of Mathematics - Academic (Advanced Placement)			MPM2DA	MPM1WA or MTH1W1
Foundations of Mathematics - Applied			MFM2P1	MPM1D1, MTH1W1 or MFM1P1
Mathematics - LDCC			MAT2L1	MAT1L1
Functions - University			MCR3U1	MPM2D1 or MPM20A
Functions and Applications - U/C			MCF3M1	MPM2D1 or MFM2P1
Foundations for College Mathematics - College			MBF3C1	MFM2P1 or MPM2D1
Math for Work and Everyday Life - Workplace			MEL3E1	MPM1D1, MFM1P1 or MAT2L1
Advanced Functions - University			MHF4U1	MCR3U1 or MCT4C1
Calculus and Vectors - University			MCV4U1	MHF4U1 (or concurrently)
Data Management - University			MDM4U1	MCR3U1 or MCF3M1
Foundations for College Mathematics - College			MAP4C1	MBF3C1 or MCF3M1
Math for Work and Everyday Life - Workplace			MEL4E1	MEL3E1



## Science

Course Descriptions: p.21

	Code	Prerequisite
Science - Academic	SNC2D1	SNC1W1
Science - Applied	SNC2P1	SNC1W1
Biology - University	SBI3U1	SNC2D1
Biology - College	SBI3C1	SNC2D1 or 2P1
Biology - University	SBI4U1	SBI3U1
Chemistry - University	SCH3U1	SNC2D1
Chemistry - University	SCH4U1	SCH3U1
Chemistry - College	SCH4C1	SNC2D1 or 2P1
Physics - University	SPH3U1	SNC2D1
Physics - University	SPH4U1	SPH3U1
Environmental Science - Workplace	SVN3E1	SNC1D1, 1P1, 1L1 or 2L1

## Social Sciences and Humanities

Course Descriptions: p.21-22

### Family Studies

	Code	Prerequisite
Food and Nutrition - Open	HFN201	
Food and Nutrition - FI - Open	HFN20F	
Food and Culture - FI - University/College	HFC3MF	
Food and Culture - Workplace	HFC3E1	
Raising Healthy Children - Open	HPC301	
Nutrition and Health - University	HFA4U1	See Page 22
Nutrition and Health - College	HFA4C1	See Page 22

### General Social Sciences

Introduction to Anthropology, Sociology and Psychology - University	HSP3U1	ENG2D1 or CHC2D1
Introduction to Anthropology, Sociology and Psychology - College	HSP3C1	ENG2P1 or CHC2P1
Introduction to Anthropology, Sociology and Psychology - FI - University	HSP3UF	ENG2D1 or CHC2D1 (FIF2D1 Recommended)
Challenge and Change in Society - University	HSB4U1	See Page 22
Challenge and Change in Society - University eLearning	HSB4UE	See Page 22

Students are reminded that it may be difficult or impossible to change a course once school starts in September.

Course selections made in February for the following year are the basis upon which classes are structured and staff is assigned. After staffing and the school's master timetable are established, subsequent changes in a student's program are possible but very much restricted, and are considered if timetable and class size permit.

Where enrolment is insufficient, a course may be canceled.

# Technological Education

Course Descriptions: p.22-24

Code

Prerequisite

## Communications Technology

Communications Tech: Print and Graphic Communications - U/C - Yearbook	TGG3M1	
Communications Tech: Print and Graphic Communications - U/C - Yearbook	TGG4M1	

## Computer Engineering

Computer Technology - Open	TEJ201	(Youth Fusion Program - Video Game Design + Robotics)
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## Construction Technology

Construction Technology - Open	TCJ201	
Construction Engineering Technology - College	TCJ3C2 - 2 Credit Course	
Construction Technology - Workplace	TCJ3E2 - 2 Credit Course	
Custom Woodworking - Workplace	TWJ3E1	
Construction Engineering Technology - College	TCJ4C2 - 2 Credit Course	TCJ3C2
Construction Technology - Workplace	TCJ4E2 - 2 Credit Course	TCJ3E2
Custom Woodworking - Workplace	TWJ4E1	TWJ3E1

\* Construction Specialist High Skills Major Program - See your Guidance Counsellor for more information

## Green Industries

Green Industries - Open	THJ201	
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## Hairstyling and Aesthetics

Hairstyling and Aesthetics - Open	TXJ201	
Hairstyling and Aesthetics - Workplace	TXJ3E1	
Hairstyling and Aesthetics - Workplace	TXJ4E1	TXJ3E1

## Manufacturing Technology

Manufacturing Technology - Open	Metal Working	TMJ201	
Manufacturing Technology - College	Metal Working	TMJ3C1	
Manufacturing Technology - Workplace	Metal Working	TMJ3E1	
Manufacturing Technology - College	Metal Working	TMJ4C1	TMJ3C1
Manufacturing Technology - Workplace	Metal Working	TMJ4E1	TMJ3E1

## Transportation Technology

Transportation Technology - Open	TTJ201	
Transportation Technology: Auto Service - College	TTA3C1	
Transportation Technology: Auto Service - College	TTA3C2 - 2 Credit Course	
Transportation Technology: Auto Service - College	TTA4C1	

Innovative, exciting and flexible opportunities are available that allow students to earn credits towards their diploma in many unique and varying environments. Whether online, in a career setting, post-secondary institution, or other educational facility, students participating in these programs work hands-on and build the skills and knowledge necessary to ensure their successful transition to their post secondary career of choice. Many of these programs also provide free certifications, recognized training, or reach ahead experiences to help students further focus their career pathway. All students can benefit from participation in these equal access programs. Students select courses online using Xello during February.

See the Senior Specialist: Focus section of this calendar  
p. 25-27 for more information about how a senior focus of study  
might just be what you are looking for.

Additional information is available at Student Services.  
Speak with your guidance counsellor today!

# SENIOR SPECIALIST FOCUS - GRADES 11 & 12

Information and application procedures are available at Student Services.

## Cooperative Education System Programs

Army Reserve	2 Credit	COP4XA	See Page 25
Naval Reserve	2 Credit	COP4XN	See Page 25
Aviation Technology   Westgate	4 Credit	COP4XV	See Page 25

**Ontario Youth Apprenticeship Program (OYAP)** - Application required when cooperative education placement specific to apprenticeship.

## Dual Credit Opportunities

(School-College-Work Initiative)

See Page 30 - 31 for more information

Designed for Senior Students who will be headed for college. Dual credit opportunities are different for each secondary school. College Now! Courses are offered on specific afternoons.

## eLearning

See Student Services for the semester the e-Learning courses will be offered.

Business Leadership Management - U/C	eLearning		BOH4ME	WEST
Civics & Citizenship - Open	½ credit	eLearning	CHV20E	HAMM
Eligibility: Open to all students				
Career Studies - Open	½ credit	eLearning	GLC20E	HAMM
Eligibility: Open to all students				
Challenge and Change in Society - University	eLearning		HSB4UE (See Page 24)	WEST
English - University	eLearning		ENG4UE	SUP
The Environment and Resource Management - U/C	eLearning		CGR4ME (See Page 17)	SUP
Healthy Active Living - College	eLearning		PPZ3CE	WEST
The Writer's Craft - University	eLearning		EWC4UE (ENG3U1)	WEST
International Business - U/C	eLearning		BBB4ME	HAMM

## Specialist High Skills Major

Arts and Culture	Westgate	8 Credit Bundle	SHMART	See Page 27
Aviation and Aerospace	Westgate	9 Credit Bundle	SHMAVA	See Page 27
Business	Westgate	9 Credit Bundle	SHMBUS	See Page 27
Construction	Hammarskjold	10 Credit Bundle	SHMTCJ	See Page 27
Health and Wellness	Superior	9 Credit Bundle	SHMTPJ	See Page 27
Justice, Community Safety, and Emergency Services	Hammarskjold	8 Credit Bundle	SHMJCE	See Page 27
Hospitality & Tourism	Westgate	8 Credit Bundle	SHMHTO	See Page 27
Manufacturing	Westgate	9 Credit Bundle	SHMMAN	See Page 27
Manufacturing	Superior	9 Credit Bundle	SHMTMW	See Page 27
Transportation Services	Westgate	9 Credit Bundle	SHMTTA	See Page 27

# COURSE DESCRIPTIONS

## THE ARTS

### Drama

**Drama**  
**Grade 10**

**ADA201**  
**Open**

This course provides opportunities for students to explore dramatic forms, conventions, and techniques. Students will explore a variety of dramatic sources from various cultures and representing a range of genres. Students will use the elements of drama in creating and communicating through dramatic works. Students will assume responsibility for decisions made in the creative and collaborative processes and will reflect on their experiences.

**Prerequisite:** None

**Drama**  
**Grade 11**

**ADA3M1**  
**University/College**

This course requires students to create and perform in dramatic presentations. Students will analyse, interpret, and perform dramatic works from various cultures and time periods. Students will research various acting styles and conventions that could be used in their presentations, and will analyse how the knowledge and skills developed in drama are related to their audiences.

**Prerequisite:** ADA101 or ADA201

**Drama**  
**Grade 12**

**ADA4M1**  
**University/College**

This course requires students to experiment individually and collaboratively with forms and conventions of both drama and theatre from various cultures and time periods. Students will interpret dramatic literature and other text and media sources while learning about various theories of directing and acting. Students will examine the significance of dramatic arts in various cultures, and will analyse how the knowledge and skills developed in drama are related to their personal skills, social awareness, and goals beyond secondary school. **Prerequisite:** ADA3M1

### Music

**Music - Band**  
**Grade 10**

**AMI201**  
**Open**

This course emphasizes the creation and performance of music at a level consistent with previous experience. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop their understanding of musical conventions, practices, and terminology and apply the elements of music in a range of activities. They will also explore the function of music in society with reference to the self, communities, and cultures.

**Prerequisite:** None\*

**Music - Vocal/Choral**  
**Grade 10**

**AMV201**  
**Open**

This course emphasizes the creation and performance of music at a level consistent with previous experience. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop their understanding of musical conventions, practices, and terminology and apply the elements of music in a range of activities. They will also explore the function of music in society with reference to the self, communities, and cultures. The above will be achieved through the study of vocal music.

**Prerequisite:** None

**Music - Guitar**  
**Grade 10**

**AMG201**  
**Open**

**Music - Guitar**  
**Grade 10**

**AMG20R**  
**Open**

This course is for Grade 10 students who have not taken Grade 9 Guitar.

**Music - Strings**  
**Grade 10**

**AMS201**  
**Open**

**Prerequisite:** None\*

**Music - Band**  
**Grade 11**

**AMI3M1**  
**University/College**

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis, and performance of music, including traditional, commercial, and art music. Students will apply the creative process when performing appropriate technical exercises and repertoire and will employ the critical analysis processes when reflecting on, responding to, and analysing live and recorded performances. Students will consider the function of music in society and the impact of music on individuals and communities. They will explore how to apply skills developed in music to their life and careers.

**Prerequisite:** AMI201

**Music - Vocal/Choral**  
**Grade 11**

**AMV3M1**  
**University/College**

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis, and performance of music, including traditional, commercial, and art music. Students will apply the creative process when performing appropriate technical exercises and repertoire and will employ the critical analysis process when reflecting on, responding to and analyzing live and recorded performances. Students will consider the function of music in society and the impact of music on individuals and communities. They will explore how to apply skills developed in music to their life and careers. The focus of this course is contemporary music.

**Prerequisite:** Any Grade 9 or 10 Music course \*For Gr.11-12 vocal this year-waive the pre requisite

**Music - Repertoire \***  
**Grade 11**

**AMR3M1**  
**University/College**

**Prerequisite:** AMI201 or AMS201

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis, and performance of music. Students will perform traditional, commercial, and art music, and will respond with insight to live and recorded performances. Students will enhance their understanding of the function of music in society and the impact of music on themselves and various communities and cultures. Students will analyze how to apply skills developed in music to their life and careers.

**Prerequisite:** AMI201 or AMS201

*\*This course will be offered after school from 3:40 p.m. - 5:10 p.m. two days per week for the full school year, and is in addition to your regular course selections. Please see Mr. Pepe or Mrs. DeLeon to register for this course*

**Music - Strings**  
**Grade 11**

**AMS301**  
**University/College**

**Music - Guitar**  
**Grade 11**

**AMG301**  
**Open**

This course develops students' musical literacy through performance and the preparation and presentation of music productions. Students will perform works at a level consistent with previous experience. Independently and collaboratively, students will use current technology and the creative and critical analysis processes to plan, produce, present, and market musical productions. Students will respond to, reflect on, and analyse music from various genres and periods, and they will develop skills transferable to other aspects of their life and their careers. Students should have guitar proficiency at the Grade 10 level.

**Prerequisite:** AMG101 or AMG201

**Music - Vocal/Choral**  
**Grade 12**

**AMV4M1**  
**University/College**

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis, and performance of music, including traditional, commercial, and art music, and will respond with insight to live and record performances. Students will embrace their understanding of the function of music in society and the impact of music on themselves and various communities and cultures. Students will analyze how to apply skills developed i music to their life and careers. The focus of this course is contemporary music.

**Prerequisite:** Any Grade 11 Music course \*For Gr.11-12 vocal this year-waive the pre requisite

**Music - Band**  
**Grade 12**

**AMI4M1**  
**University/College**

This course enables students to enhance their musical literacy through the creation, appreciation, analysis, and performance of music. Students will perform traditional, commercial, and art music, and will respond with insight to live and recorded performances. Students will



enhance their understanding of the function of music in society and the impact of music on themselves and various communities and cultures. Students will analyse how to apply skills developed in music to their life and careers.

**Prerequisite:** AMI3M1

**Music - Guitar**  
**Grade 12**

**AMG4M1**  
**University/College**

**Music - Strings**  
**Grade 12**

**AMS4M1**  
**University/College**

**Music - Repertoire \***  
**Grade 12**

**AMR4M1**  
**University/College**

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis, and performance of music. Students will perform traditional, commercial, and art music, and will respond with insight to live and recorded performances. Students will enhance their understanding of the function of music in society and the impact of music on themselves and various communities and cultures. Students will analyze how to apply skills developed in music to their life and careers.

**Prerequisite:** AMI3M1 or AMS3M1 or AMR3M1

*\* This course will be offered after school from 3:40 p.m. - 5:10 p.m. two days per week for the full school year, and is in addition to your regular course selections. Please see Mr. Pepe or Mrs. DeLeon to register for this course*

## Visual Arts

**Visual Arts**  
**Grade 10**

**AVI2O1**  
**Open**

This course enables students to develop their skills in producing and presenting art by introducing them to new ideas, materials, and processes for artistic exploration and experimentation. Students will apply the elements and principles of design when exploring the creative process. Students will use the critical analysis process to reflect on and interpret art within a personal, contemporary, and historical context.

**Prerequisite:** None

**Visual Arts**  
**Grade 11**

**AVI3M1**  
**University/College**

This course enables students to further develop their knowledge and skills in visual arts. Students will use the creative process to explore a wide range of themes through studio work that may include drawing, painting, sculpting, and printmaking, as well as the creation of collage, multimedia works, and works using emergent technologies. Students will use the critical analysis process when evaluating their own work and the work of others. The course may be delivered as a comprehensive program or through a program focused on a particular artform (e.g. photography, video, computer graphics, information design).

**Prerequisite:** AVI1O1 or AVI2O1

**Visual Arts**  
**Grade 12**

**AVI4M1**  
**University/College**

This course focuses on enabling students to refine their use of the creative process when creating and presenting two- and three-dimensional art works using a variety of traditional and emerging media and technologies. Students will use the critical analysis process to deconstruct art works and explore connections between art and society. The studio program enables students to explore a range of materials, processes, and techniques that can be applied in their own art production. Students will also make connections between various works of art in personal, contemporary, historical, and cultural contexts.

**Prerequisite:** AVI3M1 or 3O1

## BUSINESS STUDIES

### Business

**Introduction to Business**  
**Grade 10**

**BBI2O1**  
**Open**

This course introduces students to the world of business. Students will develop an understanding of the functions of business, including accounting, marketing, information technology, human resources, and production, and of the importance of ethics and social responsibility. This course builds a foundation for further studies in business and helps students develop the business knowledge and skills they will need in their everyday lives.

**Prerequisite:** None

## Marketing

**Marketing: Goods, Services, Events**  
**Grade 11**

**BMI3C1**  
**College**

This course introduces the fundamental concepts of marketing, which includes the marketing of goods, services, and events. Students will examine how trends, issues, global economic changes, and information technology influence consumer buying habits. Students will engage in marketing research, develop marketing strategies, and produce a marketing plan for a product of their choice.

**Prerequisite:** None

## International Business

**International Business Fundamentals**  
**Grade 12**

**BBB4M1/E**  
**University/College**

**In class or eLearning**

This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. Students will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively. This course prepares students for post-secondary programs in business, including international business, marketing, and management.

**Prerequisite:** None

## Business Leadership

**Business Leadership Management**  
**Grade 12 - eLearning**

**BOH4ME**  
**University/College**

This course focuses on the development of leadership skills used in managing a successful business. Students will analyse the role of a leader in business, with a focus on decision making, management of group dynamics, workplace stress and conflict, motivation of employees, and planning. Effective business communication skills, ethics, and social responsibility are also emphasized.

**Prerequisite:** None

## CANADIAN AND WORLD STUDIES

### Civics (Politics)

**Civics & Citizenship**  
**Grade 10**  
**0.5 Credit**

**CHV2O5**  
**Open**

This course explores rights and responsibilities associated with being an active citizen in a democratic society. Students will explore issues of civic importance such as healthy schools, community planning, environmental responsibility, and the influence of social media, while developing their understanding of the role of civic engagement and of political processes in the local, national, and/or global community. Students will apply the concepts of political thinking and the political inquiry process to investigate, and express informed opinions about, a range of political issues and developments that are both of significance in today's world and of personal interest to them.

**Prerequisite:** None

**Civics & Citizenship**  
**Grade 10**  
**0.5 Credit - French Immersion**

**CHV2OF**  
**Open**

**Civics & Citizenship**  
**Grade 10 - 0.5 Credit - eLearning**  
**Eligibility: Open to all students**

**CHV2OE**  
**Open**

## Geography

**Travel and Tourism: A Geographic Perspective**  
**Grade 11**

**CGG3O1**  
**Open**

This course focuses on issues related to travel and tourism within and between various regions of the world. Students will investigate unique environmental, sociocultural, economic, and political characteristics of selected world regions. They will explore travel patterns and trends as well as tensions related to tourism, and will predict future tourism destinations. Students will apply the concepts of geographic thinking and the geographic inquiry process, including spatial technologies, to investigate the impact of the travel industry on natural environments and human communities.

**Prerequisite:** CGC1D1 or 1P1

**The Environment and Resource Management**  
**Grade 12 - eLearning**  
This course investigates interactions between natural and human systems, with a particular emphasis on the impacts of human activity on ecosystems and natural processes. Students will use the geographic inquiry process, apply the concepts of geographic thinking, and employ a variety of spatial skills and technologies to analyse these impacts and propose ways of reducing them. In the course of their investigations, they will assess resource management and sustainability practices, as well as related government policies and international accords. They will also consider questions of individual responsibility and environmental stewardship as they explore ways of developing a more sustainable relationship with the environment.  
**Prerequisite:** Any university, university/college, or college preparation course in Canadian and world studies, English, or social sciences and humanities

History

**Canadian History since World War I**  
**Canadian History since World War I (French Immersion)**  
**Grade 10**  
Academic This course explores social, economic, and political developments and events and their impact on the lives of different groups in Canada since 1914. Students will examine the role of conflict and cooperation in Canadian society, Canada’s evolving role within the global community, and the impact of various individuals, organizations, and events on Canadian identity, citizenship, and heritage. They will develop their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating key issues and events in Canadian history since 1914.  
**Prerequisite:** None

**Canadian History since World War I**  
**Grade 10**  
This course focuses on the social context of historical developments and events and how they have affected the lives of people in Canada since 1914. Students will explore interactions between various communities in Canada as well as contributions of individuals and groups to Canadian heritage and identity. Students will develop their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating the continuing relevance of historical developments and how they have helped shape communities in present-day Canada.  
**Prerequisite:** None

**First Nations, Métis, and Inuit Peoples in Canada**  
**Grade 10**  
This course explores First Nations, Métis, and Inuit peoples’ relationships with Canada from pre-contact to the 21st century. Students will examine social, economic, political and military interactions that impact the contemporary realities of Aboriginal people in Canada in relation to identity, culture, community, land, and governance. Students will explore their own and others’ ideas using the historical inquiry process to think critically and respond responsibly about civic questions raised today as a result of the changing relationships.  
**Prerequisite:** None

**World History to the End of the Fifteenth Century**  
**Grade 11**  
This course explores the history of various societies and civilizations around the world, from earliest times to around 1500 CE. Students will investigate a range of factors that contributed to the rise, success, and decline of various ancient and pre-modern societies throughout the world and will examine life in and the cultural and political legacy of these societies. Students will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating social, political, and economic structures and historical forces at work in various societies and in different historical eras.  
**Prerequisite:** CHC2P1 or 2D1

**World History since the Fifteenth Century**  
**Grade 12**  
This course traces major developments and events in world history since approximately 1450. Students will explore social, economic, and political changes, the historical roots of contemporary issues, and the role of conflict and cooperation in global interrelationships. They will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, as they investigate key issues and ideas and assess societal progress or decline in world history.  
**Prerequisite:** Any university or university/college preparation course in Canadian and world studies, English, or social sciences and humanities

Law

**Understanding Canadian Law**  
**Grade 11**  
This course explores Canadian law, with a focus on legal issues that are relevant to the lives of people in Canada. Students will gain an understanding of laws relating to rights and freedoms in Canada; our legal system; and family, contract, employment, tort, and criminal law. Students will develop legal reasoning skills and will apply the concepts of legal thinking and the legal studies inquiry process when investigating a range of legal issues and formulating and communicating informed opinions about them.  
**Prerequisite:** CHC2D1 or 2P1.

**Canadian and International Law**  
**Grade 12**  
This course explores a range of contemporary legal issues and how they are addressed in both Canadian and international law. Students will develop an understanding of the principles of Canadian and international law and of issues related to human rights and freedoms, conflict resolution, and criminal, environmental, and workplace law, both in Canada and internationally. Students will apply the concepts of legal thinking and the legal studies inquiry process, and will develop legal reasoning skills, when investigating these and other issues in both Canadian and international contexts.  
**Prerequisite:** Any university or university/college preparation course in Canadian and world studies, English, or social sciences and humanities

**Legal Studies**  
**Grade 12**  
This course provides a foundation for students who wish to pursue a career that requires an understanding of law. Students will explore the importance of law, analysing contemporary legal issues and their relevance to daily life. They will investigate the requirements for various law-related careers as well as legal responsibilities in the workplace. Students will apply the concepts of legal thinking and the legal studies inquiry process to investigate their rights and responsibilities, legal processes and structures, and the role of law in a changing society.  
**Prerequisite:** CHV205

COMPUTER STUDIES

Youth Fusion Program (Full-Year Course Pairing)  
Video Game Design + Robotics - See ad on inside back cover

**Digital Technology and Innovations in a Changing World**  
**Grade 10**  
This course helps students develop cutting-edge digital technology and computer programming skills that will support them in contributing to and leading the global economic, scientific and societal innovations of tomorrow. Students will learn and apply coding concepts and skills to build hands-on projects and investigate artificial intelligence, cybersecurity, and other emerging digital technologies that connect to a wide range of fields and careers. Using critical thinking skills with a focus on digital citizenship, students will investigate the appropriate use and development of the digital technologies that they encounter every day, as well as the benefits and limitations of these technologies.  
**Prerequisite:** None

**Computer Technology**  
**Grade 10**  
This course introduces students to computer systems, programming, and networking, as well as electronics and computer interfacing. Students will build small electronic circuits and write computer programs to control simple peripheral devices and electronic interfaces. Students will also develop an awareness of related environmental and societal issues and will learn about secondary and postsecondary pathways and career opportunities in computer technology.  
**Prerequisite:** None

**Intro to Computer Science**  
**Grade 11**  
This course introduces students to computer science. Students will design 2D and 3D video games independently and as part of a team, using industry-standard game development tools and applying the software development life-cycle model. They will also design array algorithms and write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore emerging research in computer science, and global career trends in computer-related fields.  
**Prerequisite:** None

## Computer Science Grade 12

This course enables students to further develop knowledge and skills in computer science. Students will use modular design principles to create complex and fully documented programs, according to industry standards. Student teams will manage a large software development project, from planning through to project review. Students will also analyze algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, and computer-related careers.

**Prerequisite:** ISC3U1

## ICS4U1 University

## Computer Programming Grade 12

This course further develops students' computer programming skills. Students will learn object-oriented programming concepts, create object-oriented software solutions, and design graphical user interfaces. Student teams will plan and carry out a software development project using industry-standard programming tools and proper project management techniques. Students will also investigate ethical issues in computing and expand their understanding of environmental issues, emerging technologies, and computer-related careers.

**Prerequisite:** ISC3C1

## ICS4C1 College

# ENGLISH

## Compulsory Courses

### English Grade 10

This course is designed to extend the range of oral communication, reading, writing, and media literacy skills that students need for success in their secondary school academic programs and in their daily lives. Students will analyse literary texts from contemporary and historical periods, interpret and evaluate informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on the selective use of strategies that contribute to effective communication. This course is intended to prepare students for the compulsory Grade 11 university or college preparation course or English: Contemporary Aboriginal Voices, Grade 11, University - NBE3U1.

**Prerequisite:** ENG1P1 or 1D1

### ENG2D1 Academic

### English Grade 10

This course is designed to extend the range of oral communication, reading, writing, and media literacy skills that students need for success in their secondary school academic programs and in their daily lives. Students will study and create a variety of informational, literary, and graphic texts. An important focus will be on the consolidation of strategies and processes that help students interpret texts and communicate clearly and effectively. This course is intended to prepare students for the compulsory Grade 11 college or workplace preparation course or Contemporary Aboriginal Voices, Grade 11 college preparation course.

**Prerequisite:** ENG1P1 or 1D1

### ENG2P1 Applied

### English Grade 10

In this course, students focus on extending their literacy and communication skills to prepare for success in their daily lives, in the workplace, in the English Grade 11 Workplace course, or in the English: Contemporary Aboriginal Voices, Grade 11 Workplace course. The course is organized into strands that extend listening and talking skills, reading and viewing skills, and writing skills. In all strands, the focus is on refining foundational literacy skills and on using language clearly and accurately in a variety of authentic contexts. Students build on their strategies and engage in the processes involved in talking, listening, reading, viewing, writing and thinking, and reflect regularly upon their growth in these areas.

**Prerequisite:** ENG1L1

### ENG2L1 LDCC

### English: Understanding First Nation, Métis and Inuit Voices Grade 11

This course explores themes, forms, and stylistic elements of a variety of literary, informational, graphic, oral, cultural, and media text forms emerging from First Nations, Métis, and Inuit cultures in Canada, and also examines the perspectives and influence of texts that relate to those cultures. In order to fully understand contemporary text forms and their themes of identity, relationship, and self-determination, sovereignty, or self-governance, students will analyse the changing use of text forms by Indigenous authors/creators from various periods and cultures in expressing ideas related to these themes. Students will also create oral, written, and media texts to explore their own ideas and understanding, focusing on the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. The course is intended to prepare students for the compulsory Grade 12 English university or college preparation course. **New: NBE3U1 now replaces the ENG3U1**

**Prerequisite:** ENG2D1

### NBE3U1 University

## English - Advanced Placement Grade 11

This AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way language conventions and the resources of language contribute to effectiveness in writing. The course is intended to prepare students for the compulsory Grade 12 university or college prerequisite course. A high level of success on the AP English Language and Composition examination could qualify a student for a university credit.

**Prerequisite:** ENG2D1

## ENG3UA University

### English Grade 11

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will study the content, form, and style of a variety of informational and graphic texts, as well as literary texts from Canada and other countries, and create oral, written and media texts in a variety of forms for practical and academic purposes. An important focus will be on using language with precision and clarity. The course is intended to prepare students for the compulsory Grade 12 college preparation course.

**Prerequisite:** ENG2D1

### ENG3C1 College

### English Grade 11

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in the workplace and in daily life. Students will study the content, form, and style of a variety of contemporary informational, graphic, and literary texts; and create oral, written, and media texts in a variety of forms for practical purposes. An important focus will be on using language clearly and accurately in a variety of formal and informal contexts. The course is intended to prepare students for the compulsory Grade 12 workplace preparation course.

**Prerequisite:** ENG2P1 or ENG2L1

### ENG3E1 Workplace

## English - Advanced Placement Grade 12

The AP English Literature and Composition course is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readings. As they read, students will consider structure, style and themes, as well as the use of figurative language, imagery, symbolism, and tone. The course is intended to prepare students for success in the AP examination and for university, college or the workplace. A high level of success on the Literature and Composition AP examination could qualify the student for university credit.

**Prerequisite:** ENG3U1 or 3UA or NBE3U1

## ENG4UA University

### English Grade 12

This course emphasizes consolidation of the literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse a range of challenging literary texts from various periods, countries, and cultures; interpret and evaluate informational and graphic texts; and create oral, written and media texts in a variety of forms. An important focus will be on using academic language coherently and confidently, selecting the reading strategies best suited to particular texts and particular purposes for reading, and developing greater control in writing. The course is intended to prepare students for university, college, or the workplace.

**Prerequisite:** ENG3U1 or 3UA or NBE3U1

### ENG4U1 University

### English Grade 12

This course emphasizes consolidation of the literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse a variety of informational and graphic texts, as well as literary texts from various countries and cultures, and create oral, written, and media texts in a variety of forms for practical and academic purposes. An important focus will be on using language with precision and clarity and developing greater control in writing. The course is intended to prepare students for college or the workplace.

**Prerequisite:** ENG3C1 or NBE3C1

### ENG4C1 College

### English Grade 12

This course emphasizes the consolidation of literacy, communication, and critical and creative thinking skills necessary for success in the workplace and in daily life. Students will analyse informational, graphic, and literary texts and create oral, written and media texts in a variety of forms for workplace-related and practical purposes. An important focus will be on using

### ENG4E1 Workplace

language accurately and organizing ideas and information coherently. The course is intended to prepare students for the workplace and active citizenship.  
**Prerequisite:** ENG3E1 or NBE3E1

**The Writer's Craft**  
**Grade 12 – eLearning**  
This course emphasizes knowledge and skills related to the craft of writing. Students will analyse models of effective writing; use a workshop approach to produce a range of works; identify and use techniques required for specialized forms of writing; and identify effective ways to improve the quality of their writing. They will also complete a major paper as part of a creative or analytical independent study project and investigate opportunities for publication and for writing careers.  
**Prerequisite:** ENG3U1 or 3UA or NBE3U1

**Ontario Secondary School Literacy Course**  
**Grade 12**  
This course is designed to help students acquire and demonstrate the cross-curricular literacy skills that are evaluated by the Ontario Secondary School Literacy Test (OSSLT). Students who complete the course successfully will meet the provincial literacy requirement for graduation. Students will read a variety of informational, narrative, and graphic texts and will produce a variety of forms of writing, including summaries, information paragraphs, opinion pieces, and news reports. Students will also maintain and manage a portfolio containing a record of their reading experiences and samples of their writing.

# FIRST NATIONS, MÉTIS, AND INUIT LANGUAGES

**FNMI Languages: Ojibwe**  
**Level 1**  
This course is open to the entire student body and will allow students who have no prior Native language experience to develop an appreciation for a Native language and culture, to explore and experience a unique world view, and to learn to speak a Native language. Students will use the language being studied for greetings and daily routines, become familiar with its writing and sound system, and practise basic vocabulary and phrases. Students will also use information technology during course-related activities.  
**Prerequisite:** None

**FNMI Languages: Ojibwe**  
**Level 2**  
This course will enable students to experience the unique respect for life that permeates Native languages and cultures. Students will expand their vocabulary and knowledge of phrases and expressions, using them in simple dialogues, narrative writing, grammatical constructions, and reading, and to exchange information electronically. **This course is open to any student who has successfully completed at least four years of elementary Native language study, has successfully completed FNMI Languages: Level 1, or demonstrates the required proficiency.**

# FIRST NATIONS, MÉTIS, AND INUIT STUDIES

**Expressions of First Nations, Métis, and Inuit Cultures**  
**Grade 9**  
This course explores various arts disciplines (dance, drama, installation and performance art, media arts, music, storytelling, utilitarian or functional art, visual arts), giving students the opportunity to create, present, and analyse art works, including integrated art works/ productions, that explore or reflect First Nations, Métis, and Inuit perspectives and cultures. Students will examine the interconnected relationships between art forms and individual and cultural identities, histories, values, protocols, and ways of knowing and being. They will demonstrate innovation as they learn and apply art-related concepts, methods, and conventions, and acquire skills that are transferable beyond the classroom. Students will use the creative process and responsible practices to explore solutions to creative arts challenges.  
**Prerequisite:** None

**First Nations, Métis, and Inuit in Canada**  
**Grade 10**  
This course explores the histories of First Nations and Inuit in Canada from precontact, as well as Métis from their beginnings, to the present day. Students will examine the continuing impact of past social, cultural, economic, political, and legal trends and developments on First Nations, Métis and Inuit individuals and communities. Students will apply the concepts of historical thinking and the historical inquiry process to investigate a range of issues, events, and interactions that have affected First Nations, Métis, and Inuit individuals and communities, including those that continue to affect relations between Indigenous and non-Indigenous peoples in Canada.  
**Prerequisite:** None

**English: Understanding Contemporary First Nations, Métis, and Inuit Voices**  
**Grade 11**  
This course explores the themes, forms, and stylistic elements of a variety of literary, informational, graphic, oral, cultural, and media text forms emerging from First Nations, Métis, and Inuit cultures in Canada, and also examines the perspectives and influence of texts that relate to those cultures. In order to fully understand contemporary text forms and their themes of identity, relationship, and self-determination, sovereignty, or self-governance, students will analyse the changing use of text forms by Indigenous authors/ creators from various periods and cultures in expressing ideas related to these themes. Students will also create oral, written, and media texts to explore their own ideas and understanding, focusing on the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. The course is intended to prepare students for the compulsory Grade 12 English university or college preparation course.  
**Prerequisite:** ENG2D1

**English: Understanding Contemporary First Nations, Métis, and Inuit Voices**  
**Grade 11**  
This course explores the themes, forms, and stylistic elements of literary, informational, graphic, oral, cultural, and media text forms emerging from First Nations, Métis, and Inuit cultures in Canada, and also looks at the perspectives and influences of texts that relate to those cultures. In order to understand contemporary text forms and their themes of identity, relationship, and self-determination, sovereignty, or self-governance, students will study the use of text forms by Indigenous authors/creators from other periods in expressing ideas related to these themes. Students will also create oral, written, and media texts to explore their own ideas and understanding, focusing on the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. The course is intended to prepare students for the compulsory Grade 12 English college preparation course.  
**Prerequisite:** ENG2D1 or 2P1

**English: Understanding Contemporary First Nations, Métis, and Inuit Voices**  
**Grade 11**  
This course explores themes, forms, and stylistic elements of literary, informational, graphic, oral, cultural, and media texts emerging from First Nations, Métis, and Inuit cultures in Canada, as well as some texts that relate to those cultures. In order to better understand contemporary texts, students will explore connections between traditional and contemporary text forms and cultural and community aspects of identity, relationships, and self-determination, sovereignty, or self-governance. Students will also create oral, written, and media texts focusing on the development of literacy, communication, and critical thinking skills necessary for success in the workplace and daily life. The course is intended to prepare students for the compulsory Grade 12 English workplace preparation course.  
**Prerequisite:** ENG2D1 or 2P1 or 2L1

# FRENCH AS A SECOND LANGUAGE

## Core French

**Core French**  
**Grade 10**  
This course provides opportunities for students to communicate in French about personally relevant, familiar, and academic topics in real-life situations with increasing independence. Students will exchange information, ideas, and opinions with others in guided and increasingly spontaneous spoken interactions. Students will develop their skills in listening, speaking, reading, and writing through the selective use of strategies that contribute to effective communication. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.  
**Prerequisite:** FSF1D1 or 1P1

**Core French**  
**Grade 11**  
This course offers students extended opportunities to speak and interact in real-life situations in French with greater independence. Students will develop their listening, speaking, reading, and writing skills, as well as their creative and critical thinking skills, through responding to and exploring a variety of oral and written texts. They will also broaden their understanding and appreciation of diverse French-speaking communities and will develop skills necessary for lifelong language learning.  
**Prerequisite:** FSF2D1

**Core French**  
**Grade 12**  
This course provides extensive opportunities for students to speak and interact in French in-



dependently. Students will develop their listening, speaking, reading, and writing skills, apply language strategies in a wide variety of real-life situations, and develop their creative and critical thinking skills through responding to and interacting with a variety of oral and written texts. They will also enrich their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.  
**Prerequisite:** FSF3U1

## French Immersion

**French Immersion**  
**Grade 10**

**FIF2D1**  
**Academic**

This course provides students with extensive opportunities to communicate, interact, and think critically and creatively in French. Students will use a variety of language learning strategies in listening, speaking, reading, and writing, and will respond to and interact with print, oral, visual, and electronic texts. Students will develop their knowledge of the French language through the study of contemporary French literature and historically well-known French European literature. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.  
**Prerequisite:** FIF1D1

**French Immersion**  
**Grade 11**

**FIF3U1**  
**University**

This course provides opportunities for students to consolidate the communication skills required to speak and interact with increasing confidence and accuracy in French in a variety of academic and social contexts. Students will use their skills in listening, speaking, reading, and writing and apply language learning strategies while exploring a variety of concrete and abstract topics. Students will increase their knowledge of the French language through the study of French literature from around the world. They will also deepen their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.  
**Prerequisite:** FIF2D1

**French Immersion**  
**Grade 12**

**FIF4U1/A**  
**University**

This course provides students with extensive opportunities to communicate, interact, and think critically and creatively in French. Students will consolidate their listening, speaking, reading, and writing skills and apply language learning strategies while communicating about concrete and abstract topics, and will independently respond to and interact with a variety of oral and written texts. Students will study a selection of French literature from the Middle Ages to the present. They will also enrich their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.  
**Prerequisite:** FIF3U1

## AMERICAN SIGN LANGUAGE (ASL)

**American Sign Language as a Second Language**

**LASB01**

This course provides opportunities for students to begin to develop foundational language skills and cultural competencies in American Sign Language (ASL). Students will begin to engage in basic ASL conversational discourses in guided and interactive settings. Using a variety of strategies, they will develop skills to comprehend, construct, and present various basic ASL literary works and ASL texts, and begin to develop an understanding of the connections between ASL language, culture, and community. They will also develop the knowledge and skills necessary for lifelong language learning.  
**Prerequisite:** None

## GUIDANCE AND CAREER EDUCATION

**Career Studies**

**GLC205 (0.5 Credit)**

**Career Studies (French Immersion)**

**GLC20F (0.5 Credit)**

**Grade 10**

**Open**

This course teaches students how to develop and achieve personal goals for future learning, work, and community involvement. Students will access their interests, skills, and characteristics and investigate current economic and workplace trends, work opportunities, and ways to search for work. The course explores post secondary learning and career options, prepares students for managing work and life transitions, and helps students focus on their goals through the development of a career plan.  
**Prerequisite:** None

**Career Studies (0.5 Credit)**

**GLC20E**

**Grade 10**

**Open**

**eLearning Eligibility:** Open to all students

**Creating Opportunities through Cooperative Education**

**DC0302**

**Creating Opportunities through Cooperative Education**

**DC030F**

**2 Credit**

**Open**

**Grade 11**

This course consists of a learning experience connected to a community and a cooperative education curriculum focused on developing skills, knowledge, and habits of mind that will support students in their learning, including their education and career/life planning, at school and beyond, today and in the future. Within the context of their experience connected to a community, students will apply skills, knowledge, and habits of mind that will protect and promote their health, safety, and well-being and that will strengthen their inquiry, decision-making, and leadership skills. Students will create and implement a learning plan that meets their particular interests and needs, reflect on their learning, and make connections between their experience in the community and other aspects of their lives.

**Prerequisite:** None

**Cooperative Education**

**COP4X2**

**Cooperative Education (French Immersion)**

**COP4XF**

**Grade 11/12**

**Open**

**2 Credit**

**Second cooperative education experience**

This course is a partnership between the school and the community. The intent of a Cooperative Education placement is to provide students with effective skills, attitudes and work habits necessary to enter the work force and/or further academic pursuits. Senior students may earn credits while working in a job that is directly related to a senior course that the student is taking (or has taken recently.) Students are not paid while at a Co-op placement. Students attend their cooperative education placement in the morning or in the afternoon for one semester to earn 2 credits. Students are monitored by the Co-op teacher.

**Cooperative Education - Army Reserve**

**COP4XA**

**Cooperative Education - Navy Reserve**

**COP4XN**

**Grade 11/12**

**Open**

**2 Credit**

See page 29 or introductory information about the Canadian Armed Forces Cooperative Education opportunities. More information is available at Student Services.

## HEALTH AND PHYSICAL EDUCATION

**Healthy Active Living Education**

**PPL201**

**Healthy Active Living Education (French Immersion)**

**PPL20F**

**Grade 10**

**Open**

This course enables students to further develop the knowledge and skills they need to make healthy choices now and lead healthy, active lives in the future. Through participation in a wide range of physical activities, students develop knowledge and skills related to movement competence and personal fitness that provide a foundation for active living. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**Prerequisite:** None

**Healthy Active Living Education**

**PPL301**

**Grade 11**

**Open**

This course enables students to further develop the knowledge and skills they need to make healthy choices now and lead healthy, active lives in the future. Through participation in a wide range of physical activities and exposure to a broader range of activity settings, students enhance their movement competence, personal fitness, and confidence. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**Prerequisite:** None

**Personal and Fitness Activities**

**PAF301**

**Grades 11/12**

**Open**

This course focuses on the development of a healthy lifestyle through the introduction of life-long fitness activities in a non-competitive classroom environment. Through the development of skills and practice in yoga, aerobics, swimming and aquatics, and a variety of athletic training methods, students will explore personal fitness goal-setting and lifelong physical well-being.

**Prerequisite:** None

**Healthy Active Living Education**

**PPL401**

**Grade 12**

**Open**

This course enables students to further develop the knowledge and skills they need to make

healthy choices. It places special emphasis on how students can maintain the habits of healthy, active living throughout their lives as they make the transition to adulthood and independent living. Through participation in a wide range of physical activities in a variety of settings, students can enhance their movement competence, personal fitness, and confidence. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**Prerequisite:** None

**Introductory Kinesiology**  
**Grade 12**

**PSK4U1**  
**University**

This course focuses on the study of human movement and of systems, factors, and principles involved in human development. Students will learn about the effects of physical activity on health and performance, the evolution of physical activity and sport, and the physiological, psychological, and social factors that influence an individual's participation in physical activity and sport. The course prepares students for university programs in physical education and health, kinesiology, health sciences, health studies, recreation, and sports administration.

**Prerequisite:** Any Grade 11 University or University/College preparation course in science, or any Grade 11 or 12 course in Health and Physical Education

**Personal and Fitness Activities**  
**Grades 11/12**

**PAF401**  
**Open**

This course focuses on the development of a healthy lifestyle through the introduction of life-long fitness activities in a non-competitive classroom environment. Through the development of skills and practice in yoga, aerobics, swimming and aquatics, and a variety of athletic training methods, students will explore personal fitness goal-setting and lifelong physical well-being.

**Prerequisite:** None

**MATHEMATICS**

**Principles of Mathematics**  
**Grade 10**

**MPM2D1**  
**Academic**

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will explore quadratic relationships and their applications; solve and apply linear systems; verify properties of geometric figures using analytic geometry; and investigate the trigonometry of right and acute triangles. Students will reason mathematically as they solve multi-step problems and communicate their thinking.

**Prerequisite:** MTH1W1/A

**Principles of Mathematics (Advanced Placement)**  
**Grade 10**

**MPM2DA**  
**University, Pre-AP**

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will explore quadratic relationships and their applications; solve and apply linear systems; verify properties of geometric figures using analytic geometry; and investigate the trigonometry of right and acute triangles. Students will reason mathematically as they solve multi-step problems and communicate their thinking.

**Prerequisite:** MTH1W1/A

**Foundations of Mathematics**  
**Grade 10**

**MFM2P1**  
**Applied**

This course enables students to consolidate their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and hands-on activities. Students will develop and graph equations in analytic geometry; solve and apply linear systems, using real-life examples; and explore and interpret graphs of quadratic relationships. Students will investigate similar triangles, the trigonometry of right-angled triangles, and the measurement of three-dimensional objects. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Prerequisite:** MFM1P1/A

**Mathematics**  
**Grade 10**

**MAT2L1**  
**LDCC**

This course emphasizes further development of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, and in the Grade 11 Mathematics Workplace course. The course is organized in three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on developing and consolidating key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to further develop their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

**Prerequisite:** A Grade 9 Mathematics credit

**Functions**

**Grade 11**

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems involving applications of functions; and develop facility in simplifying polynomial and rational expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**Prerequisite:** MPM2D1

**Functions and Applications**  
**Grade 11**

**MCR3U1**

**University**

This course introduces basic features of the function by extending students' experiences with quadratic relations. It focuses on quadratic, trigonometric, and exponential functions and their use in modelling real-world situations. Students will represent functions numerically, graphically, and algebraically; simplify expressions; solve equations; and solve problems relating to financial and trigonometric applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**Prerequisite:** MPM2D1 or MFM2P1

**Foundations for College Mathematics**  
**Grade 11**

**MCF3M1**

**University/College**

This course enables students to broaden their understanding of mathematics as a problem-solving tool in the real world. Students will extend their understanding of quadratic relations; investigate situations involving exponential growth; solve problems involving compound interest; solve financial problems connected with vehicle ownership; develop their ability to reason by collecting, analysing, and evaluating data involving one variable; connect probability and statistics; and solve problems in geometry and trigonometry. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Prerequisite:** MPM2D1 or MFM2P1

**Mathematics for Work and Everyday Life**  
**Grade 11**

**MEL3E1**

**Workplace**

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will solve problems associated with earning money, paying taxes, and making purchases; apply calculations of simple and compound interest in saving, investing, and borrowing; and calculate the costs of transportation and travel in a variety of situations. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Prerequisite:** MPM1D1 or MFM1P1 or MAT2L1

**Advanced Functions**  
**Grade 12**

**MHF4U1**

**University**

This course extends students' experiences with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students who plan to study mathematics in university and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs

**Prerequisite:** MCR3U1 or MCT4C1

**Calculus and Vectors**  
**Grade 12**

**MCV4U1**

**University**

This course builds on students' experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors, and representations of lines and planes in three-dimensional space; broaden their understanding of rates of change to include the derivatives of polynomial, rational, exponential, and sinusoidal functions; and apply these concepts and skills to the modelling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who plan to study mathematics in university and who may choose to pursue careers in fields such as physics and engineering.

**Prerequisite:** MHF4U1 can be taken concurrently with or can precede MCV4U1

**Data Management**  
**Grade 12**

**MDM4U1**

**University**

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing large amounts of information; solve problems involving probability and statistics; and carry out a culminating project that integrates statistical concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. Students planning to enter university programs in business, the social sciences, and the humanities will find this course of particular interest.

**Prerequisite:** MCF3M1 or MCR3U1

## Foundations for College Mathematics

Grade 12

This course enables students to broaden their understanding of real-world applications of mathematics. Students will analyse data using statistical methods; solve problems involving applications of geometry and trigonometry; solve financial problems connected with annuities, budgets, and renting or owning accommodation; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services, and for certain skilled trades.

**Prerequisite:** MBF3C1 or MCF3M1

## MAP4C1

College

## Mathematics for Work and Everyday Life

Grade 12

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will investigate questions involving the use of statistics; apply the concept of probability to solve problems involving familiar situations; investigate accommodation costs and create household budgets; use proportional reasoning; estimate and measure; and apply geometric concepts to create designs. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Prerequisite:** MEL3E1

## MEL4E1

Workplace

# SCIENCE

## General Science

Science

Grade 10

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to relate science to technology, society, and the environment. Students are also given opportunities to further develop their scientific investigation skills. Students are also given opportunities to further develop their scientific investigation skills. Students will plan and conduct investigations and develop their understanding of scientific theories related to the connections between cells and systems in animals and plants; chemical reactions, with a particular focus on acid-base reactions; forces that affect climate and climate change; and the interaction of light and matter.

**Prerequisite:** SNC1W1

SNC2D1

Academic

Science

Grade 10

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science in real world situations. Students are given opportunities to develop further practical skills in scientific investigation. Students will plan and conduct investigations into everyday problems and issues related to human cells and body systems; chemical reactions; factors affecting climate change; and the interaction of light and matter.

**Prerequisite:** SNC1W1

SNC2P1

Applied

## Biology

Biology

Grade 11

This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biodiversity; evolution; genetic processes; the structure and function of animals; and the anatomy, growth and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation.

**Prerequisite:** SNC2D1

SBI3U1

University

Biology

Grade 11

This course focuses on the processes involved in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, animal anatomy and physiology, plant structure and physiology, and environmental science. Emphasis will be placed on the practical application of concepts, and on the skills needed for further study in various branches of the life sciences and related fields.

**Prerequisite:** SNC2D1 or 2P1

SBI3C1

College

Biology

Grade 12

This course provides students with the opportunity for in-depth study of the concepts and processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biochemistry, metabolic processes, molecular genetics, homeostasis, and population dynamics. Emphasis will be placed on the achievement of detailed knowledge and the

SBI4U1

University

refinement of laboratory skills needed for further study in various branches of the life sciences and related fields.

**Prerequisite:** SBI3U1

## Chemistry

Chemistry

Grade 11

This course enables students to deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behaviour of gases. Students will further develop their analytical skills and investigate the qualitative and quantitative properties of matter, as well as the impact of some common chemical reactions on society and the environment.

**Prerequisite:** SNC2D1

SCH3U1

University

Chemistry

Grade 12

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, the structure and properties of matter, energy changes and rates of reaction, equilibrium in chemical systems, and electrochemistry. Students will further develop their problem solving and investigation skills as they investigate chemical processes, and will refine their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in everyday life and on evaluating the impact of chemical technology on the environment.

**Prerequisite:** SCH3U1

SCH4U1

University

Chemistry

Grade 12

This course enables students to develop an understanding of chemistry through the study of matter and qualitative analysis, organic chemistry, electrochemistry, chemical calculations, and chemistry as it related to the quality of the environment. Students will use a variety of laboratory techniques, develop skills in data collection and scientific analysis, and communicate scientific information using appropriate terminology. Emphasis will be placed on the role of chemistry in daily life and the effects of technological applications and processes on society and the environment.

**Prerequisite:** SNC2D1 or 2P1

SCH4C1

College

## Physics

Physics

Grade 11

This course develops students' understanding of the basic concepts of physics. Students will explore kinematics, with an emphasis on linear motion; different kinds of forces; energy transformations; the properties of mechanical waves and sound; and electricity and magnetism. They will enhance their scientific investigation skills as they test laws of physics. In addition, they will analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment.

**Prerequisite:** SNC2D1

SPH3U1

University

Physics

Grade 12

This course enables students to deepen their understanding of physics concepts and theories. Students will continue their exploration of energy transformations and the forces that affect motion, and will investigate electrical, gravitational, and magnetic fields and electromagnetic radiation. Students will also explore the wave nature of light, quantum mechanics, and special relativity. They will further develop their scientific investigation skills, learning, for example, how to analyse qualitatively and quantitatively, data relating to a variety of physics concepts and principles. Students will also consider the impact of technological applications of physics on society and the environment.

**Prerequisite:** SPH3U1

SPH4U1

University

## Environmental Science

Environmental Science

Grade 11

This course provides students with the fundamental knowledge of and skills relating to environmental science that will help them succeed in work and life after secondary school. Students will explore a range of topics, including the impact of human activities on the environment; human health and the environment; energy conservation; resource science and management; and safety and environmental responsibility in the workplace. Emphasis is placed on relevant, practical applications and current topics in environmental science, with attention to the refinement of students' literacy and mathematical literacy skills as well as the development of their

SVN3E1

Workplace

scientific and environmental literacy.  
Prerequisite: SNC1D1 or 1P1 or 1L1 or 2L1

SOCIAL SCIENCES AND HUMANITIES

Family Studies

**Food and Nutrition**  
**Food and Nutrition (French Immersion)**  
**Grade 9 or 10**  
HFN201  
HFN20F  
Open  
This course focuses on guidelines for making nutritious food choices. Students will investigate factors that influence food choices, including beliefs, attitudes, current trends, traditional eating patterns, food marketing strategies, and individual needs. Students will also explore the environmental impact of a variety of food choices at the local and global level. The course provides students with opportunities to develop food preparation skills and introduces them to the use of social science research methods in the area of food and nutrition.  
Prerequisite: None

**Food and Culture (French Immersion)**  
**Grade 11**  
HFC3MF  
University/College  
This course focuses on the flavours, aromas, cooking techniques, foods, and cultural traditions of world cuisines. Students will explore the origins of and developments in diverse food traditions. They will demonstrate the ability to cook with ingredients and equipment from a variety of cultures, compare food-related etiquette in many countries and cultures, and explain how Canadian food choices and traditions have been influenced by other cultures. Students will develop practical skills and apply social science research methods while investigating foods and food practices from around the world.  
Prerequisite: None

**Food and Culture**  
**Grade 11**  
HFC3E1  
Workplace  
This course focuses on the flavours, aromas, cooking techniques, foods, and cultural traditions of world cuisines. Students will demonstrate the ability to cook with ingredients and equipment from a range of cultures, describe food-related etiquette in a variety of countries and cultures, and explore ways in which Canadian food choices and traditions have been influenced by other cultures. Students will have opportunities to develop practical skills and apply research skills as they investigate foods and food practices from around the world.  
Prerequisite: None

**Raising Healthy Children**  
**Grade 11**  
HPC301  
Open  
This course focuses on the skills and knowledge parents, guardians, and caregivers need, with particular emphasis on maternal health, pregnancy, birth, and the early years of human development (birth to six years old). Through study and practical experience, students will learn how to meet the developmental needs of young children, communicate with them, and effectively guide their early behaviour. Students will develop their research skills through investigations related to care-giving and child rearing.  
Prerequisite: None

**Nutrition and Health**  
**Grade 12**  
HFA4U1  
University  
This course examines the relationships between food, energy balance, and nutritional status; the nutritional needs of individuals at different stages of life; and the role of nutrition in health and disease. Students will evaluate nutrition-related trends and will determine how food choices can promote food security and environmental responsibility. Students will learn about healthy eating, expand their repertoire of food-preparation techniques, and develop their social science research skills by investigating issues related to nutrition and health.  
Prerequisite: Any university, university/college, or college preparation course in social sciences and humanities, English, or Canadian and world studies

**Nutrition and Health**  
**Grade 12**  
HFA4C1  
College  
This course focuses on the relationship between nutrition and health at different stages of life and on global issues related to food production. Students will investigate the role of nutrition in health and disease and assess strategies for promoting food security and environmental responsibility. Students will learn about healthy eating, expand their repertoire of food-preparation techniques, and refine their ability to use social science research and inquiry methods to investigate topics related to nutrition and health.  
Prerequisite: Any university, college, or university/college preparation course in social sciences and humanities, English, or Canadian and world studies

General Social Sciences

**Intro to Anthropology, Sociology and Psychology**  
**Intro to Anthropology, Sociology and Psychology (French Immersion)**  
**Grade 11**  
HSP3U1  
HSP3UF  
University  
This course provides students with opportunities to think critically about theories, questions, and issues related to anthropology, psychology, and sociology. Students will develop an understanding of the approaches and research methods used by social scientists. They will be given opportunities to explore theories from a variety of perspectives, to conduct social science, and to become familiar with current thinking on a range of issues within the three disciplines.  
Prerequisite: The Grade 10 academic course in English or the Grade 10 academic history course (Canadian and world studies).

**Introduction to Anthropology, Sociology and Psychology**  
**Grade 11**  
HSP3C1  
College  
This course introduces students to theories, questions, and issues related to anthropology, psychology, and sociology. Students learn about approaches and research methods used by social scientists. Students will be given opportunities to apply theories from a variety of perspectives, to conduct social science research, and to become familiar with current issues within the three disciplines.  
Prerequisite: None

**Challenge and Change in Society**  
**Grade 12**  
HSB4U1  
University  
This course focuses on the use of social science theories, perspectives, and methodologies to investigate and explain shifts in knowledge, attitudes, beliefs, and behaviour and their impact on society. Students will critically analyse how and why cultural, social, and behavioural patterns change over time. They will explore the ideas of social theorists and use those ideas to analyse causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change.  
Prerequisite: Any university, university/college, or college preparation course in social sciences and humanities, English, or Canadian and world studies

**Challenge and Change in Society**  
**Grade 12 - eLearning**  
HSB4UE  
University

TECHNOLOGICAL EDUCATION

Youth Fusion Program (Full-Year Course Pairing)

Video Game Design + Robotics - See ad on inside back cover

**Digital Technology and Innovations in a Changing World**  
**Grade 10**  
ICD201  
Open  
This course helps students develop cutting-edge digital technology and computer programming skills that will support them in contributing to and leading the global economic, scientific and societal innovations of tomorrow. Students will learn and apply coding concepts and skills to build hands-on projects and investigate artificial intelligence, cybersecurity, and other emerging digital technologies that connect to a wide range of fields and careers. Using critical thinking skills with a focus on digital citizenship, students will investigate the appropriate use and development of the digital technologies that they encounter every day, as well as the benefits and limitations of these technologies.  
Prerequisite: None

**Computer Technology**  
**Grade 10**  
TEJ201  
Open  
This course introduces students to computer systems, programming, and networking, as well as electronics and computer interfacing. Students will build small electronic circuits and write computer programs to control simple peripheral devices and electronic interfaces. Students will also develop an awareness of related environmental and societal issues and will learn about secondary and postsecondary pathways and career opportunities in computer technology.  
Prerequisite: None

**Communications Technology: Print and Graphic Communication(Yearbook)**  
**Grade 11**  
TGG3M1  
University/College  
This course enables students to develop media knowledge and skills while designing and producing the school yearbook and other projects in the area of graphic design communications. Students will work both independently and as part of a team learning the basics of journalism, layout, and design, photography, publishing, marketing and advertising through the production of the school yearbook and newsletters. Classroom activities will be closely related to the real world on interviewing, reporting, photographing, meeting deadlines and producing both paper and online publications. Students will also develop an awareness of related environmental and societal issues and explore college and



university programs and career opportunities in the various communications technology fields.

**Prerequisite:** None

**Communications Technology: Print and Graphic Communication (Yearbook)**

**Grade 12**

This course enables students to develop media knowledge and skills while designing and producing the school yearbook and other projects in the area of graphic design communications. Students will work both independently and as part of a team gaining expertise in the areas of digital workflow, photo composition, journalism, layout design and publishing in both print and web-based environments. Practical projects may include yearbook cover design, layouts, photo journalism, web galleries, and portfolio development. Classroom activities continue to reflect the real world of interviewing, reporting, photographing, meeting deadlines, and producing publications. Students will also expand their awareness of environmental and social issues related to communications technology and will investigate career opportunities and challenges in a rapidly changing technological environment.

**Prerequisite:** TGG3M1

**TGG4M1**

**University/College**

## Construction Technology

**Construction Technology**

**Grade 10**

This course introduces students to building materials and processes through opportunities to design and build various construction projects. Students will learn to create and read working drawings; become familiar with common construction materials, components, and processes; and perform a variety of fabrication, assembly, and finishing operations. They will use a variety of hand and power tools and apply knowledge of imperial and metric systems of measurement, as appropriate. Students will develop an awareness of environmental and societal issues related to construction technology, and will explore secondary and post secondary pathways leading to careers in the industry. Students will develop skills through projects such as canoe paddles, furniture, cabinets, structures, and others.

**Prerequisite:** None

**TCJ201**

**Open**

**Construction Engineering Technology**

**Grade 11**

This course focuses on the development of knowledge and skills related to residential construction. Students will gain hands on experience using a variety of construction materials, processes, tools, and equipment; learn about building design and planning construction projects; create and interpret working drawings and sections; and learn how the Ontario Building Code and other regulations and standards apply to construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and explore career opportunities in the field.

**Prerequisite:** None

*Students interested in being part of the Construction Specialist High Skills Major Program are required to choose the 2 credit version of the course.*

**TCJ3C2 - 2 Credit Course  
College**

**Construction Technology - SHSM**

**2 Credit**

**Grade 11**

This course enables students to develop technical knowledge and skills related to carpentry, masonry, electrical systems, heating and cooling, and plumbing for residential construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment to design, lay out, and build projects. They will create and read technical drawings, learn construction terminology, interpret building codes and regulations, and apply mathematical skills as they develop construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and explore post secondary and career opportunities in the field.

**Prerequisite:** None

**TCJ3CS**

**College**

**Construction Technology**

**Grade 11**

This course enables students to develop technical knowledge and skills related to carpentry, masonry, electrical systems, heating and cooling, and plumbing for residential construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment to design, lay out, and build projects. They will create and read technical drawings, learn construction terminology, interpret building codes and regulations, and apply mathematical skills as they develop construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and explore post secondary and career opportunities in the field.

**Prerequisite:** None

*Students interested in being part of the Construction Specialist High Skills Major Program are required to choose the 2 credit version of the course.*

**TCJ3E2 - 2 Credit Course  
Workplace**

**Construction Technology - SHSM**

**2 Credit**

**Grade 11**

This course enables students to develop technical knowledge and skills related to carpentry, masonry, electrical systems, heating and cooling, and plumbing for residential construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment to design, lay out, and build projects. They will create and read technical drawings, learn construction terminology, interpret building codes and regulations, and apply mathematical skills as they develop construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and explore post secondary and career opportunities in the field.

**Prerequisite:** None

**TCJ3ES**

**Workplace**

**Custom Woodworking**

**Grade 11**

This course enables students to develop knowledge and skills related to cabinet making and furniture making. Students will gain practical experience using a variety of the materials, tools, equipment, and joinery techniques associated with custom woodworking. Students will learn to create and interpret technical drawings and will plan, design, and fabricate projects. They will also develop an awareness of environmental and societal issues related to the woodworking industry, and explore apprenticeships, post secondary training, and career opportunities in the field that may be pursued directly after graduation.

**Prerequisite:** None

**TWJ3E1**

**Workplace**

**Construction Engineering Technology**

**Grade 12**

This course enables students to further develop knowledge and skills related to residential construction and to explore light commercial construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment and will learn more about building design and project planning. They will continue to create and interpret construction drawings and will extend their knowledge of construction terminology and of relevant building codes and regulations, as well as health and safety standards and practices. Students will also focus on environmental and societal issues related to construction engineering technology, and explore career opportunities in the field.

**Prerequisite:** TCJ3C1

**TCJ4C2 - 2 Credit Course  
College**

**Construction Technology**

**Grade 12**

This course enables students to further develop technical knowledge and skills related to residential construction and to explore light commercial construction. Students will continue to gain hands on experience using a variety of materials, processes, tools and equipment; create and interpret construction drawings; and learn more about building design and project planning. They will expand their knowledge of terminology, codes and regulations, and health and safety standards related to residential and light commercial construction. Students will also expand their awareness of environmental and societal issues related to construction technology and explore entrepreneurship and career opportunities in the industry that may be pursued directly after graduation.

**Prerequisite:** TCJ3E1

**TCJ4E2 - 2 Credit Course  
Workplace**

**Custom Woodworking**

**Grade 12**

This course enables students to further develop knowledge and skills related to the planning, design, and construction of residential and/or commercial cabinets and furniture. Students will gain further experience in the safe use of common woodworking materials, tools, equipment, finishes, and hardware, and will learn about the entrepreneurial skills needed to establish and operate a custom woodworking business. Students will also expand their awareness of health and safety issues and environmental and societal issues related to woodworking, and will explore career opportunities that may be pursued directly after graduation.

**Prerequisite:** TWJ3E1

**TWJ4E1**

**Workplace**

## Green Industries

**Green Industries**

**Grade 10**

This course introduces students to the various sectors of the green industries – agriculture, forestry, horticulture, floristry, and landscaping. Using materials, processes, and techniques commonly employed in these industries, students will participate in a number of hands-on projects that may include plant or animal propagation; production, maintenance, and harvesting activities; the development of floral or landscaping designs; and/or related construction activities. Students will also develop an awareness of environmental and societal issues related to green industry activities, learn about safe and healthy working practices, and explore secondary and postsecondary education and training pathways and career opportunities in the various

**THJ201**

**Open**

industry sectors.  
**Prerequisite:** None

## Hairstyling and Aesthetics

**Hairstyling and Aesthetics**  
**Grade 10**

This course presents hairstyling, make-up, and nail care techniques from a salon/spa perspective. Using materials, processes, and techniques used in the industry, students learn fundamental skills in hairstyling, giving manicures, and providing hair/scalp analyses and treatments. Students will also consider related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the field of hairstyling and aesthetics.

**Prerequisite:** None

**Hairstyling and Aesthetics**  
**Grade 11**

This course enables students to develop knowledge and skills in hairstyling and aesthetics and offers a variety of applications that will equip students to provide services for a diverse clientele. Students will identify trends in the hairstyling and aesthetics industry, learn about related health and safety laws, and expand their communication and interpersonal skills through interactions with peers and clients. Students will also consider environmental and societal issues related to the industry, and will acquire a more detailed knowledge of apprenticeships and direct-entry work positions.

**Prerequisite:** None

**Hairstyling and Aesthetics**  
**Grade 12**

This course enables students to develop increased proficiency in a wide range of hairstyling and aesthetics services. Students will strengthen their fundamental skills and develop an understanding of common business practices and strategies in the salon/spa industry. Students will also expand their understanding of environmental and societal issues and their knowledge of post secondary destinations in the hairstyling and aesthetics industry. Come experience the endless prospects that this course has to offer. The only place to find all this is exclusively at Hammarskjöld.

**Prerequisite:** TXJ3E1

**TXJ201**  
**Open**

**TXJ3E1**  
**Workplace**

**TXJ4E1**  
**Workplace**

## Manufacturing Technology

**Manufacturing Technology - Metal Working**  
**Grade 10**

This course introduces students to the manufacturing industry by giving them an opportunity to design and fabricate products using a variety of processes, tools, and equipment. Students will learn about technical drawing, properties and preparation of materials, and manufacturing techniques. Student projects may include a robotic challenge, a design challenge, and fabrications project involving processes such as machining, welding, and sheet metal forming. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about secondary and post secondary pathways leading to careers in the industry. Hammarskjöld's fully equipped Manufacturing Lab and Manufacturing courses will provide you with endless "project-driven" learning opportunities throughout high school.

**Prerequisite:** None

**Manufacturing Technology - Metal Working**  
**Grade 11**

This course enables students to develop knowledge and skills through hands-on, project-based learning. Students will acquire design, fabrication, and problem solving skills while using tools and equipment such as lathes, mills, welders, computer-aided machines, robots, and control systems. Students may have opportunities to obtain industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about pathways leading to careers in the industry.

**Prerequisite:** None

**Manufacturing Technology - Metal Working**  
**Grade 11**

This hands-on, project-based course is designed for students planning to enter an occupation or apprenticeship in manufacturing directly after graduation. Students will work on a variety of manufacturing projects, developing knowledge and skills in design, fabrication, and problem solving and using tools and equipment in Hammarskjöld's fully equipped Manufacturing Lab. In addition, students may have the opportunity to acquire industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about secondary school pathways that lead to careers in the industry.

**Prerequisite:** None

**TMJ201**  
**Open**

**TMJ3C1**  
**College**

**TMJ3E1**  
**Workplace**

**Manufacturing Technology - Metal Working**  
**Grade 12**

This course enables students to further develop knowledge and skills related to machining, welding, print reading, and computer numerical control (CNC). Students will develop proficiency in using mechanical, pneumatic, electronic, and computer control systems in a project-based learning environment and may have opportunities to obtain industry-standard training and certification. Students will expand their awareness of environmental and societal issues and career opportunities in the manufacturing industry.

**Prerequisite:** TMJ3C1

**TMJ4C1**  
**College**

**Manufacturing Technology - Metal Working**  
**Grade 12**

This project-driven, hands-on course builds on students' experiences in manufacturing technology. Students will further develop knowledge and skills related to the use of engine lathes, milling machines, welding machines, and other related tools and equipment as they design and fabricate solutions to a variety of technological challenges in manufacturing. Students may have opportunities to acquire industry-standard training and certification. Students will expand their awareness of environmental and societal issues and of career opportunities in the manufacturing industry.

**Prerequisite:** TMJ3E1

**TMJ4E1**  
**Workplace**

## Transportation Technology

**Transportation Technology**  
**Grade 10**

This course introduces students to the service and maintenance of vehicles. Students will develop knowledge and skills related to the construction and operation of vehicle/craft systems and learn maintenance and repair techniques. Student projects may include the construction of a self-propelled vehicle or craft, engine service, tire/wheel service, electrical/battery service, and proper body care. Students will develop an awareness of related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the transportation industry.

**Prerequisite:** None

**TTJ201**  
**Open**

**Transportation Technology: Auto Service**  
**Grade 11**

This course enables students to develop technical knowledge and skills as they study, test, service, and repair engine, electrical, suspension, brake, and steering systems on vehicles. Students will develop communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will develop an awareness of environmental and societal issues related to transportation and will learn about apprenticeship and college programs leading to careers in the transportation automotive industry.

**Prerequisite:** None

**TTA3C1**  
**College**

**Transportation Technology: Auto Service**  
**Grade 11**  
**2 Credit**

This course enables students to develop technical knowledge and skills as they study, test, service, and repair engine, electrical, suspension, brake, and steering systems on vehicles. Students will develop communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will develop an awareness of environmental and societal issues related to transportation and will learn about apprenticeship and college programs leading to careers in the transportation automotive industry.

**Prerequisite:** None

**TTA3C2**  
**College**

**Transportation Technology: Auto Service**  
**Grade 12**

This course enables students to further develop technical knowledge and skills as they study, test, service, and repair engine management systems; power trains; steering/control, suspension; brake, and body systems on vehicles; and/or small engine products. Students will refine communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will expand their awareness of environmental and societal issues related to transportation and their knowledge of apprenticeship and college programs leading to careers in the transportation industry.

**Prerequisite:** TTA3C1

**TTA4C1**  
**College**

# SENIOR SPECIALIST FOCUS LEARNING

## Cooperative Education (System)

### Dual Credits

College Link

Team Taught Dual Credits

College Now!

### eLearning

## Specialist High Skills Major Programs

### Cooperative Education

Cooperative Education is a unique program for students, integrating academic and technical study with practical experience in business and industry.

This learning experience helps students make informed decisions about future careers. Students also develop the work habits, attitudes and job skills necessary for a successful transition from secondary school to the workplace or post-secondary education. Cooperative Education students are typically in the senior grades, have a variety of post-secondary destinations: apprenticeship, college, university, work, and may be studying in any subject area.

Cooperative education opportunities are available in all Lakehead Public High Schools.

### Ontario Youth Apprenticeship Program (OYAP)

All senior students can explore the career potential of the skilled trades with OYAP as their start point. Over 140 skilled trades offer an opportunity to learn, work and enjoy occupations with career flexibility and portability, professional licensing, a wide range of further training opportunities, small business ownership and a diversified and valued skill set.

Students can begin to accumulate credit towards an apprenticeship in their chosen skilled trade while they complete the requirements of their high school education. Students who are interested in participating in OYAP will need to choose cooperative education in their Grade 11 and/or Grade 12 year. To participate, students must have completed 16 credits and be at least 16 years of age.

An Ontario Youth Apprenticeship Program (OYAP) student is a student who is earning cooperative education credits for work experience in an apprenticeship occupation. The student may or may not be formally registered as an apprentice while attending secondary school.

## Cooperative Education Programs

### Canadian Armed Forces

#### Army Reserve Semester 2

The Army Reserve Co-op Program includes basic military training as an introduction to life in the Canadian Forces, specific to the Army Reserve. This means training to be a member of one

of the Army Reserve units in Thunder Bay, at the Armoury on Park Avenue. The Army Reserve units in Thunder Bay are: 736 Communications Squadron, which specializes in electronic communications; the Lake Superior Scottish Regiment, which is an infantry unit; 18 Service Battalion, which specializes in transport, supply/logistics and technical repair and maintenance; and 18 Field Ambulance, which specializes in health care and trauma support services.

To be eligible, students must meet the following conditions:

- 16 years old prior to the starting date of the program;
- A Canadian citizen;
- Have a minimum of 15 credits prior to the start of the program;
- Enrolled in Semester 2 Co-op (afternoon);
- Successfully complete the entrance requirements prior to December 1 of the school year (physical, medical, aptitude);
- Able to attend program from 1:00 p.m. - 5:30 p.m., Monday through Friday and the occasional weekend training sessions.

### Naval Reserve

#### Semesters 1 & 2

The Naval Reserve Co-op Program includes introductory training to life in the Canadian Forces, specifically the Canadian Naval Reserve. This means training to be part of the crew of a Canadian Navy Ship, a member of a Port Security Unit, a Port Inspection Diving Team or a Naval Intelligence Team. Students will work out of HMCS Griffon, Thunder Bay's Naval Reserve Unit located on Algoma Street.

To be eligible students must meet the following conditions.

- 16 years old prior to the start date of the program;
- A Canadian citizen;
- Have a minimum of 15 credits prior to start date;
- Enrolled in Co-op (afternoon);
- Successfully complete the entrance requirements prior to the start of the semester (physical, medical, aptitude);
- Be able to attend program from 1:00 p.m. - 4:00 p.m.
- Monday - Friday and able to attend the occasional weekend training session.

### Aviation Technology

Aviation Technology is a program that is taught at the Confederation College A.C.E. Centre located at the Thunder Bay International Airport.

#### Grade 11 | Grade 12

Students will study aerodynamics, aircraft components, aircraft hardware and materials, inspection procedures and methods, ground marshalling and handling of aircraft, aircraft engines, and flight related subjects. Aviation Technology may include a cooperative education component incorporating practical experience within the aviation industry at the airport. This partnership between Lakehead Public Schools and Confederation College will give students regular exposure to the College's A.C.E. Aviation facility. Included in the program are field trips to related industries such as air traffic control, Bombardier and the Ministry of Natural Resources (CL415 Water Bombers.) All mathematics and physics requirements will be taught in the program.

## Dual Credits

### Secondary Credit + College Credit

Dual credits are defined as a high school credit and a college credit earned at the same time. The opportunity to earn two credits simultaneously is available to senior students in programs that vary each year.



COP4XA

COP4XN

TTL3C2 | TTL4C2

### College Link

The College Link program will bring students into the college environment while completing their high school course requirements. College Link emphasizes communication, literacy, and planning for the future.

Students will be enrolled in the dual credit course General Education Elective while working on high school credits through an independent learning model. Once a student has achieved that dual credit successfully they are then allowed to take up to three (3) college delivered dual credit top up courses.

College Link courses are subject to change, please see Student Services for a current list of course options.

Monday-Friday | 9:30 am - 3:30 pm

*Please see Administration/Vice Principal to be enrolled in the College Link Program.*

### Team Taught Dual Credits

These programs are team taught by College and Secondary School Staff. Students are able to obtain both a Secondary Credit and a College Credit simultaneously. These dual credit opportunities are available at the designated school.

### Aviation Link

**TTL4C Transportation Technology: Light Aircraft (Grade 12) & TP166 Aviation Studies 1 (College)**

Students will be introduced to a variety of basic skills related to the aviation industry. Students will have the opportunity to use aircraft simulators, classroom time, and practicum in an actual aircraft maintenance hangar. This course is recommended for students who are considering flight management, aviation technician, or aerospace manufacturing engineering technician / technology as a future program. Through a combination of theory and practical experience, students will gain the background necessary to proceed with further study in a more advanced program.

*Superior | Hammariskjold | Westgate*

### Communication for Success Link

**ENG4C English (Grade 12) & CS007 Persuasive Writing (College)**

This course will focus on communication as it applies to students' chosen career pathway, with a specific focus on literacy skills necessary in the trades and technology programs at the post secondary level. Students will learn how to express themselves clearly, correctly, and persuasively in written form through analytical reading and critical thinking based on current issues and resources. This course will also help students to compile and present research in essay form in an effective and coherent manner according to the APA style of documentation. In particular, students will engage in pre-writing strategies to locate, sort and organize information for potential writing tasks; determine the relevancy and appropriateness of topics; generate an outline for a report or presentation; edit and proof-read written tasks; and publish a document according to accepted conventions.

*Hammariskjold*

### Manufacturing Link

**TMJ4E Manufacturing Technology (Grade 12) or TMW4E (Welding) & WC 126 Flat T-Joint Module (College)**

In this course the students will identify the different welding procedures for T-Joints in flat, horizontal, vertical and overhead positions. Welding exercises are demonstrated using 6010-11 and 7018 electrodes in these positions and specific safety precautions for overhead welding are addressed.

*Superior | Westgate*

### Transportation Link

**TTA4C Transportation Technology (Grade 12) & HC 121 Applied Work Practices and Procedures (College)**

This course introduces students to occupational health and safety, basic hand and power tools, precision measuring tools, fastening devices and torquing procedures. Heating and cutting methods are introduced.

*Westgate*

***Please check with Student Services for the current selection of dual-credit courses!***

## College Now!

[www.confederationcollege.ca/collegenow](http://www.confederationcollege.ca/collegenow)



### Change Your Life Through Learning

The College Now program is provided in partnership with the School College Work Initiative (SCWI), the Thunder Bay Catholic District School Board, and Lakehead Public Schools. Students can take "College Now" courses with an opportunity to earn credits that count toward both a secondary school and college diploma or certificate. Dual Credits let students "experience" college courses while still in high school.

Students must be:

- 17 or 18 years old in the graduating year;
- working towards an Ontario Secondary School Diploma;
- registered in a minimum of one high school credit in their home school; and
- approved by the school Principal.
- See your guidance counselor for more information

*Dual credits courses run from 12:30 p.m. - 3:20 p.m. except for Baking and Pastry Arts, which runs from 12:30 p.m. - 4:20 p.m.*

*Check with Student Services for dates and a current list of available courses.*

## eLearning

Students may earn Ontario high school credits online through the Lakehead District School Board eLearning Program. Students taking an e-learning course will receive their instruction, assignments and tests online at the eLearning site [www.lakeheadschoools.ca/elearning/](http://www.lakeheadschoools.ca/elearning/). Participating students will be given face-to-face initial training on how to use the site and meet their teacher at the start of the semester. These courses meet all curriculum expectations and are taught by fully qualified teachers in one of our three high schools.

- Enjoy the flexibility of an eLearning online course
- Dedicated eLearning teacher contact, support and assistance, including a help desk.
- Computer access available
- Qualify by enrolling in at least two per semester – other day school courses.

***Please check with Student Services to confirm the semester when courses will be offered.***

## eLearning Courses 2023-2024

Health for Life - College Host School: Westgate	PPZ3CE
The Writer's Craft - University Host School: Westgate	EW44UE
Business Leadership Management - U/C Host School: Westgate	BOH4ME
Challenge and Change - University Host School: Westgate	HSB4UE
Civics & Citizenship - Open Host School: Hammariskjold	CHV/GLC2OE
English - University Host School: Superior	ENG4UE
The Environment & Resource Management Host School: Superior	CGR4ME
International Business - U/C Host School: Hammariskjold	BBB4ME



## SPECIALIST HIGH SKILLS MAJORS

Specialist High Skills Majors were developed to give students the opportunity to focus on a specific area of study.

Credit bundles are made up of sector-specific courses. Students acquire skills and knowledge in a hands-on, career-related learning environment with others who have the same goals and career expectations.

- Major credits
- Cooperative education credits (sector-specific)
- Plus additional credits with a focus in the stated discipline

Application and scheduling information is available from your Student Services Guidance Counsellor. Stop in for more information about the focus courses and specialized training students can receive with their SHSM participation.

### Arts & Culture | Westgate

For students who are interested in a career in the Arts and Culture sector (music, dance, drama, graphics, design, communication technology, visual art, theatre arts, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. Students will be required to declare a Major area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Aviation & Aerospace | Westgate, Hammariskjold, & Superior

For students who are interested in a career in the Aviation and Aerospace sector (aircraft maintenance, aircraft inspection, instrumentation, electrical or avionics mechanics, piloting, air traffic control, flight engineering, mechanical engineering, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Business | Westgate

For students who are interested in a career in the Business sector (trade and commerce, finance and insurance, accounting, real estate, marketing, information technology, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Construction | Hammariskjold

For students who are interested in a career in the Construction sector (carpentry, architecture, construction management, electrical, home renovations, plumbing, structural engineering, home inspection, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Health & Wellness | Superior

For students who are interested in a career in the Health and Wellness sector (child and youth work, Aboriginal early childhood education, fire and police foundations, massage therapy, paramedics, ultrasound, dental, nursing, nutrition sciences, physical therapy, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Hospitality & Tourism | Westgate

This Specialist High Skills Major (SHSM) program is designed for students interested in a career in one of the over 400 hundred occupations in the Hospitality and Tourism sector. Hospitality and Tourism jobs provide plenty of opportunities for advancement, widely transferable skills, and ongoing training.

As part of the Hospitality & Tourism SHSM, you will earn six or more sector specific certifications, earn a minimum of two co-operative education credits, 4 major credits and be involved in experiential learning and reach ahead experiences.

For Hospitality & Tourism SHSM participants, possible careers include:

- apprenticeship – baker, cook, chef, special events coordinator
- college – flight attendant, food service manager
- university – nutritionist, dietician, hotel/resort manager
- entry level workplace – hotel valet, bartender

### Justice, Community Safety & Emergency Services | Hammariskjold

For students who are interested in a career in either the First Responder Stream (Canadian Armed Forces, firefighting, paramedics, law enforcement, corrections, border control, and more) or Legal and Administrative Stream (law, bylaws, government, paralegal, policy, administration, and more) this Specialist High Skills Major offers students a solid foundation in the chosen area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Manufacturing | Superior & Westgate

For students who are interested in a career in the Manufacturing sector (metal work, welding, millwrighting, machining, engineering, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

### Transportation Services | Westgate

For students who are interested in a career in the Transportation Services sector (automotive service, heavy duty equipment operation, stationary engineering, electrical engineering, machine operation, and more) this Specialist High Skills Major offers students a solid foundation in the area of study. The SHSM required credits, sector specific cooperative education opportunities, along with specialized sector training and certification are available for students to further expand their learning experiences.

**You belong here**





# YOUTH FUSION

## FREE FIELD TRIPS

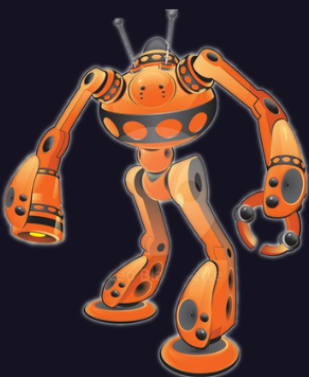
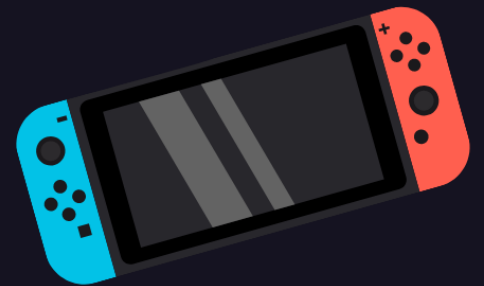
Students in Youth Fusion travel, meet and learn from industry mentors in the video game design field.

Available to  
students who  
enrol in BOTH  
ICD20 & TEJ20



### Industry Mentors

Attend the Youth Fusion Gala in Toronto. Meet regularly with an Ubisoft engineer to discuss careers in game design and class projects. Travel is subject to program and provincial restriction.



### Robotics - TEJ20

Design, build & program battlebots to compete in Robot Wars. Build circuits, game controllers, learn about networking, computer hardware and more.

### Game Design ICD20

Students tackle every step of game development, design, prototyping, game testing and production. Learn to make video games in Roblox Studio and Construct3.





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