

Courses Offered at AFNORTH

TYPES OF COURSES

The types of courses available in the secondary school program:

In Grades 9 and 10, three types of courses are offered: academic courses, applied courses, and open courses. Academic courses emphasize theory and abstract problems. Applied courses focus on practical applications and concrete examples. Both types of courses set high expectations for students while preparing them for studies in the senior grades. Open courses are described below.

In Grades 11 and 12, courses offered to prepare students for their postsecondary destinations include: university preparation courses, developed in close collaboration with universities; university/college preparation courses, developed in close collaboration with both universities and colleges; college preparation courses, developed in close collaboration with colleges; and workplace preparation courses, developed in close collaboration with representatives from a variety of workplaces. Open courses are also offered in Grades 11 and 12 (see below).

Open courses, offered in all secondary school grades, are designed to prepare students for further study in certain subjects and to enrich their education generally. Like the other types of courses, open courses are credit-based and are counted towards the 30 credits required to meet diploma requirements.

COURSE CODE EXPLANATION

All courses are identified by a computer code common to all secondary schools.

The first three characters identify department and the course

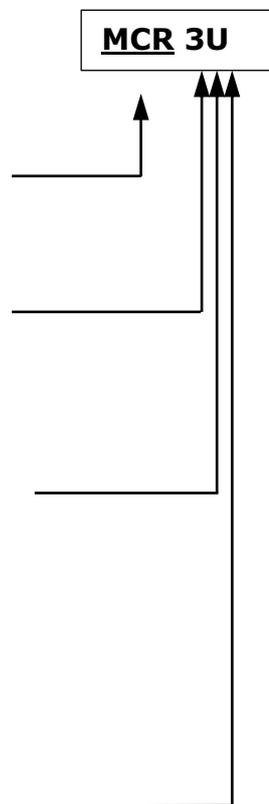
MCR Mathematics
SBI Science, Biology

The fourth character identifies the year or grade

Grade 9
Grade 10
Grade 11
Grade 12

The fifth character identifies the level of instruction for the course

O Open — suitable for all levels (e.g., art, music, physical education)
P Applied — focus on practical applications
D Academic — emphasis is on theory and abstract problems
U University Preparation — developed in association with universities
E Workplace Preparation — developed in association with workplace
C College Preparation — developed in association with colleges
M University/College Preparation — developed in collaboration with both colleges and universities



Grade 12 Courses Offered at AFNORTH

Note: *Prerequisites are required for many courses.

ARTS

AVI4M Visual Arts (University/College)

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

Prerequisite: AVI3M, University/College Preparation

CANADIAN AND WORLD STUDIES

CGW4U World Issues: A Geographic Analysis, (University)

This course looks at the global challenge of creating a more sustainable and equitable world. Students will explore a range of issues involving environmental, economic, social, and geopolitical interrelationships, and will examine governmental policies related to these issues. Students will apply the concepts of geographic thinking and the geographic inquiry process, including spatial technologies, to investigate these complex issues, including their impact on natural and human communities around the world.

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

ENGLISH

ENG 4U English (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 analyze 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

French as a second language

FSF4U Core French (University Preparation)

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

Prerequisite: FSF 3U

GUIDANCE

GLC 20 Career Studies (Open) (.5 credit)

This course teaches students how to develop and achieve personal goals for future learning, work, and community involvement. Students will assess their interests, skills and characteristics and

investigate current economic and workplace trends, work opportunities, and ways to search for work. The course explores postsecondary learning and career options, prepares students for managing work and life transitions, and helps students focus on their goals through the development of a career plan.

Prerequisite: None

MATHEMATICS

MDM4U Mathematics of Data Management (University)

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analyzing 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 or MCF3M

MCV4U Calculus and Vectors (University)

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

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

Prerequisite: MCR3U

MHF 4U Advanced Functions (University)

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

SCIENCE

SBI 4U Biology (University)

This course provides students with the opportunity for the in-depth study of the concepts and processes associated with biological systems. Students will study theory and conduct investigation in the areas of metabolic processes, molecular genetics, homeostasis, and evolution and population dynamics. Emphasis will be placed on achievement of the detailed knowledge and refined skills needed for further study in various branches of the life sciences and related fields.

Prerequisite: SBI 3U

SCH 4U Chemistry (University)

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, energy changes and rates of reaction, chemical systems and equilibrium, electrochemistry and atomic and molecular structure. 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.

AP EXAM REQUIRED

Prerequisite: SCH 3U

SPH 4U Physics Grade 12 (University)

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: SPH 3U

SOCIAL SCIENCES AND HUMANITIES

HZT4U – Philosophy

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

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

HSB4U Challenge and Change in Society (University)

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

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

Detailed descriptions of all Ontario Ministry of Education Curriculum and Diploma requirements can be found at:

<http://www.edu.gov.on.ca/eng/teachers/curriculum/secondary/>

DISTANCE EDUCATION

In consultation with the Guidance Counsellor and with the approval of the Principal students may be registered in E-Learning Courses to fulfill graduation requirements, address student interests, strengths, needs as well as post-secondary plans.

For these courses, our school accesses two Canadian E-Learning course providers as follows:

ILC Ontario - www.ilc.org

VHS - www.virtualhighschool.com

Listed below is a **sample of courses** that have been offered through e-learning at AFNORTH International School.

BUSINESS STUDIES

BTA 30 Information and Communication Technology: The Digital Environment, Grade 11, Open
<http://www.edu.gov.on.ca/eng/curriculum/secondary/business112curr.pdf>

BMX 3E Marketing: Retail and Service, Grade 11, Workplace Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/business1112currb.pdf>

CANADIAN AND WORLD STUDIES

CIA 4U Analysing Current Economic Issues, Grade 12 University Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/2015cws11and12.pdf>

CHI 4U

Canada: History, Identity, and Culture, Grade 12, University Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/2015cws11and12.pdf>

ENGLISH

EMS30 – MEDIA STUDIES, GRADE 11 OPEN
<http://www.edu.gov.on.ca/eng/curriculum/secondary/english.html>

EWC 4U The Writer's Craft, Grade 12, University Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/english1112currb.pdf>

GUIDANCE AND CAREER EDUCATION

GWL 30 - Designing Your Future, Grade 11, Open
<http://www.edu.gov.on.ca/eng/curriculum/secondary/guidance1112currb.pdf>

HEALTH AND PHYSICAL EDUCATION

PPZ3C Health for Life, Grade 11, College Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/health9to12.pdf>

PSK 4U Introductory Kinesiology, Grade 12, University Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/health9to12.pdf>

MATHEMATICS

MEL3E – Mathematics For Work And Everyday Life, Grade 11 Workplace
<http://www.edu.gov.on.ca/eng/curriculum/secondary/math1112currb.pdf>

MDM 4U Mathematics of Data Management, University Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/math1112currb.pdf>

SCIENCE

SNC2D – Science, Grade 10 Academic
http://www.edu.gov.on.ca/eng/curriculum/secondary/science910_2008.pdf

SES 4U Earth and Space Science, Grade 12, University Preparation
http://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf

SOCIAL SCIENCE AND HUMANITIES

HRT 3M World Religions and Belief Traditions: Perspectives, Issues, and Challenges, Grade 11 University/College Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/ssciences9to122013.pdf>

HSB4U - Challenge and Change in Society, Grade 12 University
<http://www.edu.gov.on.ca/eng/curriculum/secondary/ssciences9to122013.pdf>

TECHNOLOGICAL EDUCATION

TFJ3C Hospitality and Tourism, Grade 11, College Preparation
<http://www.edu.gov.on.ca/eng/curriculum/secondary/2009teched1112curr.pdf>