

# **Grade 12 Course Calendar**

**For a quick and easy access to all Grade 12 courses offered, please click the bookmarks tab to the left of your screen.**

**Then select a subject and the corresponding courses will appear.**

## ARTS

### DRAMATIC ARTS

**ADA 4M**                      **Dramatic Arts -**                      **1 credit**  
**University/College Preparation**

This course requires students to experiment with forms and conventions in dramatic literature, and to create/adapt and present dramatic works. Students will do research on dramatic forms, conventions, themes, and theories of acting and directing from different historical periods, and apply their knowledge of these in analysing and interpreting dramatic literature, including Canadian works and works from various cultures in the late twentieth century. Students will also examine the significance of dramatic arts in various cultures.

*Prerequisite: Grade 11 Dramatic Arts, University/College or Open*

**ADA 4O**                      **Dramatic Arts - Open**                      **1 credit**

This course requires students to create and present a variety of dramatic works. Students will present works by Canadian and other playwrights, and develop original material based on personal narratives, local community issues, or global concerns. They will have hands-on experiences with various aspects of dramatic arts productions, including performance, set design, lighting, costumes, stage and technical management, and marketing. Students will also explore possible careers related to the dramatic arts.

*Prerequisite: Grade 11 Dramatic Arts, University/College or Open*

#### Dramatic Arts Focus Courses:

**ADB 4M**                      **Dramatic Arts -**                      **1 credit**  
**Music Theatre**  
**University/College Preparation**

Study in this focus course includes: the elements of a musical-book, lyrics, score, dance; early forms of musical theatre - opera, operetta, minstrels, vaudeville, burlesque; and various composers - Berlin, Gershwin, Kern, Rodgers and Hammerstein, Sondheim, Lloyd Webber.

*Prerequisite: Any Grade 9 or 10 course in the Arts*

## ARTS

### EXPLORING THE ARTS

**AEA 4O**                      **Exploring the Arts - Open**                      **1 credit**

This course emphasizes the acquisition and application of knowledge and skills related to the creation, interpretation, and production of works involving dance, drama, media arts, music, and/or visual arts. Students will study, evaluate, create, and promote art works and productions, and will use a variety of established and experimental techniques and various technologies in individual or group projects (e.g., the presentation of a theatrical scene or an art exhibit on a website.)

*Prerequisite: Any Grade 9 or 10 course in the Arts*

### MUSIC

**AMU 4M**                      **Music -**                      **1 credit**  
**University/College Preparation**

This course emphasizes the appreciation, analysis, and performance of music from the romantic period and the twentieth century, including art music, jazz, popular music, and Canadian and non-Western music. Students will concentrate on developing interpretive skills and the ability to work independently. They will also complete complex creative projects.

*Prerequisite: Grade 11 Music, University/College or Open*

#### Music Focus Courses:

**AMG 4M**                      **Music - Guitar**                      **1 credit**  
**University/College**

This focus course in Guitar will provide students with the opportunity to learn increasingly complex performance skills, to further develop technique, and to continue their study of music theory, history, analysis, composition and technology.

*Prerequisite: Grade 11 Music, University/College or Open*

**AMH 4M**                      **Music -Stage - Band Music**                      **1 credit**  
**University/College Preparation**

This focus course will provide students with the opportunity to further develop their technical and imaginative abilities in a stage band environment.

*Prerequisite: Grade 11 Music, University/College or Open*

## ARTS

**AMI 4M Instrumental Music - Band 1 credit**  
**University/College Preparation**

This focus course in Instrumental Music - Band will provide students with the opportunity to learn increasingly complex skills in music literacy, performing, composing and arranging. Students will further develop their performance and sight-reading skills, while continuing their study of music theory, history, and analysis.

*Prerequisite: Grade 11 Music, University/College or Open*

**AMK 4M Music -Keyboard - 1 credit**  
**University/College Preparation**

This focus course in Keyboard Music will provide students in both the University/College and Open destination courses with the opportunity to learn to play increasingly complex melodies, scales, rhythmic patterns and chords. Students will also have the opportunity to learn to further develop their skills in reading and performing music, and to continue their study of music theory, history, and analysis.

*Prerequisite: Grade 11 Music, University/College or Open*

**AMR 4M Music - Repertoire - 1 credit**  
**University/College Preparation**

This focus course in Music Repertoire will provide students with the opportunity to learn an increasingly complex and extensive repertoire for their instrument or voice. They will continue to develop their sight-reading, presentation, and performance skills as well as various styles through listening and analysing selected works.

*Prerequisite: Grade 11 Music, University/College or Open*

**AMS 4M Instrumental Music - Strings - 1 credit**  
**University/College Preparation**

This focus course in Instrumental Music - Strings will provide students with the opportunity to learn to further refine their bowing and performance techniques, as well as their projection, intonation and tone quality. Students will continue to develop their skills in music literacy, performing, composing and arranging as well as their study of music theory, history, and analysis.

*Prerequisite: Grade 11 Music, University/College or Open*

## ARTS

**AMV 4M Music - Vocal/Choral - 1 credit**  
**University/College Preparation**

This focus course in Vocal Music will provide students with the opportunity to learn to further refine their vocal music skills. Students will also have the opportunity to learn challenging repertoire as they continue their study of music theory, history and analysis.

*Prerequisite: Grade 11 Music, University/College or Open*

## MEDIA ARTS

**ASM 40 Media Arts - Open 1 credit**

This course emphasizes the development of the knowledge and skills required for the production of interactive media art forms (e.g., interactive art installations, interactive videos, simulations, network art). Students will analyse and evaluate media art works, and will create their own works using a variety of technologies and processes (e.g., computer graphics, photo-imaging, digital video production techniques, electro-acoustics). Students will maintain a portfolio of their media art works.

*Prerequisite: Grade 11 Visual Arts, University/College or Open, Grade 11 Media Arts Open*

## DANCE

**ATC 4M Dance - 1 credit**  
**University/College Preparation**

This course emphasizes the development of technical proficiency and the creation and presentation of complex compositions. Students will acquire increasingly difficult technical skills; assume leadership as dancers, choreographers, and production personnel; analyse and evaluate dance performances; and study historical and cultural aspects of dance, especially of dance in Canada.

*Prerequisite: Grade 11 Dance, University/College or Open*



### ARTS

#### Dance Focus Courses:

**ATP 4M Dance - Performance Practice - 1 credit**  
**University/College Preparation**

This focus course in Performance Practice will provide students in both the University/College and Open destination courses with the opportunity to learn increasingly complex movement, presentation and performance skills. Movement theory and technique in the dance form(s) being studied will form the foundation for learning.

*Prerequisite: Grade 11 Dance, University/College or Open*

#### VISUAL ARTS

**AVI 4M Visual Arts - 1 credit**  
**University/College Preparation**

This course focuses on the refinement of students' skills and knowledge in visual arts. Students will analyse art forms; use theories of art in analysing and producing art; and increase their understanding of stylistic changes in modern and contemporary Western art, Canadian (including Native Canadian) art, and art forms from various parts of the world. Students will produce a body of work demonstrating a personal approach.

*Prerequisite: Grade 11 Visual Arts, University/College or Open*

#### Visual Arts Focus Courses:

**AWD 4M Visual Arts - Applied Design - 1 credit**  
**University/College Preparation**

This focus course in Applied Design will provide students with the opportunity to learn increasingly complex mechanical and computer page layout design techniques. Students will also continue to learn how to apply the principles of art to commercial design through a variety of advertising, animation and illustration techniques.

*Prerequisite: Grade 11 Visual Arts, University/College or Open*

### ARTS

**AWM 4M Visual Arts -Drawing and Painting - 1 credit**  
**University/College Preparation**

This focus course in Drawing and Painting will provide students with the opportunity to learn increasingly complex skills in drawing and painting and to apply these techniques to create a variety of subject matter. Students will also continue to learn art history and criticism techniques and approaches as they appreciate and evaluate their own art works and those of others.

*Prerequisite: Grade 11 Visual Arts, University/College or Open*

**AWQ 4M Visual Arts -Photography - 1 credit**  
**University/College Preparation**

This focus course in Photography will provide students with the opportunity to learn skills in photography. Students will also be provided with the opportunity to learn about the history of photography as well as to apply design principles to their compositions. *Note:* There will be a materials fee for this course, and students should have access to a 35 mm SLR camera.

*Prerequisite: Grade 11 Visual Arts, University/College or Open*

**AWU 4M Visual Arts -Art History - 1 credit**  
**University/College Preparation**

This is not a studio course. This course is designed for students interested in art appreciation and architecture. Through meaningful exposure to art history, students will broaden their attitudes and expand their visual vocabulary. Stylistic techniques and thematic subjects will be examined to help students become confident, critical thinkers, able to look at and interpret art. Through group and independent projects, research, discussion, and slide lectures, students will probe areas of interest such as the role of the artist in society, the meaning of art, and humanity's need to create and to communicate.

*Prerequisite: Grade 11 Visual Arts, University/College or Open*

#### Arts Cooperative Education Program

The Arts courses can be used in the Cooperative Education Program for students considering careers in teaching, music, photography, graphic arts, advertising and animation.

### BUSINESS STUDIES

**BAN 4E                      Accounting for a Small                      1 credit**  
**Business - Workplace Preparation**

This course further develops students' understanding of the fundamentals of accounting by having them examine each component of the accounting cycle, with an emphasis on the merchandising business. Students will use computer applications software to learn how accounting is practised in the workplace. Students will acquire an understanding of payroll systems, inventory, specialized journals, subsidiary ledgers, income tax reporting, and budgeting.

*Prerequisite: Grade 11 Accounting Essentials, Workplace Preparation*

**BAT 4M                      Financial Accounting Principles -                      1 credit**  
**University/College Preparation**

This course introduces students to advanced accounting principles that will prepare them for postsecondary studies in business. Students will learn about financial statements for various forms of business ownership and how those statements are interpreted in making business decisions. This course expands students' knowledge of sources of financing, further develops accounting methods for assets, and introduces accounting for partnerships and corporations.

*Prerequisite: Grade 11 Financial Accounting Fundamentals, University/College preparation*

This course may be available "on-line" as an eLearning course. See your Guidance Counsellor.

**BBB 4E                      International Business                      1 credit**  
**Essentials - Workplace Preparation**

This course provides an introduction to international business. Students will explore the economic relationships that Canada has developed with other nations, and the impact of these relationships on productivity, prices, and variety of goods. This course also introduces students to a variety of career opportunities in international business.

### BUSINESS STUDIES

**BBB 4M                      International Business                      1 credit**  
**Fundamentals - University/College Preparation**

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 postsecondary programs in business, including international business, marketing, and management.

**BDV 4C                      Entrepreneurship: Venture                      1 credit**  
**Planning in an Electronic Age-  
 College Preparation**

This course provides students with the opportunity to develop and apply entrepreneurial skills through the creation of a venture plan that capitalizes on the potential of e-commerce. Students will research and identify an opportunity for a venture. They will then complete the components of a venture plan that includes a website.

**BOG 4E                      Business Leadership:                      1 credit**  
**Becoming a Manager - Workplace Preparation**

This course helps students prepare for managerial positions in their future careers. Students will focus on the development of core skills required to become a successful manager, including operations management, inventory control, marketing, financial planning, scheduling, and communication. Students will also explore the management challenges of hiring, training, and motivating employees, and complying with legal requirements.

**BOH 4M                      Business Leadership:                      1 credit**  
**Management Fundamentals -  
 University/College Preparation**

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.

### BUSINESS STUDIES

**BTX 4C Information and Communication Technology: Multimedia Solutions - College Preparation 1 credit**

This course provides students with the opportunity to apply their information and communication technology skills while working in a team environment. Through a project-based approach, students will have opportunities to integrate common business software applications and apply multimedia techniques. Students will further their understanding of electronic business and e-commerce environments. The skills acquired in this course will prepare students for success in postsecondary studies and in their future careers.

*Prerequisite: Grade 11 Information and Communication Technology: The Digital Environment, Open*

**BTX 4E Information and Communication Technology in the Workplace - Workplace Preparation 1 credit**

This course provides students with the opportunity to further develop essential workplace skills in information and communication technology while working in a team environment. Using a project-based approach, students will focus on integrating software applications and applying multimedia software features. Students will expand their understanding of e-business and e-commerce environments and workplace ethics. This course will prepare students for a successful transition from secondary school to the workplace.

*Prerequisite: Grade 11 Information and Communication Technology: The Digital Environment, Open*

### Business Studies Cooperative Education Program

All business courses can be used in the Cooperative Education Program for students considering careers in a variety of fields such as accounting, human resources, marketing and advertising, travel and tourism, entrepreneurship and business administration.

### CANADIAN AND WORLD STUDIES

**CGO 4M Geomatics: Geotechnologies in Action - University/College Preparation 1 credit**

This course gives students experience with using geotechnologies to develop solutions to real-world problems involving physical and human geography. Students will extend their knowledge of geomatics in the areas of cartography, geographic information systems (GIS), the global positioning system (GPS), and remote sensing. Students will develop critical thinking and communication skills as they apply geotechnologies and geographic inquiry methods to devise and present ways of improving conditions for people and the environment.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CGR 4E The Environment and Resource Management - Workplace Preparation 1 credit**

This course examines the influence of human activities on the natural environment. Students will study ecosystem structures and processes, the ecological impact of human activities, and methods of responsible resource management. Students will apply geotechnologies and geographic inquiry methods to develop and present practical solutions to environmental and resource management issues. In the process, students' problem-solving and communication skills will be enhanced in preparation for careers and the workplace.

*Prerequisite: Grade 9 Geography of Canada, Academic or Applied*



Sir Winston Churchill

### CANADIAN AND WORLD STUDIES

**CGR 4M      The Environment and      1 credit**  
**Resource Management -**  
**University/College Preparation**

This course investigates the complexity and fragility of ecosystems and the pressures human activities place on them. Students will examine ecological processes, the principles of sustainability, and strategies for resource management, with a focus on the challenges of environmental degradation and resource depletion. Students will use geotechnologies and skills of geographic inquiry to explain and evaluate various approaches to achieving a more sustainable relationship between people and their environment.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CGU 4C      World Geography: Urban      1 credit**  
**Patterns and Interactions - College Preparation**

This course examines cities around the world and the social, political, cultural, environmental, and economic factors that shape them. Students will study urban structures and systems, the impact of migrations on cities, and the impact of cities on the environment. Students will use geotechnologies and apply geographic concepts and inquiry methods to analyse issues and problems related to urban development and to formulate potential solutions.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CGU 4U      World Geography:      1 credit**  
**Human Patterns and Interactions -**  
**University Preparation**

This course examines how humans interact with their natural environments and with each other. Students will study the influence of spatial, political, economic, and social factors on settlement patterns, human migration, cultural change, globalization, and environmental trends. Students will use geotechnologies and skills of geographic inquiry and analysis to extend their knowledge of human geography, identify and explain current trends and patterns, and predict future ones.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

### CANADIAN AND WORLD STUDIES

**CGW 4U      Canadian and World Issues:      1 credit**  
**A Geographic Analysis -**  
**University Preparation**

This course examines the global challenges of creating a sustainable and equitable future, focusing on current issues that illustrate these challenges. Students will investigate a range of topics, including cultural, economic, and geopolitical relationships, regional disparities in the ability to meet basic human needs, and protection of the natural environment. Students will use geotechnologies and skills of geographic inquiry and analysis to develop and communicate balanced opinions about the complex issues facing Canada and a world that is interdependent and constantly changing.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CHI 4U      Canada: History, Identity, and      1 credit**  
**Culture - University Preparation**

This course explores the challenges associated with the formation of a Canadian national identity. Students will examine the social, political, and economic forces that have shaped Canada from the pre-contact period to the present and will investigate the historical roots of contemporary issues from a variety of perspectives. Students will use critical-thinking and communication skills to consider events and ideas in historical context, debate issues of culture and identity, and present their own views.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CHM 4E      Adventures in World History -      1 credit**  
**Workplace Preparation**

This course explores a variety of human experiences in world history from earliest times to the present. Students will learn about a wide range of societies and cultures, examining such things as systems of government, technological developments, work, art, and religion. Students will apply methods of research and inquiry to examine human societies in many different times and places and to communicate points of view about their findings.

*Prerequisite: Grade 10 Canadian History Since World War I, Academic or Applied*

### CANADIAN AND WORLD STUDIES

**CHY 4C World History: The West and the World - College Preparation 1 credit**

This course explores the history of the world since the sixteenth century, emphasizing the interaction between the emerging West and other regions of the world. Students will learn about a variety of economic, social, and political systems and the changes they have undergone over time. Students will apply their developing skills of historical inquiry to understand and communicate ideas about the forces that have formed our modern world.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CHY 4U World History: The West and The World - University Preparation 1 credit**

This course investigates the major trends in Western civilization and world history from the sixteenth century to the present. Students will learn about the interaction between the emerging West and other regions of the world and about the development of modern social, political, and economic systems. They will use critical-thinking and communication skills to investigate the historical roots of contemporary issues and present their conclusions.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CIA 4U Analysing Current Economic Issues - University Preparation 1 credit**

This course investigates the nature of the competitive global economy and explores how individuals and societies can gain the information they need to make appropriate economic decisions. Students will learn about the principles of micro- and macroeconomics, apply economic models and concepts to interpret economic information, assess the validity of statistics, and investigate marketplace dynamics. Students will use economic inquiry and communication skills to analyse current economic issues, make informed judgements, and present their findings.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

This course may be available “on-line” as an eLearning course. See your Guidance Counsellor.

### CANADIAN AND WORLD STUDIES

**CLN 4U Canadian and International Law - University Preparation 1 credit**

This course examines elements of Canadian and international law in social, political, and global contexts. Students will study the historical and philosophical sources of law and the principles and practices of international law and will learn to relate them to issues in Canadian society and the wider world. Students will use critical-thinking and communication skills to analyse legal issues, conduct independent research, and present the results of their inquiries in a variety of ways.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

**CPW 4U Canadian and World Politics - University Preparation 1 credit**

This course examines Canadian and world politics from a variety of perspectives. Students will investigate the ways in which individuals, groups, and states work to influence domestic and world events, the role of political ideologies in national and international politics, and the dynamics of international cooperation and conflict resolution. Students will apply critical-thinking and communication skills to develop and support informed opinions about current political conflicts, events, and issues.

*Prerequisite: Any University, University/College, or College preparation course in Canadian and World Studies, English, or Social Sciences and Humanities*

### Canadian and World Studies Cooperative Education Program

All Canadian and World Studies courses can be used in the Cooperative Education Program for students considering careers in a variety of fields such as archeology, art history, politics, travel and tourism, environmental studies, journalism, urban and regional planning, teaching, law and historical research.

### CLASSICAL AND INTERNATIONAL LANGUAGES

**LVV 4U**                      **Classical Civilization**                      **1 credit**  
**University Preparation**

This course allows students to explore the beliefs and achievements of the classical world, which have shaped Western thought and civilization. Students will investigate such aspects of classical culture as its mythology, art, literature, and philosophy, as well as elements of ancient Greek and Latin, through a variety of activities such as dramatizations, audio-visual presentations, and discussions. By reading classical authors in English and examining archaeological evidence, students will enhance both their communication skills and their ability to think critically and creatively.

*Prerequisite: English, Grade 10, Academic or Applied*

**LBA DU –**                      **International Languages -**                      **1 credit**  
**LYX DU**                      **University Preparation**

This course prepares students for university studies in the international language. Students will enhance their ability to use the language with clarity and precision, and will develop the language skills needed to engage in sustained conversations and discussions, understand and evaluate information, read diverse materials for both study and pleasure, and write clearly and effectively. Students will also have opportunities to add to their knowledge of the culture of countries where the language is spoken through the use of community resources and computer technology.

LWG DU                      - German - 1 credit  
 LWI DU/LWI DO - Italian - 1 credit  
 LKJ DU                      - Japanese - 1 credit  
 LWS DU                      - Spanish - 1 credit

#### International Languages Cooperative Education Program

International Languages can be the perfect link in the Cooperative Education Program for students considering careers in travel & tourism, international law & business, teaching and politics.

### COMPUTER STUDIES

**ICS 4C**                      **Computer Programming -**                      **1 credit**  
**College Preparation**

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: Grade 11 Introduction to Computer Programming, College Preparation*

**ICS 4U**                      **Computer Science -**                      **1 credit**  
**University Preparation**

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 analyse algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, areas of research in computer science, and careers in the field.

*Prerequisite: Grade 11 Introduction to Computer Science, University Preparation*

#### Computer Studies Cooperative Education Program

Computer Studies courses will be of interest to students considering careers in engineering, computer programming, business, computer design and service, animation, information technology, software applications, system analyst, telecommunications technology and architectural technology.

### ENGLISH - COMPULSORY CREDITS

**ENG 4C**      **English - College Preparation**      **1 credit**

This course emphasizes the consolidation of 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.

This course may be available “on-line” as an eLearning course. See your Guidance Counsellor.

*Prerequisite: English, Grade 11, College Preparation*

**ENG 4E**      **English - Workplace Preparation**      **1 credit**

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 language accurately and organizing ideas and information coherently. The course is intended to prepare students for the workplace and active citizenship.

*Prerequisite: English, Grade 11, Workplace Preparation*

**ENG 4U**      **English - University Preparation**      **1 credit**

This course emphasizes the 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.

This course may be available “on-line” as an eLearning course. See your Guidance Counsellor.

*Prerequisite: English, Grade 11, University Preparation*

### ENGLISH - COMPULSORY CREDITS

**OLC 40**      **Ontario Secondary School Literacy Course**      **1 credit**

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. 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 literacy portfolio containing a record of their reading experiences and samples of their writing.

*Eligibility requirement: Students who have been unsuccessful at least once on the Ontario Secondary School Literacy Test are eligible to take the course.*

### ENGLISH - OPTIONAL CREDITS

**EBT 40**      **Communication in the World of Business and Technology - Open**      **1 credit**

This course emphasizes practical writing and communication skills that are needed in the world of business and technology. Students will analyse the characteristics of effective models of business and technical communications; gather information to write reports, business letters, memos, manuals, instructions, and brochures; and integrate graphics and text, using technology appropriately for formatting and special effects. They will also make a number of oral and visual presentations.

*Prerequisite: English, Grade 11, University Preparation, College Preparation, or Workplace Preparation*

**ETS 4C**      **Studies in Literature - College Preparation**      **1 credit**

This course is for students with a special interest in literature. The course may focus on themes, genres, time periods, or countries. Students will study a variety of forms and stylistic elements of literary texts and respond personally, critically, and creatively to them. They will also investigate critical interpretations and complete an independent study project.

*Prerequisite: English, Grade 11, College Preparation*

## ENGLISH - OPTIONAL CREDITS

**ETS 4U**                      **Studies in Literature -  
University Preparation**                      **1 credit**

This course is for students with a special interest in literature and literary criticism. The course may focus on themes, genres, time periods, or countries. Students will analyse a range of forms and stylistic elements of literary texts and respond personally, critically, and creatively to them. They will also assess critical interpretations, write analytical essays, and complete an independent study project.

*Prerequisite: English, Grade 11, University Preparation*

**EWC 4C**                      **The Writer's Craft -  
College Preparation**                      **1 credit**

This course emphasizes knowledge and skills related to the craft of writing. Students will investigate models of effective writing; use a workshop approach to write a variety of works; and make considered decisions for improving the quality of their writing. They will also complete a creative or analytical independent study project and investigate opportunities for publication and for writing careers.

*Prerequisite: English, Grade 11, College Preparation*

**EWC 4U**                      **The Writer's Craft -  
University Preparation**                      **1 credit**

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: English, Grade 11, University Preparation*



## ENGLISH AS A SECOND LANGUAGE

The following descriptions apply to English as a Second Language courses offered to students in both OSS and OSIS diploma programs.

**ESL AO**                      **Beginning Communication**                      **1 credit**  
**in English, ESL Level 1 - Open**

This course builds on students' previous education and language knowledge to introduce the English language and help adjust to the diversity in their new environment. Students will use beginning English language skills in listening, speaking, reading, and writing for everyday and essential academic purposes. They will engage in short conversations using basic English language structures and simple sentence patterns; read short adapted texts; and write phrases and short sentences. The course also provides students with the knowledge and skills they need to begin to adapt to their new lives in Canada.

**ESL BO**                      **English in Daily Life,**                      **1 credit**  
**ESL Level 2 - Open**

This course expands students' listening, speaking, reading, and writing skills in English for everyday and academic purposes. Students will participate in conversations, in structured situations on a variety of familiar and new topics; read a variety of texts designed or adapted for English language learners; expand their knowledge of English grammatical structures and sentence patterns; and link English sentences to compose paragraphs. The course also supports students' continuing adaptation to the Ontario school system by expanding their knowledge of diversity in their new province and country.

*Prerequisite: English as a Second Language, Level 1, or equivalent*

**ESL CO**                      **English for School and Work,**                      **1 credit**  
**ESL Level 3 - Open**

This course extends students' skills in listening, speaking, reading, and writing in English for a variety of everyday and academic purposes. Students will make short classroom oral presentations; read a variety of adapted and original texts in English; and write using a variety of text forms. As well, students will expand their academic vocabulary and their study skills to facilitate to the mainstream school program. This course also introduces students to the rights and responsibilities inherent in Canadian citizenship, and to a variety of current Canadian issues.

*Prerequisite: English as a Second Language, Level 2, or equivalent*

## ENGLISH AS A SECOND LANGUAGE

**ESL DO**                      **Study Skills in English,**                      **1 credit**  
    **ESL Level 4 - Open**

This course prepares students to use English with increasing fluency and accuracy in classroom and social situations and to participate in Canadian society as informed citizens. Students will develop the oral presentation, reading, and writing skills required for success in all school subjects. They will extend listening and speaking skills through participation in discussions and seminars; study and interpret a variety of grade-level texts; write narratives, articles, and summaries in English; and respond critically to a variety of print and media texts.

*Prerequisite: English as a Second Language, Level 3, or equivalent*

**ESL EO**                      **Bridge to English,**                      **1 credit**  
    **ESL Level 5 - Open**

This course provides students with the skills and strategies they need to make the transition to college and university preparation courses in English and other secondary school disciplines. Students will be encouraged to develop independence in a range of academic tasks. They will participate in debates and lead classroom workshops; read and interpret literary works and academic texts; write essays, narratives, and reports; and apply a range of learning strategies and research skills effectively. Students will further develop their ability to respond critically to print and media texts.

*Prerequisite: English as a Second Language, Level 4, or equivalent*

### English Cooperative Education Program

English courses along with the optional English courses will be of interest to students considering careers in journalism, research, teaching, library, publishing, theatre communications, radio and television broadcasting.



## ENGLISH LITERACY DEVELOPMENT

**ELD AO**                      **English Literacy Development,**                      **1 credit**  
    **Level 1 - Open**

This course is intended for English language learners who have had limited access to schooling and thus have significant gaps in their first-language literacy skills. Students will use basic listening and speaking skills to communicate in English for everyday purposes; develop readiness skills for reading and writing; begin to read highly structured texts for everyday and school-related purposes; and use basic English language structures and sentence patterns in speaking and writing. The course will also help students become familiar with school routines and begin to adapt to their new lives in Canada.

**ELD BO**                      **English Literacy Development,**                      **1 credit**  
    **Level 2 - Open**

This course is intended for English language learners who have had limited access to schooling and thus have gaps in their first-language literacy skills. Students will use their developing listening and speaking skills to communicate in English for a variety of purposes; develop reading strategies to understand a variety of simple texts; produce simple forms of writing; apply increasing knowledge of English grammatical structures in speaking and writing; expand their vocabulary; and develop fundamental study skills. The course will also provide opportunities for students to become familiar with and use school community resources and to build their knowledge of Canada and diversity.

*Prerequisite: English Literacy Development, Level 1, or equivalent*

**ELD CO**                      **English Literacy Development,**                      **1 credit**  
    **Level 3 - Open**

This course builds on students' growing literacy and language skills and extends their ability to communicate in English about familiar and school-related topics. Students will make brief oral presentations; improve their literacy skills through a variety of contextualized and supported reading and writing tasks; distinguish between fact and opinion in short written and oral texts; complete short guided-research projects; make brief oral presentations; and engage in a variety of cooperative learning activities. The course will also enable students to strengthen and extend their study skills and personal-management strategies and to broaden their understanding of Canadian diversity and citizenship.

*Prerequisite: English Literacy Development, Level 2, or equivalent*

## ENGLISH LITERACY DEVELOPMENT

**ELD DO** English Literacy Development, 1 credit  
Level 4 - Open

This course extends students' literacy skills and ability to apply learning strategies effectively, and teaches them how to use community resources to enhance lifelong learning. Students will communicate with increased accuracy and fluency for a variety of academic and everyday purposes; perform a variety of guided reading, writing, and viewing tasks; use media and community resources to complete guided-research projects. This course further develops the critical thinking skills students will need to participate in Canadian society as informed citizens.

*Prerequisite: English Literacy Development, Level 3, or equivalent*

**ELD EO** English Literacy Development, 1 credit  
Level 5 - Open

This course provides students with skills and strategies that will allow them to continue their education successfully and pursue pathways to employment that may involve apprenticeship and/or cooperative education programs. Students will communicate orally and in writing on a variety of topics; perform a variety of independent reading and writing tasks; interpret and create media texts; use a range of media and community resources. This course also expands the critical thinking skills students will need in order to contribute to Canadian society as informed citizens.

*Prerequisite: English Literacy Development, Level 4, or equivalent*



Beamsville

## FRENCH AS A SECOND LANGUAGE

**FEF 4U** Extended French - 1 credit  
University Preparation

This course emphasizes the refinement of French-language skills through the study of Canadian and international francophone literature. Students will interpret literary works, produce written assignments in a variety of genres, and conduct research on a major topic for a written and oral presentation. The use of correct grammar and appropriate language conventions in both spoken and written French will be emphasized throughout the course.

*Prerequisite: Grade 11 Extended French*

For more information regarding the Extended French program see page 15.

**FSF 4U** Core French - 1 credit  
University Preparation

This course draws on a variety of themes to promote extensive development of French-language skills. Students will consolidate their oral skills as they discuss literature, culture, and current issues. They will read a variety of texts and will write a formal essay. The use of correct grammar and appropriate language conventions in both spoken and written French will be emphasized throughout the course.

*Prerequisite: Grade 11 Core French, University*

### French Cooperative Education Program

French as a Second Language can be used in the Cooperative Education Program for students considering careers in teaching, international business, travel & tourism and politics.



South Lincoln

### GUIDANCE AND CAREER EDUCATION

**GLE 40\***      **Advanced Learning Strategies: Skills for Success After Secondary School - Open**      **1 credit**

This course improves students' learning and personal management skills, preparing them to make successful transitions to work, training, and/or postsecondary education destinations. Students will assess their learning abilities and use literacy, numeracy, and research skills and personal management techniques to maximize their learning. Students will investigate trends and resources to support their postsecondary employment, training, and/or education choices and develop a plan to help them meet their learning and career goals.

\* This version of the Learning Strategies course (GLE 40) is only available to students who have an IEP, with Principal recommendation only.

**GLN 40**      **Navigating the Workplace - Open**      **1 credit**

This course provides students with opportunities to develop the workplace skills and work habits required for success in all types of workplaces. Students will explore occupations and careers of interest through participation in real workplace experiences. They will make plans for continued learning and work, work with others to design learning experiences, and investigate the resources and support required to make a smooth transition to their postsecondary destination.

### Guidance and Career Education Cooperative Education Program

Guidance and Career Education can be used in the Cooperative Education Program for students considering a career in any area.



### HEALTH AND PHYSICAL EDUCATION

**PPL 40**      **Healthy Active Living - Education - Open**      **1 credit**

This course focuses on the development of a personalized approach to healthy active living through participation in a variety of sports and recreational activities that have the potential to engage students' interests throughout their lives. Students will develop and implement personal physical fitness plans. In addition, they will be given opportunities to refine their decision-making, conflict-resolution, and interpersonal skills, with a view to enhancing their mental health and their relationships with others.

#### Area of Focus:

The learning expectations of Healthy Active Living Education (PPL 40) course outline the knowledge, skills and health areas that students are expected to demonstrate by the end of each course. Schools may offer focus-courses options for a particular group of physical activities as the vehicle through which students will attain the expectations. Possible focus options are listed below. **Students may select any number of Focus Options at the same grade level each year.**

**PAF 40**      **Personal and Fitness Activities**      **1 credit**

This course emphasizes regular participation in a variety of enjoyable fitness activities that promote life-long healthy active living. Student learning will include the application of movement principles to refine their skills, participation in a variety of fitness activities (e.g. aerobics, fitness training, self-defense etc.) that enhance personal competence and health, and examination of issues related to healthy living. Reference should be made to the Healthy Active Living Education open course description for Grade 12 health curriculum expectations.

**PAI 40**      **Individual and Small Group**      **1 credit**

This course emphasizes regular participation in a variety of enjoyable individual and small group activities that promote life-long healthy active living. Student learning will include the application of movement principles to refine individual and small group skills (e.g. racquet sports, cross country skiing, orienteering, etc), participation in a variety of activities that enhance personal competence, fitness and health and the examination of issues related to healthy living. Reference should be made to the course description for Grade 12 for health areas of study.

## HEALTH AND PHYSICAL EDUCATION

**PAQ 40 Aquatics 1 credit**

This course emphasizes regular participation in a variety of enjoyable aquatics activities that promote life-long healthy active living. Student teaming will include the application of movement principles to refine aquatics skills (e.g. speed swimming, water polo, life saving awards, CPR), participation in a variety of aquatic activities that enhance personal competence, fitness and health and the examination of issues related to healthy living. Reference should be made to the Healthy Active Living Education open course description for Grade 12 for health areas of study.

**PSE 4U Exercise Science - University Preparation 1 credit**

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 sports, and the factors that influence an individual's participation in physical activity. The course prepares students for university programs in physical education, kinesiology, recreation, and sports administration.

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

**PLF 4C Recreation and Fitness Leadership - College Preparation 1 credit**

This course focuses on the development of leadership and coordination skills related to recreational activities. Students will acquire the knowledge and skills required to plan, organize, and implement recreational events. They will also learn how to promote the value of physical fitness, personal well-being, and personal safety to others through mentoring. The course will prepare students for college programs in recreational, leisure, and fitness leadership.

*Prerequisite: Any Grade 11 or 12 open course in Health and Physical Education*

### Health and Physical Education Cooperative Education Program

Health and Physical Education courses will be of interest to students considering careers in education, personal fitness training, sports management, kinesiology, nursing, physiotherapy, teaching, social work and recreation therapy.

## INTERDISCIPLINARY STUDIES

**IDC 4U Partners in Literacy Studies - University Preparation 1 credit**

This course will help students develop and consolidate the skills required for and knowledge of different subjects and disciplines to solve problems, make decisions, create personal meaning, and present findings beyond the scope of a single subject or discipline. Students will apply the principles and processes of inquiry and research to effectively use a range of print, electronic, and mass media resources; to analyse historical innovations and exemplary research; and to investigate real-life situations and career opportunities in interdisciplinary endeavours. They will also assess their own cognitive and affective strategies, apply general skills in both familiar and new contexts, create innovative products, and communicate new knowledge.

**IDC 4O Sports & Entertainment Marketing - Open 1 credit**

This course emphasizes the development of practical skills and knowledge to solve problems, make decisions, create personal meaning and present findings to the growing Sports and Entertainment Marketing industry. Students will develop skills in the areas of ethics, consumer research, advertising, public relations/publicity, event marketing, endorsement, sponsorship, product distribution, and career opportunities in Sports and Entertainment Marketing. Students will apply the principles and skills derived from the study of Physical Education, Media Studies, Business Marketing and the Social Sciences.

**IDU 4US Health and Leadership Through Sport - University Preparation 1 credit**

This course combines the expectations for Interdisciplinary Studies, Grade 12 University Preparation with selected expectations from two or more courses.(e.g., Exercise Science, Grade 12, University Preparation; Mathematics of Data Management, Grade 12, University Preparation; Recreation and Fitness Leadership, Grade 12, College Preparation).

This course develops information-based knowledge and skills that prepare students for leadership in society. Students will focus on the use of technological resources and applications to plan, implement, communicate, and assess appropriate activities and programs in the local community, such as recreational and fitness events, health exhibitions and promotion. They will also explore the importance of personal fitness and healthy living, the relationship between amateur and professional sports, and local and provincial opportunities and careers in sports, outdoor education, and physical activity.

### MATHEMATICS

**MAP 4C Foundations for College Mathematics - College Preparation 1 credit**

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; 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: Foundations for College Mathematics, Grade 11, College*

**MHF 4U Advanced Functions - University Preparation 1 credit**

This course extends students' experience 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: Functions, Grade 11, University Preparation, or Mathematics for College Technology, Grade 12*

**MCT 4C Mathematics for College Technology - College Preparation 1 credit**

This course enables students to extend their knowledge of functions. Students will investigate and apply properties of polynomial, exponential, and trigonometric functions; continue to represent functions numerically, graphically, and algebraically; develop facility in simplifying expressions and solving equations; and solve problems that address applications of algebra, trigonometry, vectors, and geometry. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for a variety of college technology programs.

*Prerequisite: Functions and Applications, Grade 11, University/College*

### MATHEMATICS

**MDM 4U Mathematics of Data Management - University Preparation 1 credit**

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: Functions and Applications, Grade 11, University/College Preparation, or Functions, Grade 11, University*

**MEL 4E Mathematics for Work and Everyday Life - Workplace Preparation 1 credit**

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: Mathematics for Work and Everyday Life, Grade 11, Workplace*



## MATHEMATICS

**MCV 4U      Calculus and Vectors - University Preparation      1 credit**

This course builds on students' previous 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 science, engineering, economics, and some area of business, including those students who will be required to take a university-level calculus, linear algebra, or physics course.

*Note: The Advanced Functions course (MHF4U) must be taken prior to or concurrently with Calculus and Vectors (MCV4U).*

### Mathematics Cooperative Education Program

Mathematics courses can be used in the Cooperative Education Program for students considering careers in all areas of business management, accounting, financial planning, teaching and engineering.



## SCIENCE

**SBI 4U      Biology - University Preparation      1 credit**

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

*Prerequisite: Grade 11 Biology, University*

**SCH 4C      Chemistry - College Preparation      1 credit**

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 relates 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: Grade 10 Science, Academic or Applied*

**SCH 4U      Chemistry - University Preparation      1 credit**

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: Grade 11 Chemistry, University*

### Science Cooperative Education Program

Science courses will be of interest to students considering careers in such areas as human and veterinary medicine, chemistry, biology, massage therapy, pharmacy, engineering and other related fields.

## SCIENCE

**SES 4U**      **Earth and Space Science - University Preparation**      **1 credit**

This course develops students' understanding of Earth and its place in the universe. Students will investigate the properties of and forces in the universe and solar system and analyse techniques scientists use to generate knowledge about them. Students will closely examine the materials of Earth, its internal and surficial processes, and its geological history, and will learn how Earth's systems interact and how they have changed over time. Throughout the course, students will learn how these forces, processes, and materials affect their daily lives. The course draws on biology, chemistry, physics, and mathematics in its consideration of geological and astronomical processes that can be observed directly or inferred from other evidence.

*Prerequisite: Grade 10 Science, Academic*

This course may be available "on-line" as an eLearning course. See your Guidance Counsellor.

**SNC 4E**      **Science - Workplace Preparation**      **1 credit**

This course provides students with fundamental science knowledge and workplace skills needed to prepare them for success beyond secondary school. Students will explore hazards in the workplace, chemicals in consumer products, disease and its prevention, electricity at home and at work, and nutritional science. Emphasis is placed on current topics in science and relevant, practical activities that develop students' literacy and mathematical literacy skills and enhance their scientific literacy.

*Prerequisite: Grade 10 Science, Applied, or a Grade 10 locally developed compulsory credit (LDCC) course in science*

**SNC 4M**      **Science - University/College Preparation**      **1 credit**

This course enables students, including those pursuing post-secondary programs outside the sciences, to increase their understanding of science and contemporary social and environmental issues in health-related fields. Students will explore a variety of medical technologies, pathogens and disease, nutritional science, public health issues, and biotechnology. The course focuses on the theoretical aspects of the topics under study and helps refine students' scientific investigation skills.

*Prerequisite: Grade 10 Science, Academic, or any Grade 11 university, university/college, or college preparation course in science*

## SCIENCE

**SPH 4C**      **Physics - College Preparation**      **1 credit**

This course develops students' understanding of the basic concepts of physics. Students will explore these concepts with respect to motion; mechanical, electrical, electromagnetic, energy transformation, hydraulic, and pneumatic systems; and the operation of commonly used tools and machines. They will develop their scientific investigation skills as they test laws of physics and solve both assigned problems and those emerging from their investigations. Students will also consider the impact of technological applications of physics on society and the environment.

*Prerequisite: Grade 10 Science, Academic or Applied*

**SPH 4U**      **Physics - University Preparation**      **1 credit**

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: Grade 11 Physics, University*



Laura Secord

### SOCIAL SCIENCE AND THE HUMANITIES

**HFA 4M      Food and Nutrition Sciences      1 credit**  
**University/College Preparation**

This course examines various nutritional, psychological, social, cultural, and global factors that influence people's food choices and customs. Students will learn about current Canadian and worldwide issues related to food, frameworks for making appropriate dietary choices, and food-preparation techniques. This course also refines students' skills used in researching and investigating issues related to food and nutrition.

*Prerequisite: Any University, University/College, or College preparation course in Social Sciences and Humanities, English, or Canadian and World Studies*

**HHG 4M      Issues in Human Growth      1 credit**  
**and Development**  
**University/College Preparation**

This course offers a multidisciplinary approach to the study of human development throughout the life cycle, with particular emphasis on enhancing growth and development. Students will examine how early brain and child development are linked to lifelong learning, health, and well-being, and will develop child-care and human-relationship skills through practical experience in a community setting. This course also refines students' skills used in researching and investigating issues related to human growth and development.

*Prerequisite: Any University, University/College, or College preparation course in Social Sciences and Humanities, English, or Canadian and World Studies*

**HHS 4M      Individuals and Families      1 credit**  
**in a Diverse Society -**  
**University/College Preparation**

This course applies current theories and research from the disciplines of anthropology, psychology, and sociology to the study of individual development, family behaviour, intimate and parent-child relationships, and the ways in which families interact within the diverse Canadian society. Students will learn the interpersonal skills required to contribute to the well-being of families, and the investigative skills required to conduct and evaluate research about individuals and families.

*Prerequisite: Any University, University/College, or College preparation course in Social Sciences and Humanities, English, or Canadian and World Studies*

### SOCIAL SCIENCE AND THE HUMANITIES

**HNB 4O      The Fashion Industry - Open      1 credit**

This course provides a historical perspective on fashion and design, exploring the origins, influence, and importance of fashion as an expression of national, cultural, religious, and personal identity. Students will learn about the many facets of the Canadian fashion industry, including both large-scale and small entrepreneurial enterprises, and its worldwide links, as well as gaining practical experience in garment design, production, and care. This course also refines students' skills used in researching and investigating various aspects of the fashion industry.

**HPD 4E      Parenting and Human Development - 1 credit**  
**Workplace Preparation**

This course prepares students for occupations involving older children, and for the responsibility of parenting, with emphasis on school-age and adolescent children. Students will learn, through practical experience in the community, how early child development affects later development, success in school, and personal and social well-being throughout life, and how children and parents change over time. This course also develops students' skills in researching and investigating various aspects of parenting and human development.

**HSB 4M      Challenge and Change in Society -      1 credit**  
**University/College Preparation**

This course examines the theories and methodologies used in anthropology, psychology, and sociology to investigate and explain shifts in knowledge, attitudes, beliefs, and behaviour and their impact on society. Students will analyse cultural, social, and biological patterns in human societies, looking at the ways in which those patterns change over time. Students will also explore the ideas of classical and contemporary social theorists, and will apply those ideas to the analysis of contemporary trends.

*Prerequisite: Any University, University/College, or College preparation course in Social Sciences and Humanities, English, or Canadian and World Studies*

## SOCIAL SCIENCE AND THE HUMANITIES

### HZT 4U **Philosophy: Questions and Theories - 1 credit** **University Preparation**

This course addresses three (or more) of the main areas of philosophy: metaphysics, logic, epistemology, ethics, social and political philosophy, and aesthetics. Students will learn critical-thinking skills, the main ideas expressed by philosophers from a variety of the world's traditions, how to develop and explain their own philosophical ideas, and how to apply those ideas to contemporary social issues and personal experiences. The course will also help students refine skills used in researching and investigating topics in philosophy.

*Prerequisite: Any University, University/College, or College preparation course in Social Sciences and Humanities, English, or Canadian and World Studies*

### Social Science Cooperative Education Program

Social Science and Humanities courses will be of interest to students considering careers in teaching, social work, politics, law enforcement, journalism, gerontology and anthropology.



## TECHNOLOGICAL EDUCATION

In broad-based technology, courses in Grades 10, 11 and 12 that lead to apprenticeship or certification programs, or that are part of school-work transition programs, may be planned for up to 330 hours of scheduled instructional time. This additional instructional time allows for the practice and refinement of skills needed to raise the quality of students' performance to the levels required for certification, entry into apprenticeship programs, or participation in school-work transition programs. (It may also support articulation agreements for advanced standing or preferred entrance into specialized programs.) Instructional time may be increased by increments of 55 hours; for each additional 55 hours, students earn an additional half-credit. **A maximum of three credits may be earned for the successful completion of a 330-hour course.** The number of additional credits and the nature of the assignments to be completed must be established before the start of the course. **Emphasis courses and their course codes are listed for each broad-based technology.**

## COMMUNICATIONS TECHNOLOGY

### TGJ 4M **Communications Technology - 1 credit** **University/College Preparation**

This course enables students to further develop media knowledge and skills while designing and producing projects in the areas of live, recorded, and graphic communications. Students may work in the areas of TV, video, and movie production; radio and audio production; print and graphic communications; photography; digital imaging; broadcast journalism; and interactive new media. Students will also expand their awareness of environmental and societal issues related to communications technology and will investigate career opportunities and challenges in a rapidly changing technological environment.

*Prerequisite: Grade 11 Communications Technology, College/University*

#### **Emphasis Courses:**

- TGG4M - Print and Graphic Communications
- TGI4M - Interactive New Media and Animation
- TGP4M - Photography and Digital Imaging
- TGV4M - TV, Video and Movie Production
- TGR4M - Radio, Audio and Sound Production
- TGJ4MT - Communication Technology - Technical Theatre

## TECHNOLOGICAL EDUCATION

**TGJ 40      Communications Technology:      1 credit**  
**Digital Imagery and Web Design**  
**- Open**

This course enables students to develop knowledge and skills in the areas of photography, digital imaging, animation, 3D modelling, and web design. Students will work both independently and as part of a production team to design and produce media products in a project-driven environment. Practical projects may include photo galleries, digital images, animations, 3D models, and websites. Students will also expand their awareness of environmental and societal issues related to communications technology and explore postsecondary education, training, and career opportunities.

## COMPUTER TECHNOLOGY

**TEJ 4E      Computer Technology -              1 credit**  
**Workplace Preparation**

This course enables students to further develop their practical understanding of computer hardware, software, networks, and operating systems. Students will use utility and application software, and will follow proper procedures for installing, maintaining, and troubleshooting computer systems and networks. In addition to demonstrating an understanding of the ethical use and environmental effects of computers, students will develop marketable skills and assess career opportunities in the field.

*Prerequisite: Grade 11 Computer Technology, Workplace*

### **Emphasis Courses:**

TET4E - Information Technology Support  
 TEC4E - Computer Repair  
 TEW4E - Network Support



**Governor Simcoe**

## TECHNOLOGICAL EDUCATION

**TEJ 4M      Computer Engineering Technology -      1 credit**  
**University/College Preparation**

This course extends students' understanding of computer systems and computer interfacing with external devices. Students will assemble computer systems by installing and configuring appropriate hardware and software, and will learn more about fundamental concepts of electronics, robotics, programming, and networks. Students will examine environmental and societal issues related to the use of computers, and explore postsecondary pathways leading to careers in computer engineering and related fields.

*Prerequisite: Grade 11 Computer Engineering Technology, University/College*

### **Emphasis Courses:**

TEL4M - Electronics  
 TER4M - Robotics and Control Systems  
 TEN4M - Networking  
 TEI4M - Interfacing

## CONSTRUCTION TECHNOLOGY

**TCJ 4C      Construction Engineering Technology -      1 credit**  
**College Preparation**

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: Grade 11 Construction Engineering Technology, College*

### **Emphasis Courses:**

TCS4C - Construction, Management and Science  
 TCY4C - Civil Engineering

## TECHNOLOGICAL EDUCATION

### TCJ 4E Construction Technology - Workplace Preparation 1 credit

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: Grade 11 Construction Technology, Workplace*

#### Emphasis Courses:

TCP4E - Plumbing  
 TCE4E - Electrical/Network Cabling  
 TCM4E - Masonry  
 TCH4E - Heating and Cooling  
 TCC4E - Carpentry  
 TCJ4EP - Construction Technology - Practical Home Maintenance

### TWJ 4E Custom Woodworking - Workplace Preparation 1 credit

This course enables students to further develop knowledge and skills related to the planning, design, and construction of cabinets and furniture for residential and/or commercial projects. 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: Grade 11 Custom Woodworking, Workplace*

## TECHNOLOGICAL EDUCATION

### GREEN INDUSTRIES

### THJ 4E Green Industries - Workplace Preparation 1 credit

This course enables students to gain further experience with a variety of industry procedures and operations and to acquire additional industry-specific skills. Students will study more complex processes, develop more advanced design and maintenance skills, and explore ways of enhancing environmental sustainability. They will also examine social and economic issues related to the green industries, learn about safe and healthy working practices, study industry standards and codes, and explore career opportunities in the various industries. The knowledge and skills acquired in this course will prepare students for the workplace and apprenticeship training.

*Prerequisite: Green Industries Grade 11, Workplace*

#### Emphasis Courses:

THG4E - Agriculture  
 THF4E - Floristry  
 THO4E - Forestry  
 THH4E - Horticulture  
 THL4E - Landscape Construction and Maintenance

### HAIRSTYLING AND AESTHETICS

### TXJ 4E Hairstyling and Aesthetics - Workplace Preparation 1 credit

This course enables students to develop increased proficiency in a wide range of hairstyling and aesthetics services. Working in a salon/spa team environment, students strengthen their fundamental cosmetology skills and develop an understanding of common business practices and strategies in the salon/spa industry. Students expand their understanding of environmental and societal issues and their knowledge of postsecondary destinations in the hairstyling and aesthetics industry.

*Prerequisite: Grade 11 Hairstyling and Aesthetics, Workplace*

#### Emphasis Courses:

TXH4E - Hairstyling  
 TXA4E - Aesthetics

## TECHNOLOGICAL EDUCATION

### HEALTH CARE

**TPJ 4C**                      **Health Care -**                      **1 credit**  
    **College Preparation**

This course focuses on the development of clinical skills needed to assess general health status. Students will learn about accepted health care practices and about how to perform various basic procedures, using appropriate instruments and equipment. They will learn about the human immune system, pathology, and disease prevention and treatment. Students will also expand their awareness of workers' health and safety issues, environmental and societal issues related to health care, and postsecondary destinations in the field.

*Prerequisite: Grade 11 Health Care, College*

**TPJ 4E**                      **Health Care: Support Services -**                      **1 credit**  
    **Workplace Preparation**

This course enables students to develop the basic skills needed for careers in a range of health care support services. Students will practise and apply a variety of clinical procedures and infection control skills as they learn about principles of infection control, service excellence, and the nature of the health care industry. . Students will also investigate workers' health and safety issues, environmental and societal issues related to health care, and career opportunities in the field.

**TPJ 4M**                      **Health Care -**                      **1 credit**  
    **University/College Preparation**

This course focuses on the development of clinical skills needed to assess general health status. Students will learn about accepted health care practices and about how to perform various procedures, using appropriate instruments and equipment. They will learn about the human immune system, pathology, and disease prevention and treatment. Students will also expand their awareness of workers' health and safety issues, environmental and societal issues related to health care, and postsecondary destinations in the field.

*Prerequisite: Grade 11 Health Care, University/College*

## TECHNOLOGICAL EDUCATION

**TOJ 4C**                      **Child Development and**                      **1 credit**  
    **Gerontology - College Preparation**

This course enables students to examine the stages of child development and the aging process. Students will study the processes of disease and factors contributing to health and well-being in early and later life, and will develop skills required to meet the needs of children and older adults (care skills). Students will also learn about legislation governing the care of children and older adults; evaluate social and recreational activities, programs, and services for improving quality of life; and develop an awareness of health and safety issues, environmental and social issues, and career opportunities related to child care and gerontology.

### HOSPITALITY AND TOURISM

**TFJ 4C**                      **Hospitality and Tourism -**                      **1 credit**  
    **College Preparation**

This course enables students to further develop knowledge and skills related to the various sectors of the tourism industry. Students will demonstrate advanced food preparation and presentation skills; increase health and wellness knowledge; develop tourism administration and management skills; design and implement a variety of events or activities; and investigate principles and procedures that contribute to high-quality customer service. Students will expand their awareness of health and safety issues, environmental and societal issues, and career opportunities in the tourism industry.

*Prerequisite: Grade 11 Hospitality and Tourism, College*

#### **Emphasis Courses:**

TFR4C - Culinary Arts and Management

TFN4C - Applied Nutrition

TFT4C - Tourism and Travel Planning



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### TECHNOLOGICAL EDUCATION

**TFJ 4E Hospitality and Tourism - 1 credit**  
**Workplace Preparation**

This course enables students to further develop knowledge and skills related to the food and beverage services sector of the tourism industry. Students will demonstrate proficiency in using food preparation and presentation tools and equipment; plan nutritious menus, create recipes, and prepare and present finished food products; develop customer service skills; and explore event and activity planning. Students will expand their awareness of health and safety practices, environmental and societal issues, and career opportunities in the food and beverage services sector.

**Prerequisite:** *Grade 11 Hospitality and Tourism, Workplace*

**Emphasis Courses:**

- TFB4E - Baking
- TFC4E - Cooking
- TFE4E - Event Planning

### MANUFACTURING TECHNOLOGY

**TMJ 4C Manufacturing Technology - 1 credit**  
**College Preparation**

This course enables students to further develop knowledge and skills related to machining, welding, print reading, computer numerical control (CNC), robotics, and design. 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:** *Grade 11 Manufacturing Technology, College*

**Emphasis Courses:**

- TMC4C - Computer Aided Manufacturing
- TMI4C - Industrial Maintenance
- TMP4C - Precision Machining
- TMT4C - Robotics and Control Technician
- TMY4C - Welding Technician

### TECHNOLOGICAL EDUCATION

**TMJ 4E Manufacturing Technology - 1 credit**  
**Workplace Preparation**

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:** *Grade 11 Manufacturing Technology, Workplace*

**Emphasis Courses:**

- TMO4E - Machine Operator
- TMW4E - Welder

**TMJ 4M Manufacturing Engineering 1 credit**  
**Technology - University/College Preparation**

This course enables students to further develop knowledge and skills related to design, process planning, control systems, project management, quality assurance, and business operations. Students will use a broad range of tools and equipment, enhance their skills in computer-aided design, and collaborate in managing a project. Students will critically analyse and solve complex problems involved in manufacturing products. Students will expand their awareness of environmental and societal issues and of career opportunities in the manufacturing industry.

**Prerequisite:** *Grade 11 Manufacturing Engineering Technology, University/College*

**Emphasis Courses:**

- TMM4M – Mechanical Engineering
- TMR4M – Robotics and Control Systems

## TECHNOLOGICAL EDUCATION

### TECHNOLOGICAL DESIGN

**TDJ 4M      Technological Design -      1 credit**  
**University/College Preparation**

This course introduces students to the fundamentals of design advocacy and marketing, while building on their design skills and their knowledge of professional design practices. Students will apply a systematic design process to research, design, build, and assess solutions that meet specific human needs, using illustrations, presentation drawings, and other communication methods to present their designs. Students will enhance their problem-solving and communication skills, and explore career opportunities and the postsecondary education and training requirements for them.

*Prerequisite: Grade 11 Technological Design, University/College*

**Emphasis Courses:**

- TDP4M - Apparel and Textile Design
- TDA4M - Architectural Design
- TDR4M - Robotic and Control Systems
- TDV4M - Interior Design
- TDM4M - Mechanical and Industrial Design

**TDJ 4O      Technological Design in the      1 credit**  
**Twenty-first Century - Open**

This course focuses on the relationship between society and technological development. Students will use appropriate tools, techniques, and strategies to research, design, build, and assess prototypes for products and/or processes that respond to society's changing needs. Students will describe how social factors, including culture, media, politics, religion, and environmental concerns, influence technological design. Students will also learn about professional practices in the field, and will research postsecondary pathways leading to careers related to technological design.

## TECHNOLOGICAL EDUCATION

### TRANSPORTATION TECHNOLOGY

**TTJ 4C      Transportation Technology -      1 credit**  
**College Preparation**

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, aircraft, and/or watercraft; 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: Grade 11 Transportation Technology, College*

**Emphasis Courses:**

- TTB4C - Auto Body
- TTA4C - Auto Service
- TTS4C - Small Engine and Recreational Equipment

**TTJ 4E      Transportation Technology:      1 credit**  
**Vehicle Maintenance**  
**- Workplace Preparation**

This course introduces students to the servicing, repair, and maintenance of vehicles through practical applications. The course is appropriate for all students as a general interest course to prepare them for future vehicle operation, care, and maintenance or for entry into an apprenticeship in the motive power trades. Students will develop an awareness of environmental and societal issues related to transportation and will learn about careers in the transportation industry and the skills and training required for them.

### **Technological Cooperative Education Program**

All technological courses can be used in the Cooperative Education Program for students considering careers in a variety of fields such as electricity, tourism, plumbing, manufacturing and automotive manufacturing.

**OYAP** Students may have the opportunity to begin an apprenticeship while earning these high school credits. For more information see page 9.