



Course Descriptions



The Arts

Visual Arts

Grade 11, University/college Preparation

AVI3M

This course enables students to further develop their knowledge and skills in visual arts. Students will use the creative process to explore a wide range of themes through studio work that may include drawing, painting, the creation of collage, multimedia works, and works using emerging technologies. Students will use the critical analysis process when evaluating their own work and the work of others.

Prerequisite: Visual Arts, Grade 9 or 10

Visual Arts

Grade 11, University/College Preparation

AWQ3M

This course provides students with opportunities to further develop their skills and knowledge in visual arts. Students will explore a range of subject matter through studio activities, and will consolidate their practical skills. Students will also analyse art works and study aspects of art history. This course, specifically, introduces students to photography as a creative tool in the art of image-making. Students will have the opportunity to investigate and explore the characteristics of digital photography through a variety of camera and computer experiences. A photography history component will help students understand the development of photography, past and present. A functioning SLR camera must be provided by the student for this course.

Prerequisite: Visual Arts, Grade 9 or 10, Open Ownership of a digital camera is strongly recommended.

Visual Arts

AVI4M

Grade 12, University/College Preparation

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

Prerequisite: Visual Arts, Grade 11, University/College Preparation

Visual Arts

AWQ4M

Grade 12, University/College Preparation

This course focuses on the refinement of students' skills and knowledge in the photographic arts. Students will work with both traditional and digital photographic art forms; use theories of art to analyse and produce photographic art; and increase their understanding of stylistic changes in modern and contemporary Western photographic art, Canadian (including Native Canadian) art, and photographic art forms from various parts of the world. The emphasis of the course will be based upon students creating their own extended body of work on personally developed themes.

Prerequisite: AWQ3M



Business Studies

Introduction to Business

BBI2O

Grade 10, Open

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

Prerequisites: None

Introduction to Financial Accounting

BAF3M

Grade 11, University/College

This course introduces students to the fundamental principles and procedures of accounting, with emphasis on accounting procedures used in service and merchandising business. Students will develop an understanding of the connections between financial analysis, control, and decision making in the management of a business, as well as the effects of technology and globalization on accounting procedures and the role of an account.

Prerequisite: None

Entrepreneurship: The Venture
Grade 11, College Preparation

BDI3C

This course focuses on ways in which entrepreneurs recognize opportunities, generate ideas, and organize resources to plan successful ventures that enable them to achieve their goals. Students will create a venture plan for a school-based or student-run business. Through hands-on experiences, students will have opportunities to develop the values, traits, and skills most often associated with successful entrepreneurs.

Prerequisite: None

Principles of Financial Accounting
Grade 12, University/College

BAT4M

This course emphasizes study of accounting principles related to financial statements. Students will learn about ways in which information in these statements is used in making business decision, and about the effects on financial statements of using different methods of inventory valuation and adjusting and reversing entries. Students will also study various means of financing a business and ways in which the strength of a corporation can be determined through the reading of its annual report.

Prerequisite: BAF3M

Introduction to International Business
Grade 12, University/College Preparation

BBB4M

This program 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.

Prerequisite: Any U or M course in business or Canadian and world studies

Business Leadership: Management Fundamentals
Grade 12, University/College Preparation

BOH4M

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

Prerequisite: None



Canadian and World Studies

Civics and Citizenship

Grade 10, Open

CHV2O

This course explores rights and responsibilities associated with being an active citizen in a democratic society. Students will explore issues of civic importance and the influence of social media, while developing their understanding of the role of civic engagement and of political processes in the local, national, and/or global community. Students will apply the concepts of political thinking and the political inquiry process to investigate, and express informed opinions about, a range of political issues and developments that are both of significance in today's world and of personal interest to them. This course also includes learning on digital literacy and critical-thinking skills, the mechanisms of government, Indigenous governance systems and structures, the historical foundations of the rights and freedoms we enjoy in Canada, ways in which government policy affects individuals' lives and the economy, and ways for students to serve their communities.

Prerequisite: None

Canadian History since World War I

Grade 10, Academic

CHC2D

This course explores social, economic, and political developments and events and their impact on the lives of different groups in Canada since 1914. Students will examine the role of conflict and cooperation in Canadian society, Canada's evolving role within the global community, and the impact of various individuals, organizations, and events on Canadian identity, citizenship, and heritage. They will develop their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating key issues and events in Canadian history since 1914

Prerequisite: None

World History since 1900: Global and Regional Interactions

Grade 11, Open

CHT3O

This course focuses on major developments in world history from 1900 to the present. Students will explore the causes and consequences of global and regional conflicts, the impact of significant individuals and social movements, and the effects of social, economic, and political developments around the world. Students will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating interactions within and between nations and other historical developments and events, including those that continue to affect people in various parts of the world.

Prerequisite: Canadian History since World War I, Grade 10, Academic or Applied, or the locally developed compulsory course (LDCC) in Canadian history

World History to the Sixteenth Century
Grade 11, University/College Preparation

CHW3M

This course investigates the history of humanity from earliest times to the sixteenth century. Students will analyse diverse societies from around the world, with an emphasis on the political, cultural, and economic structures and historical forces that have shaped the modern world. They will apply historical inquiry, critical-thinking, and communication skills to evaluate the influence of selected individuals, groups, and innovations and to present their own conclusions.

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

Travel and Tourism – A Geographic Perspective
Grade 11, Open

CGG30

This course explores issues and challenges facing the Canadian economy as well as the implications of various responses to them. Students will explore the economic role of firms, workers, and government as well as their own role as individual consumers and contributors, and how all of these roles contribute to stability and change in the Canadian economy. Students will apply the concepts of economic thinking and the economic inquiry process, including economic models, to investigate the impact of economic issues and decisions at the individual, regional, and national level.

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

The Individual and the Economy
Grade 11, University/College Preparation

CIE3M

This course explores issues and challenges facing the Canadian economy as well as the implications of various responses to them. Students will explore the economic role of firms, workers, and government as well as their own role as individual consumers and contributors, and how all of these roles contribute to stability and change in the Canadian economy. Students will apply the concepts of economic thinking and the economic inquiry process, including economic models, to investigate the impact of economic issues and decisions at the individual, regional, and national level.

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

World History since the Fifteenth Century
Grade 12, University Preparation

CHY4U

This course traces major developments and events in world history since approximately 1450. Students will explore social, economic, and political changes, the historical roots of contemporary issues, and the role of conflict and cooperation in global interrelationships. They will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, as they investigate key issues and ideas and assess societal progress or decline in world history.

Prerequisite: Any university or university/college preparation course in Canadian and world studies, English, or social sciences and humanities

Canadian and World Issues: A Geographic Analysis

CGW4U

Grade 12, 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 in 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 or university/college preparation course in Canadian and world studies, English, or social sciences and humanities

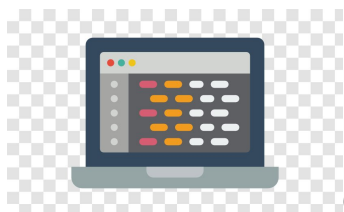
Analysing Current Economic Issues

CIA4U

Grade 12, University Preparation

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 microeconomics 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 or university/college preparation course in Canadian and world studies, English, or social sciences and humanities



Computer Studies

Introduction to Computer Studies

ICS20

Grade 10, Academic

This course introduces students to computer programming. Students will plan and write simple computer programs by applying fundamental programming concepts, and learn to create clear and maintainable internal documentation. They will also learn to manage a computer by studying hardware configurations, software selection, operating system functions, networking, and safe computing practices. Students will also investigate the social impact of computer technologies, and develop an understanding of environmental and ethical issues related to the use of computers.

Prerequisites: None

Introduction to Computer Science

ICS3U

Grade 11, University Preparation

This course introduces students to computer science. Students will design software independently and as part of a team, using industry-standard programming tools and applying the software development life-cycle model. They will also write and use subprograms within computer programs.

Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global trends in computer –related fields.

Prerequisite: None

Computer Science

ICS4U

Grade 12, 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: ICS3U

English



English

ENG1D

Grade 9, Academic

This course is designed to develop oral communication, reading, writing, and media literacy skills that students need for success in secondary school academic programs and their daily lives. Students will analyze literary texts from contemporary and historical periods, interpret informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on the use of strategies that contribute to effective communication. The course is intended to prepare students for the Grade 10 academic English course, which leads to university or college preparation courses in Grade 11 and 12.

Prerequisite: None

English

ENG2D

Grade 10, Academic

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

Prerequisite: English, Grade 9, Academic

Media Studies
Grade 11, Open

EMS30

This course emphasizes knowledge and skills that will enable students to understand media communication in the twenty-first century and to use media effectively and responsibly. Through analysing the forms and messages of a variety of media works and audience responses to them, and through creating their own media works, students will develop critical thinking skills, aesthetic and ethical judgement, and skills in viewing, representing, listening, speaking, reading, and writing.

Prerequisite: English, Grade 10, Academic or Applied

English
Grade 11, College Preparation

ENG3C

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

Prerequisite: English, Grade 10, Applied

English
Grade 11, University Preparation

ENG3U

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse challenging literary texts from various periods, countries, and cultures, as well as a range of informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on using language with precision and clarity and incorporating stylistic devices appropriately and effectively. The course is intended to prepare students for the compulsory Grade 12 university or college preparation course.

Prerequisite: English, Grade 10, Academic

English
Grade 12, College Preparation

ENG4C

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.

Prerequisite: English, Grade 11, College Preparation

English
Grade 12 University Preparation

ENG4U

This course emphasizes consolidation of the literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyze a range of challenging literary texts from various time 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 tended to prepare students for university, college, or the workplace.

Prerequisite: English, Grade 11, University Preparation

The Writer's Craft
Grade 12, University

EW4U

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

Ontario Secondary School Literacy Course
Grade 12

OLC40

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.

Prerequisite: Students have been eligible to write the OSSLT at least once, and have been unsuccessful.



English as a Second Language

English as a Second Language
ESL Level 1, Open

ESL1O

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

English as a Second Language**ESLBO**

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; link English sentences to compose paragraphs; read a variety of texts designed or adapted for English language learners; and expand their knowledge of English grammatical structures and sentence patterns. The course also supports student's continuing adaptation to the Ontario school system by expanding their cultural knowledge of their new province and country.

English as a Second Language**ESLCO**

ESL Level 3, Open

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

English as a Second Language**ESLDO**

ESL Level 4, Open

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

English as a Second Language**ESLEO**

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: ESLDO

Guidance and Career Education

Career Studies

GLC20

Grade 10, Open

This course gives students the opportunity to develop the skills, knowledge, and habits that will support them in their education and career/life planning. Students will learn about global work trends, and seek opportunities within the school and community to expand and strengthen their transferable skills and their ability to adapt to the changing world of work. On the basis of exploration, reflective practice, and decision-making processes, students will make connections between their skills, interests, and values and their postsecondary options, whether in apprenticeship training, college, community living, university, or the workplace. They will set goals and create a plan for their first postsecondary year. As part of their preparation for the future, they will learn about personal financial management – including the variety of saving and borrowing tools available to them and how to use them to their advantage – and develop a budget for their first year after secondary school.

Prerequisite: None

Designing Your Future

GWL30

Grade 11, Open

This course prepares students to make successful transitions to postsecondary destinations as they investigate specific postsecondary options based on their skills, interests, and personal characteristics. Students will explore the realities and opportunities of the workplace and examine factors that affect success, while refining their job-search and employability skills. Students will develop their portfolios with a focus on their targeted destination and develop an action plan for future success

Prerequisite: None

Advanced Learning Strategies: Skills for Success After Secondary School

GLS40

Grade 12, Open

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.

Prerequisite: None

Health and Physical Education

Healthy Active Living Education

PPL10

Grade 9, Open

This course equips students with the knowledge and skills they need to make healthy choices now and lead healthy, active lives in the future. Through participation in a wide range of physical activities, students develop knowledge and skills related to movement competence and personal fitness that provide a foundation for active living. Students also acquire an understanding of the factors and skills

that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

Prerequisites: None

Healthy Active Living and Education

PPL20

Grade 10, Open

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

Prerequisites: None

Healthy Active Living Education

PPL30

Grade 11, Open

This course focuses on the development of a healthy lifestyle and participation in a variety of enjoyable physical activities that have the potential to engage students' interest throughout their lives. Students will be encouraged to develop personal competence in a variety of movement skills and will be given opportunities to practice goal-setting, decision-making, social, and interpersonal skills. Students will also study the components of healthy relationships, reproductive health, mental health, and personal safety.

Prerequisite: None

Healthy Active Living Education

PPL40

Grade 12, Open

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.

Prerequisite: None

Recreation and Healthy Active Living Leadership

PLF4M

Grade 12, University/College Preparation

This course enables students to explore the benefits of lifelong participation in active recreation and healthy leisure and to develop the leadership and coordinating skills needed to plan, organize, and safely implement recreational events and other activities related to healthy, active living. Students will also learn how to promote the benefits of healthy, active living to others through mentoring and assisting them in making informed decisions that enhance their well-being. The course will prepare students for university programs in physical education and health and kinesiology and for college and

university programs in recreation and leisure management, fitness and health promotion, and fitness leadership.

Prerequisite: Any health and physical education course

Interdisciplinary Studies

Interdisciplinary Studies

IDC4U

Grade 12, 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.

Prerequisites: any university or university/college preparation course

International Languages



International Languages

Academic, Level 1

LKKBD/LKBBD/LPVBD

This course provides opportunities for students to begin to develop and apply skills in listening, speaking, reading, and writing in the language of study. Students will communicate and interact in structured activities, with a focus on matters of personal interest and familiar topics, and will read and write simple texts in the language. Throughout the course, students will acquire an

understanding and appreciation of diverse communities in regions of the world where the language is spoken. They will also develop skills necessary for lifelong language learning.

Prerequisite: None

International Languages

LKKCU/LKBCU/LPVCU

University Preparation, Level 2

This course provides opportunities for students to increase their competence and confidence in listening, speaking, reading, and writing in the language of study. Students will communicate about academic and personally relevant topics in increasingly spontaneous spoken interactions, and will develop their creative and critical thinking skills through exploring and responding to a variety of oral and written texts. Students will continue to enrich their understanding and appreciation of diverse communities in regions of the world where the language is spoken. They will also investigate personal and professional contexts in which knowledge of the language is required, and develop skills necessary for lifelong language learning.

Prerequisite: International Languages, Level 1, Academic

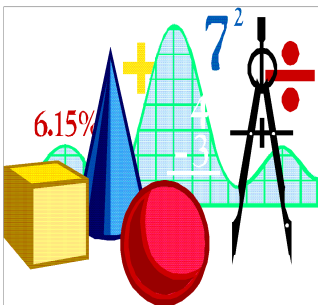
This course provides extended opportunities for students to communicate and interact in the language of study in a variety of social and academic contexts. Students will refine and enhance their listening, speaking, reading, and writing skills, as well as their creative and critical thinking skills, as they explore and respond to a variety of oral and written texts, including complex authentic and adapted texts. They will also broaden their understanding and appreciation of diverse communities where the language is spoken, and develop skills necessary for lifelong language learning.

Prerequisite: International Languages, Level 2, University Preparation

Mathematics

Mathematics Grade 9, De-Streamed

MTH1W



This course enables students to consolidate, and continue to develop, an understanding of mathematical concepts related to number sense and operations, algebra, measurement, geometry, data, probability, and financial literacy. Students will use mathematical processes, mathematical modelling, and coding to make sense of the mathematics they are learning and to apply their understanding to culturally responsive and relevant real-world situations. Students will continue to enhance their mathematical reasoning skills, including proportional reasoning, spatial reasoning, and algebraic

reasoning, as they solve problems and communicate their thinking.

Prerequisite: None

Principles of Mathematics Grade 10, Academic

MPM2D

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

Prerequisite: Grade 9 Mathematics, De-Streamed (2021), or Grade 9 Principles of Mathematics, Academic (2005)

Functions and Applications

MCF3M

Grade 11, University or College Preparation

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

Prerequisite: Principles of Mathematics, Grade 10, Academic, or Foundations of Mathematics, Grade 10, Applied

Functions 11

MCR3U

Grade 11, University Preparation

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

Prerequisite: Principles of Mathematics, Grade 10, Academic

Foundations for College Mathematics

MAP4C

Grade 12, 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; solve financial problems connected with annuities, budgets, and renting or owning accommodation; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services, and for certain skilled trades.

Prerequisite: Foundations for College Mathematics, Grade 11, College Preparation, or Functions and Applications, Grade 11, University/College Preparation

Mathematics for College Technology

MCT4C

Grade 12, College Preparation

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 11, University/College or Functions 11, University

Advanced Functions

MHF4U

Grade 12, University Preparation

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, College Preparation

Calculus and Vectors

MCV4U

Grade 12, University Preparation

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

Prerequisite: Functions and Relations, Grade 11, University Preparation, or Functions, Grade 11, University/College Preparation **Note: The new Advanced Functions must be taken prior to or concurrently with Calculus and Vectors

Mathematics of Data Management

MDM4U

Grade 12, University Preparation

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, or the humanities will find this course of particular interest.

Prerequisite: Grade 11, University Preparation, or Functions, Grade 11, University/College Preparation



Science

Science

Grade 9, De-Streamed

SNC1W

This course enables students to develop their understanding of concepts related to biology, chemistry, physics, and Earth and space science, and to relate science to technology, society, and the environment. Throughout the course, students will develop and refine their STEM skills as they use scientific research, scientific experimentation, and engineering design processes to investigate concepts and apply their knowledge in situations that are

relevant to their lives and communities. Students will continue to develop transferable skills as they become scientifically literate global citizens.

Prerequisite: None

Science

SNC2D

Grade 10, Academic

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics; to develop further their skills in scientific inquiry; and to understand the interrelationships among science, technology, and the environment. Students will conduct investigations and understand scientific theories related to: ecology and the maintenance of ecosystems; chemical reactions, with particular attention to acid-base reactions; factors that influence weather systems; and motion.

Prerequisite: Grade 9 Science, De-Streamed (2022), or Grade 9 Science, Academic (2008), or Grade 9 Science, Applied (2008)

Biology

SBI3U

Grade 11, University Preparation

This course furthers students' understanding of the processes involved in biological systems. Students study the diversity of living things, cellular functions, the anatomy, growth, and functions of plants, internal systems and regulation, and genetic continuity. Throughout, the course provides cumulative evidence that all life forms, however diverse, are united by a common set of characteristics. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation.

Prerequisite: Science, Grade 10, Academic

Chemistry

SCH3U

Grade 11, University Preparation

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

Prerequisite: Science, Grade 10, Academic

Physics

SPH3U

Grade 11, University Preparation

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

Prerequisite: Science, Grade 10, Academic

Biology**SBI4U**

Grade 12, University Preparation

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 the various branches of life sciences and related fields.

Prerequisite: Biology, Grade 11, University Preparation

Chemistry**SCH4U**

Grade 12, University Preparation

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 system, and electrochemistry. Students will further develop 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: Chemistry, Grade 11, University Preparation

Physics**SPH4U**

Grade 12, University Preparation

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 related 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: Physics, Grade 11, University Preparation

Earth and Space Science**SES4U**

Grade 12, University Preparation

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: Science, Grade 10, Academic



Social Sciences and the Humanities

Introduction to Anthropology, Psychology, and Sociology

HSP3U

Grade 11, University Preparation

This course provides students with opportunities to think critically about theories, questions, and issues related to anthropology, psychology, and sociology. Students will develop an understanding of the approaches and research methods used by social scientists. They will be given opportunities to explore theories from a variety of perspectives, to conduct social science research, and to become familiar with current thinking on a range of issues within the three disciplines.

Prerequisite: The Grade 10 academic course in English, or the Grade 10 academic history course (Canadian and world studies)

Food and Culture

HFC3M

Grade 11, University/College Preparation

This course focuses on the flavours, aromas, cooking techniques, foods, and cultural traditions of world cuisines. Students will explore the origins of and developments in diverse food traditions. They will demonstrate the ability to cook with ingredients and equipment from a variety of cultures, compare food-related etiquette in many countries and cultures, and explain how Canadian food choices and traditions have been influenced by other cultures. Students will develop practical skills and apply social science research methods while investigating foods and food practices from around the world.

Prerequisite: None

Challenge and Change in Society

HSB4U

Grade 12, University Preparation

This course focuses on the use of social science theories, perspectives, and methodologies to investigate and explain shifts in knowledge, attitudes, beliefs, and behaviour and their impact on society. Students will critically analyse how and why cultural, social, and behavioural patterns change over time. They will explore the ideas of social theorists and use those ideas to analyse causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change.

Prerequisite: Any university or university/college preparation course in social sciences and humanities, English, or Canadian and world studies

Families in Canada
Grade 12, University Preparation

HHS4U

This course enables students to draw on sociological, psychological, and anthropological theories and research to analyse the development of individuals, intimate relationships, and family and parent-child relationships. Students will focus on issues and challenges facing individuals and families in Canada's diverse society. They will develop analytical tools that enable them to assess various factors affecting families and to consider policies and practices intended to support families in Canada. They will develop the investigative skills required to conduct and communicate the results of research on individuals, intimate relationships, and parent-child relationships.

Prerequisite: Any university or university/college preparation course in social sciences and humanities, English, or Canadian and world studies

Nutrition and Health,
Grade 12, University Preparation

HFA4U

This course examines the relationships between food, energy balance, and nutritional status; the nutritional needs of individuals at different stages of life; and the role of nutrition in health and disease. Students will evaluate nutrition-related trends and will determine how food choices can promote food security and environmental responsibility. Students will learn about healthy eating, expand their repertoire of food-preparation techniques, and develop their social science research skills by investigating issues related to nutrition and health.

Prerequisite: Any university, university/college, or college preparation course in social sciences and humanities, English, or Canadian and world studies

Technological Education

Communications Technology
Grade 11, University/College Preparation

TGJ3M

This course examines communications technology from a media perspective. Students will develop knowledge and skills as they design and produce media projects in the areas of live, recorded, and graphic communications. These areas may include 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 develop an awareness of related environmental and societal issues and will explore college and university programs and career opportunities in the various communications technology fields.

Prerequisite: None

Health Care
Grade 11, University/College Preparation

TPJ3M

This course enables students to develop their understanding of basic health care procedures, including the safe use of appropriate instruments, equipment, and materials. Students will focus on health care fundamentals, including the anatomical features and physiology of the major body systems and the factors that affect homeostasis in the human body. Students will develop an awareness of health and safety issues in the health care field, analyse environmental and societal

issues related to health care, and learn about professional practice standards and career opportunities in the field.

Prerequisite: None

Communications Technology

TGJ4M

Grade 12, 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: Communications Technology, Grade 11, University/College Preparation

Health Care

TPJ4M

Grade 12, University/College Preparation

This course focuses on the development of a range of skills needed to analyse and interpret clinical findings. Students will learn about accepted health care practices and demonstrate an understanding of basic procedures and the use of appropriate instruments and equipment. They will acquire an understanding of basic concepts related to the function of the human immune system and explore the relationship between pathology and disease prevention and treatment. Students will expand their awareness of workers' health and safety issues, analyse environmental and societal issues related to health care, and further explore professional practice standards and postsecondary destinations in the field.

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