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## 2008 – 2009 GRADE 12 COURSE DESCRIPTIONS

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Course delivery is based on a semester system. The school reserves the right to cancel under-subscribed courses. The courses offered by this school have been developed according to the requirements of the Ontario Ministry of Education.

Students at Archbishop Denis O'Connor Catholic High School must include a course in Religious Education in each year of their program.

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### Religious Education

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#### **HRE4M1 Church and Culture Grade 12 (University/College)**

This course is directed toward the clear identification of Catholic moral principles and the concrete application of these principles in the lives of students. The course proceeds from foundational beliefs rooted in Sacred Scripture concerning justice and peace to an exploration of the principles that shape Christian life. In the Family Life Education strand, students explore a variety of topics related to the themes of personhood, interpersonal relationships and sexuality.

Special attention is given to the interaction between Church and culture. The modern world is characterized by a multiplicity of values, philosophies and ideologies. In a democratic, pluralistic society, these concepts may creatively reinforce one another or they may compete and contradict one another. The Christian moral life is a call to follow Jesus Christ, to believe in the redemptive love of God for humankind and to proclaim and incarnate the reign of God as inaugurated by Jesus Christ. This course is intended to prepare the senior student for this lifelong task.

#### **HRE4O1 Church and Culture Grade 12 (Open)**

This course assists students in their development of the skills and knowledge necessary to live lives of full maturity. Within the Catholic faith tradition, it is believed that this growth towards human maturity is best served when students are able to define themselves authentically in relation to their God, to other people and to their world. In the Family Life Education strand, students explore a variety of topics related to the themes of personhood, interpersonal relationships and sexuality.

Students will demonstrate a knowledge of the prophetic teaching in Scripture, become familiar with the social teachings of the Catholic Church, explore contemporary notions of spirituality and prayer, and recognize the importance, power, and potential of the human person in relation to morality and personal choices concerning future life paths.

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### The Arts

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#### Dramatic Arts

#### **ADA4M1 Drama Grade 12 (University/College) Prerequisite: ADA3M1 or ADA3O1**

This course requires students to experiment with forms and conventions in dramatic literature, and to create/adapt and present dramatic works. Students will do research on dramatic forms, conventions, themes, and theories of acting and directing from different historical periods, and apply their knowledge of these in interpreting dramatic literature, including Canadian works and works from various cultures in the late twentieth century. Students will also examine the significance of dramatic arts in various cultures.

## Music

### **AMI4M1 Instrumental Music**

**Grade 12 (University/College)**

**Prerequisite: AMU3M1 or AMI3M1**

This course emphasizes the appreciation, analysis, and performance of music from the Romantic Period and the Twentieth Century, including art music, jazz, popular music, and Canadian and non-Western music. Students will concentrate on developing interpretive skills and the ability to work independently. They will also complete complex creative projects.

## Visual Arts

### **AVI4M1 Visual Arts**

**Grade 12 (University/College)**

**Prerequisite: AVI3M1 or AVI3O1**

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

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## **Business Studies**

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### **BAT4M1 Financial Accounting Principles**

**Grade 12 (University/College)**

**Prerequisite: BAF3M1**

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.

### **BBB4M1 International Business Fundamentals**

**Grade 12 (University/College)**

**Prerequisite: Any university, university/college or college preparation course in Business Studies or Canadian and World Studies.**

This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. Students will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively. This course prepares students for postsecondary programs in business, including international business, marketing, and management.

### **BDV4C1 Entrepreneurship: Venture Planning in an Electronic Age**

**Grade 12 (College)**

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

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# Canadian and World Studies

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## History

### **CHY4U1 World History: The West and the World**

#### **Grade 12 (University)**

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

**School Recommended Preparation: CHA3U1 or CHW3M1**

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.

### **HZT4U1 Philosophy: Questions and Theories**

#### **Grade 12 (University)**

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

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

### **HHS4M1 Individuals and Families in a Diverse Society**

#### **Grade 12 (University/College)**

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

**School Recommended Preparation: HSP3M1**

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.

### **CHY4C1 World History: The West and the World**

#### **Grade 12 (College)**

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

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.

## Geography

### **CGW4U1 Canadian and World Issues: A Geographic Analysis**

#### **Grade 12 (University)**

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

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.

### **CGR4M1 The Environment and Resource Management**

#### **Grade 12 (University/College)**

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

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

### **CGU4C1 World Geography: Urban Patterns and Interactions**

#### **Grade 12 (College)**

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

This course examines cities around the world and the social, political, cultural, environmental, and economic factors that shape them. Students will study urban structures and systems, the impact of migrations on cities, and the impact of cities on the environment. Students will use geotechnologies and apply geographic concepts and inquiry methods to analyse issues and problems related to urban development and to formulate potential solutions.

### **CGR4E1 The Environment and Resource Management**

#### **Grade 12 (Workplace)**

**Prerequisite: CGC1D1 or CGC1P1**

This course examines the influence of human activities on the natural environment. Students will study ecosystem structures and processes, the ecological impact of human activities, and methods of responsible resource management. Students will apply geotechnologies and geographic inquiry methods to develop and present practical solutions to environmental and resource-management issues. In the process, students' problem-solving and communication skills will be enhanced in preparation for careers and the workplace.

## **Law and Economics**

### **CLN4U1 Canadian and International Law**

#### **Grade 12 (University)**

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

**School Recommended Preparation: CLU3M1**

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.

### **CIA4U1 Analysing Current Economic Issues**

#### **Grade 12 (University)**

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

This course investigates the nature of the competitive global economy and explores how individuals and societies can gain the information they need to make appropriate economic decisions. Students will learn about the principles of microeconomics and macroeconomics, apply economic models and concepts to interpret economic information, assess the validity of statistics, and investigate marketplace dynamics. Students will use economic inquiry and communication skills to analyse current economic issues, make informed judgements, and present their findings.

## **Family Studies**

### **TPO4C1 Child Care and Gerontology**

#### **Grade 12 (College)**

This course helps students understand the stages of development and needs of children and the elderly. Students will master the fundamental skills required to meet these needs; acquire an awareness of legislation governing the care of children and of elderly people who require support or supervision; evaluate social and recreational activities for children and the elderly; and assess available facilities. Students will also examine career paths in child and geriatric care, the impact of technological developments on products and services, and health and safety laws.

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## **English, French and Modern Languages**

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### **ENG4U1 English (Core)**

#### **Grade 12 (University)**

#### **Prerequisite: ENG3U1**

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.

### **ENG4C1 English (Core)**

#### **Grade 12 (College)**

#### **Prerequisite: ENG3C1**

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.

### **ENG4E1 English (Core)**

#### **Grade 12 (Workplace Preparation)**

#### **Prerequisite: ENG3E1**

This course emphasizes the consolidation of literacy, communication, and critical and creative thinking skills necessary for success in the workplace and in daily life. Students will analyse informational, graphic, and literary texts and create oral, written, and media texts in a variety of forms for workplace-related and practical purposes. An important focus will be on using language accurately and organizing ideas and information coherently. The course is intended to prepare students for the workplace and active citizenship.

### **ETS4U1 Studies in Literature**

#### **Grade 12 (University)**

#### **Prerequisite: ENG3U1**

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

**EWC4U1 The Writer's Craft****Grade 12 (University)****Prerequisite: ENG3U1**

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.

**EBT4O1 Communication in the World of Business and Technology****Grade 12 (Open)****Prerequisite: ENG3U1, ENG3C1 or ENG3E1**

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

**OLC4O1 Ontario Secondary School Literacy Course****Grade 12 (Open)**

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

This course is designed to help students acquire and demonstrate the cross-curricular literacy skills that are evaluated by the Ontario Secondary School Literacy Test (OSSLT). Students who complete the course successfully will meet the provincial literacy requirement for graduation. Students will read a variety of informational, narrative, and graphic texts and will produce a variety of forms of writing, including summaries, information paragraphs, opinion pieces, and news reports. Students will also maintain and manage a portfolio containing a record of their reading experiences and samples of their writing.

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## Guidance

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**IDC4U1 Peer Tutoring****Grade 12 (University)****Prerequisite: ENG3U1**

**There is a student selection process that involves the completion of an application form and an interview.**

This course will help students develop and consolidate the skills required for and knowledge of different subjects and disciplines to solve problems, make decisions, create personal meaning, and present findings beyond the scope of a single subject or discipline. Students will apply the principles and processes of inquiry and research to effectively use a range of print, electronic, and mass media resources; to analyse historical innovations and exemplary research; and to investigate real-life situations and career opportunities in interdisciplinary endeavours. They will also assess their own cognitive and affective strategies, apply general skills in both familiar and new contexts, create innovative products, and communicate new knowledge.

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## Health and Physical Education

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### **PSE4U1 Exercise Science**

#### **Grade 12 (University)**

**Prerequisite: Any grade 11 university or university/college preparation course in Science, or any grade 11 or 12 open course in Health and Physical Education.**

#### **School Recommendation Preparation: SBI3U1**

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.

### **PPL4O1 Healthy Active Living Education**

#### **Grade 12 (Open)**

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

Students will be using community facilities such as golf, weight training and squash. There is a course fee of \$225. Transportation costs and an athletic uniform are included in the registration fee.

### **PAF4O1 Personal and Fitness Activities (Co-ed)**

#### **Grade 12 (Open)**

This course focuses on the development of a personalized approach to healthy active living through participation in a variety of sports and recreational activities that have the potential to engage students' interest throughout their lives. Students will develop and implement personal physical fitness plans. In addition, they will be given opportunities to refine their decision-making, conflict resolution, and interpersonal skills with a view to enhancing their mental health, their personal safety and their relationships with others. The predominant activity will be strength training but will also include cardiovascular endurance activities. There will be a running program that will prepare students for the successful completion of a 10 km run by the end of the semester. A school phys-ed uniform is required for this course.

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## Mathematics

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### **MHF4U1 Advanced Functions**

#### **Grade 12 (University)**

**Prerequisite: MCR3U1 or MCT4C1**

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students who plan to study mathematics in university and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs.

### **MCV4U1 Calculus and Vectors**

#### **Grade 12 (University)**

**Prerequisite: MCR3U1**

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, rational, exponential, and sinusoidal functions; and apply these concepts and skills to the modelling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who plan to study mathematics in university and who may choose to pursue careers in fields such as physics and engineering. **Note: The new Advanced Functions can be taken concurrently with or can precede Calculus and Vectors.**

### **MDM4U1 Mathematics of Data Management Grade 12 (University)**

**Prerequisite: MCR3U1 or MCF3M1**

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

### **MAP4C1 Foundations for College Mathematics**

**Grade 12 (College)**

**Prerequisite: MCR3U1 or MCF3M1 or MBF3C1**

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; 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.

### **MCT4C1 Mathematics for College Technology**

**Grade 12 (College)**

**Prerequisite: MCR3U1 or MCF3M1**

This course enables students to extend their knowledge of functions. Students will investigate and apply properties of polynomial, exponential, and trigonometric functions; continue to represent functions numerically, graphically, and algebraically; develop facility in simplifying expressions and solving equations; and solve problems that address applications of algebra, trigonometry, vectors, and geometry. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for a variety of college technology programs.

### **MEL4E1 Mathematics for Work and Everyday Life**

**Grade 12 (Workplace)**

**Prerequisite: MEL3E1**

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 and create household budgets; 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.

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## **Science**

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### **Biology**

#### **SBI4U1 Biology**

**Grade 12 (University)**

**Prerequisite: SBI3U1**

**School Recommended Preparation: SCH3U1**

This course provides students with the opportunity for in-depth study of the concepts and processes associated with biological systems. Students will study theory and conduct investigations in the areas of metabolic processes, molecular genetics, homeostasis, evolution, and population dynamics. Emphasis

will be placed on achievement of the detailed knowledge and refined skills needed for further study in the various branches of life sciences and related fields.

## **Chemistry**

### **SCH4U1 Chemistry**

**Grade 12 (University)**

**Prerequisite: SCH3U1**

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, energy changes and rates of reaction, chemical equilibrium, atomic and molecular structure, and electrochemistry. Students will further develop problem-solving and laboratory skills as they investigate chemical processes, at the same time refining their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in daily life, and on evaluating the impact of chemical technology on the environment.

### **SCH4C1 Chemistry**

**Grade 12 (College)**

**Prerequisite: SNC2D1 or SNC2P1**

This course introduces students to the concepts that form the basis of modern chemistry. Students will study qualitative analysis, quantitative relationships in chemical reactions, organic chemistry and electrochemistry, and chemistry as it relates to the quality of the environment. Students will employ a variety of laboratory techniques, develop skills of data collection and scientific analysis, and communicate scientific information using appropriate terminology. Emphasis will be placed on the role of chemistry in daily life in the development of new technologies and products.

## **Physics**

### **SPH4U1 Physics**

**Grade 12 (University)**

**Prerequisite: SPH3U1**

This course enables students to deepen their understanding of the concepts and theories of physics. Students will explore further the laws of dynamics and energy transformations, and will investigate electrical, gravitational, and magnetic fields, electromagnetic radiation, and the interface between energy and matter. They will further develop inquiry skills, learning, for example, how the interpretation of experimental data can provide indirect evidence to support the development of a scientific model. Students will also consider the impact on society and the environment of technological applications of physics.

### **SPH4C1 Physics**

**Grade 12 (College)**

**Prerequisite: SNC2D1 or SNC2P1**

This course develops students' understanding of the basic concepts of physics. Students will explore these concepts as they relate to mechanical, electrical, fluid (hydraulic and pneumatic), and communications systems, as well as to the operation of commonly used tools and equipment. They will develop scientific-inquiry skills as they verify accepted 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.

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# Technology

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## Computer Technology

### **TGJ4M1 Communications Technology (Graphic Design)**

**Grade 12 (University/College)**

**Prerequisite: TGJ3M1**

This course examines communications systems and design and production processes in the areas of electronic, live, recorded, and graphic communications. Students will create, manage, and distribute complex electronic, graphic, recorded, or audio-visual projects independently and in project teams. Students will also study industry standards and regulations and health and safety issues, and will explore careers, the importance of lifelong learning, and the impact of communications technology on society and the environment. Software to be integrated into this course includes Adobe Photoshop, Adobe Illustrator, Adobe Premiere, Flash MX, Dreamweaver MX and Microsoft Office.

### **ICS4M1 Computer and Information Science**

**Grade 12 (University/College)**

**Prerequisite: ICS3M1**

This course helps students use programming and software engineering principles to design and develop algorithms and programs. Students will use software development and diagnostic tools, implement data structures and algorithms, and use file management techniques in project settings. They will also develop an understanding of the ethics of computer use and the impact of information technology on the community and will explore post-secondary education and career paths in computer science. Programming languages include Turing, Visual Basic and Flash.

## Design Technology

### **TDJ4M1 Technological Design**

**Grade 12 (University/College)**

**Prerequisite: TDJ3M1**

This course provides students with opportunities to solve problems in design through the use of technical drawings, model building, testing and marketing. Students will research, design and test solutions for residential or commercial architecture, industrial engineering and manufacturing. They will also examine the educational requirements of a technical design-related career in engineering, architecture, or industrial design. This course will continue the skill development in Computer Aided Design (CAD). Students will be required to complete an Independent Study Unit with the topic chosen by the student.

### **TDJ4E1 Technological Design**

**Grade 12 (Workplace Preparation)**

**Prerequisite: TDJ3E1**

This course helps students develop a systematic process to design products or services based on an understanding and analysis of consumer needs, material characteristics, fabrication methods and design principles. Students will develop design briefs, conduct marketing surveys, create freehand and computer-generated illustrations, make models, generate technical reports, design packaging and become aware of design trends. They will also examine careers and small business opportunities in design, architecture, manufacturing, or marketing.

## Transportation Technology

### **TTJ4C1 Transportation Technology**

**Grade 12 (College)**

**Prerequisite: TTJ3C1**

This course examines alternative modes of mass transit to enable students to develop the specialized knowledge and skills required to work with sophisticated land, air and/or marine vehicles and transportation systems. Students will solve problems related to vehicles and transportation systems,

examine transportation-related issues such as energy conversion, power transfer, control systems, and environmental and societal impact, and investigate the educational requirements of career opportunities in the transportation sector.