



# Course Descriptions

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## **GRADE 10**

### **CHV200 - Grade 10, Civics (Open)**

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

### **GLC200 - Grade 10, Career Studies (Open)**

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

## **GRADE 11**

### **AMM3MO - Grade 11, Music and Computers (University/College)**

Welcome to the future of music... Music and Computers! Along with the analysis and appreciation of musical styles ranging from Bach to The Beatles, Music and Computers explores the importance of social media and how it (has) is impacting the way music is created and sold. The days of full orchestras recording film or television scores have long since past and it is paramount that anyone who is considering music as a career choice have a thorough understanding of how to create, promote and distribute music from their computer.

Students will continue to increase their understanding of the elements of music while developing their technical and imaginative abilities using FL Studio, Audacity and other open source musical software. In doing so, students will create musical accompaniments

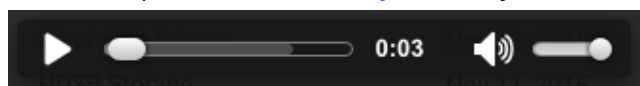
for short film clips, bring new life to a Mozart classic, re-mix a contemporary song of their choice and create and market their own musical brand.

The prerequisites for this course are a passion for music and a desire to learn. Don't miss out; the future is today!

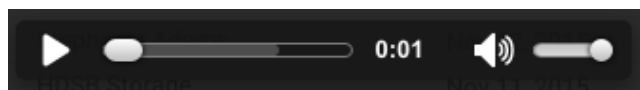
*Student Testimonial from Jack Sanders, Grade 10 BCHS student*



*"Alien Pumpin' Hearts" and [reflection](#) by Grade 10 OTHS student William Leathers*



*[Task description](#) and Composition by Grade 11 Nelson student Calvin Dvorsky*



### **BAF3MO - Grade 11, Financial Accounting Fundamentals (University/College)**

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

### **BMI3CO - Grade 11, Marketing: Goods, Services, Events (College)**

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

### **BTA300 - Grade 11, Information and Communication Technology: The Digital Environment (Open)**

This course prepares students for the digital environment. Using a hands-on approach, students will further develop information and communication technology skills through the use of common business software applications. The concept and operation of e-business will be explored, and students will design and create an e-business website. The skills developed in this course will prepare students for success in the workplace and/or postsecondary studies.

Prerequisite: None

### **CGF3MO - Grade 11, Forces of Nature: Physical Processes and Disasters (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: Issues in Canadian Geography, Grade 9, Academic or Applied

### **CHA3UO - Grade 11, American History (University)**

This course traces the social, economic, and political development of the United States from colonial times to the present. Students will examine issues of diversity, identity, and culture that have influenced the country's social and political formation and will consider the implications of its expansion into a global superpower. Students will use critical-thinking and communication skills to determine causal relationships, evaluate multiple perspectives, and present their own points of view.

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

### **CHW3MO - Grade 11, World History to the End of the Fifteenth Century (University/College)**

This course explores the history of various societies and civilizations around the world, from earliest times to around 1500 CE. Students will investigate a range of factors that contributed to the rise, success, and decline of various ancient and pre-modern societies throughout the world and will examine life in and the cultural and political legacy of these societies. 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 social, political, and economic structures and historical forces at work in various societies and in different historical eras.

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

### **CLU3MO - Grade 11, Canadian Law (University/College)**

This course explores Canadian law with a focus on legal issues that are relevant to people's everyday lives. Students will investigate fundamental legal concepts and processes to gain a practical understanding of Canada's legal system, including the criminal justice system. Students will use critical-thinking, inquiry, and communication skills to develop informed opinions on legal issues and apply this knowledge in a variety of ways and settings, including case analysis, legal research projects, mock trials, and debates.

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

### **EMS300 - Grade 11, Media Studies (Open)**

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

Prerequisite: English, Grade 10, Academic or Applied

### **ENG3CO - Grade 11, English (College)**

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

Prerequisite: English, Grade 10, Applied

### **ENG3UO - Grade 11, English (University)**

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse challenging literary texts from various periods, countries, and cultures, as well as a range of informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on using language with precision and clarity.

and incorporating stylistic devices appropriately and effectively. The course is intended to prepare students for the compulsory Grade 12 university or college preparation course.  
Prerequisite: English, Grade 10, Academic

### **GPP300 - Grade 11, Leadership and Peer Support (Open)**

This course prepares students to act in leadership and peer support roles. They will design and implement a plan for contributing to their school and/or community; develop skills in communication, interpersonal relations, teamwork, and conflict management; and apply those skills in leadership and/or peer support roles – for example, as a student council member or a peer tutor. Students will examine group dynamics and learn the value of diversity within groups and communities.

Prerequisite: None

### **GWL300 - Grade 11, Designing Your Future (Open)**

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

Prerequisite: Career Studies, Grade 10, Open

### **HLS300 - Grade 11, Housing and Home Design (Open)**

This course introduces students to a range of issues related to housing and home design. Students will learn about the needs that housing fulfills; housing options; home maintenance and safety; and environmental, economic, legal, and social considerations related to housing. They will use the elements and principles of design to analyze design and decorating decisions. Students will develop research skills as they investigate issues related to housing and home design.

Prerequisite: None

### **HPW3CO - Grade 11, Working With Infants and Young Children (College Preparation)**

This course prepares students for occupations involving children from birth to six years of age. Students will study theories about child behaviour and development, and will have opportunities for research and observation and for practical experiences with young children. Students will become familiar with occupational opportunities and requirements related to working with infants and young children. They will also have opportunities to

develop research and critical-thinking skills as they investigate and evaluate current research about early childhood education.

Prerequisite: None

### **HRT3MO - Grade 11, World Religions: Beliefs, Issues, and Religious Traditions (University/College)**

This course enables students to discover what others believe and how they live, and to appreciate their own unique heritage. Students will learn about the teachings and traditions of a variety of religions, the connections between religion and the development of civilizations, the place and function of religion in human experience, and the influence of a broad range of religions on contemporary society. This course also introduces students to skills used in researching and investigating world religions.

Prerequisite: None

### **HSP3UO - Grade 11, Introduction to Anthropology, Psychology and Sociology (University)**

This course introduces the theories, questions, and issues that are the major concerns of anthropology, psychology, and sociology. Students will develop an understanding of the way social scientists approach the topics they study and the research methods they employ. Students will be given opportunities to explore theories from a variety of perspectives and to become familiar with current thinking on a range of issues that have captured the interest of classical and contemporary social scientists in the three disciplines.

Prerequisite: None

### **ICS3UO - Grade 11, Introduction to Computer Science (University)**

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

### **MBF3CO - Grade 11, Foundations for College Mathematics (College)**

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

### **MEL3EO - Grade 11, Mathematics for Everyday Life (Workplace)**

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will solve problems associated with earning money, paying taxes, and making purchases; apply calculations of simple and compound interest in saving, investing, and borrowing; and calculate the costs of transportation and travel in a variety of situations. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

Prerequisite: Principles of Mathematics, Grade 9, Academic, or Foundations of Mathematics, Grade 9, Applied, or a ministry-approved locally developed Grade 10 mathematics course

### **PPZ3CO - Grade 11, Health for Life (College)**

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

### **SBI3CO - Grade 11, Biology (University)**

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

### **SBI3UO - Grade 11, Biology (University)**

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

### **SCH3UO - Grade 11, Chemistry (University)**

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

Prerequisite: Science, Grade 10, Academic

### **SVN3MO - Grade 11, Environmental Science (University/College)**

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: Science, Grade 10, Academic or Applied

### **TGV3MO - Grade 11, Television, Video and Movie Production (University/College)**

This course will explore the world of professional filmmaking from the planning stages to post-production. Students will be immersed in the production process discovering exactly what is involved in each stage, writing scripts, filming productions and editing their films. Various topics will be covered including storytelling, cinematography techniques, editing methods, sound design and effective filmmaking style.

## **GRADE 12**

### **BAT4MO - Financial Accounting Principles (University/College)**

This course introduces students to advanced accounting principles that will prepare them for post secondary 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.

#### **BBB4MO - Grade 12, International Business Fundamentals (University/College)**

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

#### **BDV4CO - Grade 12, Entrepreneurship: Venture Planning in an Electronic Age (College)**

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

Prerequisite: None

#### **BOH4MO - Grade 12, Business Leadership Management Fundamentals (University/College)**

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

#### **CGR4MO - Grade 12, Environment and Resource Management (University/College)**

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

### **CHI4UO - Grade 12, Canada: History, Identity, and Culture (University)**

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

### **CHY4UO - Grade 12, World History (University)**

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

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

### **CIA4UO - Grade 12, Economics (University)**

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

### **CLN4CO - Grade 12, Legal Studies (College)**

This course provides a foundation for students who wish to pursue a career that requires an understanding of law. Students will explore the importance of law, analysing contemporary legal issues and their relevance to daily life. They will investigate the requirements for various law-related careers as well as legal responsibilities in the

workplace. Students will apply the concepts of legal thinking and the legal studies inquiry process to investigate their rights and responsibilities, legal processes and structures, and the role of law in a changing society.

Prerequisite: Civics and Citizenship, Grade 10, Open

### **CPW4UO - Grade 12, Canadian and World Politics (University)**

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

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

### **ENG4CO - Grade 12, English (College)**

This course emphasizes the consolidation of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse a variety of informational and graphic texts, as well as literary texts from various countries and cultures, and create oral, written, and media texts in a variety of forms for practical and academic purposes. An important focus will be on using language with precision and clarity and developing greater control in writing. The course is intended to prepare students for college or the workplace.

Prerequisite: English, Grade 11, College Preparation

### **ENG4UO - Grade 12, English (University)**

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: English, Grade 11, University Preparation

### **EW4UO - Grade 12, The Writer's Craft (University)**

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

Prerequisite: English, Grade 11, University Preparation

### **FSF4UO - Grade 12, Core French**

This course provides extensive opportunities for students to speak and interact in French independently. Students will develop their listening, speaking, reading, and writing skills, apply language learning strategies in a wide variety of real-life situations, and develop their creative and critical thinking skills through responding to and interacting with a variety of oral and written texts. They will also enrich their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

Prerequisite: Core French, Grade 11, University Preparation.

### **HFA4UO - Grade 12, Nutrition and Health (University)**

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

### **HHS4UO - Grade 12, Families in Canada (University)**

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

### **HSB4UO - Grade 12, Challenge and Change in Society (University)**

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

### **HSE4MO - Grade 12, Equity and Social Justice: From Theory to Practice (University/College)**

This course enables students to develop an understanding of the theoretical, social, and historical underpinnings of various equity and social justice issues and to analyse strategies for bringing about positive social change. Students will learn about historical and contemporary equity and social justice issues in Canada and globally. They will explore power relations and the impact of a variety of factors on equity and social justice. Students will develop and apply research skills and will design and implement a social action initiative relating to an equity or social justice issue.

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

### **HZT4UO - Grade 12, Philosophy: Questions and Theories (University)**

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

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

### **ICS4UO - Grade 12, Computer Science (University)**

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 Preparation

### **MAP4CO - Grade 12, Foundations for College Mathematics (College)**

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

### **MCT4CO - Grade 12, Mathematics for College Technology (College)**

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 Preparation, or Grade 11 Functions, University

### **MCV4UO - Grade 12, Calculus and Vectors (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 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: Advanced Functions course (MHF4U)

### **MDM4UO - Grade 12, Mathematics of Data Management (University)**

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

### **MEL4EO - Grade 12, Mathematics for Everyday Life (Workplace)**

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will solve problems associated with earning money, paying taxes, and making purchases; apply calculations of simple and compound interest in saving, investing, and borrowing; and calculate the costs of transportation and travel in a variety of situations. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

Prerequisite: Principles of Mathematics, Grade 9, Academic, or Foundations of Mathematics, Grade 9, Applied, or a ministry-approved locally developed Grade 10 mathematics course

### **PSK4UO - Grade 12, Exercise Science (University)**

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

### **SCH4CO - Grade 12, Chemistry (College)**

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: Science, Grade 10, Academic or Applied

### **SES4UO - Grade 12, Earth and Space Science (University)**

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 material affect their daily lives. The course draws on biology, chemistry, physics, and mathematics in its consideration of geological and astronomical processes that can be observed directly or inferred from other evidence.

Prerequisite: Science, Grade 10, Academic

### **SPH4CO - Grade 12, Physics (College)**

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: Science, Grade 10, Academic or Applied