

Course List for 2011-2012 Semester 2 e-Learning Session

February 13th - June 25th, 2012

Note:

Students taking any course in our e-Learning program **MUST** have access to Microsoft Office Suite software (word processor, spreadsheet, presentation and publisher) or Open Office (available as a free download at www.openoffice.org) Assignments need to be submitted as an .rft file.

Students taking any [mathematics](#) course in our online program **MUST** have a scientific calculator in addition to any specific requirements listed below. A graphing calculator (e.g. TI83+) is **highly desirable**.

All eLearning courses are offered through our [e-Learning Ontario website](#).

Course	Code	Textbook(s), Software, Specific Requirements
Grade 9		
Information and Communication Technology in Business (Open)	BTT1O	All information supplied online. Microsoft WORD, PUBLISHER, EXCEL, ACCESS and Macromedia's Dream Weaver are required for the course
Mathematics (Locally Developed)	MAT1L	No text required.
Principles of Mathematics (Academic)	MPM1D	Geometer's Sketchpad - Please make arrangements with your teacher. Graphing calculator would be an asset.
Science (Academic)	SNC1D	No text required.
Grade 10		
Media Arts (Open)	ASM2O	<ul style="list-style-type: none"> • Graphic software (e.g. Photoshop, GIMP, Fireworks, Inkscape, Pixelmator) - some are free downloads • Digital Camera • Some of the following: scanner, microphone, video camera
Canadian History Since World War I (Academic)	CHC2D	No text required.
Civics (French Immersion, Open)	CHV2OI	No text required.
English (Academic)	ENG2D	To Kill a Mocking Bird by Harper Lee Macbeth The Shining Houses by Alice Munro The Sweater by Roch Carrier Luke Baldwin's Vow by Morley Callaghan
English (Applied)	ENG2P	No text required.
Career Studies (French Immersion, Open)	GLC2OI	No text required
Principles of Mathematics (Academic)	MPM2D	Geometer's Sketchpad - Please make arrangements with your teacher. Graphing calculator would be an asset.

Science (Academic)	<u>SNC2D</u>	No text required. Frogguts (program found at most schools)
Grade 11		
Financial Accounting Fundamentals (University/College)	<u>BAF3M</u>	Simply Accounting (optional) Microsoft WORD and EXCEL are required for the course
Marketing: Goods, Services, Events (College)	<u>BMI3C</u>	No text required.
Physical Geography: Patterns, Processes and Interactions, (French, University/College)	<u>CGF3MI</u>	No text required.
English (College)	<u>ENG3C</u>	Novel: Ye, Ting-Xing. <i>Throwaway Daughter</i> . USA: Random House, 2003.
English (University)	<u>ENG3U</u>	<i>A Midsummer Night's Dream</i> by William Shakespeare <i>Some suggested texts:</i> <i>The Girls</i> by Lori Lansens, or <i>Three Day Road</i> by Joseph Boyden or <i>1984</i> by George Orwell
Designing Your Future (Open)	<u>GWL3O</u>	No text required.
Parenting (Open)	<u>HPC3O</u>	No text required.
Health for Life (Open)	<u>PPZ3O</u>	No text required.
Functions and Applications (University/College)	<u>MCF3M</u>	Geometer's Sketchpad - Please make arrangements with your teacher. Graphing calculator would be an asset.
Functions (University)	<u>MCR3U</u>	Geometer's Sketchpad - Please make arrangements with your teacher. Graphing calculator would be an asset.
Foundations for College Mathematics (College)	<u>MBF3C</u>	No text required. Geometer's Sketchpad and graphing calculators would be an asset.
Biology (University)	<u>SBI3U</u>	No text required.
Biology (College)	<u>SBI3C</u>	No text required.
Physics (University)	<u>SPH3U</u>	No text required.

Grade 12		
Financial Accounting Principles (University/College)	BAT4M	Simply Accounting (optional) Microsoft WORD and EXCEL are required for the course
International Business Fundamentals (University/College)	BBB4M	No text required.
Business Leadership: Management Fundamentals (University/College)	BOH4M	No text required.
The Environment and Resource Management (University/College)	CGR4M	No text required.
Canadian and World Issues: A Geographic Analysis (University)	CGW4U	No text required.
Canada: History, Identity, and Culture (University)	CHI4U	No text required.
Analysing Current Economic Issues (University)	CIA4U	No text required.
Business and Technological Communication (Open)	EBT4O	No text required.
English (College)	ENG4C	Novel: <i>And Then There Were None</i> , by Agatha Christie
English (University)	ENG4U	Novel: <i>Life of Pi</i> ; Play: <i>Hamlet</i>
Studies in Literature (University)	ETS4U	Variety of short stories (please consult with your online teacher for additional information) <i>The Alchemist</i> by Paulo Coelho
The Writer's Craft (College)	EWC4C	No text required.
The Writer's Craft (University)	EWC4U	No text required.
Individuals and Families in a Diverse Society (University/College)	HHS4M	No text required.
Challenge and Change in Society (University/College)	HSB4M	No text required.
Interdisciplinary Studies - Peer Tutoring (University)	IDC4U	No text required. Students are responsible for finding their own placement at their current school.

Foundations for College Mathematics (College)	<u>MAP4C</u>	No text required. Scientific Calculator
Calculus and Vectors (University)	<u>MCV4U</u>	Geometer's Sketchpad - Please make arrangements with your teacher. Graphing calculator would be an asset.
Mathematics of Data Management (University)	<u>MDM4U</u>	No text required. Scientific Calculator
Advanced Functions (University)	<u>MHF4U</u>	Geometer's Sketchpad - Please make arrangements with your teacher. Graphing calculator would be an asset.
Ontario Secondary School Literacy Course (Open)	<u>OLC4O</u>	No text required. Open only CDSBEO students currently attending a school.
Biology (University)	<u>SBI4U</u>	No text required.
Chemistry (College)	<u>SCH4C</u>	No text required.
Chemistry (University)	<u>SCH4U</u>	No text required.
Earth and Space Science (University)	<u>SES4U</u>	No text required.
Physics (College)	<u>SPH4C</u>	No text required.
Physics (University)	<u>SPH4U</u>	No text required.

Course Descriptions

The Arts

Media Arts, Grade 10, Open (ASM20)

This course enables students to create media art works by exploring new media, emerging technologies such as digital animation, and a variety of traditional art forms such as film, photography, video, and visual arts. Students will acquire communications skills that are transferable beyond the media arts classroom and develop an understanding of responsible practices related to the creative process. Students will develop the skills necessary to create and interpret media art works

Prerequisite: None

Business

Financial Accounting Fundamentals, Grade 11, University/College (BAF3M)

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

Financial Accounting Principles, Grade 12, University/College (BAT4M)

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 Preparation

International Business Fundamentals, Grade 12, University/College (BBB4M)

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

Marketing: Goods, Services, Events, Grade 11, College (BMI3C)

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

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

Information and Communication Technology in Business, Grade 9, Open (BTT10)

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, spreadsheet, 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.

Prerequisite: None

Canadian and World Studies

Physical Geography: Patterns, Processes and Interactions, Grade 11, University/College (CGF3M)

This course examines the major patterns of physical geography and the powerful forces that affect them. Students will investigate the dynamic nature of the earth, the evolving relationship between the planet and its people, and the factors that limit our ability to predict the changes that will occur. Students will use a wide range of geotechnologies and inquiry methods to investigate the distribution and interaction of the elements of their physical environment and to communicate their findings.

Prerequisite: Grade 9 Geography of Canada, Academic or Applied

The Environment and Resource Management, Grade 12, University/College (CGR4M)

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

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

Canadian and World Issues: A Geographic Analysis, Grade 12, University (CGW4U)

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

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

Canadian History Since World War I, Grade 10, Academic (CHC2D)

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.

Prerequisite: None

Canada: History, Identity, and Culture, Grade 12, University (CHI4U)

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

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

Civics, Grade 10, Open (CHV2O)

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 about civics questions and learn how to think critically about public issues and react responsibly to them.

Prerequisite: None

Analysing Current Economic Issues, Grade 12, University (CIA4U)

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

English

Business and Technological Communication, Grade 12, Open (EBT40)

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

English, Grade 10, Academic (ENG2D)

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

Prerequisite: Grade 9 English, Academic or Applied

English, Grade 10, Applied (ENG2P)

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: Grade 9 English, Academic or Applied

English, Grade 11, College (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: Grade 10 English, Applied

English, Grade 11, University (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: Grade 10 English, Academic

English, Grade 12, College (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: Grade 11 English, College Preparation

English, Grade 12, University (ENG4U)

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

Prerequisite: Grade 11 English, University Preparation

Studies in Literature, Grade 12, University (ETS4U)

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

Prerequisite: Grade 11 English, University Preparation

The Writer's Craft, Grade 12, College (EWC4C)

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

Prerequisite: Grade 11 English, College Preparation

The Writer's Craft, Grade 12, University (EWC4U)

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: Grade 11 English, University Preparation

Ontario Secondary School Literacy Course, Grade 12, Open (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 (OSSLT). Students who complete the course successfully will meet the provincial literacy requirement for graduation.

Students will read a variety of informational, narrative, and graphic texts and will produce a variety of forms of writing, including summaries, information paragraphs, opinion pieces, and news

reports. Students will also maintain and manage a portfolio containing a record of their reading experiences and samples of their writing.

Prerequisite: Eligibility requirement: Students who have been eligible to write the OSSLT at least twice and who have been unsuccessful at least once are eligible to take the course. (Students who have already met the literacy requirement for graduation may be eligible to take the course under special circumstances, at the discretion of the principal.)

Guidance and Careers

Career Studies, Grade 10, Open (GLC20)

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

Prerequisite: None

Designing Your Future, Grade 11, Open (GWL30)

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

Health and Physical Education

Health for Life, Grade 11, Open (PPZ30)

This course helps students develop a personalized approach to healthy living. Students will examine the factors that affect their own health and the health of individuals as members of the community. They will learn about the components of the Vitality approach to healthy living - an initiative that promotes healthy eating, an active lifestyle, and a positive self-image. Throughout this course, students will develop the skills necessary to take charge of and improve their own health, as well as to encourage others to lead healthy lives.

Prerequisite: None

Interdisciplinary Studies

Interdisciplinary Studies – Peer Tutoring, Grade 12, University (IDC4U)

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.

Prerequisite: Any university or university/college preparation course

Mathematics

Locally Developed Compulsory Credit Course, Grade 9 (MAT1L)

This course emphasizes further development of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, and in the Grade 10 LDCC course. The course is organized in three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on developing and consolidating key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to further develop their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

Prerequisite: None

Foundations for College Mathematics, Grade 12, College (MAP4C)

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

Foundations for College Mathematics, Grade 11, College (MBF3C)

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

Prerequisite: Foundations of Mathematics, Grade 10, Applied

Functions and Applications, Grade 11, University/College (MCF3M)

This course introduces basic features of the function by extending students' experiences with quadratic relations. It focuses on quadratic, trigonometric, and exponential functions and their use in modelling real-world situations. Students will represent functions numerically, graphically, and algebraically; simplify expressions; solve equations; and solve problems relating to 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, Grade 11, University (MCR3U)

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

Calculus and Vectors, Grade 12, University (MCV4U)

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 modelling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who 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.

Prerequisite: Note: Advanced Functions, Grade 12, University Preparation, must be taken prior to or concurrently with Calculus and Vectors.

Mathematics of Data Management, Grade 12, University (MDM4U)

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analysing 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 Preparation, or Functions and Applications, Grade 11, University/College Preparation

Advanced Functions, Grade 12, University (MHF4U)

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 Preparation, or Mathematics for College Technology, Grade 12, College Preparation

Principles of Mathematics, Grade 9, Academic (MPM1D)

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.

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 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: Grade 9 Mathematics, Academic, or Grade 9 Mathematics Transfer, Applied to Academic

Science

Biology, Grade 11, College (SBI3C)

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: Grade 10 Science, Academic or Applied

Biology, Grade 11, University (SBI3U)

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: Grade 10 Science, Academic

Biology, Grade 12, University (SBI4U)

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

Prerequisite: Grade 11 Biology, University Preparation

Chemistry, Grade 12, College (SCH4C)

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

Prerequisite: Grade 10 Science, Academic or Applied

Chemistry, Grade 12, University (SCH4U)

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

Prerequisite: Grade 11 Chemistry, University Preparation

Earth and Space Science, Grade 12, University (SES4U)

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

Prerequisite: Grade 10 Science, Academic

Science, Grade 9, Academic (SNC1D)

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.

Prerequisite: None

Science, Grade 10, Academic (SNC2D)

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: Grade 9 Science, Academic or Applied

Physics, Grade 11, University (SPH3U)

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

Physics, Grade 12, College (SPH4C)

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

Prerequisite: Grade 10 Science, Academic or Applied

Physics, Grade 12, University (SPH4U)

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: Grade 11 Physics, University Preparation

Social Sciences and Humanities

Individuals and Families in a Diverse Society, Grade 12, University/College (HHS4M)

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

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

Parenting, Grade 11, Open (HPC30)

This course focuses on the skills and knowledge needed to promote the positive and healthy nurturing of children, with particular emphasis on the critical importance of the early years to human development. Students will learn how to meet the developmental needs of young children, communicate and discipline effectively, and guide early behaviour. They will have practical experiences with infants, toddlers, and preschoolers, and will learn skills in researching and investigating questions relating to parenting.

Prerequisite: None

Challenge and Change in Society, Grade 12, University/College (HSB4M)

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

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