

## Alternate Non Credit Courses

---

### **NORETURN9 Not returning**

Please select this course if you are NOT RETURNING to Sandwich Secondary School in September 2010. Be aware that there will not be a timetable at Sandwich Secondary School for you in September 2010.

**CREDIT:** 0

**TYPE:** Open

### **NORETURN10 Not Returning**

Please select this course if you are NOT RETURNING to Sandwich Secondary School in September 2010. Be aware that there will not be a timetable at Sandwich Secondary School for you in September 2010.

**CREDIT:** 0

**TYPE:** Open

### **NORETURN11 Not Returning**

Please select this course if you are NOT RETURNING to Sandwich Secondary School in September 2010. Be aware that there will not be a timetable at Sandwich Secondary School for you in September 2010.

**CREDIT:** 0

**TYPE:** Open

### **NORETURN12 Not Returning**

Please select this course if you are NOT RETURNING to Sandwich Secondary School in September 2010. Be aware that there will not be a timetable at Sandwich Secondary School for you in September 2010.

**CREDIT:** 0

**TYPE:** Open

### **XSEM12 Semester 1 Timetable Only**

Please select this course if you are NOT RETURNING to Sandwich Secondary School in February 2010. This course should be selected if you plan to leave at the end of semester 1. Be aware that there will not be a timetable at Sandwich Secondary School for you in February 2010.

**CREDIT:** 0

**TYPE:** Open

## Arts

---

### **AMI10 Music**

This course emphasizes the creation and performance of music at a level consistent with previous experience and is aimed at developing technique, sensitivity, and imagination. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop an understanding of the conventions and elements of music and of safe practices related to music, and will develop a variety of skills transferable to other areas of their life.

**CREDIT:** 1

**TYPE:** Open

### **AVI10 Visual Arts**

This course is exploratory in nature, offering 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 by using a range of media, processes, techniques, and styles. Students will use the creative and critical analysis processes and will interpret art within a personal, contemporary, and historical context.

**CREDIT:** 1

**TYPE:** Open

**ADA20 Dramatic Arts**

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.

**CREDIT:** 1

**TYPE:** Open

**AMG20 Guitar Music**

This course emphasizes the creation and performance of music at a level consistent with previous experience. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop their understanding of musical conventions, practices, and terminology and apply the elements of music in a range of activities. They will also explore the function of music in society with reference to the self, communities, and cultures.

**CREDIT:** 1

**TYPE:** Open

**AMI20 Music-Instrumental**

This course emphasizes the creation and performance of music at a level consistent with previous experience. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop their understanding of musical conventions, practices, and terminology and apply the elements of music in a range of activities. They will also explore the function of music in society with reference to the self, communities, and cultures.

**CREDIT:** 1

**TYPE:** Open

**AMV20 Music - Vocal/Choral**

This course emphasizes the creation and performance of music at a level consistent with previous experience. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop their understanding of musical conventions, practices, and terminology and apply the elements of music in a range of activities. They will also explore the function of music in society with reference to the self, communities, and cultures.

**CREDIT:** 1

**TYPE:** Open

**AVI20 Visual Arts**

This course enables students to develop their skills in producing and presenting art by introducing them to new ideas, materials, and processes for artistic exploration and experimentation. Students will apply the elements and principles of design when exploring the creative process. Students will use the critical analysis process to reflect on and interpret art within a personal, contemporary, and historical context.

**CREDIT:** 1

**TYPE:** Open

**ADA3M Dramatic Arts**

This course requires students to create and perform in dramatic presentations. Students will analyse, interpret, and perform dramatic works from various cultures and time periods. Students will research various acting styles and conventions that could be used in their presentations, and analyse the functions of playwrights, directors, actors, designers, technicians, and audiences.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** ADA10 - Dramatic Arts; ADA20 - Dramatic Arts;

**AMG3M Guitar Music**

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 process 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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AMI10 - Music; AMI20 - Music-Instrumental; AMG20 - Guitar Music;

**AMI3M Music-Instrumental**

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 process when reflecting on, responding to, and 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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AMI10 - Music; AMI20 - Music-Instrumental;

**AMV3M Music - Vocal/Choral**

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 process 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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AMI10 - Music; AMI20 - Music-Instrumental; AMV20 - Music - Vocal/Choral;

**AVI3M Visual Arts**

This course enables students to further develop their knowledge and skills in visual arts. Students will use the creative process to explore a wide range of themes through studio work that may include drawing, painting, sculpting, and printmaking, as well as the creation of collage, multimedia works, and works using emergent technologies. Students will use the critical analysis process when evaluating their own work and the work of others. The course may be delivered as a comprehensive program or through a program focused on a particular art form (e.g. photography, video, computer graphics, information design).

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AVI10 - Visual Arts; AVI20 - Visual Arts;

**ADA4M Dramatic Arts**

This course requires students to experiment individually and collaboratively with forms and conventions of both drama and theatre from various cultures and time periods. Students will interpret dramatic literature and other text and media sources while learning about various theories of directing and acting. Students will examine the significance of dramatic arts in various cultures, and will analyse how the knowledge and skills developed in drama are related to their personal skills, social awareness, and goals beyond secondary school.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** ADA3M - Dramatic Arts; ADA30 - Dramatic Arts;

**AMI4M Music-Instrumental**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AMI3M - Music-Instrumental; AMG3M - Guitar Music;

**AMV4M Music - Vocal/Choral**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AMV3M - Music - Vocal/Choral;

**AVI4M Visual Arts**

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

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** AVI3M - Visual Arts; AVI3O - Visual Arts;

## Business Studies

---

**BTT10 Information and Communication Technology in Business**

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.

**CREDIT:** 1

**TYPE:** Open

**BBI20 Introduction to Business**

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.

**CREDIT:** 1

**TYPE:** Open

**BAF3M Financial Accounting Fundamentals**

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.

**CREDIT:** 1

**TYPE:** College/University

**BDI3C Entrepreneurship: The Venture**

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

**CREDIT:** 1

**TYPE:** College

**BMI3C Marketing: Goods, Services, Events**

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.

**CREDIT:** 1

**TYPE:** College

**BTA3O Information and Communication Technology: The Digital Environment**

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.

**CREDIT:** 1

**TYPE:** Open

**BAT4M Financial Accounting Principles**

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

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** BAF3M - Financial Accounting Fundamentals;

**BOH4M Business Leadership: Management Fundamentals**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** Any university, university/college, or college preparation course in business studies or Canadian and world studies;

### **BTX4C Information and Communication Technology: Multimedia Solutions**

This course provides students with the opportunity to apply their information and communication technology skills while working in a team environment. Through a project-based approach, students will have opportunities to integrate common business software applications and apply multimedia techniques. Students will further develop their understanding of electronic business and e-commerce environments. The skills acquired in this course will prepare students for success in postsecondary studies and in their future careers.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** BTA30 - Information and Communication Technology: The Digital Environment;

## **Canadian and World Studies**

---

### **CGC1D Geography of Canada**

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 present their findings.

**CREDIT:** 1

**TYPE:** Academic

### **CGC1DF Principes de géographie du Canada**

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 present their findings.

**COURSE NOTE:** This is a required course for French Immersion students

**CREDIT:** 1

**TYPE:** Academic

### **CGC1P Geography of Canada**

This course focuses on geographic issues that affect Canadians today. Students will draw on personal and everyday experiences as they learn about Canada's distinct and changing character and the natural and human systems and global influences that shape the country. Students will use a variety of geotechnologies and inquiry and communication methods to examine practical geographic questions and communicate their findings.

**CREDIT:** 1

**TYPE:** Applied

### **CHC2D Canadian History in the Twentieth Century**

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.

**CREDIT:** 1

**TYPE:** Academic

### **CHC2DF Hist. Canada depuis la 1ere Guerre**

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.

**COURSE NOTE:** This course is a required course for French Immersion students

**CREDIT:** 1

**TYPE:** Academic

### **CHC2P Canadian History in the Twentieth Century**

This course explores some of the pivotal events and experiences that have influenced the development of Canada's identity as a nation from World War I to the present. By examining how the country has responded to economic, social, and technological changes and how individuals and groups have contributed to Canadian culture and society during this period, students will develop their ability to make connections between historical and current events. Students will have opportunities to formulate questions, locate information, develop informed opinions, and present ideas about the central issues and events of the period.

**CREDIT:** 1

**TYPE:** Applied

### **CHW3MF Histoire mondiale au seizieme siecle**

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

**COURSE NOTE:** This is a required course for French Immersion students.

**CREDIT:** 1

**TYPE:** College/University

**GRADE:** 10

**PRE-REQUISITE:** CHC2DF - Hist. Canada depuis la 1ere Guerre

### **CHV2OH Civics**

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.

**CREDIT:** 0.5

**TYPE:** Open

### **CHV2OHF Education a la citoyennete**

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.

**COURSE NOTE:** This course is a required course for French Immersion students

**CREDIT:** 0.5

**TYPE:** Open

### **CHA3U American History**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** CHC2D - Canadian History in the Twentieth Century; CHC2P - Canadian History in the Twentieth Century; CHC2DF - Hist. Canada depuis la 1ere Guerre;

### **CHW3M World History to the Sixteenth Century**

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

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** CHC2D - Canadian History in the Twentieth Century; CHC2P - Canadian History in the Twentieth Century; CHC2DF - Hist. Canada depuis la 1ere Guerre;

### **CLU3M Understanding Canadian Law**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** CHC2D - Canadian History in the Twentieth Century; CHC2P - Canadian History in the Twentieth Century; CHC2DF - Hist. Canada depuis la 1ere Guerre;

### **CGG30 Regional Geography: Travel and Tourism**

This course focuses on travel and tourism as the vehicle for studying selected world regions. Using a variety of geotechnologies and inquiry and communication methods, students will conduct and present case studies that develop their understanding of the unique characteristics of selected world regions; the environmental, cultural, economic, and political factors that influence travel and tourism; and the impact of the travel industry on communities and environments around the world.

**CREDIT:** 1

**TYPE:** Open

**PREREQUISITE:** CGC1D - Geography of Canada; CGC1P - Geography of Canada; CGC1DF - Principes de geographie du Canada;

### **CHT30 Twentieth-Century History: Global and Regional Perspectives**

This course focuses on the major events and issues in world history from 1900 to the present. Students will investigate the causes and effects of global and regional conflicts and the responses of individuals and governments to social, economic, and political changes. Students will use critical-thinking and communication skills to formulate and test points of view, draw conclusions, and present their findings about the challenges that have faced and continue to face people in various parts of the world.

**CREDIT:** 1

**TYPE:** Open

**PREREQUISITE:** CHC2D - Canadian History in the Twentieth Century; CHC2P - Canadian History in the Twentieth Century;

### **CGW4U Canadian and World Issues: A Geographic Analysis**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** CHA3U - American History; CHW3M - World History to the Sixteenth Century; CLU3M - Understanding Canadian Law; ENG3U - English; HHS4M - Individuals and Families in a Diverse Society; HSB4M - Challenge and Change in Society;

### **CHY4U World History: The West and the World**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** CHA3U - American History; CHW3M - World History to the Sixteenth Century; CLU3M - Understanding Canadian Law; ENG3U - English; HHS4M - Individuals and Families in a Diverse Society; HSB4M - Challenge and Change in Society;

### **CIA4U Current Economic Issues**

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 judgments, and present their findings.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** CGF3M - Physical Geography: Patterns, Processes, and Interactions; CGR4M - The Environment and Resource Management; CGU4U - World Geography: Human Patterns and Interactions; CGW4U - Canadian and World Issues: A Geographic Analysis; CHA3U - American History; CHI4U - Canada: History, Identity, and Culture; CHW3M - World History to the Sixteenth Century; CHY4U - World History: The West and the World; CLN4U - Canadian and International Law; CLU3M - Understanding Canadian Law; CPW4U - Canadian and World Politics; ENG3U - English; ETC3M - Canadian Literature; HFA4M - Food and Nutrition Sciences; HHS4M - Individuals and Families in a Diverse Society; HRT3M - World Religions: Beliefs, Issues, and Religious Traditions; HSB4M - Challenge and Change in Society; HSP3M - Introduction to Anthropology, Psychology and Sociology; HZT4U - Philosophy: Questions and Theories;

### **CLN4U Canadian and International Law**

This course examines elements of Canadian and international law in social, political, and global contexts. Students will study the historical and philosophical sources of law and the principles and practices of international law and will learn to relate them to issues in Canadian society and the wider world. Students will use critical-thinking and communication skills to analyse legal issues, conduct independent research, and present the results of their inquiries in a variety of ways.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** CGF3M - Physical Geography: Patterns, Processes, and Interactions; CGR4M - The Environment and Resource Management; CGU4U - World Geography: Human Patterns and Interactions; CGW4U - Canadian and World Issues: A Geographic Analysis; CHA3U - American History; CHW3M - World History to the Sixteenth Century; CHY4U - World History: The West and the World; CIA4U - Current Economic Issues; CIE3M - The Individual and the Economy; CLU3M - Understanding Canadian Law; CPW4U - Canadian and World Politics; ENG3U - English; HFA4M - Food and Nutrition Sciences; HHG4M - Issues in Human Growth and Development; HHS4M - Individuals and Families in a Diverse Society; HRT3M - World Religions: Beliefs, Issues, and Religious Traditions; HSB4M - Challenge and Change in Society; HSP3M - Introduction to Anthropology, Psychology and Sociology; HZT4U - Philosophy: Questions and Theories;

### **CHY4C World History: The West and the World**

This course explores the history of the world since the sixteenth century, emphasizing the interaction between the emerging West and other regions of the world. Students will learn about a variety of economic, social, and political systems and the changes they have undergone over time. Students will apply their developing skills of historical inquiry to understand and communicate ideas about the forces that have formed our modern world.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** CGD3M - The Americas: Geographic Patterns and Issues; CGF3M - Physical Geography: Patterns, Processes, and Interactions; CGO4M - Geomatics: Geotechnologies in Action; CGR4M - The Environment and Resource Management; CGU4C - World Geography: Urban Patterns and Interactions; CGU4U - World Geography: Human Patterns and Interactions; CGW4U - Canadian and World Issues: A Geographic Analysis; CHA3U - American History; CHH3C - Canadian History and Politics Since 1945; CHI4U - Canada: History, Identity, and Culture; CHW3M - World History to the Sixteenth Century; CHY4U - World History: The West and the World; CIA4U - Current Economic Issues; CIE3M - The Individual and the Economy; CLN4U - Canadian and International Law; CLU3M - Understanding Canadian Law; CPW4U - Canadian and World Politics; ENG3C - English; ENG3U - English; ENG4C - English; ENG4U - English; ETC3M - Canadian Literature; ETS4C - Studies in Literature; ETS4U - Studies in Literature; EWC4C - The Writer's Craft; EWC4U - The Writer's Craft; HFA4M - Food and Nutrition Sciences; HHG4M - Issues in Human Growth and Development; HHS4M - Individuals and Families in a Diverse Society; HIR3C - Managing Personal and Family Resources; HPW3C - Living and Working with Children; HRT3M - World Religions: Beliefs, Issues, and Religious Traditions; HSB4M - Challenge and Change in Society; HSP3M - Introduction to Anthropology, Psychology and Sociology; HZT4U - Philosophy: Questions and Theories;

### **CHM4E Adventures in World History**

This course explores a variety of human experiences in world history from earliest times to the present. Students will learn about a wide range of societies and cultures, examining such things as systems of government, technological developments, work, art, and religion. Students will apply methods of research and inquiry to examine human societies in many different times and places and to communicate points of view about their findings. This course is limited to students in the applied/college stream.

**CREDIT:** 1

**TYPE:** Workplace

**PREREQUISITE:** CHC2P - Canadian History in the Twentieth Century

## **Classical Studies and International Languages**

---

### **LWSBD Spanish**

This course focuses on developing the language knowledge and communication skills students will need to function effectively in the international community, both as professionals and as private citizens. Students learn to listen, speak, read, and write with precision and confidence. In addition, the interdisciplinary nature of language allows students to explore related areas of study such as history, geography, music, art, business and world issues. The Level 1 Academic course is an introductory course appropriate for those students wishing to gain a solid understanding of the language.

**CREDIT:** 1

**TYPE:** Academic

# Computer And Information Science

---

## **ICS20 Introduction to Computer Studies**

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

**CREDIT:** 1

**TYPE:** Open

## **ICS3U Introduction to Computer Science**

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.

**CREDIT:** 1

**TYPE:** University

## **ICS4U Computer Science**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** ICS3U - Introduction to Computer Science; ICS3M - Computer and Information Science;

# English

---

## **ENG1D English**

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 analyse 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.

**CREDIT:** 1

**TYPE:** Academic

## **ENG1P English**

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.

**CREDIT:** 1

**TYPE:** Applied

## **ENG2D English**

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.

**CREDIT:** 1

**TYPE:** Academic

**PREREQUISITE:** ENG1D - English; ENG1P - English;

### **ENG2P English**

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.

**CREDIT:** 1

**TYPE:** Applied

**PREREQUISITE:** ENG1D - English; ENG1P - English;

### **ENG3U English**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** ENG2D - English;

### **ENG3C English**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** ENG2P - English;

### **EMS30 Media Studies**

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 judgment, and skills in viewing, representing, listening, speaking, reading, and writing.

**CREDIT:** 1

**TYPE:** Open

**PREREQUISITE:** ENG2D - English; ENG2P - English;

### **ENG4U English**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** ENG3U - English;

### **EWC4U The Writer's Craft**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** ENG3U - English;

### **ENG4C English**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** ENG3C - English;

## **French**

---

### **FIF1DC French Immersion**

This course enables students to enhance their knowledge of the French language and to further develop their language skills through the study of twentieth-century North American francophone literature and culture. Students will participate in oral communication, reading, and writing activities as they study an authentic novel and selected authentic poems, legends, songs, films, and newspaper articles from French-speaking parts of North America.

**CREDIT:** 1

**TYPE:** Academic

### **FSF1DC Core French**

This course emphasizes the further development of oral communication, reading, and writing skills. Students will build on and apply their knowledge of French while exploring a variety of themes, such as relationships, social trends, and careers. Thematic readings, which include a selection of short stories, articles, and poems, will serve as stepping stones to oral and written activities.

**CREDIT:** 1

**TYPE:** Academic

**FSF1PC Core French**

This course emphasizes the concurrent development of oral communication, reading, and writing skills, using a broad-based theme such as the media. Students will enhance their ability to understand and speak French through conversations, discussions, and presentations. They will also read short stories, articles, poems, and songs, and write brief descriptions, letters, dialogues, and invitations.

**CREDIT:** 1

**TYPE:** Applied

**FIF2DC French Immersion**

This course enables students to increase their knowledge of the French language and to further develop their language skills through the study of twentieth-century European francophone literature and culture. Students will participate in oral communication, reading, and writing activities based on a variety of French literary and media works. They will study at least one novel and a selection of poems, short stories, films, plays, and newspaper and magazine articles.

**CREDIT:** 1

**TYPE:** Academic

**PREREQUISITE:** FIF1DC - French Immersion;

**FSF2DC Core French**

This course enables students to increase their knowledge of the French language, further develop their language skills, and deepen their understanding and appreciation of francophone culture around the world. Exploring a variety of themes, students will develop and apply critical thinking skills in discussion, in their analysis and interpretation of texts, and in their own writing.

**CREDIT:** 1

**TYPE:** Academic

**PREREQUISITE:** FSF1DC - Core French; FSF1PC - Core French;

**FIF3UC French Immersion**

This course develops knowledge and language skills through the study of francophone literature and culture from around the world. Students will study novels, plays, poems, short stories, films, and non-fiction works and produce written assignments in a variety of forms, including critiques and précis. They will also write a formal research essay. The use of correct grammar and appropriate language conventions in both spoken and written French will be emphasized throughout the course.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** FIF2DC - French Immersion;

**FSF3UC Core French**

This course draws on a variety of themes to promote extensive development of reading and writing skills and to reinforce oral communication skills. Students will gain a greater understanding of French-speaking cultures in Canada and around the world through their reading of a variety of materials, including a short novel or a play. Students will produce various written assignments, including a formal essay. The use of correct grammar and appropriate language conventions in both spoken and written French will be emphasized throughout the course.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** FSF2DC - Core French;

**FIF4UC French Immersion**

This course provides for extensive study of French literature and culture from the Middle Ages to the present. Students will study novels, plays, poems, films, and non-fiction works produced in various historical periods, and will write a formal research paper. The use of correct grammar and appropriate language conventions in both spoken and written French will be emphasized throughout the course.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** FIF3UC - French Immersion;

### **FSF4UC Core French**

This course draws on a variety of themes to promote extensive development of French-language skills. Students will consolidate their oral skills as they discuss literature, culture, and current issues. They will read a variety of texts and will write a formal essay. The use of correct grammar and appropriate language conventions in both spoken and written French will be emphasized throughout the course.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** FSF3UC - Core French;

## **Guidance and Career Education**

---

### **GLC20H CAREER STUDIES**

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 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.

**CREDIT:** 0.5

**TYPE:** Open

### **GLC20HF Exploration des choix de carrière**

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 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.

**COURSE NOTE:** This is a required course for French Immersion students.

**CREDIT:** 0.5

**TYPE:** Open

### **COOP11 Cooperative Education 11**

Cooperative Education is a planned learning experience, for which credits are earned, that integrates classroom theory and learning experiences at a workplace to enable students to apply and refine the knowledge and skills acquired in a related curriculum course or a locally developed course.

**CREDIT:** 2

**TYPE:** Open

**PREREQUISITE:** You must first apply to Co-op through Student Services. Continue to select other options until you are accepted into Co-op.;

### **COOP 12 Cooperative Education 12**

Cooperative Education is a planned learning experience, for which credits are earned, that integrates classroom theory and learning experiences at a workplace to enable students to apply and refine the knowledge and skills acquired in a related curriculum course or a locally developed course.

**CREDIT:** 2

**TYPE:** Open

**PREREQUISITE:** You must first apply to Co-op through Student Services. Continue to select other options until you are accepted into Co-op;

# Health and Physical Education

---

## **PPL10F Healthy Active Living Education (Female)**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Students will learn movement skills and principles, ways to improve personal fitness and physical competence, and safety and injury prevention. They will investigate issues related to healthy sexuality and the use and abuse of alcohol, tobacco, and other drugs, and will participate in activities designed to develop goal-setting, communication, and social skills.

**CREDIT:** 1

**TYPE:** Open

## **PPL10M Healthy Active Living Education (Male)**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Students will learn movement skills and principles, ways to improve personal fitness and physical competence, and safety and injury prevention. They will investigate issues related to healthy sexuality and the use and abuse of alcohol, tobacco, and other drugs, and will participate in activities designed to develop goal-setting, communication, and social skills.

**CREDIT:** 1

**TYPE:** Open

## **PPL10OF Vie active et sante (Coed)**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Students will learn movement skills and principles, ways to improve personal fitness and physical competence, and safety and injury prevention. They will investigate issues related to healthy sexuality and the use and abuse of alcohol, tobacco, and other drugs, and will participate in activities designed to develop goal-setting, communication, and social skills.

**COURSE NOTE:** This is a required course for French Immersion students.

**CREDIT:** 1

**TYPE:** Open

## **PPL20 Healthy Active Living Education (Hockey)**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Student learning will include the application of movement principles to refine skills; participation in a variety of activities that enhance personal competence, fitness, and health; examination of issues related to healthy sexuality, healthy eating, substance use and abuse; and the use of informed decision-making, conflict resolution, and social skills in making personal choices.

**COURSE NOTE:** The emphasis of this course is on hockey skill development, fitness, and hockey strategy. Students will develop the fundamental hockey skills: passing, shooting, puck control, skating and checking. This course will involve off ice and on ice development, video analysis, fitness training, and goal setting. This co-ed course is open to any student regardless of their playing level. (i.e. House League to AAA)

The program involves 25-30 ice sessions. Limited enrollment.

Course Fee TBA

**CREDIT:** 1

**TYPE:** Open

## **PPL20F Healthy Active Living Education (Female)**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Student learning will include the application of movement principles to refine skills; participation in a variety of activities that enhance personal competence, fitness, and health; examination of issues related to healthy sexuality, healthy eating, substance use and abuse; and the use of informed decision-making, conflict resolution, and social skills in making personal choices.

**CREDIT:** 1

**TYPE:** Open

**PPL20M Healthy Active Living Education (Male)**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Student learning will include the application of movement principles to refine skills; participation in a variety of activities that enhance personal competence, fitness, and health; examination of issues related to healthy sexuality, healthy eating, substance use and abuse; and the use of informed decision-making, conflict resolution, and social skills in making personal choices.

**CREDIT:** 1

**TYPE:** Open

**PPL30F Healthy Active Living Education (Female)**

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

**CREDIT:** 1

**TYPE:** Open

**PPL30M Healthy Active Living Education (Male)**

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

**CREDIT:** 1

**TYPE:** Open

**PSE4U Exercise Science**

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

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** PPL30 - Healthy Active Living; PPL40 - Healthy Active Living Education (Coed); PPZ30 - Health for Life; SBI3U - Biology; SCH3U - Chemistry; SNC3M - Science; SPH3U - Physics; PPL30F - Healthy Active Living Education (Female); PPL30M - Healthy Active Living Education (Male);

#### **PLF4C Recreation and Fitness Leadership**

This course focuses on the development of leadership and coordination skills related to recreational activities. Students will acquire the knowledge and skills required to plan, organize, and implement recreational events. They will also learn how to promote the value of physical fitness, personal well-being, and personal safety to others through mentoring. The course will prepare students for college programs in recreational, leisure, and fitness leadership.

**COURSE NOTE:** Please see Mr. Sanders or Mrs. Moore in the Phys. Ed office for an application. You cannot select this course on line. Please select the correct number of courses and submit on line application.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** Please see Mr. Sanders or Mrs. Moore in the Phys. Ed office for an application. You cannot select this course on line. Please select the correct number of courses and submit on line application. ; PPL4O - Healthy Active Living Education (Coed); PPL4OOF - Vie active et sante (Coed); PPL3OF - Healthy Active Living Education (Female); PPL3OM - Healthy Active Living Education (Male); PPZ3OF - Health for Life (Female); PPZ3OM - Health for Life (Male);

#### **PAF4OF Healthy Active Living Education (Personal and Fitness Activities) - Female**

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

**CREDIT:** 1

**TYPE:** Open

**PREREQUISITE:** PPL3OF - Healthy Active Living Education (Female); PPL3OOF - Vie active et sante (Coed); PPZ3OF - Health for Life (Female); PLF4C - Recreation and Fitness Leadership; PPL4O - Healthy Active Living Education (Coed);

#### **PAF4OM Healthy Active Living Education (Personal and Fitness Activities) - Male**

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

**CREDIT:** 1

**TYPE:** Open

**PREREQUISITE:** PPZ3OM - Health for Life (Male); PPL3OOF - Vie active et sante (Coed); PPL3OM - Healthy Active Living Education (Male); PLF4C - Recreation and Fitness Leadership; PPL4O - Healthy Active Living Education (Coed);

#### **PPL4O Healthy Active Living Education (Coed)**

This course focuses on the development of a personalized approach to healthy active living through participation in a variety of sports and recreational activities that have the potential to engage students' interest throughout their lives. Students will develop and implement personal physical fitness plans. In addition, they will be given opportunities to refine their decision-making, conflict-resolution, and interpersonal skills, with a view to enhancing their mental health and their relationships with others.

**CREDIT:** 1

**TYPE:** Open

# Interdisciplinary

---

## **OYAP Ontario Youth Apprenticeship Program**

OYAP offers students a chance to attend a secondary school and train as a registered apprentice at the same time. At the end of a two or three year program, students will have completed the credits for their Ontario Secondary School Diploma and will have completed a significant portion of the requirements for a Certificate of Apprenticeship. OYAP programs are available in these areas throughout the GECDSEB: auto body repair, auto service technician, baker, cook and assistant cook, cosmetology, hairstyle, precision metal trades, and hospitality.

**CREDIT:** 4

**TYPE:** College

**PREREQUISITE:** You must first apply to OYAP through Student Services. Continue to select other options until you are accepted into OYAP;

# Mathematics

---

## **MPM1D Principles of Mathematics**

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.

**CREDIT:** 1

**TYPE:** Academic

## **MFM1P Foundations of Mathematics**

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.

**CREDIT:** 1

**TYPE:** Applied

## **MPM2D Principles of Mathematics**

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.

**CREDIT:** 1

**TYPE:** Academic

**PREREQUISITE:** MPM1D - Principles of Mathematics;

### **MFM2P Foundations of Mathematics**

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.

**CREDIT:** 1

**TYPE:** Applied

**PREREQUISITE:** MFM1P - Foundations of Mathematics; MPM1D - Principles of Mathematics;

### **MCR3U Functions**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** MPM2D - Principles of Mathematics;

### **MCF3M Functions and Applications**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** MFM2P - Foundations of Mathematics; MPM2D - Principles of Mathematics;

### **MBF3C Foundations for College Mathematics**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** MFM2P - Foundations of Mathematics;

### **MEL3E Mathematics for Work and Everyday Life**

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.

**CREDIT:** 1

**TYPE:** Workplace

**PREREQUISITE:** MFM1P - Foundations of Mathematics; MPM1D - Principles of Mathematics;

### **MCV4U Calculus and Vectors**

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.

**COURSE NOTE:** The new Advanced Functions MHF4U can be taken concurrently with or can precede Calculus and Vectors MCV4U

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** MHF4U - Advanced Functions;

### **MDM4U Mathematics of Data Management**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** MCF3M - Functions and Applications; MCR3U - Functions;

### **MHF4U Advanced Functions**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** MCR3U - Functions; MCT4C - Mathematics for College Technology;

### **MAP4C Foundations for College Mathematics**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** MBF3C - Foundations for College Mathematics; MCF3M - Functions and Applications;

### **MEL4E Mathematics for Work and Everyday Life**

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will investigate questions involving the use of statistics; apply the concept of probability to solve problems involving familiar situations; investigate accommodation costs, create household budgets, and prepare a personal income tax return; use proportional reasoning; estimate and measure; and apply geometric concepts to create designs. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**CREDIT:** 1

**TYPE:** Workplace

**PREREQUISITE:** MEL3E - Mathematics for Work and Everyday Life;

## **Native Studies**

---

### **NDA3M Current Aboriginal Issues in Canada**

This course focuses on existing and emerging issues of importance to Aboriginal peoples in Canada. Students will investigate issues related to identity, relationships among Aboriginal peoples and between Aboriginal peoples and other Canadians, sovereignty principles as presented by Aboriginal peoples, and the contemporary challenges posed by these issues. Students will also examine such topics as language preservation, the responsibilities of Aboriginal women and men, and the need for dialogue between Aboriginal and non- Aboriginal peoples.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** CHC2D - Canadian History in the Twentieth Century; CHC2P - Canadian History in the Twentieth Century; NAC2O - Aboriginal Peoples in Canada;

### **NBV3C Aboriginal Beliefs, Values and Aspirations in Contemporary Society**

This course focuses on the beliefs, values, and aspirations of Aboriginal peoples in Canada. Students will examine world views of Aboriginal peoples and the political, economic, cultural, and social challenges facing individuals and communities. Students will also learn how traditional and contemporary beliefs and values influence the aspirations and actions of Aboriginal peoples.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** CHC2D - Canadian History in the Twentieth Century; CHC2P - Canadian History in the Twentieth Century; NAC2O - Aboriginal Peoples in Canada;

## **Science**

---

### **SNC1D Science**

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.

**CREDIT:** 1

**TYPE:** Academic

### **SNC1P Science**

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.

**CREDIT:** 1

**TYPE:** Applied

### **SNC2D Science**

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.

**CREDIT:** 1

**TYPE:** Academic

**PREREQUISITE:** SNC1D - Science; SNC1P - Science;

### **SNC2P Science**

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.

**CREDIT:** 1

**TYPE:** Applied

**PREREQUISITE:** SNC1D - Science; SNC1P - Science;

### **SNC21 Physics of Engineering-Introductory**

This locally developed course is designed to introduce students to principles which play an important part in engineering. Through the use of the computer and some computer programming, students will actively research, design and test a variety of scientific applications based on the LEGO Robolab system. Career paths and an independent study unit will also be part of the curriculum.

**CREDIT:** 1

**TYPE:** Open

### **SBI3U Biology**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** SNC2D - Science;

### **SCH3U Chemistry**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** SNC2D - Science;

### **SPH3U Physics**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** SNC2D - Science;

### **SVN3M Environmental Science**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** SNC2D - Science; SNC2P - Science;

### **SBI3C Biology**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** SNC2D - Science; SNC2P - Science;

### **SBI4U Biology**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** SBI3U - Biology;

### **SCH4U Chemistry**

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.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** SCH3U - Chemistry;

### **SPH4U Physics**

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 relating to a variety of physics concepts and principles. Students will also consider the impact of technological applications of physics on society and the environment.

**CREDIT:** 1

**TYPE:** University

**PREREQUISITE:** SPH3U - Physics;

### **SCH4C Chemistry**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** SNC2D - Science; SNC2P - Science;

### **SPH4C Physics**

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.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** SNC2D - Science; SNC2P - Science;

### **SNC4E Science**

This course provides students with fundamental science knowledge and workplace skills needed to prepare them for success beyond secondary school. Students will explore hazards in the workplace, chemicals in consumer products, disease and its prevention, electricity at home and at work, and nutritional science. Emphasis is placed on current topics in science and relevant, practical activities that develop students' literacy and mathematical literacy skills and enhance their scientific literacy.

**CREDIT:** 1

**TYPE:** Workplace

**PREREQUISITE:** SNC3E - Science;

## **Social Sciences and Humanities**

---

### **HIF10 Individual and Family Living**

This course explores the challenges faced by all people: how to meet basic needs, how to relate to others, how to manage resources, and how to become responsible members of society. Students will acquire knowledge and skills that are needed to make the transition to adulthood. Teachers will instruct students in developing interpersonal, decision-making, and practical skills related to daily life. Students will explore the functioning of families and the diversities found among families and within society.

**CREDIT:** 1

**TYPE:** Open

### **HFN20 Food and Nutrition**

This course explores the factors that affect attitudes and decisions about food, examines current issues of body image and food marketing, and is grounded in the scientific study of nutrition. Students will learn how to make informed food choices and how to prepare foods, and will investigate our Canadian food heritage and food industries, as well as global food issues. The course also introduces students to research skills related to food and nutrition.

**CREDIT:** 1

**TYPE:** Open

### **HIR3C Managing Personal and Family Resources**

This course explores how to use human, material, and community resources effectively, and how to make informed choices with respect to clothing purchases, finance, food and nutrition, housing, and transportation. Students will learn about the dynamics of human interaction; how to make responsible choices in their transition to postsecondary education and careers; and strategies to enable them to manage time, talent, and money effectively. This course also introduces students to skills used in researching and investigating resource management.

**CREDIT:** 1

**TYPE:** College

### **HPW3C Living and Working with Children**

This course focuses on the well-being of children in families and community settings. Students will study child behaviour and child development in the context of relationships with parents and others in the community, and will learn through research and by observing and interacting with children. This course prepares students for further study of children, familiarizes them with occupational opportunities related to working with children, and introduces them to skills used in researching and investigating children's behaviour in response to others.

**CREDIT:** 1

**TYPE:** College

### **HPW3CF Interactions avec les enfants**

This course focuses on the well-being of children in families and community settings. Students will study child behaviour and child development in the context of relationships with parents and others in the community, and will learn through research and by observing and interacting with children. This course prepares students for further study of children, familiarizes them with occupational opportunities related to working with children, and introduces them to skills used in researching and investigating children's behaviour in response to others.

**COURSE NOTE:** This is a required course for French Immersion students.

**CREDIT:** 1

**TYPE:** College

### **HLS30 Living Spaces and Shelter**

This course analyses how different types of living spaces and forms of shelter meet people's physical, social, emotional, and cultural needs and reflect society's values, established patterns of living, and economic and technological developments. Students will learn how to make practical decisions about where to live and how to create functional and pleasing environments, and will explore occupational opportunities related to housing and design. They will also learn skills used in researching and investigating living accommodations and housing.

**CREDIT:** 1

**TYPE:** Open

### **HNC30 Fashion and Creative Expression**

This course explores what clothing communicates about the wearer and how it becomes a creative and entrepreneurial outlet through the design and production processes. Students will learn, through practical experiences, about the nature of fashion design; the characteristics of fibres and fabrics; the construction, production, and marketing of clothing; and how to plan and care for a wardrobe that is appropriate for an individual's appearance, activities, employment, and lifestyle. Students will develop research skills as they explore the evolution of fashion and its relationship to society, culture, and individual psychology.

**CREDIT:** 1

**TYPE:** Open

### **HHS4M Individuals and Families in a Diverse Society**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** CGF3M - Physical Geography: Patterns, Processes, and Interactions; CGR4M - The Environment and Resource Management; CGU4U - World Geography: Human Patterns and Interactions; CGW4U - Canadian and World Issues: A Geographic Analysis; CHA3U - American History; CHY4U - World History: The West and the World; CIA4U - Current Economic Issues; CLN4U - Canadian and International Law; CLU3M - Understanding Canadian Law; CPW4U - Canadian and World Politics; ENG3C - English; ENG3U - English; HFA4M - Food and Nutrition Sciences; HIR3C - Managing Personal and Family Resources; HPW3C - Living and Working with Children; HRT3M - World Religions: Beliefs, Issues, and Religious Traditions; HSB4M - Challenge and Change in Society; HSP3M - Introduction to Anthropology, Psychology and Sociology; HZT4U - Philosophy: Questions and Theories;

### **HSB4M Challenge and Change in Society**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** CGD3M - The Americas: Geographic Patterns and Issues; CGF3M - Physical Geography: Patterns, Processes, and Interactions; CGO4M - Geomatics: Geotechnologies in Action; CGR4M - The Environment and Resource Management; CGU4C - World Geography: Urban Patterns and Interactions; CGU4U - World Geography: Human Patterns and Interactions; CGW4U - Canadian and World Issues: A Geographic Analysis; CHA3U - American History; CHH3C - Canadian History and Politics Since 1945; CHI4U - Canada: History, Identity, and Culture; CHW3M - World History to the Sixteenth Century; CHY4C - World History: The West and the World; CHY4U - World History: The West and the World; CIA4U - Current Economic Issues; CIE3M - The Individual and the Economy; CLN4U - Canadian and International Law; CLU3M - Understanding Canadian Law; CPW4U - Canadian and World Politics; ENG3C - English; ENG3U - English; ENG4C - English; ENG4U - English; ETC3M - Canadian Literature; ETS4C - Studies in Literature; ETS4U - Studies in Literature; EWC4C - The Writer's Craft; EWC4U - The Writer's Craft; HFA4M - Food and Nutrition Sciences; HHG4M - Issues in Human Growth and Development; HHS4M - Individuals and Families in a Diverse Society; HIR3C - Managing Personal and Family Resources; HPW3C - Living and Working with Children; HRT3M - World Religions: Beliefs, Issues, and Religious Traditions; HSP3M - Introduction to Anthropology, Psychology and Sociology; HZT4U - Philosophy: Questions and Theories;

### **HNB4O The Fashion Industry**

This course provides a historical perspective on fashion and design, exploring the origins, influence, and importance of fashion as an expression of national, cultural, religious, and personal identity. Students will learn about the many facets of the Canadian fashion industry, including both large-scale and small entrepreneurial enterprises, and its worldwide links, as well as gaining practical experience in garment design, production, and care. This course also refines students' skills used in researching and investigating various aspects of the fashion industry.

**CREDIT:** 1

**TYPE:** Open

# Technological Education

---

## **TIJ10 Exploring Technologies**

This course enables students to further explore and develop technological knowledge and skills introduced in the elementary science and technology program. Students will be given the opportunity to design and create products and/or provide services related to the various technological areas or industries, working with a variety of tools, equipment, and software commonly used in industry. Students will develop an awareness of environmental and societal issues, and will begin to explore secondary and postsecondary education and training pathways leading to careers in technology-related fields.

**CREDIT:** 1

**TYPE:** Open

## **TCJ20 Construction Technology**

This course introduces students to building materials and processes through opportunities to design and build various construction projects. Students will learn to create and read working drawings; become familiar with common construction materials, components, and processes; and perform a variety of fabrication, assembly, and finishing operations. They will use a variety of hand and power tools and apply knowledge of imperial and metric systems of measurement, as appropriate. Students will develop an awareness of environmental and societal issues related to construction technology, and will explore secondary and postsecondary pathways leading to careers in the industry.

**CREDIT:** 1

**TYPE:** Open

## **TDJ20 Technological Design**

This course provides students with opportunities to apply a design process to meet a variety of technological challenges. Students will research projects, create designs, build models and/or prototypes, and assess products and/or processes using appropriate tools, techniques, and strategies. Student projects may include designs for homes, vehicles, bridges, robotic arms, clothing, or other products. Students will develop an awareness of environmental and societal issues related to technological design, and learn about secondary and postsecondary education and training leading to careers in the field.

**CREDIT:** 1

**TYPE:** Open

## **TGJ20 Communications Technology**

This course introduces students to communications technology from a media perspective. Students will work in the areas of TV/video and movie production, radio and audio production, print and graphic communications, photography, and animation. Student projects may include computer-based activities such as creating videos, editing photos, working with audio, cartooning, developing animations, and designing web pages. Students will also develop an awareness of environmental and societal issues related to communications technology and explore secondary and postsecondary education and training pathways and career opportunities in the various communications technology fields.

**CREDIT:** 1

**TYPE:** Open

## **TMJ20 Manufacturing Technology**

This course introduces students to the manufacturing industry by giving them an opportunity to design and fabricate products using a variety of processes, tools, and equipment. Students will learn about technical drawing, properties and preparation of materials, and manufacturing techniques. Student projects may include a robotic challenge, a design challenge, or a fabrication project involving processes such as machining, welding, vacuum forming, or injection moulding. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about secondary and postsecondary pathways leading to careers in the industry.

**CREDIT:** 1

**TYPE:** Open

### **TTJ2O Transportation Technology**

This course introduces students to the service and maintenance of vehicles, aircraft, and/or watercraft. Students will develop knowledge and skills related to the construction and operation of vehicle/craft systems and learn maintenance and repair techniques. Student projects may include the construction of a self-propelled vehicle or craft, engine service, tire/wheel service, electrical/battery service, and proper body care. Students will develop an awareness of related environmental and societal issues and will explore secondary and postsecondary pathways leading to careers in the transportation industry.

**CREDIT:** 1

**TYPE:** Open

### **TDJ3M Technological Design**

This course examines how technological design is influenced by human, environmental, financial, and material requirements and resources. Students will research, design, build, and assess solutions that meet specific human needs, using working drawings and other communication methods to present their design ideas. They will develop an awareness of environmental, societal, and cultural issues related to technological design, and will explore career opportunities in the field, as well as the college and/or university program requirements for them.

**CREDIT:** 1

**TYPE:** College/University

### **TGJ3M Communications Technology**

This course examines communications technology from a media perspective. Students will develop knowledge and skills as they design and produce media projects in the areas of live, recorded, and graphic communications. These areas may include TV, video, and movie production; radio and audio production; print and graphic communications; photography; digital imaging; broadcast journalism; and interactive new media. Students will also develop an awareness of related environmental and societal issues and explore college and university programs and career opportunities in the various communications technology fields.

**CREDIT:** 1

**TYPE:** College/University

### **TCJ3C Construction Technology**

This course focuses on the development of knowledge and skills related to residential construction. Students will gain hands on experience using a variety of construction materials, processes, tools, and equipment; learn about building design and planning construction projects; create and interpret working drawings and sections; and learn how the Ontario Building Code and other regulations and standards apply to construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and explore career opportunities in the field.

**CREDIT:** 1

**TYPE:** College

### **TMJ3C Manufacturing Engineering Technology**

This course enables students to develop knowledge and skills through hands-on, project-based learning. Students will acquire design, fabrication, and problem-solving skills while using tools and equipment such as lathes, mills, welders, computer-aided machines, robots, and control systems. Students may have opportunities to obtain industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about pathways leading to careers in the industry.

**CREDIT:** 1

**TYPE:** College

### **TMJ3CU Manufacturing Engineering Technology**

This course enables students to develop knowledge and skills through hands-on, project-based learning. Students will acquire design, fabrication, and problem-solving skills while using tools and equipment such as lathes, mills, welders, computer-aided machines, robots, and control systems. Students may have opportunities to obtain industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about pathways leading to careers in the industry.

**CREDIT:** 2

**TYPE:** College

### **TTJ3C Transportation Technology**

This course enables students to develop technical knowledge and skills as they study, test, service, and repair engine, electrical, suspension, brake, and steering systems on vehicles, aircraft, and/or watercraft. Students will develop communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will develop an awareness of environmental and societal issues related to transportation and will learn about apprenticeship and college programs leading to careers in the transportation industry.

**CREDIT:** 1

**TYPE:** College

### **TDJ4M Technological Design**

This course introduces students to the fundamentals of design advocacy and marketing, while building on their design skills and their knowledge of professional design practices. Students will apply a systematic design process to research, design, build, and assess solutions that meet specific human needs, using illustrations, presentation drawings, and other communication methods to present their designs. Students will enhance their problem-solving and communication skills, and explore career opportunities and the postsecondary education and training requirements for them.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** TDJ3M - Technological Design;

### **TGJ4M Communications Technology**

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.

**CREDIT:** 1

**TYPE:** College/University

**PREREQUISITE:** TGJ3M - Communications Technology;

### **TCJ4C Construction Technology**

This course enables students to further develop knowledge and skills related to residential construction and to explore light commercial construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment and will learn more about building design and project planning. They will continue to create and interpret construction drawings and will extend their knowledge of construction terminology and of relevant building codes and regulations, as well as health and safety standards and practices. Students will also focus on environmental and societal issues related to construction engineering technology, and explore career opportunities in the field.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** TCJ3C - Construction Technology;

**TMJ4C Manufacturing Engineering Technology**

This course enables students to further develop knowledge and skills related to machining, welding, print reading, computer numerical control (CNC), robotics, and design. Students will develop proficiency in using mechanical, pneumatic, electronic, and computer control systems in a project-based learning environment and may have opportunities to obtain industry-standard training and certification. Students will expand their awareness of environmental and societal issues and career opportunities in the manufacturing industry.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** TMJ3C - Manufacturing Engineering Technology;

**TMJ4CU Manufacturing Engineering Technology**

This course enables students to further develop knowledge and skills related to machining, welding, print reading, computer numerical control (CNC), robotics, and design. Students will develop proficiency in using mechanical, pneumatic, electronic, and computer control systems in a project-based learning environment and may have opportunities to obtain industry-standard training and certification. Students will expand their awareness of environmental and societal issues and career opportunities in the manufacturing industry.

**CREDIT:** 2

**TYPE:** College

**PREREQUISITE:** TMJ3C - Manufacturing Engineering Technology; TMJ3CU - Manufacturing Engineering Technology;

**TTJ4C Transportation Technology**

This course enables students to further develop technical knowledge and skills as they study, test, service, and repair engine management systems; power trains; steering/control, suspension, brake, and body systems on vehicles, aircraft, and/or watercraft; and/or small-engine products. Students will refine communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will expand their awareness of environmental and societal issues related to transportation and their knowledge of apprenticeship and college programs leading to careers in the transportation industry.

**CREDIT:** 1

**TYPE:** College

**PREREQUISITE:** TTJ3C - Transportation Technology;