ENGLISH

ESL Level 4 (ESLDO), 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: ESL Level 3 or equivalent

ESL Level 5 (ESLEO), 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: ESL Level 4 or equivalent

English G11, University Preparation (ENG3U)

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

Prerequisite: English G10 Academic

English G12, University Preparation (ENG4U)

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

Prerequisite: English, Grade 11, University Preparation

Ontario Secondary School Literacy Course, Grade 12, Open (OLC4O)

This course is designed to help students develop and demonstrate the reading and writing competencies required by the Ontario Secondary School Literacy Test (OSSLT) and for success in secondary school, the workplace, and daily life. Students will read a variety of informational, narrative, and graphic texts and will practice writing in a range of forms, including summaries, information paragraphs, opinion pieces, and news reports. The course emphasizes the use of effective reading strategies, the writing process, and techniques for clear communication. Students will maintain a literacy portfolio to track their progress, reflect on their learning, and demonstrate achievement of the required expectations.

Successful completion of this course meets the provincial secondary school literacy graduation requirement.

Prerequisite: Eligibility to write the OSSLT at least twice, with one unsuccessful attempt, or principal approval.

MATHEMATICS

Principles of Mathematics, G10, Academic (MPM2D)

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

Prerequisite: Grade 9 Mathematics, De-streamed (MTH1W).

Functions, G11, University Preparation (MCR3U)

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

Prerequisite: Principles of Mathematics, Grade 10, Academic

Calculus and Vectors, G12, University Preparation (MCV4U)

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

Note: The new Advanced Functions course (MHF4U) must be taken prior to or concurrently with Calculus and Vectors (MCV4U).

Mathematics of Data Management, G12, University Preparation (MDM4U)

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

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

Advanced Functions, G12, University Preparation (MHF4U)

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

Prerequisite: Functions, Grade 11, University Preparation, or Mathematics for College Technology, Grade 12, College Preparation

SCIENCE

Science, G10, Academic (SNC2D)
This course enables students to enhance their understanding of concepts in biology, chemistry, earth and space science, and physics, and of the interrelationships between science, technology, society, and the environment. Students are also given opportunities to further develop their scientific investigation skills. Students will plan and conduct investigations and develop their understanding of scientific theories related to the connections between cells and systems in animals and plants; chemical reactions, with a particular focus on acid–base reactions; forces that affect climate and climate change; and the interaction of light and matter.

Prerequisite: Science, Grade 9, Academic or Applied

Physics, G11, University Preparation (SPH3U)
This course develops students' understanding of the basic concepts of physics. Students will explore kinematics, with an emphasis on linear motion; different kinds of forces; energy transformations; the properties of mechanical waves and sound; and electricity and magnetism. They will enhance their scientific investigation skills as they test laws of physics. In addition, they will analyse the interrelationships between physics and technology, and consider the impact of technological applications of physics on society and the environment.

Prerequisite: Science, Grade 10, Academic

Physics, G12, University Preparation (SPH4U)
This course enables students to deepen their understanding of physics concepts and theories. Students will continue their exploration of energy transformations and the forces that affect motion, and will investigate electrical, gravitational, and magnetic fields and electromagnetic radiation. Students will also explore the wave nature of light, quantum mechanics, and special relativity. They will further develop their scientific investigation skills, learning, for example, how to analyse, qualitatively and quantitatively, data related to a variety of physics concepts and principles. Students will also consider the impact of technological applications of physics on society and the environment.

Prerequisite: Physics, Grade 11, University Preparation

Chemistry, G11, University Preparation (SCH3U)
This course enables students to deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behaviour of gases. Students will further develop their analytical skills and investigate the qualitative and quantitative properties of matter, as well as the impact of some common chemical reactions on society and the environment.

Prerequisite: Science, Grade 10, Academic

Chemistry, G12, University Preparation (SCH4U)
This course enables students to deepen their understanding of chemistry through the study of organic chemistry, the structure and properties of matter, energy changes and rates of reaction, equilibrium in chemical systems, and electrochemistry. Students will further develop their problem-solving and investigation skills as they investigate chemical processes and will refine their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in everyday life and on evaluating the impact of chemical technology on the environment.

Prerequisite: Chemistry, Grade 11, University Preparation.

Biology, G11, University Preparation (SBI3U)
This course furthers students' understanding of the processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biodiversity; evolution; genetic processes; the structure and function of animals; and the anatomy, growth, and function of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation.

Prerequisite: Science, Grade 10, Academic

Biology, G12, University Preparation (SBI4U)
This course provides students with the opportunity for in-depth study of the concepts and processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biochemistry, metabolic processes, molecular genetics, homeostasis, and population dynamics. Emphasis will be placed on the achievement of detailed knowledge and the refinement of skills needed for further study in various branches of the life sciences and related fields.

Prerequisite: Biology, Grade 11, University Preparation

Science, G12, University/College Preparation (SNC4M)
This course enables students, including those pursuing postsecondary programs outside the sciences, to increase their understanding of science and contemporary social and environmental issues in health-related fields. Students will explore a variety of medical technologies, pathogens and disease, nutritional science, public health issues, and biotechnology. The course focuses on the theoretical aspects of the topics under study and helps refine students' scientific investigation skills.

Prerequisite: Science, Grade 10, Academic, or any Grade 11 university, university/college, or college preparation course in science

SOCIAL SCIENCES AND HUMANITIES

Introduction to Anthropology, Psychology and Sociology, G11, University Preparation (HSP3U)
This course provides students with opportunities to think critically about theories, questions, and issues related to anthropology, psychology, and sociology. Students will develop an understanding of the approaches and research methods used by social scientists. They will be given opportunities to explore theories from a variety of perspectives, to conduct social science research, and to become familiar with current thinking on a range of issues within the three disciplines.

Prerequisite: The Grade 10 academic course in English, or the Grade 10 academic history course (Canadian and world studies)

Equity and Social Justice: From Theory to Practice, G12, University/College Preparation (HSE4M)
This course enables students to develop an understanding of the theoretical, social, and historical underpinnings of various equity and social justice issues and to analyse strategies for bringing about positive social change. Students will learn about historical and contemporary equity and social justice issues in Canada and globally. They will explore power relations and the impact of a variety of factors on equity and social justice. Students will develop and apply research skills and will design and implement a social action initiative relating to an equity or social justice issue.

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

Challenge and Change in Society, G12, University/College Preparation (HSB4U)
This course focuses on the use of social science theories, perspectives, and methodologies to investigate and explain shifts in knowledge, attitudes, beliefs, and behaviour and their impact on society. Students will critically analyse how and why cultural, social, and behavioural patterns change over time. They will explore the ideas of social theorists and use those ideas to analyse causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change.

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

BUSINESS STUDIES

Entrepreneurship: The Venture, G11, College Preparation (BDI3C)
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.

Prerequisite: None

Business Leadership: Management Fundamentals, G12, University/College Preparation (BOH4M)
This course focuses on the development of leadership skills used in managing a successful business. Students will analyse the role of a leader in business, with a focus on decision making, management of group dynamics, workplace stress and conflict, motivation of employees, and planning. Effective business communication skills, ethics, and social responsibility are also emphasized.

Prerequisite: None

International Business Fundamentals, Grade 12, University/College Preparation (BBB4M)
This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. Students will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively.This course prepares students for postsecondary programs in business, including international business, marketing, and management.

Prerequisite: None

INTERNATIONAL LANGUAGES

Simplified Chinese, Level 4, LKBDU
This course provides extended opportunities for students to communicate and interact in the language of study in a variety of social and academic contexts. Students will refine and enhance their listening, speaking, reading, and writing skills, as well as their creative and critical thinking skills, as they explore and respond to a variety of oral and written texts, including complex authentic and adapted texts. They will also broaden their understanding and appreciation of diverse communities where the language is spoken and develop skills necessary for lifelong language learning. This course will be conducted in Mandarin - Simplified Chinese.

Prerequisite: International Languages, Level 3, LKBCU, University Preparation