

COURSE DESCRIPTIONS

MUSIC

AMU10 MUSIC: PAN (STEEL DRUM), Grade 9, Open

This course emphasizes the performance of music at a level that strikes a balance between challenge and skill and is aimed at developing technique, sensitivity, and imagination. Students will participate in creative activities that teach them to listen with understanding. They will also learn correct musical terminology and its appropriate use.

AMU20 MUSIC: PAN (STEEL DRUM), Grade 10, Open

This course emphasizes performance of music at an intermediate level that strikes a balance between challenge and skill. Student learning will include participating in creative activities and listening perceptively. Students will also be required to develop a thorough understanding of the language of music, including the elements, terminology, and history.

AMU3M MUSIC: PAN (STEEL DRUM), Grade 11, University/College Preparation

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis, and performance of music, including traditional, commercial, and art music. Students will apply the creative process when performing appropriate technical exercises and repertoire and will employ the critical analysis processes when reflecting on, responding to, and analysing live and recorded performances. Students will consider the function of music in society and the impact of music on individuals and communities. They will explore how to apply skills developed in music to their life and careers. *Prerequisite: Grade 9 or 10 Music, Open*

AMU4M MUSIC: PAN (STEEL DRUM), Grade 12, University/College Preparation

This course enables students to enhance their musical literacy through the creation, appreciation, analysis, and performance of music. Students will perform traditional, commercial, and art music, and will respond with insight to live and recorded performances. Students will enhance their understanding of the function of music in society and the impact of music on themselves and various communities and cultures. Students will analyse how to apply skills developed in music to their life and careers. *Prerequisite: Grade 11 Music, University/College Preparation*

VISUAL ARTS

AVI10 VISUAL ARTS, Grade 9, Open

This course offers an overview of visual arts as a foundation for further study. Students will become familiar with the elements and principles of design and the expressive qualities of various materials through working with a range of materials, processes, techniques, and styles. They will learn and use methods of analysis and criticism and will study the characteristics of particular historical art periods and a selection of Canadian art and the art of other cultures.

AVI20 VISUAL ARTS, Grade 10, Open

This course emphasizes learning through practice; building on what students know; and introducing them to new ideas, materials, and processes for artistic thinking and experimentation. Student learning will include the refined application of the elements and principles of design, incorporating the creative and design processes, and the relationship between form and content. Students will also learn about the connections between works of art and their historical contexts. Course objectives may be achieved either through a comprehensive program or through a program focused on a particular art form (e.g., drawing, painting).

AVI3M VISUAL ARTS, Grade 11, University/College Preparation

This course focuses on studio activities on one or more of the visual arts. Students will create art works that explore a wide range of subject matter, and will evaluate art works, providing grounds for their aesthetic judgements. They will also examine historical and cultural contexts of Western art (including Canadian art) and art from various world cultures to support their study of specific media.

Prerequisite: *Grade 9 /10 Visual Arts, Open*

AVI4M VISUAL ARTS, Grade 12, University/College Preparation

This course focuses on the refinement of students’ skills and knowledge in visual arts. Students will analyse art forms; use theories of art in analysing and producing art; and increase their understanding of stylistic changes in modern and contemporary Western art, Canadian (including Native Canadian) art, and art forms from various parts of the world. Students will produce a body of work demonstrating a personal approach. **Prerequisite:** *Grade 11 Visual Arts*

DRAMA

ADA2O DRAMA, Grade 10, Open

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

BUSINESS STUDIES

BBI1O INTRODUCTION TO BUSINESS, Grade 9 or 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.

BTT2O INTRODUCTION & COMMUNICATION TECHNOLOGY IN BUSINESS, Grade 10, Open

This course introduces students to information and communication technology in a business environment and builds a foundation of digital literacy skills necessary for success in a technologically driven society. Students will develop word processing, spread sheet, database, desktop publishing, presentation software, and website design skills. Throughout the course, there is an emphasis on digital literacy, effective electronic research and communication skills, and current issues related to the impact of information and communication technology.

BAF3M FINANCIAL ACCOUNTING FUNDAMENTALS, Grade 11, University/College Preparation

This course introduces students to the fundamental principles and procedures of accounting. Students will develop financial analysis and decision-making skills that will assist them in future studies and/or career opportunities in business. Students will acquire an understanding of accounting for a service and a merchandising business, computerized accounting, financial analysis, and ethics and current issues in accounting. **Prerequisite:** *None*

BMI3C MARKETING: GOODS, SERVICES, EVENTS, Grade 11, College Preparation

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

Prerequisite: *None*

BAT4M FINANCIAL ACCOUNTING PRINCIPLES, Grade 12, University/College Preparation

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

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

BBB4M INTERNATIONAL BUSINESS FUNDAMENTALS, Grade 12, University/College Preparation

This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. Students will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively. This course prepares students for postsecondary programs in business, including international business, marketing, and management. *Prerequisite: None*

BOH4M BUSINESS LEADERSHIP: MANAGEMENT FUNDAMENTALS, Grade 12, University/College Preparation

This course focuses on the development of leadership skills used in managing a successful business. Students will analyse the role of a leader in business, with a focus on decision making, management of group dynamics, workplace stress and conflict, motivation of employees, and planning. Effective business communication skills, ethics, and social responsibility are also emphasized. *Prerequisite: None*

CANADIAN AND WORLD STUDIES**CGC1D GEOGRAPHY OF CANADA, Grade 9, Academic**

This course explores Canada's distinct and changing character and the geographic systems and relationships that shape it. Students will investigate the interactions of natural and human systems within Canada, as well as Canada's economic, cultural, and environmental connections to other countries. Students will use a variety of geotechnologies and inquiry and communication methods to analyse and evaluate geographic issues and represent their findings.

CHC2D CANADIAN HISTORY SINCE WORLD WAR I, Grade 10, Academic

This course explores the local, national, and global forces that have shaped Canada's national identity from World War I to the present. Students will investigate the challenges presented by economic, social, and technological changes and explore the contributions of individuals and groups to Canadian culture and society during this period. Students will use critical-thinking and communication skills to evaluate various interpretations of the issues and events of the period and to present their own points of view.

CHV2O CIVICS, Grade 10 Open, (1/2 credit taken with GLC20) – Credit Value .50

This course explores what it means to be an informed, participating citizen in a democratic society. Students will learn about the elements of democracy in local, national and global contexts, about political reactions to social change, and about political decision-making processes in Canada. They will explore their own and others' ideas and civics questions and learn how to think critically about public issues and react responsibly to them.

CGF3M FORCES OF NATURE: PHYSICAL PROCESSES AND DISASTERS, Grade 11, University/College

In this course, students will explore physical processes related to the earth's water, land, and air. They will investigate how these processes shape the planet's natural characteristics and affect human systems, how they are involved in the creation of natural disasters, and how they influence the impacts of human disasters. Throughout the course, students will apply the concepts of geographic thinking and the geographic inquiry process and use spatial technologies to analyse these processes, make predictions related to natural disasters, and assess ways of responding to them

Prerequisite: Grade 9 Geography of Canada, Academic or Applied

CLU3M UNDERSTANDING CANADIAN LAW, Grade 11, University/College Preparation

This course explores Canadian law, with a focus on legal issues that are relevant to the lives of people in Canada. Students will gain an understanding of laws relating to rights and freedoms in Canada; our legal system; and family, contract, employment, tort, and criminal law. Students will develop legal reasoning skills and will apply the concepts of legal thinking and the legal studies inquiry process when investigating a range of legal issues and formulating and communicating informed opinions about them. **Prerequisite:** *Grade 10 Canadian History Since World War I, Academic or Applied*

CGU4M WORLD GEOGRAPHY: URBAN PATTERNS AND POPULATION ISSUES, Grade 12, College/University Preparation

The world's population is growing, it is moving and intermixing, and it is increasingly found in cities. This course explores these changes and the challenges that come with them. Students will investigate the forces that are shaping the world's communities, the patterns of interaction between these communities, the quality of life within them, and their impact on the world around them. Students will apply the concepts of geographic thinking, the geographic inquiry process, and spatial skills and technologies as they investigate issues related to population change and urban life and propose ways of enhancing the sustainability of communities around the world.

Prerequisite: *Any university or university/college course in Canadian and World Studies, English, or Social Sciences and Humanities*

CLN4U CANADIAN AND INTERNATIONAL LAW, Grade 12, University Preparation

This course explores a range of contemporary legal issues and how they are addressed in both Canadian and international law. Students will develop an understanding of the principles of Canadian and international law and of issues related to human rights and freedoms, conflict resolution, and criminal, environmental, and workplace law, both in Canada and internationally. Students will apply the concepts of legal thinking and the legal studies inquiry process, and will develop legal reasoning skills, when investigating these and other issues in both Canadian and international contexts.

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

CHY4U WORLD HISTORY SINCE THE FIFTEENTH CENTURY, Grade 12, University Preparation

This course explores key developments and events in world history since approximately 1450, with a focus on interactions within and between various regions. Students will examine social, economic, and political developments and how they have affected different peoples. 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 key turning points in world history and historical forces that have shaped our world. **Prerequisite:** *Any university or university/college preparation course in Canadian and World Studies. English, or Social Science and Humanities*

ENGLISH

ENG1D ENGLISH, Grade 9, Academic

This course is designed to develop the 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 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 Grades 11 and 12.

ENG1P ENGLISH, Grade 9, Applied

This course is designed to develop the key oral communication, reading, writing, and media literacy skills students need for success in secondary school and daily life. Students will read, interpret, and create a variety of informational, literary, and graphic texts. An important focus will be on identifying and using appropriate strategies and processes to improve students' comprehension of texts and to help them communicate clearly and effectively. The course is intended to prepare students for the Grade 10 applied English course, which leads to college or workplace preparation courses in Grades 11 and 12.

ENG2D ENGLISH, 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 or Applied***

ENG2P ENGLISH, Grade 10, Applied

This course is designed to extend the range of oral communication, reading, writing, and media literacy skills that students need for success in secondary school and daily life. Students will study and create a variety of informational, literary, and graphic texts. An important focus will be on the consolidation of strategies and processes that help students interpret texts and communicate clearly and effectively. This course is intended to prepare students for the compulsory Grade 11 college or workplace preparation course. ***Prerequisite: English, Grade 9, Academic or Applied.***

ENG3C ENGLISH, Grade 11, College Preparation

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, Academic or Applied***

ENG3U ENGLISH, Grade 11, University Preparation

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyze 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.***

EPS30 PRESENTATION AND SPEAKING SKILLS, Grade 11, Open

This course emphasizes the knowledge and skills required to plan and make effective presentations and to speak effectively in both formal and informal contexts, using such forms as reports, speeches, debates, panel discussions, storytelling, recitations, interviews, and multimedia presentations. Students will research and analyze the content and characteristics of convincing speeches and the techniques of effective speakers; design and rehearse presentations for a variety of purposes and audiences; select and use visual and technological aids to enhance their message; and assess the effectiveness of their own and others' presentations. *Prerequisite: English, Grade 10, Academic or Applied.*

EMS30 MEDIA STUDIES, Grade 11, Open

This course emphasizes the 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.*

ENG4C ENGLISH, Grade 12, College Preparation

This course emphasizes the consolidation of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyze 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, University or College

ENG4U ENGLISH, Grade 12, University Preparation

This course emphasizes the consolidation of the literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyze a range of challenging literary texts from various periods, countries, and cultures; interpret and evaluate informational and graphic texts; and create oral, written, and media texts in a variety of forms. An important focus will be on using academic language coherently and confidently, selecting the reading strategies best suited to particular texts and particular purposes for reading, and developing greater control in writing. The course is intended to prepare students for university, college, or the workplace. *Prerequisite: English, Grade 11, University*

EWC4U THE WRITER'S CRAFT, Grade 12, University Preparation

This course emphasizes knowledge and skills related to the craft of writing. Students will analyze 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

EBT40 BUSINESS AND TECHNOLOGICAL COMMUNICATION, Grade 12, Open

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

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

INTERNATIONAL LANGUAGES

LWSBD SPANISH, Academic (Level 2)

This introductory course is designed to enable students to begin to develop competence in listening, speaking, reading, and writing in the language of study. Students will participate in interactive activities in practical situations in which they can apply and develop their language skills to communicate with native speakers of the language. They will explore aspects of culture in regions of the world where the language is spoken, including social customs, naming practices, family life and relationships, food, sports, popular festivals and celebrations.

Prerequisite: *Previous Knowledge or Education in Spanish*

LWSCU SPANISH, (Level 3)

This course offers students opportunities to further develop competence and confidence in listening, speaking, reading, and writing in the language of study. Students will participate in interactive activities (e.g., discussions about daily lives of youth, travel, shopping) in which they will further develop their knowledge of linguistic elements. They will continue to explore aspects of culture in regions of the world where the language is spoken, including fashion, historical figures, music and dance. Students will enhance their critical and creative thinking skills through reading diverse materials, including original literature, and will explore a variety of personal and professional contexts in which knowledge of the international language is required.

Prerequisite: *International languages, Level 2, University Preparation*

LWSDU SPANISH, (Level 4), University Preparation

This course prepares students for postsecondary studies in the international language being studied. Students will continue to refine and enhance their listening, speaking, reading, and writing skills in the language, with the goal of using these communication skills in a variety of personal, academic, and professional contexts. Using a wide variety of sources, including original texts in the language, students will consolidate their language skills as they use increasingly complex linguistic elements and language conventions. Students will also have opportunities to enrich their knowledge of aspects of culture in regions where the language is spoken, including issues related to popular culture, linguistic communities in Canada, literature, history, geography, and the arts.

Prerequisite: *LWSCU, (Level 3) LWSDU may be used for university admission.*

FSF10 FRENCH, Grade 9 Open

This is an introductory course for students who have little or no knowledge of French or who have not accumulated the minimum of 600 hours of elementary Core French instruction. Students will begin to understand and speak French in guided and structured interactive settings, and will develop fundamental skills in listening, speaking, reading, and writing through discussing issues and situations that are relevant to their daily lives. Throughout the course, students will develop their awareness of diverse French-speaking communities in Canada and acquire an understanding and appreciation of these communities. They will also develop a variety of skills necessary for lifelong language learning.

Prerequisite: *None*

FSF20 FRENCH, Grade 10, Open

This course provides opportunities for students to speak French in guided and structured interactive settings. Students will communicate about matters of personal interest and familiar topics through listening, speaking, reading, and writing in real-life situations, using print, oral, visual, and electronic texts. Students will develop a general understanding and appreciation of diverse French-speaking communities, as well as skills necessary for lifelong language learning.

Prerequisite: *Core French, Grade 9, Open*

FSF30 FRENCH, Grade 11, Open

This course provides opportunities for students to speak and interact in French in real-life situations. Students will develop their ability to communicate, making connections to previous experiences and using newly acquired skills in listening, speaking, reading, and writing. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

Prerequisite: *Core French, Grade 10, Academic, Applied, or Open*

GUIDANCE AND CAREER EDUCATION**GLS10 LEARNING STRATEGIES 1: SKILLS FOR SUCCESS IN SECONDARY SCHOOL, Grade 9, Open**

This course focuses on learning strategies to help students become better, more independent learners. Students will learn how to develop and apply literacy and numeracy skills, personal management skills, and interpersonal and teamwork skills to improve their learning and achievement in school, the workplace, and the community. This course helps students build confidence and motivation to pursue opportunities for success in secondary school and beyond. **Prerequisite:** *Recommendation of principal.*

GLC20 CAREER STUDIES, Grade 10 Open, (1/2 credit, taken with CHV20) Credit Value .50

This course teaches students how to develop and achieve personal goals for future learning, work, and community involvement. Students assess their interests, skills and characteristics and investigate current economic and workplace trends, work opportunities, and ways to search for work. The course explores post-secondary learning and career options, prepares students for managing work and life transitions, and helps students focus on their goals through the development of a career plan.

GLE20 LEARNING STRATEGIES 2: SKILLS FOR SUCCESS IN SECONDARY SCHOOL, Grade 10, Open

This course focuses on learning strategies to help students become better, more independent learners. Students will learn how to develop and apply literacy and numeracy skills, personal management skills, and interpersonal and teamwork skills to improve their learning and achievement in school, the workplace, and the community. This course helps students build confidence and motivation to pursue opportunities for success in secondary school and beyond. **Prerequisite:** *Recommendation of principal.*

COOP42 COOPERATIVE EDUCATION, GRADE 11 or 12 (2 credits)

Cooperative education integrates classroom theory with workplace experience. Senior students can earn additional credits in a subject area already studied by completing hours at a related job placement. The program is a partnership of school and business/industry and involved students, teachers and employers. Students will participate in a half-day (2 periods) Cooperative Education program. Students complete 220 hours on the job and in school sessions (pre-employment and integration sessions) for 2 credits which apply toward the Ontario Secondary School Diploma.

HEALTH & PHYSICAL EDUCATION*

PPL1O HEALTHY ACTIVE LIVING EDUCATION, 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.

PPL2O HEALTHY ACTIVE LIVING EDUCATION, 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.

PPL3O HEALTHY ACTIVE LIVING EDUCATION, Grade 11, Open

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

PPL4O HEALTHY ACTIVE LIVING EDUCATION, Grade 12, Open

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

****All students enrolled in Physical Education course, will be expected to pay an additional fee of \$200.***

PSK4U INTRODUCTORY KINESIOLOGY, Grade 12, University Preparation

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

Prerequisite: Any Grade 11 university or university/college preparation course in science, or any Grade 11 or 12 course in health and physical education.

MATHEMATICS

MPM1D PRINCIPLES OF MATHEMATICS, Grade 9, Academic

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

MFM1P FOUNDATIONS OF MATHEMATICS, Grade 9, Applied

This course enables students to develop an understanding of mathematical concepts related to introductory algebra, proportional reasoning, and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations of linear relations, and will determine the connections between the representations. They will also explore certain relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

MPM2D PRINCIPLES OF MATHEMATICS, Grade 10, Academic

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will explore quadratic relations 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 and communicate their thinking as they solve multi-step problems. **Prerequisite: Principles of Mathematics, Grade 9 Academic**

MFM2P FOUNDATIONS OF MATHEMATICS, Grade 10, Applied

This course enables students to consolidate their understanding of linear relations and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and hands-on activities. Students will develop and graph equations in analytic geometry; solve and apply linear systems, using real-life examples; and explore and interpret graphs of quadratic relations. Students will investigate similar triangles, the trigonometry of right triangles, and the measurement of three-dimensional figures. Students will consolidate their mathematical skills as they solve problems and communicate their thinking. **Prerequisite: Principles of Mathematics, Grade 9, Academic, Foundations of Mathematics Grade 9 Applied**

MCF3M FUNCTIONS AND APPLICATIONS, Grade 11, University/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.**

MCR3U FUNCTIONS, 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**

MBF3C FOUNDATIONS FOR COLLEGE MATHEMATICS, Grade 11, College Preparation

This course enables students to broaden their understanding of mathematics as a problem-solving tool in the real world. Students will extend their understanding of quadratic relations; investigate situations involving exponential growth; solve problems involving compound interest; solve financial problems connected with vehicle ownership; develop their ability to reason by collecting, analyzing, and evaluating data involving one variable; connect probability and statistics; and solve problems in geometry and trigonometry. Students will consolidate their mathematical skills as they solve problems and communicate their thinking. **Prerequisite: Foundations of Mathematics, Grade 10, Applied**

MHF4U ADVANCED FUNCTIONS, Grade 12, University Preparation

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; develop techniques for combining 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 taking the Calculus and Vectors course as a prerequisite for a university program 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, or Mathematics for College Technology, Grade 12, College**

MCV4U CALCULUS AND VECTORS, Grade 12, University Preparation

This course builds on students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors and representations of lines and planes in three-dimensional space; broaden their understanding of rates of change to include the derivatives of polynomial, sinusoidal, exponential, rational, and radical 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 choose to pursue careers in fields such as science, engineering, economics, and some areas of business, including those students who will be required to take a university-level calculus, linear algebra, or physics course. **Note: The Advanced Functions course (MHF4U) must be taken prior to or concurrently with Calculus and Vectors (MCV4U).**

MDM4U MATHEMATICS OF DATA MANAGEMENT, Grade 12, University Preparation

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analyzing large amounts of information; solve problems involving probability and statistics; and carry out a culminating investigation that integrates statistical concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. Students planning to enter university programs in business, the social sciences, and the humanities will find this course of particular interest. **Prerequisite: Functions, Grade 11, University or Functions and Applications, Grade 11, University/College**

MCT4C MATHEMATICS FOR COLLEGE TECHNOLOGY, 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, Grade 11, University/College, or Functions, Grade 11, University**

MAP4C FOUNDATIONS FOR COLLEGE MATHEMATICS, 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**

SCIENCE

SNC1D SCIENCE, Grade 9, Academic

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to relate science to technology, society, and the environment. Throughout the course, students will develop their skills in the processes of scientific investigation. Students will acquire an understanding of scientific theories and conduct investigations related to sustainable ecosystems; atomic and molecular structures and the properties of elements and compounds; the study of the universe and its properties and components; and the principles of electricity.

SNC1P SCIENCE, Grade 9, Applied

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science to everyday situations. They are also given opportunities to develop practical skills related to scientific investigation. Students will plan and conduct investigations into practical problems and issues related to the impact of human activity on ecosystems; the structure and properties of elements and compounds; space exploration and the components of the universe; and static and current electricity.

SNC2D SCIENCE, Grade 10, Academic

This course enables students to enhance their understanding of concepts in biology, chemistry, earth and space science, and physics, and of the interrelationships between science, technology, society, and the environment. Students are also given opportunities to further develop their scientific investigation skills. Students will plan and conduct investigations and develop their understanding of scientific theories related to the connections between cells and systems in animals and plants; chemical reactions, with a particular focus on acid-base reactions; forces that affect climate and climate change; and the interaction of light and matter. **Prerequisite: Science, Grade 9 Academic or Applied**

SNC2P SCIENCE, Grade 10, Applied

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science in real-world situations. Students are given opportunities to develop further practical skills in scientific investigation. Students will plan and conduct investigations into everyday problems and issues related to human cells and body systems; chemical reactions; factors affecting climate change; and the interaction of light and matter. **Prerequisite: Science, Grade 9, Academic or Applied**

SBI3U BIOLOGY, Grade 11, University Preparation

This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biodiversity; evolution; genetic processes; the structure and function of animals; and the anatomy, growth, and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation. **Prerequisite: Science, Grade 10, Academic**

SBI3C BIOLOGY, Grade 11, College Preparation

This course focuses on the processes that occur in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, genetics, the anatomy of mammals, and the structure of plants and their role in the natural environment. Emphasis will be placed on the practical application of concepts, and on the skills needed for further study in various branches of the life sciences and related fields. **Prerequisite: Science, Grade 10, Academic or Applied**

SCH3U CHEMISTRY, 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: Grade 10 Science, Academic**

SPH3U PHYSICS, Grade 11, University Preparation

This course develops students' understanding of the basic concepts of physics. Students will explore kinematics, with an emphasis on linear motion; different kinds of forces, energy transformations; the properties of mechanical waves and sound; and electricity and magnetism. They will enhance their scientific investigation skills as they test laws of physics. In addition, they will analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment. **Prerequisite: Grade 10 Science, Academic**

SVN3M ENVIRONMENTAL SCIENCE, Grade 11, University/College Preparation

This course provides students with the fundamental knowledge of and skills relating to environmental science that will help them succeed in life after secondary school. Students will explore a range of topics, including the role of science in addressing contemporary environmental challenges; the impact of the environment on human health; sustainable agriculture and forestry; the reduction and management of waste; and the conservation of energy. Students will increase their scientific and environmental literacy and examine the interrelationships between science, the environment, and society in a variety of areas. **Prerequisite: Grade 10 Science, Applied or Academic**

SBI4U BIOLOGY, Grade 12, University Preparation

This course provides students with the opportunity for in-depth study of the concepts and processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biochemistry, metabolic processes, molecular genetics, homeostasis, and population dynamics. Emphasis will be placed on achievement of the detailed knowledge and refined skills needed for further study in various branches of the life sciences and related fields. **Prerequisite: Grade 11 Biology, University**

SCH4U CHEMISTRY, 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 systems, 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: Grade 11 Chemistry, University**

SPH4U PHYSICS, Grade 12, University Preparation

This course enables students to deepen their understanding of physics concepts and theories. Students will continue their explorations 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: Grade 11 Physics, University**

SNC4M HEALTH SCIENCE, Grade 12, University/College Preparation

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

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

SOCIAL SCIENCES AND HUMANITIES

HSP3U INTRODUCTION TO ANTHROPOLOGY, PSYCHOLOGY, AND SOCIOLOGY, 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*

HSP3C INTRODUCTION TO ANTHROPOLOGY, PSYCHOLOGY, AND SOCIOLOGY, Grade 11, College Preparation

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

HFC3M FOOD AND CULTURE, 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*

**All students enrolled in this course, will be expected to pay an additional course fee of \$500.*

HHS4U FAMILIES IN CANADA, Grade 12, University Preparation

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*

HHS4C FAMILIES IN CANADA, Grade 12, College Preparation

This course enables students to develop an understanding of social science theories as they apply to individual development, the development of intimate relationships, and family and parent-child relationships. Students will explore a range of issues relating to the development of individuals and families in contemporary Canadian society as well as in other cultures and historical periods. They will develop the investigative skills required to conduct research on individuals, intimate relationships, and parent-child roles and relationships in Canada. **Prerequisite:** *Any university, college, or university/college preparation course in social sciences and humanities, English, or Canadian and World Studies*

HSB4U CHALLENGE AND CHANGE IN SOCIETY, 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*

HFA4U NUTRITION AND HEALTH, Grade 12, University Preparation

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 or university/college preparation course in social sciences and humanities, English, or Canadian and World Studies*

**All students enrolled in this course, will be expected to pay an additional course fee of \$500.*

TECHNOLOGICAL EDUCATION

ICS3U INTRODUCTION TO COMPUTER SCIENCE, 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 career trends in computer-related fields. **Prerequisite:** *None*

ICS4U COMPUTER SCIENCE, 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:** *Introduction to Computer Science, Grade 11, University*

TGJ3M COMMUNICATIONS TECHNOLOGY, Grade 11, University/College Preparation

This course examines communications technology from a media perspective. Students will development knowledge and skills as they design and produce media projects in 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*

TGJ4M COMMUNICATIONS TECHNOLOGY, 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*

AP Courses

ENGLISH LANGUAGE & COMPOSITION

An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way genre conventions and the resources of language contribute to effectiveness in writing.

SPANISH LANGUAGE & CULTURE

The AP Spanish Language & Culture course takes a holistic approach to language proficiency and recognizes the complex interrelatedness of comprehension and comprehensibility, vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language & Culture course strives to promote both fluency and accuracy in language use and not to overemphasize grammatical accuracy at the expense of communication. In order to facilitate the study of language and culture, the course is taught in the target language.

STUDIO ART – 2D DESIGN

AP Studio Art is for highly motivated students who are seriously interested in the study of art; the program demands significant commitment. It is highly recommended that studio art students have previous training in art. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year.

The goals of the AP Studio Art program are as follows:

- Encourage creative and systematic investigation of formal and conceptual issues
- Emphasize making art as an on-going process that involves the student in informed and critical decision making.
- Help students develop technical skills and familiarise them with the functions of visual elements.
- Encourage students to become independent thinkers who will contribute inventively and critically to their culture through the making of art.

CALCULUS AP

Calculus is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The courses emphasize a multi-representational approach to calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations also are important.

Biology AP

This course is offered to highly motivated students who wish to pursue their interests in the life sciences. The College Board recommends a successful completion of high school biology and high school chemistry, before commencing AP Biology. Topics covered by this course include anatomy and physiology, biochemistry, biodiversity, the cell, developmental biology, ecology, genetics, molecular biology, origin of life, population biology, evolution and molecular genetics.