

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

DRAMATICARTS

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.

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.

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.

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.)

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.

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.

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.

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.

AMJ 4M **Music -Vocal Jazz -** **1 credit**
University/College Preparation

This focus course in Vocal Jazz will provide students with the opportunity to learn skills in jazz performance techniques, including improvisation and solo skills. Students will also have the opportunity to learn to read, perform and appreciate music and to study jazz theory, history and analysis. Students should have the ability to sight-read upon entering this course.

ARTS

AMK4M 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.

AMR4M 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.

AMS4M 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.

AMV4M 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.

ARTS

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.

DANCE

ATC4M 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.

Dance Focus Courses:

ATP4M 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.

VISUAL ARTS

AVI4M 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.

ARTS

Visual Arts Focus Courses:

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

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.

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

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.

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

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.

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

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.

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 Business - Workplace Preparation 1 credit

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 application 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.

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

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 further develops accounting methods for assets and introduces accounting for partnerships, corporations, and sources of financing.

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

BBB 4E International Business Essentials - Workplace Preparation 1 credit

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.

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

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.

BUSINESS STUDIES

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

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: Becoming a Manager - Workplace Preparation 1 credit

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: Management Fundamentals - University/College Preparation 1 credit

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 will be emphasized throughout the course.

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.

BUSINESS STUDIES

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.

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.

CGR4E 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.

CANADIAN AND WORLD STUDIES

CGR4M The Environment and Resource Management - University/College Preparation 1 credit

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.

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

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.

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

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.

CANADIAN AND WORLD STUDIES

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

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.

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

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.

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

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.

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.

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.

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.

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.

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

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.

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

LVV4U **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.

LBA DU – **International Languages -** **1 credit**
LYXDU **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.

- LWGDU – German – 1 credit
- LWIDU/LWIDO – Italian – 1 credit
- LKJDU – Japanese – 1 credit
- LWSDU – 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

See Technological Education — Part B: Computer Studies

ENGLISH - COMPULSORY CREDITS

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

This course emphasizes consolidation of literacy, critical thinking, and communication skills. Students will analyse informational texts and literary works from various time periods, countries, and cultures; write research reports, summaries, and short analytical essays; complete an independent study project; and analyse the interactions among media forms, audiences, and media industry practices. An important focus will be on establishing appropriate style and using business and technical language effectively.

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

This course emphasizes consolidation of literacy, critical thinking, and communication skills. Students will study informational texts and literature from various countries and cultures; write summaries, reports, résumés, and short essays; complete an independent research project; and explain the connections among media forms, audiences, and media industry practices. An important focus will be on using specialized language related to the workplace accurately and coherently in appropriate contexts.

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

This course emphasizes consolidation of literacy, critical thinking, and communication skills. Students will analyse a range of challenging texts from various time periods, countries, and cultures; write analytical and argumentative essays and a major paper for an independent literary research project; and apply key concepts to analyse media works. An important focus will be on understanding academic language and using it coherently and confidently in discussion and argument.

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

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.

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.

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.

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.

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.

ENGLISH - OPTIONAL CREDITS

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.

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.

ESLAO **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 students adjust to their new cultural environment. Students will develop the ability to use oral and written English for daily needs, acquire basic conversation skills and vocabulary, and use simple sentence patterns. Students will also acquire basic orientation information related to their needs as newcomers to Canada.

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

This course expands students' essential English communication skills and cultural knowledge and introduces the language of classroom studies. Students will develop oral classroom skills and reading strategies, expand their vocabulary, and use more complex sentence patterns. Students will also learn how to use some school and community resources.

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 permission 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

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.

PPL 4O **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' interest 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.

Areas of Focus

PAF 4O - Personal and Fitness Activities

PAL 4O - Large Group Activities

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.

Health and Physical Education Cooperative Education Program

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

GRADE 12

INTERDISCIPLINARY STUDIES

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

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.

MATHEMATICS

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

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; apply measurement in designing and constructing physical models; solve financial problems connected with home ownership; 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.

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

This course builds on students' experience with functions and their developing understanding of rate of change. Students will investigate and apply the properties of polynomial, exponential, and logarithmic functions; broaden their understanding of the mathematics associated with rates of change; and develop facility with the concepts and skills needed for the study of calculus in a variety of university courses. Students will continue to develop the mathematical processes necessary for success in senior mathematics.

MATHEMATICS

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

This course enables students to extend their knowledge of functions. Students will investigate and apply properties of polynomial, rational, 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, and vectors. 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.

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

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

This course broadens students' understanding of mathematics as it relates to managing information. Students will apply methods for organizing large amounts of information; solve problems involving counting techniques, probability, and statistics; and carry out a culminating project that integrates the expectations of the course. Students will continue to develop the mathematical processes necessary for success in senior mathematics. Students planning to pursue university programs in business, the social sciences, and the humanities will find this course of particular interest.

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

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will use statistics in investigating questions; apply the concept of probability to solve problems in 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.

MATHEMATICS

MGA 4U Geometry & Algebra - 1 credit
University Preparation

This course enables students to broaden their understanding of mathematics by examining concepts from a geometric and an algebraic perspective. Students will investigate concepts and solve problems involving vectors in two- and three-dimensional space, and conics. They will apply their reasoning skills to develop an understanding of proof, using deductive, algebraic, and indirect methods. Students will continue to develop the mathematical processes necessary for success in senior mathematics. This course prepares students for university programs in mathematics, engineering, and science.

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 associated with biological systems. Students will study theory and conduct investigations in the areas of metabolic processes, molecular genetics, homeostasis, evolution, and population dynamics. Emphasis will be placed on achievement of the detailed knowledge and refined skills needed for further study in various branches of the life sciences and related fields.

SCH 4C Chemistry - College Preparation 1 credit

This course introduces students to the concepts that form the basis of modern chemistry. Students will study qualitative analysis, quantitative relationships in chemical reactions, organic chemistry and electrochemistry, and chemistry as it relates to the quality of the environment. Students will employ 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 in the development of new technologies and products.

SCIENCE

SCH 4U Chemistry - University Preparation 1 credit

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, energy changes and rates of reaction, chemical systems and equilibrium, electrochemistry, and atomic and molecular structure. Students will further develop problem-solving and laboratory skills as they investigate chemical processes, at the same time refining their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in daily life, and on evaluating the impact of chemical technology on the environment.

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

This course focuses on the Earth as a planet, and on the basic concepts and theories of Earth science and their relevance to everyday life. Students will examine the Earth's place in the solar system and, after a general introduction to Earth science, will explore in more detail the materials of the Earth, its internal and surficial processes, and its history. The course draws on astronomy, biology, chemistry, mathematics, and physics in its consideration of geological processes that can be observed directly or inferred from other evidence.

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

SNC 4E Science - Workplace Preparation 1 credit

This course provides students with the science-related knowledge and skills they need to help them make informed decisions in the workplace and in their personal lives. Students will explore a range of topics, including chemistry at home and at work; communications technology; medical technology; gardening, horticulture, landscaping, and forestry; and alternative life-sustaining environments. Emphasis is placed on relating these topics directly to students' experiences, both in the world of work and in daily life.

SCIENCE

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

This course enables students, including those who do not intend to pursue science-related programs at the postsecondary level, to further develop their understanding of science and its technological applications. Students will explore a range of topics, including organic products in everyday life; pathogens and disease; energy alternatives and their impact globally; communications systems; and science and contemporary societal issues. Emphasis will be placed on relating these topics to global issues as well as to daily life, and on developing skills in the areas of experimentation, research, critical thinking, and analysis.

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

This course develops students' understanding of the basic concepts of physics. Students will explore these concepts as they relate to mechanical, electrical, fluid (hydraulic and pneumatic), and communications systems, as well as to the operation of commonly used tools and equipment. They will develop scientific-inquiry skills as they verify accepted 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.

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

This course enables students to deepen their understanding of the concepts and theories of physics. Students will explore further the laws of dynamics and energy transformations, and will investigate electrical, gravitational, and magnetic fields; electromagnetic radiation; and the interface between energy and matter. They will further develop inquiry skills, learning, for example, how the interpretation of experimental data can provide indirect evidence to support the development of a scientific model. Students will also consider the impact on society and the environment of technological applications of physics.

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

SCIENCE

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.

SOCIAL SCIENCE AND THE HUMANITIES

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

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.

HHG 4M **Issues in Human Growth
and Development** **1 credit**
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.

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

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.

SOCIAL SCIENCE AND THE HUMANITIES

HNB 40 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.

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.

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 - PART A BROAD-BASED TECHNOLOGY

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.

AUTOBODY

TAB 45 Auto Body - 2 credits
Workplace Preparation - Locally Developed

This course will continue to build on the technical skills received in Grade 11 as well as reinforce the broad range of career opportunities within the Auto Body Industry. Students will acquire design, fabrication and repair skills using a variety of trade specific tools, equipment and processes. Students will repair and finish vehicles incorporating knowledge and skills in such areas as collision restoration, component straightening and repair, materials preparation, and finishing materials to OEM standards (Original Equipment Manufacturer).

CONSTRUCTION TECHNOLOGY

TCJ 4C Construction Technology - 1 credit
College Preparation

This course focuses on advanced residential construction, more complex construction systems, and the introduction of heavy construction related to commercial, industrial, and/or recreational construction. Students will learn about the tools, materials, equipment, and methods used in the light and heavy construction industries; structural analysis and design; presentation and working drawings; and auxiliary systems. They will also estimate materials and labour costs; study industry standards and building codes; consider health and safety issues; and explore energy conservation, careers, and the impact of construction technology on society and the environment.

TECHNOLOGICAL EDUCATION - PART A BROAD-BASED TECHNOLOGY

TCJ 4E Construction Technology - 1 credit
Workplace Preparation

This course focuses on advanced residential and more complex construction systems, as well as the introduction of heavy construction, related to commercial, industrial, and/or residential construction; advanced practical workplace applications; and the development of generic employment skills and independent learning skills. Students will examine the materials, processes, labour, tools, and equipment used in the construction industry; technical drawings; auxiliary systems; and landscaping. They will also study industry standards and building codes; consider health and safety issues; and explore careers, lifelong learning opportunities, and the impact of construction technology on society and the environment.

Areas of Emphasis:

TCJ 4EP - Practical Home Maintenance
TCJ 4EM - Masonry

REFRIGERATION

TCX 45 Refrigeration - 2 credits
Workplace Preparation
Locally Developed

This course will continue to build on the technical skills received in Grade 11 and continue with a detailed study of refrigeration system components, controls and circuits. Particular emphasis will be placed on the theoretical and practical study of metering devices, evaporators, condensers, compressors and motor controls. Students will build and service up to ten different systems using tools and instruments unique to the refrigeration and air-conditioning field. Students will acquire transferable skills relating to similar technologies.

TECHNOLOGICAL EDUCATION - PART A BROAD-BASED TECHNOLOGY

TECHNOLOGICAL DESIGN

TDJ 4E Technological Design - 1 credit
Workplace Preparation

This course helps students develop a systematic process to design products or services based on an understanding and analysis of consumer needs, material characteristics, fabrication methods, and design principles. Students will develop design briefs, conduct marketing surveys, create freehand and computer-generated illustrations, make models, generate technical reports, design packaging, and become aware of design trends. They will also examine careers and small business opportunities in design, architecture, manufacturing, or marketing.

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

This course provides students with opportunities to solve problems in design through the use of technical drawings, model building, testing, and marketing. Students will research, design, and test solutions for residential or commercial architecture, industrial engineering, and manufacturing. They will also examine the educational requirements of a technical design-related career in engineering, architecture, or industrial design.

ELECTRICITY

TEL 45 Electricity - 1 credit
Workplace Preparation
Locally Developed

This course will continue to enhance students' technical skill and knowledge relating to local residential and commercial electrical fields. The course will consist of a detailed study of AC/DC theory, and the use of hand and power tools, and metering equipment required for more sophisticated applications. Links with local business partners will enable students to explore in depth potential careers in the electrical field.

TECHNOLOGICAL EDUCATION - PART A BROAD-BASED TECHNOLOGY

HOSPITALITY AND TOURISM

TFH 4E Hospitality and Tourism - 1 credit
Workplace Preparation

This course focuses on advanced food preparation and presentation skills; event and activity planning; the equipment and facilities used in the hospitality and tourism industry; and tourist attractions. Students will study the nutritional value of foods, plan menus and recipes, develop management techniques, design and implement an event, and learn effective communication skills. They will also explore careers, the impact of the hospitality and tourism industry on society and the environment, and health and safety standards in the workplace.

TFS 4C Tourism - College Preparation 1 credit

This course provides students with opportunities to analyse the characteristics and standards of the tourism industry, determine the factors that promote its success, and investigate principles and procedures that contribute to high-quality customer service. Students will also assess facilities and activities that attract tourists, and study communication and customer service techniques. In addition to exploring career opportunities, students will analyse the relationship between tourism and the economy and propose ways to enhance the performance of the industry.

COMMUNICATIONS TECHNOLOGY

TGJ 4E Communications Technology - 1 credit
Workplace Preparation

This course examines the key elements in the areas of electronic, live, recorded, or graphic communications systems. Students will develop safe workplace habits and business management skills and use a variety of materials, tools, and equipment to assemble, maintain, operate, and repair communications systems. They will also research the entry requirements for training programs available on graduation, such as apprenticeships, and will develop the employability and technical skills required for entry into the workplace.

TECHNOLOGICAL EDUCATION - PART A BROAD-BASED TECHNOLOGY

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

This course examines communications systems and design and production processes in the areas of electronic, live, recorded, and graphic communications. Students will create, manage, and distribute complex electronic, graphic, recorded, or audio-visual projects independently and in project teams. Students will also study industry standards and regulations and health and safety issues, and will explore careers, the importance of lifelong learning, and the impact of communications technology on society and the environment.

Areas of Emphasis:

TGJ4ME — Communications Technology - Electronics
TGJ4MT — Communications Technology - Tech. Theatre
TGJ4MM — Communications Technology - Multi Media
TGJ4MP — Communications Technology - Photography
TGJ4MV — Communications Technology - Videography
TGJ4MG — Communications Technology - Graphics

HORTICULTURE

TCJ 4EH **Horticulture -** **1 credit**
Workplace Preparation

This course continues to build and enforce the technical students' skill and knowledge of the horticulture industry, including both greenhouse production and outdoor crop production in the region. Students will study detailed concepts of plant science as they apply to landscaping, hydroponics, crop production and floral design. Students will develop transferable skills with tools and technology in the local industry.

MANUFACTURING TECHNOLOGY

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

This course focuses on advanced manufacturing and engineering, and provides students with an opportunity to develop specialized knowledge and skills used in sophisticated production processes. Students will solve problems; make the decisions necessary to develop a product for manufacture; and examine production methods, quality control systems, and environmental and societal impacts.

TECHNOLOGICAL EDUCATION - PART A BROAD-BASED TECHNOLOGY

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

This course focuses on drafting and design, machining, welding, computer numerical control (CNC), computer-assisted machining (CAM), motor control, hydraulic control, pneumatic control, and computer control. Students will use sophisticated design and manufacturing systems to design and fabricate tooling, to program CNC equipment, and to design and build solutions to technological challenges in manufacturing.

Area of Emphasis:

TMJ 4OW — Manufacturing Technology - Welding

WELDING

TMW 45 **Welding -** **2 credits**
Workplace Preparation -
Locally Developed

This course will continue to build on technical skills received in Grade 11 and on the various types of fusion and non-fusion welding processes. Students will study oxy-acetylene welding and cutting, shielded metal arc welding, gas metal arc welding, flux core arc welding, plasma cutting, soldering, and brazing. Students will also be involved in the fabrication of projects utilizing various welding processes. This course will have a strong emphasis on correct work procedures and sound safety practices as it relates specifically to the welding trade. They will also study the broad range of career opportunities available in the welding field and the educational requirements. Students will also research the scope of the welding industry and the impact of its products on individuals, society, and the environment.

HEALTH AND PERSONAL SERVICES

TPT 4C **Medical Technologies -** **1 credit**
College Preparation

This course focuses on human physiology, pathology, and immunology. Students will learn about accepted medical care practices, current technological advances in health care, and how to perform various procedures and use tools and equipment in the field of health care. Students will also design solutions to common medical and health care problems, investigate career opportunities, and examine laws and safety standards in the health care industry and the impact of this industry on the environment.

**TECHNOLOGICAL EDUCATION - PART B
COMPUTER STUDIES****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.