



ROSEDALE



Dear Parents and Guardians,

Thank you for choosing Rosedale Academy and Ontario Secondary School Diploma (OSSD) education for your child. The OSSD is an internationally recognized secondary school credential from the Ontario Ministry of Education in Canada. Rosedale Academy is inspected regularly by the Ontario Ministry of Education and is authorized to grant Ontario Secondary School Credits. The credits issued by Rosedale Academy are the same credits as those earned from any public or private school in Ontario and are recognized by universities and colleges around the globe.

This document explains how Rosedale implements the OSSD program and how your students will be graded during their secondary school education with us.

About Rosedale and OSSD grading

How does Rosedale develop courses?

Rosedale develops courses based on the curriculum expectations outlined in the Ontario Ministry of Education documents for each subject. The Ontario Ministry of Education is responsible for defining the curriculum that is taught in all Ontario schools, while schools like Rosedale are responsible for the delivery and implementation of this curriculum. Ultimately, it is the Ontario Ministry of Education that determines the *overall* and *specific* expectations that students must meet in order to obtain a course credit, how students must be assessed and evaluated, and the OSSD graduation requirements. Rosedale courses are developed to ensure our students meet these Ontario Ministry of Education's expectations.

Who grades student work?

Student work is graded by a Rosedale Grading Teacher located in Ontario, Canada. Rosedale Grading Teachers are experienced Ontario-certified educators with expertise in their subject areas and in the OSSD requirements. Final grades are determined by the Rosedale Grading Teacher in accordance to the Ontario Ministry's of Education's Achievement Charts. The local Classroom Teachers provide support and guidance to your child and give qualitative and descriptive feedback throughout the course in order to support student learning.

How do Grading Teachers assess and evaluate student work?

Grading Teachers evaluate assignments, tests, exams, and projects for evidence that a student has met the Ontario Ministry of Education curriculum expectations. Grading Teachers use the Ontario Ministry of Education Achievement Charts for each subject to determine how well students have met expectations and assign grades accordingly. Grades are criterion based and reflect how well each individual student has met the expectations outlined in the curriculum. Teachers use a variety of tools to determine grades and provide feedback, including detailed rubrics and scoring guides created by Rosedale.

Within each course, students will be assessed and evaluated based on their achievement of expectations in four categories of knowledge and skills. These categories are as follows:

- **Knowledge and Understanding:** Subject specific content acquired in each course and the comprehension of its meaning and significance.
- **Inquiry and Thinking:** The use of critical and creative thinking skills and inquiry, research, and problem-solving skills and/or processes.



- **Communication:** The conveying of meaning through various forms.
- **Application:** How they apply the use of knowledge and skills to make connections within and between various contexts.

Students are required to demonstrate their learning in all four categories for every course and every subject. As such, different tasks may include evaluation of skills from different categories. *For example*, in a mathematics course, students may be asked to complete a mathematical calculation. In order to receive full marks, the student may be asked to provide the numerical answer (Knowledge and Understanding, Inquiry and Thinking) AND show their work to demonstrate their thinking (Communication).

The Achievement Charts are used by our Grading Teachers to ensure consistency of grading across classes and to indicate where student performance lies in relation to the Ontario provincial standard.

Within each category of learning, the four levels of achievement (Levels 1-4) are:

- **Level 4 (80%-100%)** identifies achievement that **surpasses** the provincial standard. Students should use the feedback to continue improving in areas of strength.
- **Level 3 (70%-79%)** represents the provincial standard for achievement has been met. Students should use the feedback to continue improving in areas of strength and weaknesses.
- **Level 2 (60%-69%)** represents achievement that approaches the standard. Students should use the feedback to identify learning gaps and determine missing skills.
- **Level 1 (50%-59%)** represents achievement that falls below the standard. Students should use the feedback from teachers to identify areas of difficulty and improve skills.

An example of an Achievement Chart can be found here: [Achievement Chart Sample](#)

How can my child know what is required to thoroughly demonstrate that they have met a course's learning expectations?

Thoroughly demonstrating an expectation means that a student has demonstrated an excellent grasp of the content knowledge and the course specific skills being assessed. The knowledge and skills expected will vary depending on the course they are studying. To fully understand what is required in each course, it is strongly recommended that students take the time to review the Learning Goals and Success Criteria found at the beginning of each lesson and assignment. Students should carefully review the rubrics and assignment descriptions provided before beginning a task, and then self-assess their work against the rubrics before submitting it to ensure it fully meets the expected criteria. Classroom and Grading Teachers are available to provide more clarity when a student requires support.

What are critical thinking skills?

Critical thinking is a Higher Order Thinking Skill (HOTS). These are skills that students require to be able to apply knowledge, evaluate information, problem-solve, and make informed decisions. In OSSD courses, the use of higher order thinking skills is embedded in the curriculum expectations and is reflected primarily in the Thinking & Inquiry and Application categories of the Achievement Chart. Students are expected to be able to analyse, interpret, problem solve, evaluate, and draw and justify conclusions on the basis of evidence. They are



also expected to apply their learning to different contexts, make connections between ideas learned, and propose solutions to problems based on their learning. Higher order thinking requires students to apply their learning in meaningful ways, rather than simply memorizing facts and processes, which are Lower-Order Thinking Skills.

For example:

Lower-Order Thinking Skill task: Students describe the components of the water cycle.

Higher-Order Thinking Skill task: Students evaluate and form an educated hypothesis on how an increase or decrease in global temperatures will affect the components of the water cycle.

Both of the above examples are about the water cycle and both require understanding of the knowledge that form the “facts” of what makes up the water cycle, but the second task goes beyond facts to an actual understanding, application and evaluation of the water cycle.

How are final marks calculated?

According to the Ontario Ministry of Education, the final mark for a student is determined as follows: 70% Term Mark and 30% Final Evaluation.

Evaluations completed during the course are used to calculate the term mark, whereas the final 30% is determined by performance on one or more evaluations at the end of the course (e.g. project, exam, essay, presentation).

What are the expectations around Academic Integrity and consequences of Academic Integrity violations?

The Ontario Ministry of Education assessment policy makes it clear that students are responsible for their own work, and they are expected to provide original evidence of their learning. Cheating and plagiarism of any sort will not be tolerated. Students who cheat or submit work or parts of work that are not their own will be face consequences under our Academic Integrity Policy. Consequences may include: contact with parents/guardians, a warning, disciplinary action, re-doing the task or a portion of the task, and/or a mark of zero depending on the exact nature of the offence.

How can you help your child succeed?

- Maintain open communication with your child.
- Encourage your child to use every opportunity for learning by completing all the assessments (graded and non-graded) in the course.
- Encourage your child to carefully review the success criteria for all assignments and to check that their work meets these criteria before submitting.
- Attend parent-administration meetings with your local school administration.
- Encourage your child to review feedback provided to them by the Grading Teacher and to evaluate their own work based on the feedback.
- Let your child know that making mistakes is okay. When your child makes a mistake or doesn't receive a grade they expected, they can get frustrated and demotivated. Support your child and encourage them learn from their mistakes. Encourage them to seek feedback on where they need to improve.

Full OSSD Course List 2021-2022



The table below lists all Rosedale courses grouped into subject and grade levels. Some courses have a **prerequisite** requirement. A **prerequisite course** is a junior-level course that must be taken before taking the more advanced level course.

Subject	Code	Course Name	Prerequisite
ESL	ESLBO	English as a Second Language, B Level	ESL Placement Test
ESL	ESLCO	English as a Second Language, C Level	
ESL	ESLDO	English as a Second Language, D Level	
ESL	ESLEO	English as a Second Language, E Level	
Grade 12 Courses			
Arts	ASM4M	Media Arts (Animation) ⁺	ASM3M
Arts	AWR4M	Visual Arts – Film/Video ⁺	AWR3M
Business	BBB4M	International Business Fundamentals	None
Business	BOH4M	Business Leadership	None
Business	BAT4M	Financial Accounting Principles	BAF3M
Computer Science	ICS4U	Computer Science	ICS3U
English	ENG4U	English	ENG3U
English	OLC4O	Ontario Secondary School Literacy Course	Literacy Test
Languages	LKBDU	Simplified Chinese	LKBCU
Mathematics	MHF4U	Advanced Functions	MCR3U
Mathematics	MCV4U	Calculus and Vectors	MHF4U
Mathematics	MDM4U	Mathematics of Data Management	MCR3U
Science	SCH4U	Chemistry	SCH3U
Science	SPH4U	Physics	SPH3U
Science	SBI4U	Biology	SBI3U
Social Sciences	CPW4U	Canadian and International Politics	ENG3U
Social Sciences	CHY4U	World History since the 15 th Century	ENG3U
Social Sciences	CIA4U	Analyzing Current Economic Issues	ENG3U
Social Sciences	HFA4U	Nutrition & Health	ENG3U
Grade 11 Courses			
Arts	ASM3M	Media Arts (Animation) ⁺	ASM2O

Arts	AWR3M	Visual Arts – Film/Video ⁺	AVI2O/ ASM2O
Business	BAF3M	Introduction to Financial Accounting	None
Computer Science	ICS3U	Introduction to Computer Science	None
English	ENG3U	English	ESLEO
Guidance & Careers	GWL3O	Designing Your Future	None
Languages	LKBCU	Simplified Chinese	Prior Learning
Mathematics	MCR3U	Functions	MPM2D
Science	SCH3U	Chemistry	SNC2D
Science	SPH3U	Physics	SNC2D
Science	SBI3U	Biology	SNC2D
Grade 9&10 Courses			
Arts	ADA2O	Drama [*]	None
Arts	ASM2O	Media Arts ⁺	None
Arts	AVI2O	Visual Arts ⁺	None
Business	BBI2O	Introduction to Business	None
Business	BTT2O	Information and Communication Technology in Business	None
Guidance & Careers	GLS1O	Learning Strategies 1: Skills for Success in Secondary School	None
Mathematics	MPM2D	Principles of Mathematics	MPM1D
Science	SNC2D	Science	SNC1D
Social Sciences	CHC2P	Canadian History Since World War I	None
<p>* Course available in January 2022</p> <p>+ Computer Applications required for Arts Courses:</p> <ul style="list-style-type: none"> • AVI2O, ASM2O, ASM3M, AWR3M, AWR4M: Adobe Creative Cloud (All apps) • ASM4M: Autodesk Maya (Students with a school email account will be able to register for free) 			



In this section, you can find the descriptions of all Rosedale courses. To get more detailed information about each course, you can:

- View the Course Outlines for each course on Rosedale's LMS
- Access Ontario curriculum policy documents at:
<http://www.edu.gov.on.ca/eng/curriculum/secondary/subjects.html>

English as a Second Language Courses

ESLBO - English as a Second Language, ESL Level 2, Open

This course extends students' listening, speaking, reading, and writing skills in English for everyday and academic purposes. Students will participate in conversations in structured situations on a variety of familiar and new topics; read a variety of texts designed or adapted for English language learners; expand their knowledge of English grammatical structures and sentence patterns; and link English sentences to compose paragraphs. The course also supports students' continuing adaptation to the Ontario school system by expanding their knowledge of diversity in their new province and country.

Prerequisite: ESLBO or English Proficiency Test Scores

ESLCO - English as a Second Language, ESL Level 3, Open

This course further extends students' skills in listening, speaking, reading, and writing in English for a variety of everyday and academic purposes. Students will make short classroom oral presentations; read a variety of adapted and original texts in English; and write using a variety of text forms. As well, students will expand their academic vocabulary and their study skills to facilitate their transition to the mainstream school program. This course also introduces students to the rights and responsibilities inherent in Canadian citizenship, and to a variety of current Canadian issues.

Prerequisite: ESLBO or English Proficiency Test Scores

ESLDO - English as a Second Language, ESL Level 4, Open

This course prepares students to use English with increasing fluency and accuracy in classroom and social situations and to participate in Canadian society as informed citizens. Students will develop the oral-presentation, reading, and writing skills required for success in all school subjects. They will extend listening and speaking skills through participation in discussions and seminars; study and interpret a variety of grade-level texts; write narratives, articles, and summaries in English; and respond critically to a variety of print and media texts.

Prerequisite: ESLCO or English Proficiency Test Scores

ESLEO - English as a Second Language, ESL Level 5, Open

This course provides students with the skills and strategies they need to make the transition to college and university preparation courses in English and other secondary school disciplines. Students will be encouraged to develop independence in a range of academic tasks. They will participate in debates and lead classroom workshops; read and interpret literary works and academic texts; write essays, narratives, and reports; and apply a range of learning strategies

and research skills effectively. Students will further develop their ability to respond critically to print and media texts.

Prerequisite: ESLDO or English Proficiency Test Scores

Grade 10 Courses

ADA20 – Drama, Grade 10, Open

This course provides opportunities for students to explore dramatic forms, conventions, and techniques. Students will explore a variety of dramatic sources from various cultures and representing a range of genres. Students will use the elements of drama in creating and communicating through dramatic works. Students will assume responsibility for decisions made in the creative and collaborative processes and will reflect on their experiences. *Prerequisite: None*

ASM20 - Media Arts, Grade 10 , Open

This course enables students to create media art works by exploring new media, emerging technologies such as digital animation, and a variety of traditional art forms such as film, photography, video, and visual arts. Students will acquire communications skills that are transferable beyond the media arts classroom and develop an understanding of responsible practices related to the creative process. Students will develop the skills necessary to create and interpret media art works. *Prerequisite: None*

AVI20 – Visual Arts, Grade 10, Open

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. *Prerequisite: None*

BBI20 - Introduction to Business, Grade 10, Open

This course introduces students to the world of business. Students will develop an understanding of the functions of business, including accounting, marketing, information and communication technology, human resources, and production, and of the importance of ethics and social responsibility. This course builds a foundation for further studies in business and helps students develop the business knowledge and skills they will need in their everyday lives. *Prerequisite: None*

BTT20 - Information and Communication Technology in Business, Grade 10, Open

This course introduces students to information and communication technology in a business environment and builds a foundation of digital literacy skills necessary for success in a technologically driven society. Students will develop word processing, spreadsheet, database, desktop publishing, presentation software, and website design skills. Throughout the course, there is an emphasis on digital literacy, effective electronic research and communication skills, and current issues related to the impact of information and communication technology. *Prerequisite: None*

CHC2P – Canadian History Since WWI, Grade 10, Applied

This course focuses on the social context of historical developments and events and how they have affected the lives of people in Canada since 1914. Students will explore interactions between various communities in Canada as well as contributions of individuals and groups to Canadian heritage and identity. Students will develop their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating the continuing relevance of historical developments and how they have helped shape communities in present-day Canada. *Prerequisite: None*

GLS10 – Learning Strategies 1: Skills for Success in Secondary School, Grade 9, Open

This course focuses on learning strategies to help students become better, more independent learners. Students will learn how to develop and apply literacy and numeracy skills, personal management skills, and interpersonal and teamwork skills to improve their learning and achievement in school, the workplace, and the community. The course helps students build confidence and motivation to pursue opportunities for success in secondary school and beyond. *Prerequisite: None*

MPM2D - Principles of Mathematics, Grade 10, Academic

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and abstract reasoning. Students will explore quadratic relations and their applications; solve and apply linear systems; verify properties of geometric figures using analytic geometry; and investigate the trigonometry of right and acute triangles. Students will reason mathematically and communicate their thinking as they solve multi-step problems. *Prerequisite: MPM1D - Mathematics, Grade 9, Academic*

SNC2D - Science, Grade 10, Academic

This course enables students to enhance their understanding of concepts in biology, chemistry, earth and space science, and physics, and of the interrelationships between science, technology, society, and the environment. Students are also given opportunities to further develop their scientific investigation skills. Students will plan and conduct investigations and develop their understanding of scientific theories related to the connections between cells and systems in animals and plants; chemical reactions, with a particular focus on acid–base reactions; forces that affect climate and climate change; and the interaction of light and matter. *Prerequisite: SNC1D - Science, Grade 9, Academic*

Grade 11 Courses

AWR3M - Media Arts (Animation) – Grade 11, University/College Preparation

This course focuses on the development of media arts skills through the production of art works involving traditional and emerging technologies, tools, and techniques such as new media, computer animation, and web environments. Students will explore the evolution of media arts as an extension of traditional art forms, use the creative process to produce effective media art works, and critically analyse the unique characteristics of this art form. Students will examine the role of media artists in shaping audience perceptions of identity, culture, and values. *Prerequisite: ASM20*

AWR3M - Visual Arts - Film/Video, Grade 11, University/College Preparation

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 photography and filmmaking. 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). *Prerequisite: ASM2O/ AVI2O*

BAF3M - Introduction to Financial Accounting, Grade 11, University/College Preparation

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

LKBCU - Simplified Chinese – Level 2, University Preparation

This course offers students opportunities to further develop their knowledge of simplified Chinese and to enhance their communication skills. Students will use increasingly sophisticated language in a variety of activities that will enable them to speak and write with clarity and accuracy. Students will also enhance their thinking skills through the critical study of literature, and continue to explore aspects of the culture of China where the language is spoken through a variety of print and technological resources. *Prerequisite: LKBBD or prior knowledge*

ENG3U - English, Grade 11, University Preparation

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse challenging literary texts from various periods, countries, and cultures, as well as a range of informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on using language with precision and clarity and incorporating stylistic devices appropriately and effectively. The course is intended to prepare students for the compulsory Grade 12 university or college preparation course. *Prerequisite: ENG2D - English, Grade 10, Academic / ESLEO*

GWL3O - Designing Your Future, Grade 11, Open

This course prepares students to make successful transitions to postsecondary destinations as they investigate specific postsecondary options based on their skills, interests, and personal characteristics. Students will explore the realities and opportunities of the workplace and examine factors that affect success, while refining their job-search and employability skills. Students will develop their portfolios with a focus on their targeted destination and develop an action plan for future success. *Prerequisite: None*

ICS3U - Introduction to Computer Science, Grade 11, University Preparation

This course introduces students to computer science. Students will design software independently and as part of a team, using industry-standard programming tools and applying the software development life-cycle model. They will also write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental

and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields. *Prerequisite: None*

MCR3U - Functions, Grade 11, University Preparation

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems involving applications of functions; investigate inverse functions; and develop facility in determining equivalent algebraic expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems. *Prerequisite: MPM2D - Principles of Mathematics, Grade 10, Academic*

SBI3U - Biology, Grade 11, University Preparation

This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biodiversity; evolution; genetic processes; the structure and function of animals; and the anatomy, growth, and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation. *Prerequisite: SNC2D - Science, Grade 10, Academic; Recommendation: ESLDO*

SCH3U - Chemistry, Grade 11, University Preparation

This course enables students to deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behaviour of gases. Students will further develop their analytical skills and investigate the qualitative and quantitative properties of matter, as well as the impact of some common chemical reactions on society and the environment. *Prerequisite: SNC2D - Science, Grade 10, Academic*

SPH3U - Physics, Grade 11, University Preparation

This course develops students' understanding of the basic concepts of physics. Students will explore kinematics, with an emphasis on linear motion; different kinds of forces; energy transformations; the properties of mechanical waves and sound; and electricity and magnetism. They will enhance their scientific investigation skills as they test laws of physics. In addition, they will analyze the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment. *Prerequisite: SNC2D - Science, Grade 10, Academic*

Grade 12 Courses

ASM4M - Media Arts (Animation), Grade 12, University/College Preparation

This course emphasizes the refinement of media arts skills through the creation of a thematic body of work by applying traditional and emerging technologies, tools, and techniques such as multimedia, computer animation, installation art, and performance art. Students will develop works that express their views on contemporary issues and will create portfolios suitable for use in either career or postsecondary education applications. Students will critically analyse the role of media artists in shaping audience perceptions of identity, culture, and community values. *Prerequisite: ASM3M*

AWR4M - Visual Arts - Film/Video, Grade 12, University/College Preparation

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 photography and filmmaking. 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). *Prerequisite: AWR3M*

BBB4M - International Business Fundamentals, Grade 12, University/College Preparation

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

BOH4M - Business Leadership: Management Fundamentals, Grade 12, University/College Preparation

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

BAT4M - Financial Accounting Principles, Grade 12, University/College Preparation

This course introduces students to advanced accounting principles that will prepare them for postsecondary studies in business. Students will learn about financial statements for various forms of business ownership and how those statements are interpreted in making business decisions. This course expands student's knowledge of sources of financing, further develops accounting methods for assets, and introduces accounting for partnerships and corporations. *Prerequisite: BAF3M - Financial Accounting Fundamentals, Grade 11, University/College Preparation*

CIA4U - Analyzing Current Economic Issues, Grade 12, University Preparation

This course examines current Canadian and international economic issues, developments, policies, and practices from diverse perspectives. Students will explore the decisions that individuals and institutions, including governments, make in response to economic issues such as globalization, trade agreements, economic inequalities, regulation, and public spending. Students will apply the concepts of economic thinking and the economic inquiry process, as well as economic models and theories, to investigate, and develop informed opinions about, economic trade-offs, growth, and sustainability and related economic issues. *Prerequisite: ENG3U*

CPW4U - Canadian & International Politics, Grade 12, University Preparation

This course explores various perspectives on issues in Canadian and world politics. Students will explore political decision making and ways in which individuals, stakeholder groups, and various institutions, including governments, multinational corporations, and non-governmental

organizations, respond to and work to address domestic and international issues. Students will apply the concepts of political thinking and the political inquiry process to investigate issues, events, and developments of national and international political importance, and to develop and communicate informed opinions about them.

Prerequisite: ENG3U

ENG4U - English, Grade 12, University Preparation

This course emphasizes the consolidation of the literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyse a range of challenging literary texts from various periods, countries, and cultures; interpret and evaluate informational and graphic texts; and create oral, written, and media texts in a variety of forms. An important focus will be on using academic language coherently and confidently, selecting the reading strategies best suited to particular texts and particular purposes for reading, and developing greater control in writing. The course is intended to prepare students for university, college, or the workplace. *Prerequisite: ENG3U - English, Grade 11, University Preparation*

HFA4U - Nutrition & Health, Grade 12, University Preparation

This course examines the relationships between food, energy balance, and nutritional status; the nutritional needs of individuals at different stages of life; and the role of nutrition in health and disease. Students will evaluate nutrition-related trends and will determine how food choices can promote food security and environmental responsibility. Students will learn about healthy eating, expand their repertoire of food-preparation techniques, and develop their social science research skills by investigating issues related to nutrition and health. *Prerequisite: ENG3U*

ICS4U - Computer Science, Grade 12, University Preparation

This course enables students to further develop knowledge and skills in computer science. Students will use modular design principles to create complex and fully documented programs, according to industry standards. Student teams will manage a large software development project, from planning through to project review. Students will also analyse algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, areas of research in computer science, and careers in the field. *Prerequisite: ICS3U*

LKBDU - Simplified Chinese – Level 3, University Preparation

This course offers students opportunities to further develop their knowledge of simplified Chinese and to enhance their communication skills. Students will use increasingly sophisticated language in a variety of activities that will enable them to speak and write with clarity and accuracy. Students will also enhance their thinking skills through the critical study of literature, and continue to explore aspects of the culture of China where the language is spoken through a variety of print and technological resources. *Prerequisite: LKBCU or prior knowledge*

MDM4U - Mathematics of Data Management, Grade 12, University Preparation

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

programs in business, the social sciences, and the humanities will find this course of particular interest. *Prerequisite: MCR3U - Functions, Grade 11, University Preparation*

MHF4U - Advanced Functions, Grade 12, University Preparation

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; develop techniques for combining functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students taking the Calculus and Vectors course as a prerequisite for a university program and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs. *Prerequisite: MCR3U - Functions, Grade 11, University Preparation*

MCV4U - Calculus and Vectors, Grade 12, University Preparation

This course builds on students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors and representations of lines and planes in three-dimensional space; broaden their understanding of rates of change to include the derivatives of polynomial, sinusoidal, exponential, rational, and radical functions; and apply these concepts and skills to the modelling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who choose to pursue careers in fields such as science, engineering, economics, and some areas of business, including those students who will be required to take a university-level calculus, linear algebra, or physics course. *Prerequisite: MHF4U - Advanced Functions, Grade 12, University Preparation*

OLC40 - Ontario Secondary School Literacy Course, Grade 12, Open

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.

Eligibility Requirement: Students who have been eligible to write the OSSLT at least twice and who have been unsuccessful at least once are eligible to take the course.

SBI4U - Biology, Grade 12, University Preparation

This course provides students with the opportunity for in-depth study of the concepts and processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biochemistry, metabolic processes, molecular genetics, homeostasis, and population dynamics. Emphasis will be placed on the achievement of detailed knowledge and the refinement of skills needed for further study in various branches of the life sciences and related fields. *Prerequisite: SBI3U - Biology, Grade 11, University Preparation*

SCH4U - Chemistry, Grade 12, University Preparation

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, the structure and properties of matter, energy changes and rates of reaction, equilibrium in chemical systems, and electrochemistry. Students will further develop their problem-solving and investigation skills as they investigate chemical processes, and will refine their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in everyday life and on evaluating the impact of chemical technology on the environment. *Prerequisite: SCH3U - Chemistry, Grade 11, University Preparation*

SPH4U - Physics, Grade 12, University Preparation

This course enables students to deepen their understanding of physics concepts and theories. Students will continue their exploration of energy transformations and the forces that affect motion, and will investigate electrical, gravitational, and magnetic fields and electromagnetic radiation. Students will also explore the wave nature of light, quantum mechanics, and special relativity. They will further develop their scientific investigation skills, learning, for example, how to analyse, qualitatively and quantitatively, data related to a variety of physics concepts and principles. Students will also consider the impact of technological applications of physics on society and the environment. *Prerequisite: SPH3U - Physics, Grade 11, University Preparation*