

Ottawa Torah Institute High School  
1400 Coldrey Avenue, Ottawa ON K1Z 7P9  
613-244-9119 ottawatorah@gmail.com

# COURSE CALENDAR

for the school year

## 2017-2018

This course calendar describes the courses available from Grades 9 to 12 at this high school. It will assist you and your parents to make informed choices.

Go through this guide carefully to make sure you have the compulsory credits and the optional courses that are best suited to you and your career goals.

At OTI we stress the importance and value of completing a high school education. We are committed to help you achieve a successful outcome from your high school experience.

You are required to remain in high school until you have obtained an Ontario Secondary School Diploma (OSSD) or you reach the age of 18.

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## History and background

Ottawa Torah Institute High School was established in 1984 to provide educational opportunities for young men both in their religious and general studies.

## Overall Goals and philosophy

**The goal of OTI is to provide top-quality Jewish education** – under such headings as Talmud, Chumash, Navi, Halacha, and Jewish history – **along with meeting all the Ministry of Education requirements for obtaining an Ontario Secondary School Diploma (OSSD)**. We believe that our graduates leave OTI with the skills necessary to achieve success in their chosen careers in today's complex, competitive world, while continuing their contributions to their local Jewish community.

## Achievements

In 2001 the Fraser Institute of Canada ranked Ottawa Torah Institute and OTI as the number one academic high school in the Province of Ontario. Much of the credit for this result and the high scholastic achievement recorded by our students is due to small class sizes and a dedicated teaching staff. The yeshiva is headed by Rabbi Yaakov Harris and Rabbi Dovid Mandel, assisted by an excellent team of secular teachers for the Ontario Ministry of Education requirements for obtaining an Ontario Secondary School Diploma (OSSD). OTI's graduates are welcomed at top-rate yeshivas and universities across North America and Israel and have achieved prominence in many professions.

## Diploma Requirements

### Requirements for the Ontario Secondary School Diploma (OSSD):

The requirements for earning an Ontario Secondary School Diploma under *Ontario Schools 2011*:

- students must earn a minimum of 30 credits, including 18 compulsory credits and 12 optional credits;
- students must meet the provincial secondary school literacy requirement; and
- students must complete 40 hours of community involvement activities.

### Compulsory credits (a total of 18)

Students must earn the following compulsory credits to obtain the Ontario Secondary School Diploma.

- 4 credits in English (1 credit per grade)
  - The Ontario Secondary School Literacy Course (OSSLC) may be used to meet either the Grade 11 or the Grade 12 English compulsory credit requirement.
  - For English language learners the requirement may be met through earning a maximum of 3 credits in English as a second language (ESL) or English literacy development (ELD); the fourth credit must be a Grade 12 compulsory English course.
- 3 credits in Mathematics (at least 1 credit in grade 11 or 12)
- 2 credits in Science
- 1 credit in Arts
- 1 credit in Canadian Geography (Grade 9)
- 1 credit in Canadian History (Grade 10)
- 1 credit in French as a second language
- 1 credit in Health and Physical Education
- 0.5 credit in Civics
- 0.5 credit in Career Studies

**Plus three additional credits, consisting of one credit from each of the following groups:**

- **Group 1:** English (including the Ontario Secondary School Literacy Course), French as a second language, classical languages, international languages, Native languages, Canadian and world studies, Native studies, social sciences and humanities, guidance and career education, cooperative education
- **Group 2:** French as a second language, the arts, business studies, health and physical education, cooperative education
- **Group 3:** French as a second language, science (Grade 11 or 12), computer studies, technological education, cooperative education

*Note:* The following conditions apply to selections from the above three groups:

- A maximum of 2 credits in French as a second language may count as additional compulsory credits, 1 credit from Group 1, and 1 credit from either Group 2 or Group 3.
- A maximum of 2 credits in cooperative education may count as additional compulsory credits, selected from any of Groups 1, 2, or 3.

**Optional Credits (a total of 12)** In addition to the 18 compulsory credits, students must earn 12 optional credits. The 12 elective courses can be chosen from any of the courses the school offers, from courses offered by the Ontario Independent Learning Centre (ILC), from courses from the Ontario Virtual High School (VHS), or from night or summer courses offered by the Ottawa-Carleton District School Board.

## The Four Year Program At OTI

under *Ontario Schools 2011*

Ottawa Torah Institute High School

Grade 9

COMPULSORY CREDITS		OPTIONAL CREDITS
English (ENG1D)	Science (SNC1D)	
French (FSF1D)	Geography (CGC1D)	
Healthy Active Living Education (PPL1O)	Music (AMU1O) or Art (AVI1O)	
Mathematics (MPM1D)	Bible (HRE13)	
<b>TOTAL CREDITS</b>		<b>8</b>

Grade 10

COMPULSORY CREDITS		OPTIONAL CREDITS
English (ENG2D)	+ one of: Arts or Business Studies	Bible (HRE23)
Science (SNC2D)	Mathematics (MPM2D)	French
History (CHC2D)	Music (AMU1O) or Art (AVI1O)	Physical Education (0.5)
Career counselling (0.5) + Civics (0.5) (GLC2O, CHV2O)	Bible (HRE13)	
<b>TOTAL CREDITS</b>		<b>15.5</b>

## Grade 11

COMPULSORY CREDITS		OPTIONAL CREDITS
English (ENG3U)	Senior Social Science*	Physical education (0.5)
Functions (MCR3U)	Science: 1 of Biology, Physics, Chemistry (SBI3U, SPH3U, SCH 3U)	+ 2 other electives*
<b>TOTAL CREDITS</b>		<b>23</b>

## Grade 12

COMPULSORY CREDITS		OPTIONAL CREDITS
English (ENG4U)		Bible (HRE43)
		Physical Education (0.5)
		+ 5 other electives*
<b>TOTAL CREDITS</b>		<b>30.5</b>

\*In addition to the 18 compulsory credits, students must earn 12 optional credits. The 12 optional or elective courses can be chosen from any of the optional courses offered in the school's Course Calendar, or from courses offered by the Ontario Independent Learning Centre (ILC), or from courses from Ministry-inspected Virtual High Schools.

Course outlines for all courses offered at OTI are on file in the school office and are available for perusal on request. More information about the Ontario Secondary School Curriculum is available online at <http://www.edu.gov.on.ca/eng/curriculum/secondary/subjects.html>

## Community Involvement Activities

As part of the diploma requirements, students must complete a minimum of 40 hours of community involvement activities.

Although this diploma requirement applies to students in Grades 9 to 12, students in Grade 8 will now be able to start accumulating community involvement hours in the summer before they enter Grade 9.

### OTI's List of Eligible Activities

The activities listed below are approved by OTI for the community involvement requirement.

#### In the Wider Community

- Tutoring
- Coaching a community team
- Adopting a Grandparent (visiting and helping seniors)

#### In the Jewish Community

- Assisting in synagogue services
- Organizing or assisting in synagogue young adult groups
- Organizing or assisting in synagogue children's groups
- Babysitting at services

#### In the school community

- Organizing or assisting in social projects
- Organizing or assisting in sports teams outside class time
- Participating in school committees
- Peer helping, tutoring
- Organizing or assisting in post-Shabbat programs

## Volunteering

- in a local library
- in hospital
- in daycare
- in senior citizens home
- as camp counsellor
- for charity projects
- at National Arts Centre
- in Canadian Diabetes Association
- in a municipal, provincial or federal election
- in a municipal, provincial or federal political campaign

## Volunteering in any of the following organizations

- Canadian Jewish Congress
- Jewish Community Centre
- Jewish Family Services
- Jewish National Fund
- Ottawa Jewish Historical Foundation
- United Jewish Appeal
- Hillel Lodge
- Israel Cancer Research Fund
- Jewish War Veterans
- Shifra-Puah
- Mikvah
- Tamir Foundation

## Policies and procedures:

- Students, in consultation with their parents, will select an activity or activities from the list of approved activities, or choose an activity that is *not* on the list, provided that it is not an activity specified on the ministry's list of ineligible activities. If the activity is not on the school's list of approved activities, the student must obtain written approval from the Principal before beginning the activity.
- Before beginning any activity, students will provide the Principal with notification on the OTI "Community Involvement Activity Sheet" indicating the activity or activities that they plan to do. This form must be signed by the student, and by his or her parent if the student is under eighteen years of age. (More than one sheet may be submitted when additional activities are planned that were not included on a previously submitted sheet.)
- The "completion" part of the Community Involvement Activity Sheet must be completed by the student, the student's parent (if the student is under eighteen years of age), and the community sponsor (that is, the person or organization that provided the community involvement opportunity for the student). The student must submit the sheet to the Principal upon completion of the 40 hours, or at appropriate intervals determined by the Principal.

## Secondary School Literacy Requirement

**All students are required to meet the secondary school literacy graduation requirement in order to earn an Ontario Secondary School Diploma (OSSD).**

The requirement is based on the expectations for reading and writing throughout the Ontario curriculum up to and including Grade 9. The purpose of the secondary school literacy graduation requirement is to determine whether students have the skills in reading and writing that they will need to succeed in school, at work, and in daily life.

To meet this requirement, students are expected to take and successfully complete the Ontario Secondary School Literacy Test (OSSLT) in Grade 10. Once students have successfully completed the OSSLT, they may not retake it. Students who do not successfully complete the OSSLT will have additional opportunities to meet the literacy graduation requirement through the Ontario Secondary School Literacy Course, or the adjudication process.

## **Credit**

A credit is granted in recognition of the successful completion (that is, completion with a final percentage mark of 50 per cent or higher) of a course that has been scheduled for a minimum of 110 hours. Credits are granted by a principal on behalf of the Minister of Education for courses that have been developed or authorized by the ministry. A half-credit may be granted for each 55-hour part of a 110-hour ministry-developed course *in accordance with the policy outlined in the curriculum policy documents*. Most courses are offered as single-credit courses. Some courses, such as technological education, interdisciplinary studies, and cooperative education courses, may be offered as multiple-credit courses.

## **Course Coding System**

There are five characters in each Course Code (as in “ENG1D”). The first three characters designate the course; the fourth character designates the secondary school year of the course; and the fifth character designates the level of difficulty of the course. The levels of difficulty are indicated as follows:

- D = Academic (grades 9 & 10)
- P = Applied
- O = Open
- U = University preparation (grades 11 & 12)
- M = College preparation (grades 11 & 12)
- 3 = locally developed, specialized

## **Types of Courses offered at our school**

With some exceptions (for “open” courses for example), it is our policy to offer all courses at the Academic and University Preparation levels. Academic and University Preparation courses focus on the development of academic skills and prepare students for entry into Universities, Yeshivas and Seminaries, or to certain programs of the Colleges of Applied Arts and Technology

## **Course Substitution Policy**

In order to allow flexibility in designing a student’s program and to ensure that all students can qualify for the secondary school diploma, substitutions may be made for a limited number of compulsory credit courses using courses from the remaining courses offered by the school that meet the requirements for compulsory credits. To meet individual students’ needs, the Principal may replace up to three of these courses (or the equivalent half courses) with courses from the remainder of those that meet the compulsory credit requirements. In all cases, however, the sum of compulsory and optional credits will not be less than thirty for students aiming to earn the OSSD.

## **Waiving Prerequisite Courses**

If a parent or adult student requests, the Principal will determine whether or not a prerequisite should be waived. The Principal may also initiate the consideration. The decision will be made in consultation with the parent, student, and appropriate staff, and a written record of the decision will be placed in the student’s OSR.

## **Policy on Course Changes**

OTI’s courses are given at the Academic and University Preparation level. If a student is having difficulty in following any of these courses, then the Principal in conjunction with Parent and Student will recommend the new course, at a different level of difficulty, from courses offered by the Ontario Independent Learning Centre, or from courses from Ministry-approved Virtual High Schools.

## **Transfer Course**

A mathematics transfer course is available at the Grade 9 level to transfer from the Applied level to the Academic level. This transfer course (MPM1H) will provide students who have successfully completed Grade 9 Applied with an opportunity to achieve the expectations not covered in that course but included in Principles of Mathematics, Grade 9, Academic. On successful completion of this transfer course, students may proceed to Grade 10, Academic (MPM2D). This transfer course focuses on developing number sense and algebra, linear relations, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning.

## **Independent or Private Study**

Independent study is an arrangement by which a student is excused from attending some or all classes in a course in order to study independently but under the supervision of a teacher. Courses delivered through the Independent Learning Centre may form part of independent study. There is no restriction on the number of periods that a teacher may allow for independent study within any given course. The teacher of the course is responsible for assigning components of the course, suggesting available resources, evaluating the achievement of the student, and ensuring that the total work involved is equivalent to that expected in the time scheduled for the course. Students are expected to demonstrate achievement of the overall curriculum expectations of the course.

## **School Guidance Services**

The Principal and the Secular Director are responsible for the schools' Guidance Services and for making sure that the courses the students follow will allow them to gain entrance to the Yeshiva, Seminary and/or University of their choice.

## **Programs in Music taken outside the School**

A maximum of two credits may be awarded to students taking music programs outside the school. The student must present official examination result forms, or certificates, for music credits earned outside the school.

## **Assessment and Evaluation Policies**

Assessment and evaluation of student achievement are based on provincial curriculum expectations and achievement levels, and on the categories of knowledge and skills, and the achievement level descriptions, given in the achievement charts for each subject. Our evaluation policies are based on the Ministry of Education's *Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools, 2010*.

## **Recording and Reporting Student Achievement to Parents**

Mid-term reports are sent home at the mid-point of each semester and Final Reports at the end of the semester. The report card focuses on two distinct but related aspects: the achievement of curriculum expectations, and the development of learning skills. The teacher in each course explains to the students at the beginning of the semester exactly what is expected in the way of assignments and tests.

- Term work is worth 70% of the final mark or grade.
- The remaining 30 % is made up from a final examination, or a combination of performance task and examination, administered near the end of the course.

## **Ontario Student Transcripts (OSTs)**

OSTs are kept in the student's Ontario Student Record folder (OSR). Students shall be provided with a copy of their OST on request.

## Cooperative Education Courses

There are at present no courses or programs in Cooperative Education in this school. For information, see *Cooperative Education and Other Forms of Experiential Education* at <http://www.edu.gov.on.ca/eng/document/curricul/secondary/coop/cooped.pdf>

## Career Education Program

Formal Career Studies is part of the Compulsory Program in a course entitled Career Studies taken in Grade 10. See pages 19 - 25 in *Guidance and Career Education*, <http://www.edu.gov.on.ca/eng/curriculum/secondary/guidance910currb.pdf>

## Support for English language learners

See <http://www.edu.gov.on.ca/eng/document/esleldprograms/guide.pdf>

## Intervention strategies, supports and programs:

See <http://www.edu.gov.on.ca/eng/general/elemsec/speced/LearningforAll2013.pdf>

## The Ontario Student Record (OSR)

The Ontario School Record (OSR) is the record of a student's educational progress through schools in Ontario. It contains copies of all report cards issued to the student or parents, an Ontario Student Transcript, where applicable, and additional information identified as being conducive to the improvement of the instruction of the student.

The Principal has a responsibility to indicate to pupils and parents their right of access to pupil records, which is as follows:

1. Every pupil is entitled to examine his or her record.
2. A parent or guardian of a pupil who has not reached the age of majority is entitled to examine the record. Unless there is a court order to the contrary, both parents, custodial and non-custodial, have rights of access to their child's health, education, and welfare. Students and parents or guardians who are authorized to have access to the contents of the OSR also have the right to receive a copy of the contents of the OSR.

In addition to the right of access of the pupil and parent as described above, the OSR is available for the use of supervisory officers and the Principal and teachers of the school for the improvement of instruction of a pupil.

However, the OSR:

- is not available to any other person;
- shall not be produced in the course of any legal proceedings, except as provided for in certain circumstances under court order pertaining to a civil suit or under the provisions of the Child and Family Services Act. The Principal must also surrender the OSR in compliance with a search warrant or subpoena issued under the Criminal Code.

## Withdrawal from a Course

Withdrawals occurring within 5 days of the issuing of the first report card will result in the mark not being recorded on the OST. A withdrawal from a Grade 11 or 12 course after 5 days of the issuing of the first report card results in a "W" being entered in the "Credit" column of the OST along with the mark at the time of the withdrawal. Withdrawals at anytime from Grade 9 or 10 courses are not recorded on the OST. If there are extraordinary circumstances relating to a student's withdrawal from a course, an "S" may be entered in the "Note" column on the OST.

## Repetition of a Course

Only one credit is earned if course is repeated. In Grade 11 and 12, an "R" appears on the student's OST for the course with the lower mark

## School Rules: Roles and Responsibilities

- At OTI High School, the expectation of the teachers and administration is that our students are trustworthy, honest, respectful and concerned for each other, their teachers and the community, both on and off the campus.
- Our students are expected to behave in a manner that brings credit to themselves and to the entire school community.
- Out of concern for the well-being of all students at our schools, departures from these expectations receive warnings, both oral and written, followed by suspension if the behaviour persists, and a meeting with the Principal in which the school's expectations and the consequences of failing to meet those expectations are explained to the student and parent or guardian.

**Behaviour punishable by suspension, and which may lead to expulsion** without warning if the behaviour persists, includes:

1. continued and willful disobedience of school policies and regulations;
2. unexcused absences from class;
3. persistent tardiness;
4. continued and willful disobedience of classroom norms established by each teacher, including refraining from all side conversations during class;
5. defiance of the valid authority of school personnel;
6. other behaviour determined by the school administration to affect adversely the atmosphere of respect, reliability, and academic responsibility in the classroom and school.

## School Dress Code

OTI's students must dress modestly, with long sleeve button-down shirts and pants covering the legs.

### Computers and resources

Students at OTI have computer and internet access through the school's individual laptops and notebooks.

### Community resources:

Western Ottawa Community Resource Centre: <http://www.wocrc.ca/en/community-resources.aspx>

## School Policies

### I. ELECTRONIC DEVICES

Handheld or mobile electronic gaming or music devices are not allowed on school property. If cell phones are brought to school, they must be turned off during classes.

### II. ATTENDANCE

Full time attendance in all courses is probably the most important condition for a successful secondary school career.

1.
  - a) **To earn credit in a course a student must be in class for a minimum of 90% of the days of the semester** (no more than 7 absences from the semester's 72 class periods). Any extended absence from class denies the student a complete understanding of the curriculum.
  - b) If a student misses **five** classes, excused or unexcused, during a semester (7.6 hours of classroom instruction time in each course), that student's status will be reviewed by the Principal and the Dean, the Parent/Guardian and the student will be notified by phone, and a written warning will be sent home.
  - c) At **seven absences**, excused or unexcused, (over 10 hours of classes) the student will be in danger of losing credit for the course.
2. Parents are to send a **note** to the school office outlining the reason for any absence within three school days of the absence. An absence without a parent notifying the school is considered an unexcused absence.
3. An **excused absence** must fall into one of the following categories:
  - a) student illness or injury (a doctor's note is required after three days);
  - b) medical or dental appointment;
  - c) family emergency;
  - d) other justifiable personal reasons validated by a parent/administrator conference or phone call prior to the absence. *All other absences are unexcused.*
4. Written notes for **early dismissal for an appointment** must be presented to the teacher(s) before or on the day of the appointment and signed by a Parent/Guardian. They must include the type of appointment and the date and time of dismissal.
5. **Family vacations** should be planned to coincide with official school vacations. Students who miss school for family vacations will have to complete an Independent Study Contract with the school to ensure that all missed work is accounted for. If the contract is not fulfilled, the student may lose the credit.

### III. TESTS

6. Generally, major tests are announced with at least three days' notice. Major tests count for a significant portion of the course mark.
7.
  - a) If you miss a test you must provide a valid medical reason or a serious personal reason. Either requires a **note explaining the reason** and signed by your parent or guardian. If you know ahead of time that you are going to be away for a valid reason, clear it with your teacher *in advance*.
  - (b) If the reason for missing a test is acceptable, your teacher may arrange an alternative evaluation. If you miss this second opportunity, your teacher may deduct marks for the late test up to and including the full value of the test.
8. If the late test is submitted after the corrected test has been returned to the rest of the class, it will be given no mark.
9. If you miss two major tests, you will be sent to the Principal to discuss your continuing in the course.

### IV. HOMEWORK ASSIGNMENTS

10. All homework assignments (oral or written) are **due at the beginning of the class** on the due date.
- 11.

- a) You may request an extension past the due date. If your teacher deems the request reasonable, then an extension may be granted.
  - (b) If neither the assignment nor the request for extension is delivered by the due date, your teacher may deduct marks for the late assignment up to and including the full value of the assignment.
12. Failure to complete a mandatory **Independent Study** assignment will result in withholding of credit for the course.

**Students must understand that there will be consequences for not completing assignments for evaluation or for submitting those assignments late.**

*Where in the teacher's professional judgement it is appropriate to do so*, a number of strategies may be used to help prevent and/or address late and missed assignments. They include:

- asking the student to clarify the reason for not completing the assignment;
- helping students develop better time-management skills;
- collaborating with other staff members to prepare a part- or full-year calendar of assignment dates for every class;
- planning for major assignments to be completed in stages, so that students are less likely to be faced with an all-or-nothing situation at the last minute;
- maintaining ongoing communication with students and/or parents about due dates and late assignments, and scheduling conferences with parents if the problem persists;
- taking into consideration legitimate reasons for missed deadlines;
- setting up a student contract;
- holding teacher-student conferences;
- providing alternative assignments or tests/exams where, in the teacher's professional judgement, it is reasonable and appropriate to do so;
- deducting marks for late assignments, up to and including the full value of the assignment.

#### **V. PLAGIARISM**

13. Plagiarism involves any of the following offences, will result in no mark, and you will not have met the expectations for that assignment:
- a) using another person's ideas or opinions without formal documentation or acknowledgement;
  - b) handing in an assignment done for another course;
  - c) lending your work or borrowing someone else's in order to obtain academic credit dishonestly.

#### **VI. FINAL EXAMINATION**

14. The final examination is worth 30% of the course mark. You must write the final examination in a course to qualify for a credit in that course.
- 15.
- a) If you anticipate having to miss a final examination for a valid reason, you must submit a note explaining the reason, signed by a parent/ guardian, and make arrangements with the teacher and the Principal to write the examination at another time.

- b) If this alternative time can not be arranged, your teacher will determine whether you have demonstrated achievement of course expectations through other evaluations, in order to recommend to the Principal whether the credit should be granted.

### **Prior Learning Assessment and Recognition (PLAR)**

Prior Learning Assessment and Recognition (PLAR) is a formal evaluation and accreditation process. Students may obtain credits towards the secondary school diploma (OSSD) for knowledge and skills that they have acquired outside of secondary school. This prior learning is assessed and evaluated to determine whether the student has met the provincial course expectations. OTI High School, as an inspected private school, chose not to implement Prior Learning Assessment and Recognition in accordance with Policy/Program Memorandum No. 129 (July 6, 2001) p2.

### **Ontario Secondary School Certificate (OSSC)**

The Ontario Secondary School Certificate will be granted upon request to students who leave school before earning the Ontario Secondary School Diploma, provided that they have earned a minimum of 14 credits, as follows.

- 2 English
- 1 Canadian Geography or Canadian History
- 1 Mathematics
- 1 Science
- 1 Health and Physical Education
- 1 Arts or Technological Studies
- 7 optional credits selected from any available courses in the school

### **The Certificate of Accomplishment**

Students who leave school before fulfilling the requirements for the Ontario Secondary School Diploma or the Ontario Secondary School Certificate may be granted a Certificate of Accomplishment. The Certificate of Accomplishment may be a useful means of recognizing achievement for students who plan to take certain vocational programs or other kinds of further training, or who plan to find employment after leaving school.

For information on both these Certificates, see p. 12 at:

<http://www.edu.gov.on.ca/eng/document/curricul/secondary/oss/oss.pdf>

# The Ontario Curriculum

Grades 9 to 12

## Course Descriptions and Prerequisites

pages 9 to 38, following.

More information about the Ontario Secondary School Curriculum is available online at

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

### The Arts

#### COMPULSORY COURSE

##### *EITHER:*

##### **(INSTRUMENTAL) MUSIC, GRADE 9, OPEN**

**(AMU10)**

This course emphasizes the performance of music at a level that strikes a balance between challenge and skill and is aimed at developing technique, sensitivity, and imagination. Students will participate in creative activities that teach them to listen with understanding. They will also learn correct musical terminology and its appropriate use.

*Prerequisite: None*

##### *OR:*

##### **(VISUAL) ARTS, GRADE 9, OPEN**

**(AV10)**

This course is exploratory in nature, offering an overview of visual arts as a foundation for further study. Students will become familiar with the elements and principles of design and the expressive qualities of various materials by using a range of media, processes, techniques, and styles. Students will use the creative and critical analysis processes and will interpret art within a personal, contemporary, and historical context.

*Prerequisite: None*

### Business Studies

#### OPTIONAL COURSES

##### **FINANCIAL ACCOUNTING FUNDAMENTALS, GRADE 11, UNIVERSITY/COLLEGE PREPARATION**

**BAF3M**

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*

##### **FINANCIAL ACCOUNTING FUNDAMENTALS, GRADE 12, UNIVERSITY/COLLEGE PREPARATION**

**BAT4M**

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 students' knowledge of sources of financing, further develops accounting methods for assets, and introduces accounting for partnerships and corporations.

*Prerequisite: Financial Accounting Fundamentals, Grade 11, University/College Preparation*

##### **INTERNATIONAL BUSINESS FUNDAMENTALS, GRADE 12, UNIVERSITY/COLLEGE**

**BBB4M\***

## 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*

\* Depending on the availability of a teacher. This course may be taken as an ILC or VHS course.

**NOTE:** One course in Business Studies may be used as an additional compulsory credit (see page 2).

## Canadian And World Studies

### Geography

#### COMPULSORY COURSE

##### ISSUES IN CANADIAN GEOGRAPHY, GRADE 9, ACADEMIC

CGC1D

This course examines interrelationships within and between Canada's natural and human systems and how these systems interconnect with those in other parts of the world. Students will explore environmental, economic, and social geographic issues relating to topics such as transportation options, energy choices, and urban development. Students will apply the concepts of geographic thinking and the geographic inquiry process, including spatial technologies, to investigate various geographic issues and to develop possible approaches for making Canada a more sustainable place in which to live.

*Prerequisite: None*

#### OPTIONAL COURSES

##### Canadian and World Issues: A Geographic Analysis, Grade 12, University Preparation

CGW4U

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.

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

##### WORLD GEOGRAPHY: HUMAN PATTERNS AND INTERACTIONS, GRADE 12, UNIVERSITY PREPARATION

CGCU4U

This course examines how cultures in different parts of the world interact with their environment and with each other. Students will use geographic concepts, methods, and tools to explore settlement patterns, human migration, cultural change, globalization, environmental issues, and other topics relevant to an understanding of how spatial, political, economic, and social factors affect settled environments and human activities.

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

### History

#### COMPULSORY COURSES

##### Canadian History Since World War I, Grade 10, Academic

CHC2D

This course explores social, economic, and political developments and events and their impact on the lives of different groups in Canada since 1914. Students will examine the role of conflict and cooperation in

Canadian society, Canada's evolving role within the global community, and the impact of various individuals, organizations, and events on Canadian identity, citizenship, and heritage. They 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 key issues and events in Canadian history since 1914.

*Prerequisite: None*

**NOTE: ANY OF THE FOLLOWING OPTIONAL COURSES MAY BE TAKEN AS THE OTHER COMPULSORY COURSE.**

**American History, Grade 11, University Preparation** **CHA3D**

This course traces the social, economic, and political development of the United States from colonial times to the present. Students will examine issues of diversity, identity, and culture that have influenced the country's social and political formation and will consider the implications of its expansion into a global superpower. Students will use critical-thinking and communication skills to determine causal relationships, evaluate multiple perspectives, and present their own points of view.

*Prerequisite: Canadian History in the Twentieth Century, Grade 10, Academic or Applied*

**World History to the Sixteenth Century, Grade 11, University/College Preparation** **CHW3M**

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

*Prerequisite: Canadian History in the Twentieth Century, Grade 10, Academic or Applied.*

**Canada: History, Identity, and Culture, Grade 12, University Preparation** **CHI4U**

This course explores the challenges associated with the formation of a Canadian national identity. Students will examine the social, political, and economic forces that have shaped Canada from the pre-contact period to the present and will investigate the historical roots of contemporary issues from a variety of perspectives. Students will use critical-thinking and communication skills to consider events and ideas in historical context, debate issues of culture and identity, and present their own views.

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

**World History: The West and the World, Grade 12, University Preparation** **CHY4U**

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.

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

**Civics**

**Compulsory course (0.5 credit: to be taken with Career Studies – see p. 27)**

**CIVICS AND CITIZENSHIP, GRADE 10, OPEN** **CHV4U**

This course explores rights and responsibilities associated with being an active citizen in a democratic society. Students will explore issues of civic importance such as healthy schools, community planning, environmental responsibility, and the influence of social media, while developing their understanding of the role of civic engagement and of political processes in the local, national, and/or global community.

Students will apply the concepts of political thinking and the political inquiry process to investigate, and express informed opinions about, a range of political issues and developments that are both of significance in today's world and of personal interest to them.

(55 hours = 0.5 credit) Prerequisite: None

## Economics

### OPTIONAL COURSE

#### **ANALYSING CURRENT ECONOMIC ISSUES, GRADE 12, UNIVERSITY PREPARATION** **CIA4U**

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.

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

## Law

### OPTIONAL COURSES

#### **UNDERSTANDING CANADIAN LAW, GRADE 11, UNIVERSITY/COLLEGE PREPARATION** **CLU3M**

This course explores Canadian law with a focus on legal issues that are relevant to people's everyday lives. Students will investigate fundamental legal concepts and processes to gain a practical understanding of Canada's legal system, including the criminal justice system. Students will use critical-thinking, inquiry, and communication skills to develop informed opinions on legal issues and apply this knowledge in a variety of ways and settings, including case analysis, legal research projects, mock trials, and debates.

*Prerequisite: Canadian History Since World War I, Grade 10, Academic or Applied.*

#### **CANADIAN AND INTERNATIONAL LAW, GRADE 12, UNIVERSITY PREPARATION** **CLN4U**

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.

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

## Politics

### OPTIONAL COURSE

#### **CANADIAN AND WORLD POLITICS, GRADE 12, UNIVERSITY PREPARATION** **CPW4U**

This course examines Canadian and world politics from a variety of perspectives. Students will investigate the ways in which individuals, groups, and states work to influence domestic and world events, the role of political ideologies in national and international politics, and the dynamics of international cooperation and conflict resolution. Students will apply critical thinking and communication skills to develop and support informed opinions about current political conflicts, events, and issues.

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

## English

### COMPULSORY COURSES

#### **ENGLISH, GRADE 9, ACADEMIC** **ENG1D**

This course is designed to develop the oral communication, reading, writing, and media literacy skills that students need for success in their secondary school academic programs and in their daily lives. Students will analyse literary texts from contemporary and historical periods, interpret informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on the use of strategies that contribute to effective communication. The course is intended to prepare students for the Grade 10 academic English course, which leads to university or college preparation courses in Grades 11 and 12.

*Prerequisite: None*

#### **ENGLISH, GRADE 10, ACADEMIC**

**ENG2D**

This course is designed to extend the range of oral communication, reading, writing, and media literacy skills that students need for success in their secondary school academic programs and in their daily lives. Students will analyse literary texts from contemporary and historical periods, interpret and evaluate informational and graphic texts, and create oral, written, and media texts in a variety of forms. An important focus will be on the selective use of strategies that contribute to effective communication. This course is intended to prepare students for the compulsory Grade 11 university or college preparation course.

*Prerequisite: English, Grade 9, Academic or Applied*

#### **ENGLISH, GRADE 11, 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, Grade 10, Academic*

#### **ENGLISH, GRADE 12, UNIVERSITY PREPARATION**

**ENG4U**

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: English, Grade 11, University Preparation*

#### **OPTIONAL COURSES**

##### **CANADIAN LITERATURE, GRADE 11, UNIVERSITY/COLLEGE PREPARATION**

**ETC 3M**

This course emphasizes the study and analysis of literary texts by Canadian authors for students with a special interest in Canadian literature. Students will study the themes, forms and stylistic elements of a variety of literary texts representative of various time periods and of the diverse cultures and regions of Canada, and will respond personally, critically, and creatively to them.

*Prerequisite: English, Grade 10, Academic or Applied*

##### **THE WRITER'S CRAFT, GRADE 12, UNIVERSITY PREPARATION**

**EWC4U**

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.

*Prerequisite: English, Grade 11, University Preparation*

#### **STUDIES IN LITERATURE, GRADE 12, UNIVERSITY PREPARATION**

**ETCS4U**

This course is for students with a special interest in literature and in 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.

*Prerequisite: English, Grade 11, University Preparation*

### [French As A Second Language](#)

#### **COMPULSORY COURSE**

#### **CORE FRENCH, GRADE 9, ACADEMIC**

**FSF1D**

This course provides opportunities for students to communicate and interact in French with increasing independence, with a focus on familiar topics related to their daily lives. Students will develop their skills in listening, speaking, reading, and writing by using language learning strategies introduced in the elementary Core French program, and will apply creative and critical thinking skills in various ways. They will also enhance their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

*Prerequisite: Minimum of 600 hours of French instruction, or equivalent*

#### **OPTIONAL COURSE**

#### **CORE FRENCH, GRADE 10, ACADEMIC**

**FSF2D**

This course provides opportunities for students to communicate in French about personally relevant, familiar, and academic topics in real-life situations with increasing independence. Students will exchange information, ideas, and opinions with others in guided and increasingly spontaneous spoken interactions. Students will develop their skills in listening, speaking, reading, and writing through the selective use of strategies that contribute to effective communication. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

*Prerequisite: Core French, Grade 9, Academic or Applied*

#### **CORE FRENCH, GRADE 11, UNIVERSITY PREPARATION**

**FSF3U**

This course provides opportunities for students to speak and interact in French in real-life situations. Students will develop their ability to communicate, making connections to previous experiences and using newly acquired skills in listening, speaking, reading, and writing. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

*Prerequisite: Core French, Grade 10, Academic*

#### **CORE FRENCH, GRADE 12, UNIVERSITY PREPARATION**

**FSF4U**

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

*Prerequisite: Core French Grade 11, University Preparation*

## Extended French

### OPTIONAL COURSE

#### EXTENDED FRENCH, GRADE 11, UNIVERSITY PREPARATION

FEF3U

This course provides opportunities for students to communicate about concrete and abstract topics in various situations. Students will consolidate and refine their skills in listening, speaking, reading, and writing by applying language learning strategies, as well as creative and critical thinking skills, in a variety of real-life contexts. Students will develop their knowledge of the French language through the study of contemporary French authors and well-known French European authors. They will also deepen their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

*Prerequisite: Extended French, Grade 10, Academic*

#### EXTENDED FRENCH, GRADE 12, UNIVERSITY PREPARATION

FEF4U

This course further emphasizes the consolidation of communication skills required to interact in French for various purposes about concrete and abstract topics. Students will independently apply language learning strategies in a variety of real-life and personally relevant contexts in listening, speaking, reading, and writing, and will broaden their creative and critical thinking skills through responding to and analysing oral and written texts. Students will increase their knowledge of the French language through the study of Canadian and international French literature. They will also enrich their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

*Prerequisite: Extended French Grade 11, University Preparation*

**Note:** *In the interests of the student, and in consultation with the teacher and the parent, the Principal will determine whether or not the prerequisite for FEF4U should be waived.*

## Guidance And Career Education

**COMPULSORY COURSE (0.5 credit: a half-credit course to be taken with the half-credit course in Civics, pg. 18)**

#### CAREER STUDIES, GRADE 10, OPEN

GLC20

This course teaches students how to develop and achieve personal goals for future learning, work, and community involvement. Students will assess their interests, skills, and characteristics and investigate current economic and workplace trends, work opportunities, and ways to search for work. The course explores post-secondary learning and career options, prepares students for managing work and life transitions, and helps students focus on their goals through the development of a career plan.

*(55 hours = 0.5 credit) Prerequisite: None*

## Health And Physical Education

**COMPULSORY CREDIT (offered in alternate years to combined Grades 9 and 10 classes):**

#### HEALTHY ACTIVE LIVING EDUCATION, GRADE 9, OPEN

PPL10

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

*Prerequisite: None*

**OPTIONAL CREDITS (The optional courses may be offered over two school years [0.5 credit per year].)**

#### HEALTHY ACTIVE LIVING EDUCATION, GRADE 9, OPEN

PPL20

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Student learning will include the application of movement principles to refine

skills; participation in a variety of activities that enhance personal competence, fitness, and health; examination of issues related to healthy sexuality, healthy eating, substance use and abuse; and the use of informed decision-making, conflict resolution, and social skills in making personal choices.

*Prerequisite: None*

**HEALTHY ACTIVE LIVING EDUCATION, GRADE 11, OPEN**

**PPL30**

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

*Prerequisite: None*

**HEALTHY ACTIVE LIVING EDUCATION, GRADE 12, OPEN**

**PPL40**

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.

*Prerequisite: None*

**Mathematics**

**COMPULSORY COURSES**

**PRINCIPLES OF MATHEMATICS, GRADE 9, ACADEMIC**

**MPM1D**

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

*Prerequisite: None*

**PRINCIPLES OF MATHEMATICS, GRADE 10, 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: Mathematics, Grade 9, Academic or Applied*

**FUNCTIONS, GRADE 11, 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*

#### OPTIONAL COURSES

##### ADVANCED FUNCTIONS, GRADE 12, 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 Functions, Grade 11, University/College Preparation.*

##### CALCULUS AND VECTORS, GRADE 12, UNIVERSITY PREPARATION

**MCV4U**

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

*Prerequisite: Functions, Grade 11, University Preparation*

##### MATHEMATICS OF DATA MANAGEMENT, GRADE 12, 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*

#### Science

##### COMPULSORY COURSES

##### SCIENCE, GRADE 9, ACADEMIC

**SNC1D**

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to relate science to technology, society, and the environment. Throughout the course, students will develop their skills in the processes of scientific investigation. Students will acquire an understanding of scientific theories and conduct investigations related to sustainable ecosystems; atomic and molecular structures and the properties of elements and compounds; the study of the universe and its properties and components; and the principles of electricity.

*Prerequisite: None*

##### SCIENCE, GRADE 10, 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*

## Biology

**Note: Of the Science courses listed on these pages, ONE of the Grade 11 courses is to be compulsory. You may choose your compulsory grade 11 credit from Biology, Chemistry or Physics (SBI 3U, SCH 3U, or SPH 3U). The other courses then become optional.**

### **BIOLOGY, GRADE 11, 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, Grade 12, 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*

## Chemistry

**Note: Of the Science courses listed on these pages, ONE of the Grade 11 courses is to be compulsory. You may choose your compulsory grade 11 credit from Biology, Chemistry or Physics (SBI 3U, SCH 3U, or SPH 3U). The other courses then become optional.**

### **Chemistry, Grade 11, 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, Grade 12, 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*

## Physics

**Note:** Of the Science courses listed on these pages, ONE of the Grade 11 courses is to be compulsory. You may choose your compulsory grade 11 credit from Biology, Chemistry or Physics (SBI 3U, SCH 3U, or SPH 3U). The other courses then become optional.

### PHYSICS, GRADE 11, 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, GRADE 12, 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

## Social Sciences And Humanities

### General Social Science

#### OPTIONAL COURSE

### INTRODUCTION TO ANTHROPOLOGY, PSYCHOLOGY, AND SOCIOLOGY, GRADE 11, UNIVERSITY/COLLEGE PREPARATION\*

HSP3M

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)

### Technological Education

#### OPTIONAL COURSE

### COMMUNICATIONS TECHNOLOGY: DIGITAL IMAGERY AND WEB DESIGN, GRADE 12, OPEN LEVEL\*

TGJ4O

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)

\* subject to the availability of a teacher, or may be delivered as an ILC or VHS course

### Religious Courses

#### LOCALLY-DEVELOPED COURSES APPROVED BY THE MINISTRY OF EDUCATION

<b>BIBLE, GRADE 9, OPEN</b>	<b>HRE13</b>
<p>This is the first of four courses focusing on Biblical studies. In grade nine, the first twelve chapters of the book of Genesis (dealing with creation, man's entry into history, the origins of languages and complex societies and the patriarchal family) are studied.</p> <p><i>Prerequisite: None</i></p>	
<b>BIBLE, GRADE 10, OPEN</b>	<b>(HRE 23)</b>
<p>This is the second of four courses focusing on Biblical studies. The grade nine course examined the first twelve chapters of the book of Genesis. This year the focus lies between chapters 13 and 50 of Genesis (examining such issues as the balance between spiritual and physical; between this world and the next; family; nation and global responsibility), as well as enhancing the basic Bible study skills.</p> <p><i>Prerequisite: Bible Grade 9</i></p>	
<b>BIBLE, GRADE 11, OPEN</b>	<b>(HRE 33)</b>
<p>This is the third of four courses focusing on Biblical studies. In grade nine the first twelve chapters of the book of Genesis were examined. In grade ten the curriculum covered the balance of Genesis. This year the students will see the greater parts of Exodus in which such subjects as leadership, revelation and the relationship between society and law will be covered. This course is to be followed by the study of Leviticus in grade twelve.</p> <p><i>Prerequisite: Bible Grade 10</i></p>	
<b>BIBLE, GRADE 12, OPEN</b>	<b>(HRE 43)</b>
<p>This final course will cover the book of Leviticus, looking at the rich intellectual and symbolic world of temple offerings and the wide range of legal and philosophical issues addressed in these chapters.</p> <p><i>Prerequisite: Bible Grade 11</i></p>	

**NOTE:** Depending on demand, all of the above courses are available in their applied equivalent.