

## *Principal's Message*

Our goal at Norwell is to engage our students in the learning process, and to challenge them to achieve personal excellence. The secondary school experience should leave all students richer, prepared for the future, and aware of their responsibilities as good citizens.

The 2016-2017 Course Calendar is not only an information guide regarding Ontario Secondary School Diploma requirements, but also it speaks to our commitment to meet the needs of the 21<sup>st</sup> century learner. We are determined to build on our honoured traditions and ECO Gold status, and to create programs that engage our learners. We hope to instill deeper understanding and to make clear connections between what is taught in the classroom and the needs of our global community. Continuous improvement drives our program development.

Norwell's Hockey Skills Program, Arts Project, CELP, French Immersion, Rhythm and Creative Movement, Technical and Business Leadership classes are all built on the core belief that helping students find what is interesting to them in school helps them succeed. Interest is the key to growth, understanding and academic success. Norwell's desire to be on the cutting edge of new learning is a result of the confidence gleaned from great experience. We look forward to seeing you here and being a part of our school.

**Community, Action, Resiliency, Environment = Norwell**

Paul Richard  
Principal

Note: The entire course calendar can be accessed at: <http://www.ugdsb.on.ca/norwell/>

Teachers, guidance counsellors and support staff are also available to help with any questions or concerns you may have while making your choices. You should consider your interests as well as your educational needs before making your final choice. The decisions you make are an important part of your career pathway.

## TABLE OF CONTENTS

Norwell D.S.S. - A Statement of Objectives .....	3
A Guideline for Student Behaviour .....	3
Support Services at Norwell .....	5
Planning your School Program .....	6
Diploma Requirements .....	8
Factors to Consider when Choosing a Stream.....	10
Regular Grade 9 Program .....	12
Arts Performance Project .....	13
Hockey Skills Development Program .....	14
Regular Grade 10 Program .....	15
CELP Program.....	16 & 50
Regular Grade 11 & 12 Programs .....	17
French Immersion Program .....	18
Special Education .....	19
Course Descriptions .....	20
The Arts .....	22
Business Studies .....	25
Canadian & World Studies .....	26
Computer Studies .....	30
English .....	31
French and International Languages.....	33
Guidance and Career Education .....	35
Health and Physical Education .....	35
Mathematics .....	37
Science .....	40
Social Science and Humanities .....	42
Technological Education .....	44
Co-operative Education .....	51
Specialist High Skills Major .....	53
Additional Learning Opportunities – E-learning.....	54
Dual Credit .....	56

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## **NORWELL D.S.S. - A STATEMENT OF OBJECTIVES**

The prime objective of Norwell District Secondary School is to provide the best educational opportunity to the students of the school. It is the aim of the staff to assist all of our students to reach their full potential in physical, intellectual, emotional, social, cultural and moral development.

It is our goal to assist students in:

- acquiring the knowledge and skills necessary to understand and express ideas through words, numbers and other symbols;
- developing a sense of self-worth;
- developing a sense of personal responsibility in society;
- acquiring skills, knowledge and attitudes that will lead to satisfaction and productivity in the world of work;
- developing resourcefulness, adaptability and creativity in learning and living;
- developing physical fitness and good health;
- gaining satisfaction from participating with others in various forms of artistic expression;
- developing an understanding of the role of the individual within the family and the role of the family within society;
- developing respect for the environment and a commitment to the wise use of resources;
- acquiring skills that contribute to self-reliance in solving practical problems in everyday life;
- developing esteem for the customs, cultures, and beliefs of a wide variety of societal groups;
- developing values related to personal, ethical or religious beliefs and to the common welfare of society; and
- developing an appreciation for the application of the processes of learning.

### **A GUIDELINE FOR STUDENT BEHAVIOUR**

A major purpose of Norwell is to help you to develop as a responsible person who will think clearly, feel deeply, and act wisely to the best of your ability. Your school's staff dedicate themselves to assist in every possible way towards these goals. Norwell is proud of its history of high academic standards, active sports and varied programmes. This school is yours to use, to enjoy, to benefit from, and to be proud of.

#### **STUDENTS HAVE RIGHTS**

You have the right to earn the respect of staff and students, to be treated with dignity and courtesy by all with whom you come in contact. You have the right to expect a good education and a high level of professionalism from all of your teachers. You should always feel safe and secure while at Norwell. While it is a privilege to attend school, you have the right to express yourself politely as long as you are sensitive to the rights and feelings of others. It is also your right to enjoy yourself, to obtain satisfaction and pleasure from your high school experience, and to benefit from the opportunities available to you.

#### **STUDENTS HAVE RESPONSIBILITIES**

Accompanying your rights and privileges are responsibilities. Students are expected to attend their classes regularly and punctually, to be prepared to work, and to put forth their best effort at all times. Reluctance or failure to do this will not only have negative effects upon you as a student but it can also affect the learning of others. It is your responsibility as a student to have respect and concern for others and to treat them as you wish to be treated. Nothing can be permitted which will disrupt the learning environment of school life. Finally, it is the responsibility of everyone to become acquainted with the rules and regulations of the school, the School Code of Conduct, and your right to appeal a decision, as outlined in the Student Handbook. These rules are to serve as guidelines for behaviour and to ensure that everyone knows what is expected of them.

## **CONSEQUENCES**

Unacceptable behaviour must have some consequence. Such consequences range from detentions to suspensions or expulsions and shall be consistent with established school, board and Ministry policies. In the event that you do not live up to your responsibilities, the teacher may choose to speak to you in class or you may be referred to the school administration. Your parents may be informed of a situation calling for disciplinary action and possibly be requested to attend a meeting at the school. Your Student Handbook outlines the regulations for student conduct in the school, on the school buses, at school dances, at sports events, on field trips, and at other school activities. Disobedience, profanity, use of alcohol or drugs, fighting or threatening others, bullying, destruction of school property or vandalism, dishonesty, abusive behaviour, disrespect towards another student or staff are all considered to be unacceptable behaviour and will result in disciplinary action. The great majority of Norwell students have no difficulty living within school regulations. Because of this, life at Norwell is friendly and supportive. The students at Norwell are well behaved, have a high level of morality and social values, and hold a positive view of school life. It is the right of all students to get pleasure from and to benefit from their years at school.

## **ATTENDANCE AND ACHIEVEMENT**

Regular attendance in classes is an important factor in the academic success of students. When students are absent, they miss material on which subsequent learning is based, they miss valuable time to work on projects, and they miss evaluations given by the teacher. Students who "skip" classes and subsequently miss a test or other evaluation will be awarded a mark of zero on that evaluation. If a student is ill for an extended period of time, work can be sent home if the office is notified. The school will make every effort to inform parents of problems created by irregular attendance of their children. Finally, it must be noted that in most courses, regular attendance is an essential component. Since a credit is based upon instruction in a course for a minimum of 110 hours, when a student misses too many classes, he/she might not be able to complete a sufficient amount of the work to be covered. As a result the student may fail to achieve a credit for the course.

## **EQUAL EDUCATIONAL OPPORTUNITY**

In the effort to best serve the needs of our students and our community, Norwell attempts to provide the widest offering of courses possible. We believe that every student should have an opportunity to attempt a course of study which is in his/her best interest. All courses are open to those who have an interest in taking them and who have the necessary knowledge and skills required to be successful in them. No student will be denied access to a course because of monetary restrictions.

## **EVALUATION POLICY**

There will be two sets of final evaluations during the school year. These exams shall be scheduled as follows: one set at the end of the first semester (January), and one set at the end of the second semester (June). These evaluations are compulsory and therefore there will be no exemptions.

Unless previous arrangements are made with the Vice-Principal, students who are absent from examinations shall receive a mark of zero on that evaluation unless a note is provided by the family doctor.

There is no mid-term evaluation schedule. However, some courses may have evaluations at mid-term which will be held during regular class time.

If a student misses a test or evaluation (other than exam) for a legitimate reason, he/she should make that test up as soon as possible upon his/her return to school (or at a time set by the teacher). Missed assignments may jeopardize the awarding of a credit in the course.

## SUPPORT SERVICES AT NORWELL

### GUIDANCE CENTRE

The Guidance Centre is located next to the main office at Norwell. The Centre houses resources for career planning, apprenticeship, college, university, study skills, community resources, and scholarship/financial awards. Career education resources are also available online. In addition, counsellors are available for individual counselling about courses, careers, or personal matters. Students are encouraged to use these resources often. Through the Guidance Centre students may make an appointment with the Child & Youth Worker, Community Alcohol & Drug Counsellor, and the school nurse.

### LIBRARY

The Library Collection is specifically selected to meet students' academic needs and extracurricular interests. As well as having a large book collection, magazines, newspapers, and e-readers, the library is a place for students to study and collaborate. Computers, netbooks, and tablets are available for assignment completion and Internet research. The loan period for books is three weeks. Students are responsible for borrowed material, and any penalties incurred. A formal orientation is held for grade 9 students to introduce them to the library. Research assistance and instruction in the use of resources are available for all grade levels. Materials from other secondary schools and course content videos from the Terry James Resource Centre may be requested through the Teacher-Librarian.

### RESOURCE CENTRE - ROOM 111

The Resource Room is located in room 111. This is a place all students in the school can access for extra help. We have adaptive computer programs (text to speech to help with reading, speech to text to help with writing), a quiet place to calm down, and a teacher that can give you extra help with things such as test preparation, time management, organization, and assignment completion. Many students use the room for their regular class work, or for tests and exams.

### COMPUTER LAB

The Cross-Curricular Computer Lab is available for individual students needing to complete course assignments, subject to computer availability and teacher supervision. All students using school computers must comply with the Acceptable Use Policy. Students will access the computers using their personal ID and password. Each year students receive a \$5.00 credit on their printing account. Once the \$5.00 is used up, students are required to add money to their account in order to continue printing. Each page costs \$0.10. In order to replenish your account please see Ms. Eudoxie or Mrs. Douglas.

### ENHANCEMENT FEES at SECONDARY SCHOOLS

Please note that some courses will have optional enhancement fees for activities or resources. For example, a student may choose to buy a workbook for French or Math, a sketchbook for Art, or may choose to pay a fee for off-site activities in physical education courses.

If you have questions about .....	Contact
<ul style="list-style-type: none"><li>• Changing courses or option selections</li><li>• Social-Emotional or wellness concerns</li><li>• Careers, Apprenticeship, College, University</li></ul>	Guidance
<ul style="list-style-type: none"><li>• Individualized Education Plan (IEP)</li><li>• IPRC reviews</li></ul>	Special Education
<ul style="list-style-type: none"><li>• Academic Support</li><li>• Credit Recovery</li></ul>	Student Success Teacher
<ul style="list-style-type: none"><li>• Attendance</li><li>• Behaviour</li></ul>	Vice-Principal

## PLANNING YOUR SCHOOL PROGRAM

### SAMPLE STUDENT TIMETABLE

Homeroom: 9:00 - 9:05

Period	SEMESTER 1: Sept.-Jan.	SEMESTER 2: Feb.-June
<b>1</b> 9:00 - 10:15	English	Option
<b>2</b> 10:20 - 11:30	Option	Issues in Canadian Geography
11:30 - 11:50	Norwell Reads	Norwell Reads
11:50 - 12:45	LUNCH	
<b>3</b> 12:45 - 1:55	French	Science
<b>4</b> 2:00 - 3:10	Mathematics	Option

\* Individual student timetables will vary.

### SOME TERMS USED IN HIGH SCHOOL

#### COURSES

Courses are available in many subject areas in high school. Within a subject area, students can further specialize their study, depending on their personal interests.

#### TYPES OF COURSES

- ▶ Courses in Grade 9 and 10 are divided into four types: Academic, Applied, Essential and Open.

Moving from Applied Grade 9 courses to Grade 10 Academic courses is possible but not easy.

- ▶ Courses in Grades 11 and 12 are divided into five types:
  - “Workplace preparation” courses,
  - “College preparation” courses,
  - “University preparation” courses,
  - “University/College preparation” courses,
  - “Open” courses.

In Grades 11 & 12 “transfer” courses may be required for students moving from one type of course to another.

#### COURSE CODES

Each secondary school course is identified by a 5 or 6 character “code”.

- ▶ The first three characters refer to the subject and specific area.  
eg., ENG is English.
- ▶ The fourth character normally refers to the grade:  
1=grade 9    2=grade 10    3=grade 11    4=grade 12
- ▶ The fifth character refers to the type of course as outlined above:  
L=essential level    P=applied    D=academic    O=open  
E=workplace preparation    C=college preparation    M=university/college preparation  
U=university preparation
- ▶ The sixth character is significant for school purposes for example:  
F=Extended French    G=Essential Level

#### CREDITS

One credit is granted when a course of 110 hours is completed successfully. Credits are granted by the Principal on behalf of the Minister of Education for courses that are developed or approved by the Ministry.

## **PREREQUISITE**

Some courses require that students have completed a “prerequisite” course in order to enrol. These prerequisite requirements are indicated in high school course calendars. Students and their families should study carefully the requirements for senior level courses when selecting a program in earlier grades.

## **SEMESTERED AND NON-SEMESTERED**

High schools are generally organized on either a full-year model or a SEMESTERED model.

- ▶ Students in a SEMESTERED school, like Norwell, usually study 4 courses from September to January, and 4 courses from February to June, with evaluations and reports at the end of each semester.
- ▶ Parents and students should be aware that not all courses are available each semester and some courses are available every other year.
- ▶ Terms - Each semester is divided into 2 terms. An Ontario Provincial Report Card is received at the end of each term.

## **ONTARIO STUDENT TRANSCRIPT AND ONTARIO STUDENT RECORD**

- ▶ The Ontario Student Transcript (OST) is a provincially standardized document which is the student’s official record of credits earned. Copies are available to students on request.
- ▶ The OST is kept in the student’s Ontario Student Record folder (OSR). This folder contains achievement results, credits earned, and other information important to the education of the student. The OSR is created when a student enters the Ontario school system, and moves with the student from school to school. The OSR is created under the authority of the Education Act, and the contents of the OSR are protected under the Freedom of Information and Protection of Privacy Act. The parents/guardians and the student may examine the contents of the OSR on request, with the assistance of the Principal or a Guidance Counsellor.

## **PRIOR LEARNING ASSESSMENT AND RECOGNITION (PLAR)**

By following this procedure, students may obtain credits for prior learning. Such learning includes knowledge and skills acquired outside of Secondary School in both formal and informal ways. Students may have their knowledge and skills evaluated against the expectations in the curriculum in order to obtain credit for a course under the Ontario Secondary Schools curriculum.

- Students may earn a maximum of four credits through the PLAR process, with a maximum of two in any one discipline.
- Students must be able to provide reasonable evidence to the principal that they would likely be successful in the challenge process. In cases where the student/parent disagrees with the principal’s decision about whether or not the student should challenge for credit, the Superintendent of Education may be asked to review the matter. Challenge may be made only for grade 10, 11 and 12 courses.
- The challenge process may NOT be used:
  - to improve a mark in a course which the student has already taken;
  - if a credit has already been granted for a course in that subject in a later grade;
  - for a transfer course;
  - for a locally developed course;
  - for a cooperative education course;
  - for an English as a second language course;
  - or for a course in French as a second language.

Assessment instruments for this process must include format tests (70% of the final mark) and a variety of other assessment strategies appropriate to the particular course (30% of the final mark). Completed application forms and supporting documentation must be submitted before January 10<sup>th</sup>. Typically a student would have up to 4 weeks to complete the assigned evaluation tasks. Inquiries about PLAR should be directed towards the Guidance office

## **FULL DISCLOSURE**

The Ontario Student Transcript includes all grade 11 and 12 courses attempted, including those failed, dropped or repeated. This allows a more valid evaluation of each student’s academic performance.

Students taking grade 11 and 12 courses must be careful to meet the deadline to drop a course from their timetables. Failure to meet this deadline will result in the course remaining on the transcript and thus will be a part of the student’s permanent record. This may have an effect when students present their transcripts when applying for employment, college or university.

The deadline to drop a course without disclosure is five days after release of the midterm report card.

## DIPLOMA REQUIREMENTS

### THE ONTARIO SECONDARY SCHOOL DIPLOMA

To obtain the OSSD, students earn 30 credits of 110 hours each, including 18 compulsory credits and 12 elective credits. The following 18 compulsory credits must be included in any student's program in order to obtain an Ontario Secondary School Diploma:

- ▶ 4 credits in English
- ▶ 3 credits in mathematics
- ▶ 2 credits in science
- ▶ 1 credit in Canadian history
- ▶ 1 credit in Canadian geography
- ▶ 1 credit in the arts
- ▶ 1 credit in health and physical education
- ▶ 1 credit in French as a second language
- ▶ 0.5 credit in career studies
- ▶ 0.5 credit in civics

#### **PLUS one credit from each of the following groups:**

- Group 1 1 additional credit in English, or French as a second language, or a Native language, or a classical or an international language, or social sciences and the humanities or Canadian and world studies, or guidance and career education, or co-operative education
- Group 2 1 additional credit in health and physical education, or the arts, or business studies, or French as a second language, or computer studies, or co-operative education.
- Group 3 1 additional credit in science (grade 11 or 12), or technological education, or French as a second language, or computer studies, or co-operative education

#### **PLUS**

- ▶ 12 elective credits selected from available courses

Additional requirements for graduation will include:

- ▶ Successful completion of Ontario Secondary School Literacy Test
- ▶ Mandatory community involvement of 40 hours

**NOTE:** In groups 1, 2, and 3, a maximum of 2 credits in French as a second language can count as compulsory credits, one from group 1 and one from either group 2 or group 3.

**NOTE:** A maximum of 2 credits in co-op may count as compulsory credits.

### ONTARIO SECONDARY SCHOOL LITERACY TEST

Students will write the Ontario Secondary School Literacy Test in the spring of Grade 10. This test is provincially created and administered. The literacy test evaluates students' reading, writing and comprehension skills based on the expectations in Language and Communications up to and including Grade 9. Students must pass this test in order to graduate from High School, and the successful completion of the test will be recorded on the Ontario Student Transcript. Students who do not pass the test successfully will receive remedial help to prepare for re-testing. English as a Second Language students will take the test only when they have reached an equivalent level in their language studies. Accommodations for students in special education programs may include additional time to complete the test. Requests for deferrals or exemptions are to be directed to the Principal. The grade 12 Ontario Secondary School Literacy Course is available for students who have been eligible to write the OSSLT and who have been unsuccessful at least once. Students who are successful in this course earn one English credit and meet the provincial literacy requirement for graduation.



## **SUBSTITUTIONS FOR COMPULSORY CREDITS**

Under special circumstances, substitutions may be made for a limited number of compulsory credit courses. To meet individual students' needs, principals may replace up to three compulsory courses with courses from the remainder of those that meet the compulsory credit requirements. In all cases, however, the total of compulsory and optional credits will be 30 for students in order to earn the OSSD, and not less than 14 for those earning the Ontario Secondary School Certificate. Substitutions should be made to promote and enhance student learning or to meet special needs and interests.

Requests for substitutions can be made by a parent, adult student, or the Principal. The Principal will make his or her decision in consultation with the student, parent when the student is under 18, and appropriate school staff. In cases where the parent or adult student disagrees with the decision of the Principal, the appropriate supervisory officer may be asked to review the matter.

## **MANDATORY COMMUNITY INVOLVEMENT**

Students are required as part of their Ontario Secondary School Diploma (OSSD) to complete a minimum of 40 hours of unpaid community involvement over their four years of secondary school. This involvement will be in addition to the 30 credits required to graduate and must be arranged by the students and parents. Students must keep a record of this involvement and have it validated by the school Principal or the Head of Guidance Services. A student may work in a variety of settings including not-for-profit organizations, public sector institutions (including hospitals) and informal settings. Possible activities include charity work, coaching, or involvement in certain extra-curricular activities within the school as defined by the guide provided by the Ministry. If a student wishes to participate in an activity or event that is not clearly within the Board's set of examples, and does not conform to the principles set out in the Information Manual, he/she must discuss this activity with the school Principal and get his/her signature before proceeding. In grade 9 each student will receive a copy of the Community Involvement Information Manual. This manual provides students with lists of eligible and ineligible activities. It also includes a record of hours for planned and completed Community Involvement Activities. Students may begin accumulating community involvement hours upon graduation from grade 8. This includes July and August before the student begins grade 9.

## **ONTARIO SECONDARY SCHOOL CERTIFICATE**

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

Compulsory credits (total of 7):

- 2 credits in English
- 1 credit in Canadian Geography or Canadian History
- 1 credit in Mathematics
- 1 credit in Science
- 1 credit in Physical and Health Education
- 1 credit in Arts or Technology

Optional credits (total of 7)

The provisions of making substitutions for compulsory credits also apply to the Ontario Secondary School Certificate.

## **THE CERTIFICATE OF ACCOMPLISHMENT**

Students who leave school before fulfilling the requirements for the OSSD or the Ontario Secondary School Certificate may be granted a Certificate of Accomplishment. This 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.

The Certificate of Accomplishment will be accompanied by the student's Ontario Student Transcript. For those students who have an Individual Education Plan, a copy of the IEP may be included.

Students who return to school to complete additional credit and non-credit courses will have their transcript updated accordingly, but will not be issued a new Certificate of Accomplishment. They may work towards an Ontario Secondary School Certificate or the Ontario Secondary School Diploma.

## COURSE ORGANIZATION

### GRADES 9 AND 10

Grade 9 and 10 courses are organized into four types: Academic, Applied, Essential and Open. All courses prepare students for study in the senior grades. Because the emphasis is on core concepts in Grade 9 courses, students may move from one type of course to another between Grades 9 and 10. Moving from a Grade 9 Applied Course to a Grade 10 Academic Course is possible but it will not be easy. Successful completion of the Grade 9 program, excellent work habits and motivation are key in moving from Applied to Academic courses in each of the core subjects – English, French as a second language, math, science, geography and history. Moving from applied to academic math requires the completion of grade 9 academic math before moving to the grade 10 course.

### ACADEMIC COURSES

Academic courses develop students’ knowledge and skills through the study of theory and abstract problems. These courses focus on the essential concepts of a subject and explore related concepts as well. They incorporate practical applications as appropriate.

### APPLIED COURSES

Applied courses focus on the essential concepts of a subject, and develop students’ knowledge and skills through practical applications and concrete examples. Familiar situations are used to illustrate ideas, and students are given more opportunities to experience hands-on applications of the concepts and theories they study.

### ESSENTIAL COURSE

Essential courses are based on provincial curriculum with an emphasis on practical applications and hands-on learning opportunities. They focus on accommodating the educational and career preparation needs of students, particularly students receiving special education services. Selection of Essential level courses should be done in consultation with the Head of Special Education.

### OPEN COURSES

Open courses comprise a set of expectations that are appropriate for all students.

At the end of semester one, Grade 9 students will choose courses for Grade 10. Grade 10 courses will prepare students in specific ways for Grade 11 and 12 and for what they want to do when they finish High School. Students should think of Grade 11 and 12 courses as the pathways to post-secondary destinations. Many of these courses will require students to have successfully completed a particular course in Grade 10 (a “prerequisite”), so students should ensure that the Grade 10 courses they want will get them into the senior courses that they need.

## FACTORS TO CONSIDER WHEN CHOOSING ACADEMIC OR APPLIED Grades 9 & 10

FACTOR	ACADEMIC	APPLIED	ESSENTIAL
<b>ACHIEVEMENT</b>	meets or exceeds provincial standard*	meets or approaches provincial standard*	approaches provincial standard*
<b>NEED / FUTURE PLANS</b>	university, college or apprenticeship other post-secondary training workplace	apprenticeship workplace some college programs	workplace apprenticeship

\*The Provincial Standard is Level 3

The decision of which level to choose is an important one. It should be done in consultation with parents, student and the grade 8 teacher.

## **GRADES 11 AND 12**

Grade 11 and 12 courses are organized into types according to the student's intended post-secondary destination. Students may choose university (U), university/college (M), college (C), or workplace (E) courses. Open courses are also offered. Open courses are not linked to any specific post-secondary destination. They are appropriate for all students. Students making course selections in grade 10 must be mindful of the prerequisites for grade 11 courses.

### **UNIVERSITY PREPARATION**

Courses are designed to prepare students for university programs and related careers. Theoretical aspects of the course will be emphasized, but concrete applications will be included. Students will demonstrate their development of independent research and learning skills.

### **UNIVERSITY/COLLEGE PREPARATION**

These courses include relevant content for students bound for either destination. Theoretical aspects and concrete applications will be emphasized. Students will demonstrate their development of independent research and learning skills.

### **COLLEGE PREPARATION**

These courses are designed to equip students with the knowledge and skills for entry into college programs. Critical-thinking, problem-solving skills and concrete applications of the course material will be emphasized. Students will demonstrate their development of independent research and learning skills.

### **WORKPLACE PREPARATION**

These courses are designed to equip students with the knowledge and skills they need for entry into the workplace, apprenticeship programs or other training programs. Workplace applications of the course will be emphasized, but the underlying theoretical material will also be explored. Students will be required to demonstrate independent research and learning skills. The importance of lifelong learning will be stressed.

### **TRANSFER COURSES**

Transfer courses are designed to enable students to switch from one course type to another when they alter their post-secondary destination. Transfer courses bridge the gap in knowledge and skills between two courses of different types. These courses are shorter, are given a partial credit value, and are currently available through summer school.

### **OPEN COURSES**

These courses are not designed with a specific post-secondary destination in mind. Knowledge and skills in a subject area are broadened. This subject may or may not be related to a student's post-secondary goals. Their focus is on providing students with a broad educational base and equipping them for active and rewarding participation in society.

### **CHANGING COURSE TYPES**

Students who change their educational goals may need to take courses of a different type from those they initially chose. For example, a student who has completed a grade 11 college preparation English course may change his/her education goal and may need to take Grade 12 university preparation English. A student wishing to change course types between grades 10 and 11 and/or grades 11 and 12 may:

- take a transfer course that will bridge the gap between course types
- take a summer course or undertake independent study to achieve the uncompleted expectations that are required to enter the new program.

## REGULAR GRADE 9 PROGRAM

The Grade 9 program will consist of both COMPULSORY and OPTIONAL courses. All Grade 9 students must take a full program of 8 courses. Grade 8 students will complete an option sheet and complete course selection through myBlueprint.

### GRADE 9 COMPULSORY COURSES

Grade 9 students will take all of the following courses:

Issues in Canadian Geography	CGC1PG or CGC1P or CGC1D
English	ENG1LG or ENG1P or ENG1D
French *	FSF1P or FSF1D
Mathematics	MAT1LG or MFM1P or MPM1D
Science	SNC1LG or SNC1P or SNC1D

Grade 9 students must take at least one Arts course:

Drama	ADA1O
Music	AMU1O or AMU1ON
Visual Arts	AVI1O or AWA1OG (for students with an IEP)

### GRADE 9 ELECTIVE COURSES

Grade 9 students must choose two optional courses:

Introduction to Business	BBI1O
Healthy Active Living	PPL1OX or PPL1OY
Technology - traditional - cosmo/fashion	TIJ1O1 or TIJ1O2
Learning Strategies	GLE1OG *
or	
One additional arts credit	

\* with permission of the Principal, students choosing an Essential level program may substitute GLE1OG, Learning Strategies, for the compulsory French course.

## ARTS PERFORMANCE PROJECT

The Grade 9 Arts Performance Project will consist of both COMPULSORY and ELECTIVE courses. All Grade 9 students must take a full program of 8 courses.

### GRADE 9 COMPULSORY COURSES

Students will take all of the following courses:

Two Arts Performance Credits (Integrated Arts and English)	FTEARTS
Issues in Canadian Geography	CGC1PG or CGC1P or CGC1D
French *	FSF1P or FSF1D
Mathematics	MAT1LG or MFM1P or MPM1D
Science	SNC1LG or SNC1P or SNC1D

### GRADE 9 ELECTIVE COURSES

Students must choose two elective courses:

Drama	ADA1O
Music	AMU1ON or AMU1O
Visual Arts	AVI1O or AWA1OG (for students with an IEP)
Introduction to Business	BBI1O
Healthy Active Living - Girls Healthy Active Living - Boys	PPL1OX PPL1OY
Technology - traditional - cosmo/fashion	TIJ1O1 or TIJ1O2
Learning Strategies	GLE1OG *

\* with permission of the Principal, students choosing an Essential level program may substitute GLE1OG, Learning Strategies, for the compulsory French course

Please note: There is a fee and an application form for the Arts Performance Project. Students should make these course selections and complete the application form. It is available at the school and on the Norwell website.

## HOCKEY SKILLS DEVELOPMENT PROGRAM

The Grade 9 Hockey Skills Development program will consist of both COMPULSORY and ELECTIVE courses. All Grade 9 students must take a full program of 8 courses.

### GRADE 9 COMPULSORY COURSES

Students will take all of the following courses:

Two Hockey Skills Credits (Physical Education and Canadian Geography)	FTEHOC
English	ENG1LG or ENG1P or ENG1D
French *	FSF1P or FSF1D
Mathematics	MAT1LG or MFM1P or MPM1D
Science	SNC1LG or SNC1P or SNC1D

Students must take at least one Arts course:

Drama	ADA1O
Music	AMU1ON or AMU1O
Visual Arts	AVI1O or AWA1OG (for students with an IEP)

### GRADE 9 ELECTIVE COURSES

Students must choose one elective course:

Introduction to Business	BB1O
Technology - traditional - cosmo/fashion	TIJ1O1 or TIJ1O2
Learning Strategies	GLE1OG *
or	
One additional Arts credit	

\* With permission of the Principal, students choosing an Essential level program may substitute GLE1OG, Learning Strategies, for the compulsory French course

Please note: There is a fee and an application form for the Hockey Skills Development Program. Students should make these course selections and complete the application form. It is available at the school and on the Norwell website.

## REGULAR GRADE 10 PROGRAM

The Grade 10 program will consist of COMPULSORY and OPTIONAL courses. All Grade 10 students must take a full program of 8 courses. Grade 9 students will complete an option card in order to select their grade 10 courses.

### GRADE 10 COMPULSORY COURSES

Grade 10 students will take all of the following courses:

Canadian History Since World War I	CHC2LG or CHC2P or CHC2D
Civics & Citizenship and Career Studies	CHV2OG or CHV2O
English	ENG2LG or ENG2P or ENG2D
Mathematics	MAT2LG or MFM2P or MPM2D
Science	SNC2PG or SNC2P or SNC2D

### GRADE 10 ELECTIVE COURSES

Grade 10 students may choose three of the following optional courses:

Drama	ADA2O
Music	AMU2O
Visual Arts	AVI2O
Introduction to Information Technology in Business	BTT2O
Food and Nutrition	HFN2O
Clothing	HNL2O
French	FSF2D
Healthy Active Living	PPL2O
Communications Technology	TGJ2O
Construction Technology	TCJ2O
Green Industries - Horticulture	THJ2O
International Languages – Spanish	LWSAD
Manufacturing Technology	TMJ2O
Technological Design	TDJ2O
Transportation Technology (Automotive)	TTJ2O
Transportation Technology (Small Engines)	TTJ2O1
Introduction to Computer Studies	ICS2O
Computer Technology	TEJ2O
Hairstyling and Aesthetics	TXJ2O

### GRADE 10 INTERDISCIPLINARY STUDIES

CELP is available to grade 10 students. See pages 16 & 51 for more information.

## CELP PROGRAM – GRADE 10

### GRADE 10 COMPULSORY COURSES

Grade 10 students will take all of the following courses:

CELP	FTECELP
Canadian History Since World War I	CHC2LG or CHC2P or CHC2D
English	ENG2LG or ENG2P or ENG2D
Mathematics	MAT2LG or MFM2P or MPM2D

### GRADE 10 ELECTIVE COURSES

Grade 10 students may choose one of the following optional courses:

Drama	ADA2O
Music	AMU2O
Visual Arts	AVI2O
Introduction to Information Technology in Business	BTT2O
Food and Nutrition	HFN2O
Clothing	HNL2O
French	FSF2D
Healthy Active Living	PPL2O
Communications Technology	TGJ2O
Construction Technology	TCJ2O
Green Industries - Horticulture	THJ2O
International Languages – Spanish	LWSAD
Manufacturing Technology	TMJ2O
Technological Design	TDJ2O
Transportation Technology (Automotive)	TTJ2O
Transportation Technology (Small Engines)	TTJ2O1
Introduction to Computer Studies	ICS2O
Computer Technology	TEJ2O
Hairstyling and Aesthetics	TXJ2O

\* Students taking Extended French should choose FEF2DF and CHC2DF  
Please refer to the list of required courses for the OSSD (page 8) when planning your program.



## **REGULAR GRADE 11 PROGRAM**

The grade 11 program will consist of both Compulsory and Optional courses. Grade 11 students must take a full program of 8 courses. Grade 11 students should check the Ontario Secondary School Diploma requirements on page 8 to ensure that the compulsory credits are being achieved. A student who has achieved all of the compulsory grade 9 and 10 credits should consider the following courses for grade 11:

- 1 grade 11 English
- 1 grade 11 math
- 1 of grade 11, 12 science, grade 9-12 technology, or French as a second language, or computer studies, or cooperative education
- 1 health & physical education, grade 9-12
- 1 additional credit in English, or French as a second language, or a Native language, or a classical or an international language, or social sciences and the humanities or Canadian and world studies, or guidance and career education, or cooperative education
- 1 additional credit in health and physical education, or the arts, or business studies, or French, or cooperative education

NOTE: these courses may/may not have been completed in grades 9 or 10. Students should check with their Guidance Counsellor if they have concerns about compulsory courses.

## **REGULAR GRADE 12 PROGRAM**

The grade 12 program will consist of both compulsory and optional courses. Students should check the Ontario Secondary School Diploma Requirements (page 8) to ensure that all compulsory credits have been achieved. The only compulsory course specific to grade 12 is:

1 credit in grade 12 English

NOTE: please check with your Guidance counsellor if you are uncertain whether all compulsory courses have been achieved. Students should take at least 3 courses in each semester.

## FRENCH IMMERSION PROGRAM

The French Immersion Certificate is awarded to students who successfully complete 10 courses taught in French. In each of grades 9, 10, 11 and 12, students take one course in French. In addition, students must complete the following courses taught in French: Enjeux géographiques du Canada, Histoire du Canada depuis la première guerre mondiale, and Changements et défis sociaux. Students will also take one online course taught in French, and 2 Co-op credits in a French placement. French Immersion courses are identified by “F” in the 6<sup>th</sup> digit of the course code (eg. CHC2DF). In the 2016-17 school year, the sequence will be as follows:

### GRADE 9 IMMERSION FRENCH 2016-17 COMPULSORY COURSES

Histoire du Canada Depuis la Première Guerre Mondiale	CHC2DF
English	ENG1P or ENG1D
French Immersion	FEF1DF
Mathematics	MFM1P or MPM1D
Science	SNC1P or SNC1D

Grade 9 French Immersion students must also choose one Arts course and 2 elective courses (see page 12).

### GRADE 10 FRENCH IMMERSION 2016-17 COMPULSORY COURSES

English	ENG2P or ENG2D
French Immersion	FEF2DF
Histoire du Canada Depuis la Première Guerre Mondiale	CHC2DF
Civics and Career Studies	CHV2O
Mathematics	MFM2P or MPM2D
Science	SNC2P or SNC2D

Grade 10 French Immersion students must also choose two elective courses from the grade 10 optional course list on page 15. Please refer to the list of required courses for the OSSD (page 8) when planning your program.

### GRADE 11 FRENCH IMMERSION 2016-17 COMPULSORY COURSES

French Immersion	FEF3UF
1 online course taught in French	

Grade 11 students should check the list of required courses for the OSSD (page 8) when planning their program.

### GRADE 12 FRENCH IMMERSION 2016-17 COMPULSORY COURSES

French Immersion	FEF4UF
One online course taught in French	
2 co-op credits in a French placement	FTECO2

Grade 12 students should check the list of required courses for the OSSD (page 8) when planning their program.

Please note: French Immersion students must also complete CGC1DF and HSB4UF prior to graduation. These courses are scheduled in sequence to allow students the opportunity to complete them before graduation

\*An Extended French Certificate is also available. It is awarded to students who have completed 7 credits taught in French.

# **SPECIAL EDUCATION**

## **ACCOMMODATIONS**

The term *accommodations* refers to special teaching or assessment strategies, human supports and/or individualized equipment required for a student to learn or demonstrate learning in regular course expectations.

## **ALTERNATIVE (NON-CREDIT) COURSES**

Non-credit courses are offered to students in the School Community Work Transitions program. These students are working toward a Certificate of Accomplishment and the alternative courses are individualized for the student and focus on preparing the student for daily living.

## **IPRC AND IEP**

The Identification, Placement and Review Committee (IPRC) is the committee that decides whether or not a student should be identified as exceptional, identifies the area of exceptionality as defined by the Ministry of Education, and decides on an appropriate placement for the student. Once a student is identified, an in school IPRC committee meets once a year to review the student's identification and placement. An Individual Education Plan (IEP) must be developed for exceptional students, in consultation with the parents. The IEP includes an outline of the special education program and services that will be received. When appropriate, for students 14 years and older, a plan for transition to appropriate post-secondary school activities such as work, further education, and community living is included.

## **SEAC**

The Upper Grand District School Board has established a Special Education Advisory Committee (SEAC) whose role is to make recommendations for Special Education programs and services, participate in the review of the Board's Special Education Plan, participate in the budget process as related to Special Education, provide information to parents, and support the Special Olympics. SEAC is made up of local parent representatives of Provincial Associations, two school trustees and interested local community representatives. Meetings are open to the public and held on the second Wednesday of each month throughout the school year. Meetings begin at 7 pm at the Upper Grand District School Board office in Guelph. For further information please call the Program Department at (519) 941-6191 ext. 254.

## **UGDSB PARENT GUIDE AND POLICIES AND PROCEDURES**

The Board's Special Education Plan is available through the Board website <http://www.ugdsb.on.ca>. Copies of the Special Education Parent Guide are available at the school. Please contact the Special Education department to request a copy of the Parent Guide, or with any further questions.

## COURSES AVAILABLE 2016-17

Available courses and descriptions are listed here for grade 9 to 12 students. Complete courses of study are available for students or parents to examine by contacting the school office or department head.

Please check the prerequisites for the grade 10, 11 and 12 courses before making your selections.

Please make course choices carefully. The school administration uses your option card choices to plan the timetable for the year. Classes will be cancelled in cases where there is an insufficient number of students.

**Timetable changes in September may be difficult as classes fill up and conflicts with other courses arise.**

	Grade 9	Grade 10	Grade 11	Grade 12
<b>THE ARTS</b>				
Drama	ADA1O	ADA2O		ADA4M
Media Arts (Yearbook)			ASM3O	
Music	AMU1O AMU1ON	AMU2O	AMU3M AMC3O	AMU4M
Visual Arts	AVI1O AWA1OG	AVI2O	AVI3M AWQ3O	AVI4M AVI4E
Integrated Arts Program	FTEARTS		FTEART2	
<b>BUSINESS STUDIES</b>				
	BBI1O	BTT2O	IDC3O3 BAF3M BDI3C	BAT4M BOH4M BOG4E
<b>CANADIAN &amp; WORLD STUDIES</b>				
Economics				CIA4U
Geography	CGC1PG CGC1P CGC1D FTEHOC		CGF3M CGG3O	CGW4U CGW4C
History		CHC2LG CHC2P CHC2D CHV2O CHV2OG	CHA3U CHW3M	CHY4C CHY4U
Law			CLU3M CLU3E	CLN4U
<b>COMPUTER STUDIES</b>				
		ICS2O	ICS3U	ICS4U
<b>ENGLISH</b>				
	ENG1LG ENG1P ENG1D FTEARTS	ENG2LG ENG2P ENG2D	ENG3E ENG3C ENG3U	ENG4E ENG4C ENG4U OLC4O
<b>FRENCH - Core</b>				
	FSF1P FSF1D	FSF2D	FSF3U	FSF4U
<b>FRENCH - Immersion</b>				
	FIF1D	FIF2D CHC2DF	FIF3U	FIF4U
<b>SPANISH</b>				
		LWSAD	LWSBD	
<b>GUIDANCE</b>				
	GLE1OG	GLC2OG GLC2O	GPP3O	

<b>HEALTH &amp; PHYSICAL EDUCATION</b>	PPL1OX PPL1OY FTEHOC	PPL2O	PPL3O PAF3OX PAF3OY FTEHOC2	PAR4OX PPL4O PSK4U PLF4M
<b>MATHEMATICS</b>	MAT1LG MFM1P MPM1D	MAT2LG MFM2P MPM2D	MEL3E MBF3C MCF3M MCR3U	MEL4E MAP4C MCT4C MCV4U MDM4U MHF4U
<b>SCIENCE</b>	SNC1LG SNC1P SNC1D	SNC2PG SNC2P SNC2D	SVN3E SBI3C SBI3U SCH3U SPH3U	SBI4U SCH4C SCH4U SPH4C SPH4U
<b>SOCIAL SCIENCES &amp; HUMANITIES</b> Family Studies		HFN2O HNL2O	HFC3E HPC3O HSP3U	HFA4U HHG4M
<b>BROAD-BASED TECHNOLOGY</b>	TIJ1O1 TIJ1O2			
Communications Technology		TGJ2O	TGJ3O1 TGJ3M1	TGJ4O1 TGJ4M1
Computer Technology		TEJ2O		
Construction Technology		TCJ2O	TWJ3E1 TWJ3E2 TWJ3EX	TWJ4E1 TWJ4E2
Green Industries (Horticulture)		THJ2O	THJ3E	
Hairstyling & Aesthetics		TXJ2O	TXJ3E1	TXJ4E1
Manufacturing Technology		TMJ2O	TMJ3C1 TMJ3C2	TMJ4C1 TMJ4C2
Technological Design		TDJ2O	TDJ3O1 TDJ3M1	TDJ4O1 TDJ4M1
Transportation Technology		TTJ2O TTJ2O1	TTJ3C1 TTJ3C2 TTS3C1	TTJ4C1 TTJ4C2 TTS4C1
<b>INTERDISCIPLINARY STUDIES (CELP)</b>		FTECELP		
<b>CO-OPERATIVE EDUCATION</b> 2 period 4 period			FTECO2 FTECO4	
<b>DUAL CREDIT</b>			FTEDU	
<b>elearning</b>			FTEEUG	

# THE ARTS

## DRAMATIC ARTS



### ADA10 DRAMATIC ARTS, Open

1 credit in the Arts

This course provides opportunities for students to explore dramatic forms and techniques, using material from a wide range of sources and cultures. Students will use the elements of drama to examine situations and issues that are relevant to their lives. Students will create, perform, discuss, and analyse drama, and then reflect on the experiences to develop an understanding of themselves, the art form, and the world around them.

### ADA20 DRAMATIC ARTS, Open

**Prerequisite:** None

1 credit in the Arts

This course provides opportunities for students to explore dramatic forms, conventions, and techniques. Students will explore a variety of dramatic sources from various cultures and representing a range of genres. Students will use the elements of drama in creating and communicating through dramatic works. Students will assume responsibility for decisions made in the creative and collaborative processes and will reflect on their experiences.

### ADA4M DRAMATIC ARTS, University/College Preparation

**Prerequisite:** Grade 11 Dramatic Arts, College/University

1 credit in the Arts

This course requires students to experiment individually and collaboratively with forms and conventions of both drama and theatre from various cultures and time periods. Students will interpret dramatic literature and other text and media sources while learning about various theories of directing and acting. Students will examine the significance of dramatic arts in various cultures, and will analyse how the knowledge and skills developed in drama are related to their personal skills, social awareness, and goals beyond secondary school.

## INTEGRATED ARTS



### FTEARTS APP- ARTS PERFORMANCE PROJECT, (grade 9) Open

1 credit in English

This 2 credit program includes both English (ENG1D or 1P) and Integrated Arts (ALC1O). 1 credit in the Arts

APP is an innovative, off site, performance-based Arts program designed for grade 9 students with a keen interest in the arts. Participants will explore the Performing Arts in a collaborative, non-traditional environment at the Drayton Festival Theatre. In this setting, students will have the opportunity to develop their personal artistic talents in theatre, music, dance and visual art. They will participate in a variety of workshops such as voice, movement, drumming, stage combat, publicity, and production technology with industry professionals and community mentors. In this program, students will achieve required grade 9 credits in both Arts and English, as well as develop a framework for participation in the Arts and Culture Specialist High Skills Major program offered in grade 11 & 12. There is a fee of \$150 for this program to assist with transportation and special programming. Applications for this exciting new program are available on the Norwell website.

### FTEART2 –APP: SENIOR ARTS PERFORMANCE PROJECT, (grade 11) Open

1 credit in the Arts

**Prerequisite:** Grade 9 or 10 Arts credit

1 Co-op credit

APP is an innovative, production-based Arts program for grade 11 students with a keen interest in theatre and design. Students will produce the annual Theatre Norwell Production by participating as an actor, technician, and/or designer. Students will experience authentic learning in all areas of theatre production and move towards graduating with an Arts and Culture red seal. This 2 credit bundle includes ADD3M, a production focus course and ADD3MC, a production focused Co-op. Areas of study will include:

- Art/Design/Photography
- Fashion/Costume Design
- Dramatic Performances
- Music/Vocals
- Dance/Choreography
- Theatre Tech-lighting; sound; stage management
- Theatre production – design; marketing and promotions

The Co-op credit will cover all aspects of the co-op curriculum, with a work placement connected to the Theatre Norwell production. Students will be expected to log workplace hours in all facets of the production and to learn the creative process of building a show from technical, performance, and artistic perspectives. Co-op placement hours will be flexible, including evenings and weekends. A schedule of co-op workplace hours will be provided at the beginning of the semester.

\*As in-school co-op hours will be flexible based on after hours work, only senior students (gr. 11 or 12) may apply for this program.

## **MEDIA ARTS**

**ASM30 MEDIA ARTS, Open (Yearbook Production)** 1 credit in the Arts

**Prerequisite:** Any grade 9 or 10 Arts Course

This course enables students to create media art works using available and emerging technologies such as computer animation, digital imaging, and video, and a variety of media. Students will explore the elements and principles of media arts, the connections between contemporary media art works and traditional art forms, and the importance of using responsible practices when engaged in the creative process. Students will develop the skills necessary to create and interpret media art works.

## **MUSIC**

 **AMU10 MUSIC - continuing, Open (Instrumental)** 1 credit in the Arts

**AMU10N MUSIC - new, Open (Instrumental)** 1 credit in the Arts

This course emphasizes the creation and performance of music at a level consistent with previous experience and is aimed at developing technique, sensitivity, and imagination. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop an understanding of the conventions and elements of music and of safe practices related to music, and will develop a variety of skills transferable to other areas of their life. Band instruments will be the focus of this course.

**AMU20 MUSIC, Open (Instrumental)** 1 credit in the Arts

**Prerequisite:** None (grade 9 Music recommended)

This course emphasizes the creation and performance of music at a level consistent with previous experience. Students will develop musical literacy skills by using the creative and critical analysis processes in composition, performance, and a range of reflective and analytical activities. Students will develop their understanding of musical conventions, practices, and terminology and apply the elements of music in a range of activities. They will also explore the function of music in society with reference to the self, communities, and cultures.

**AMU3M MUSIC, University/College Preparation (Instrumental)** 1 credit in the Arts

**Prerequisite:** Grade 9 or 10 Music, Open

This course provides students with opportunities to develop their musical literacy through the creation, appreciation, analysis and performance of music, including traditional, commercial and art music. Students will apply the creative process when performing appropriate technical exercises and repertoire and will employ the critical analysis processes when reflecting on, responding to and analysing live and recorded performances. Students will consider the function of music in society and the impact of music on individuals and communities. They will explore how to apply skills developed in music to their life and careers.


**AMC30 MUSIC FOR CREATING, Open** 1 credit in the Arts


**Prerequisite:** None

This focus course follows the grade 11 Open Music curriculum. This exploratory class is open to students with or without musical experience. No prior musical knowledge is required. Students will explore a variety of instruments including percussion, voice, ukulele, guitar, and traditional band instruments. Several musical styles and approaches will be examined and students will perform and learn musical theory appropriate to their prior knowledge.

**AMU4M MUSIC, University/College Preparation (Instrumental)** 1 credit in the Arts  
**Prerequisite:** Grade 11 Music, College/University  
This course enables students to enhance their musical literacy through the creation, appreciation, analysis, and performance of music. Students will perform traditional, commercial, and art music, and will respond with insight to live and recorded performances. Students will enhance their understanding of the function of music in society and the impact of music on themselves and various communities and cultures. Students will analyse how to apply skills developed in music to their life and careers.

## **VISUAL ARTS**

 **AWA10G VISUAL ARTS - Arts & Crafts, Essential Program** 1 credit in the Arts  
This course follows the same guidelines as AVI100, but the focus is Arts & Crafts. This course will focus on studio projects, exploring a variety of craft medium and techniques. The study of aesthetics, criticism and art history will be modified. This course is intended for students with an IEP.

 **AVI10 VISUAL ARTS, Open** 1 credit in the Arts  
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.

**AVI20 VISUAL ARTS, Open** 1 credit in the Arts  
**Prerequisite:** None (grade 9 art is an asset)  
This course enables students to develop their skills in producing and presenting art by introducing them to new ideas, materials, and processes for artistic exploration and experimentation. Students will apply the elements and principles of design when exploring the creative process. Students will use the critical analysis process to reflect on and interpret art within a personal, contemporary, and historical context.

**AWP30 VISUAL ARTS - Sculpture, Open** 1 credit in the Arts  
**Prerequisite:** None (grade 9 or 10 art is recommended)  
This course follows the grade 11 open curriculum with a focus on Sculpture. This course is offered in alternate years. It will be offered in the 2017-18 school year.

**AWQ30 VISUAL ARTS - Photography, Open** 1 credit in the Arts  
**Prerequisite:** None, grade 9 or 10 art is recommended  
This course follows the grade 11 open level curriculum with a focus on photography. It is offered in alternate years. It will be offered in the 2016-17 school year.

**AVI3M VISUAL ARTS, University/College Preparation** 1 credit in the Arts  
**Prerequisite:** Grade 9 or 10 Visual Arts, grade 10 Art is highly recommended  
This course enables students to further develop their knowledge and skills in visual arts. Students will use the creative process to explore a wide range of themes through studio work that may include drawing, painting, sculpting and printmaking, as well as the creation of collage, multimedia works and works using emerging technologies. Students will use the critical analysis process when evaluating their own work and the work of others. Students who wish to take this course at the Open level (AVI3O) may do so. Course code and theoretical content will be modified upon request/approval.

**AVI4E VISUAL ARTS, Workplace** 1 credit in the Arts  
**Prerequisite:** Grade 11 Visual Arts, Open, or senior APP  
This course focuses on a practical approach to a variety of art and design projects related to the workplace. Students will use the creative process to produce a traditional and/or digital portfolio of their work in a variety of media.



**AVI4M VISUAL ARTS, University/College Preparation**

1 credit in the Arts

**Prerequisite:** Grade 11 Visual Arts

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.

## BUSINESS STUDIES

**☺ BBI10 or BBI20 INTRODUCTION TO BUSINESS, Open**

1 credit in Business Studies

This course introduces students to the world of business. Students will develop an understanding of the functions of business, including accounting, marketing, information and communication technology, human resources, and production, and of the importance of ethics and social responsibility. This course focuses on personal finance including money management, calculating loans and interest, investing and building good credit. This course builds a foundation for further studies in business and helps students develop the business knowledge and skills they will need in their everyday lives.

**BTT20 INFORMATION AND COMMUNICATION TECHNOLOGY IN BUSINESS, Open****Prerequisite:** None

1 credit in Business Studies

This course introduces students to information and communication technology in a business environment and builds a foundation for digital literacy skills necessary for success in a technologically driven society. Students will develop word processing, spreadsheet, database, desktop publishing, presentation software, and website design skills. Throughout the course, there is an emphasis on digital literacy, effective electronic research and communication skills, and current issues related to the impact of information and communication technology.

## ACCOUNTING

**BAF3MO FINANCIAL ACCOUNTING FUNDAMENTALS, University/College Preparation****Prerequisite:** None

1 credit in Business Studies

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 current issues and ethics in accounting.

**BAT4M FINANCIAL ACCOUNTING PRINCIPLES, University/College Preparation****Prerequisite:** Grade 11 Accounting, College/University

1 credit in Business Studies

This course introduces students to advanced accounting principles that will prepare them for post secondary 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.

## ENTREPRENEURIAL STUDIES

**BDI3CO ENTREPRENEURSHIP: THE VENTURE, College Preparation**

1 credit in Business Studies

**Prerequisite:** None

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, including the Java Junction café, students will have opportunities to develop the values, traits, and skills most often associated with successful entrepreneurs.

## INFORMATION TECHNOLOGY

NOTE: See Further Computer Courses on pages 30 and 45.

**IDC303 WEB DESIGN - INTERDISCIPLINARY STUDIES, Open** 1 credit in Business Studies

**Prerequisite:** None

This course will focus on developing and maintaining the school website while providing business management and marketing support for other school activities including the yearbook. Students interested in being involved in their school community, learning web page development and further refining their business/communication skills should take this course. This course will help students combine the skills required for and knowledge of different subjects and disciplines to solve problems, make decisions, create personal meaning, and present findings beyond the scope of a single subject or discipline. Students will analyse the connections among diverse subjects and disciplines; develop information literacy skills in analysing, selecting, evaluating, and communicating information; and become aware of a variety of resources and viewpoints on contemporary issues. They will also examine their own learning styles, relate their inquiries and research to real-life situations, and investigate career opportunities in new disciplines.

## ORGANIZATIONAL STUDIES

**BOH4M BUSINESS LEADERSHIP: MANAGEMENT FUNDAMENTALS, University/College Preparation** 1 credit in Business Studies

**Prerequisite:** None, grade 11 Business is highly recommended

The senior leadership course is a course in applied leadership techniques. Students will study the characteristics of effective leadership and will apply these concepts to leadership opportunities in the school and the community. Students earning the GPP credit will focus on developing interpersonal and intrapersonal skills. They will work on goal setting and communication skills. Students earning the BOH 4M (this is not a traditional business course) credit will focus on critically identifying the principles of effective leadership and how to utilize these principles in a practical way in managing successful businesses. Students will analyze the role of a leader in business, with a focus on decision-making, management of group dynamics, motivating workers and planning. Students will play a role in Student Council for the duration of the course. Note: Students may take both streams of this course but it is highly recommended that students take GPP30 before taking BOH4M.

**BOG4E BUSINESS LEADERSHIP: BECOMING A MANAGER, Workplace Preparation**

**Prerequisite:** None 1 credit in Business Studies

This course helps students prepare for managerial positions in their future careers. Students will focus on the development of core skills required to become a successful manager, including operations management, inventory control, marketing, financial planning, scheduling and communication. Students will also explore the management challenges of hiring, tracking, and motivating employees, and complying with legal requirements.

## CANADIAN & WORLD STUDIES

### ECONOMICS

**CIA4U ANALYSING CURRENT ECONOMIC ISSUES, University Preparation**

**Prerequisite:** Any University or University/College course in Canadian and World Studies, English, or Social Sciences and Humanities 1 credit in Canadian & World Studies

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

## GEOGRAPHY

☺ **CGC1PG ISSUES IN CANADIAN GEOGRAPHY, Essential Program** 1 credit in Canadian Geography

This course follows the same expectations as CGC1P, but the course is modified to meet the needs of an Essential level program.

☺ **CGC1P ISSUES IN CANADIAN GEOGRAPHY, Applied** 1 credit in Canadian Geography

This course focuses on current geographic issues that affect Canadians. Students will draw on their personal and everyday experiences as they explore a range of issues, including food and water supplies, competing land uses, and interactions with the natural environment, developing their awareness that issues that affect their lives are interconnected with issues in other parts of the world. Students will apply the concepts of geographic thinking and the geographic inquiry process, including spatial technologies, to investigate choices related to sustainable living in Canada.

☺ **CGC1D ISSUES IN CANADIAN GEOGRAPHY, Academic** 1 credit in Canadian Geography

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 to live.

☺ **CGC1DF ENJEUX GÉOGRAPHIQUES DU CANADA** 1 credit in Canadian Geography

This course is similar to CGC1D except the language of instruction is French. This course is offered in alternate years. It will be offered in the 2017-2018 school year.

### **CGF3M FORCES OF NATURE: PHYSICAL PROCESSES & DISASTERS**

#### **University/College Preparation**

1 credit in Canadian & World Studies

**Prerequisite:** Issues in Canadian Geography, Grade 9, Academic or Applied

In this course, students will explore physical processes related to the earth's water, land, and air. They will investigate how these processes shape the planet's natural characteristics and affect human systems, how they are involved in the creation of natural disasters, and how they influence the impacts of human disasters. Throughout the course, students will apply the concepts of geographic thinking and the geographic inquiry process and use spatial technologies to analyse these processes, make predictions related to natural disasters, and assess ways of responding to them.

### **CGG3O TRAVEL AND TOURISM: A GEOGRAPHIC PERSPECTIVE, Open**

**Prerequisite:** Grade 9 Issues in Canadian Geography,  
Academic or Applied

1 credit in Canadian & World Studies

This course focuses on issues related to travel and tourism within and between various regions of the world. Students will investigate unique environmental, sociocultural, economic, and political characteristics of selected world regions. They will explore travel patterns and trends as well as tensions related to tourism, and will predict future tourism destinations. Students will apply the concepts of geographic thinking and the geographic inquiry process, including spatial technologies, to investigate the impact of the travel industry on natural environments and human communities.

### **CGW4C WORLD ISSUES: A GEOGRAPHIC ANALYSIS, College Preparation**

**Prerequisite:** Grade 9 Issues in Canadian Geography,  
Academic or Applied

1 credit in Canadian & World Studies

This course explores the many difficult challenges facing Canada and the world today – challenges such as unequal access to food, water, and energy; urbanization; globalization; and meeting the needs of a growing world population while ensuring the sustainability of the natural environment. Students will explore these and other world issues from environmental, social, economic, and political perspectives, while applying the concepts of geographic thinking, the geographic inquiry process, and spatial technologies to guide and support their investigations.

#### **CGW4U WORLD ISSUES: A GEOGRAPHIC ANALYSIS, University Preparation**

**Prerequisite:** Any University or University/College preparation course in Canadian and World Studies, English or Social Sciences & Humanities 1 credit in Canadian & World Studies

In this course, students will address the challenge of creating a more sustainable and equitable world. They will explore issues involving a wide range of topics, including economic disparities, threats to the environment, globalization, human rights, and quality of life, and analyse government policies, international agreements, and individual responsibilities relating to them. Students will apply the concepts of geographic thinking and the geographic inquiry process, including the use of spatial technologies, to investigate these complex issues and their impacts on natural and human communities around the world.

#### **FTEHOC HOCKEY SKILLS PROGRAM, Open** 1 credit in Canadian Geography

This 2 credit program will cover the curriculum of both Grade 9 1 credit in Health & Phys. Ed.  
Healthy Active Living (PPL1O) and Issues in Canadian Geography (CGC1D or CGC1P). Both of these courses will count as compulsory credits towards the OSSD. The focus in Healthy Active Living will be hockey through on and off ice skills development. Students will have the opportunity to be on the ice for up to 5 hours a week with professional instruction. There is a fee of \$300 for students taking this program to assist with the costs of ice time and transportation. Although this program is designed to assist all levels of hockey players, a minimum competency is required. Students must have their own equipment including a helmet with face guard and a neck protector. Applications for this exciting new program are available on the Norwell website.

### **HISTORY**

#### **CHC2LG CANADIAN HISTORY SINCE WORLD WAR I, Essential Program**

**Prerequisite:** None 1 credit in Canadian History

This course focuses on the connections between the student and key people, events and themes in Canadian contemporary studies. Students prepare for grade 11 Canadian and World Studies Workplace Preparation courses through the development and extension of historical literacy skills and critical thinking skills. Students explore a variety of topics highlighting individuals and events that have contributed to the story of Canada. The major themes of Canadian identity, internal and external relationships and changes since 1914, are explored through guided investigation. Students have the opportunity to extend analytical skills with a focus on identifying and interpreting events and perspectives and making connections. Students practise reading, writing, visual, and oral literacy skills to identify and communicate in a variety of media.

#### **CHC2P CANADIAN HISTORY SINCE WORLD WAR I, Applied**

**Prerequisite:** None 1 credit in Canadian History

This course focuses on the social context of historical developments and events and how they have affected the lives of people in Canada since 1914. Students will explore interactions between various communities in Canada as well as contributions of individuals and groups to Canadian heritage and identity. Students will develop their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating the continuing relevance of historical developments and how they have helped shape communities in present-day Canada.

#### **CHC2D CANADIAN HISTORY SINCE WORLD WAR I, Academic**

**Prerequisite:** None 1 credit in Canadian History

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.

#### **CHC2DF HISTOIRE DU CANADA DEPUIS LA PREMIERE GUERRE MONDIALE, Academic**

1 credit in Canadian History

This course is similar to CHC2D except the language of instruction is French. This course is offered in alternate years. It will be offered in the 2016-2017 school year.

**CHV2OG CIVICS & CITIZENSHIP and CAREER STUDIES, Essential Program** 0.5 credit in Civics and  
0.5 credit in Career Studies  
This course follows the same expectations as CHV2O, but the course is modified to meet the needs of an Essential level program.

**CHV2O CIVICS & CITIZENSHIP and CAREER STUDIES, Open** 0.5 credit in Civics and  
0.5 credit in Career Studies

**CIVICS:** 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.

**CAREER STUDIES:** 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. Upon successful completion of this course, students will receive two half credits in the compulsory courses, Civics & Citizenship (CHV2O) and Career Studies (GLC2O).

**CHA3U AMERICAN HISTORY, University/College Preparation** 1 credit in Canadian & World Studies  
**Prerequisite:** Grade 10 Canadian History Since World War I, Academic or Applied

This course explores key aspects of the social, economic, and political development of the United States from precontact to the present. Students will examine the contributions of groups and individuals to the country's evolution and will explore the historical context of key issues, trends, and events that have had an impact on the United States, its identity and culture, and its role in the global community. Students will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating various forces that helped shape American history.

**CHW3M WORLD HISTORY TO THE END OF THE FIFTEENTH CENTURY, University/College Preparation**  
**Prerequisite:** Grade 10 Canadian History since World War I, Academic or Applied 1 credit in Canadian & World Studies

This course explores the history of various societies and civilizations around the world, from earliest times to around 1500 CE. Students will investigate a range of factors that contributed to the rise, success, and decline of various ancient and pre-modern societies throughout the world and will examine life in and the cultural and political legacy of these societies. Students will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating social, political, and economic structures and historical forces at work in various societies and in different historical eras.

**CHY4C WORLD HISTORY SINCE THE FIFTEENTH CENTURY, College Preparation**  
**Prerequisite:** Any University, University/College or College course in Canadian & World Studies, English or Social Sciences & Humanities 1 credit in Canadian & World Studies

This course explores key developments and events in world history since approximately 1450, with a focus on interactions within and between various regions. Students will examine social, economic, and political developments and how they have affected different peoples. Students will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, when investigating key turning points in world history and historical forces that have shaped our world.

#### **CHY4U WORLD HISTORY SINCE THE FIFTEENTH CENTURY, University Preparation**

**Prerequisite:** Any University, University/College course 1 credit in Canadian & World Studies in Canadian & World Studies, English or Social Sciences & Humanities

This course traces major developments and events in world history since approximately 1450. Students will explore social, economic, and political changes, the historical roots of contemporary issues, and the role of conflict and cooperation in global interrelationships. They will extend their ability to apply the concepts of historical thinking and the historical inquiry process, including the interpretation and analysis of evidence, as they investigate key issues and ideas and assess societal progress or decline in world history.

### **LAW**

#### **CLU3E UNDERSTANDING CANADIAN LAW IN EVERYDAY LIFE, Workplace Preparation**

**Prerequisite:** Grade 10 Canadian History, Academic or Applied 1 credit in Canadian & World Studies

This course enables students to develop a practical understanding of laws that affect the everyday lives of people in Canada, including their own lives. Students will gain an understanding of the need for laws, and of their rights, freedoms, and responsibilities under Canadian law. Topics include laws relating to marriage, the workplace, cyberbullying, and criminal offences. Students will begin to develop legal reasoning skills and will apply the concepts of legal thinking and the inquiry process when investigating legal issues that are relevant to life in Canada today.

#### **CLU3M UNDERSTANDING CANADIAN LAW, University/College 1 credit in Canadian & World Studies**

**Prerequisite:** Grade 10 Canadian History, Academic or Applied

This course explores Canadian law, with a focus on legal issues that are relevant to the lives of people in Canada. Students will gain an understanding of laws relating to rights and freedoms in Canada; our legal system; and family, contract, employment, tort, and criminal law. Students will develop legal reasoning skills and will apply the concepts of legal thinking and the legal studies inquiry process when investigating a range of legal issues and formulating and communicating informed opinions about them.

#### **CLN4U CANADIAN & INTERNATIONAL LAW, University Preparation**

**Prerequisite:** Any University or University/College course in 1 credit in Canadian & World Studies Canadian & World Studies, English or Social Sciences & Humanities

This course explores a range of contemporary legal issues and how they are addressed in both Canadian and international law. Students will develop an understanding of the principles of Canadian and international law and of issues related to human rights and freedoms, conflict resolution, and criminal, environmental, and workplace law, both in Canada and internationally. Students will apply the concepts of legal thinking and the legal studies inquiry process, and will develop legal reasoning skills, when investigating these and other issues in both Canadian and international contexts.

### **COMPUTER STUDIES**

#### **ICS20 INTRODUCTION TO COMPUTER STUDIES, Open**

1 credit in Computer Studies

**Prerequisite:** None

This course introduces students to computer programming. Students will plan and write simple computer programs by applying fundamental programming concepts, and learn to create clear and maintainable internal documentation. They will also learn to manage a computer by studying hardware configurations, software selection, operating system functions, networking, and safe computing practices. Students will also investigate the social impact of computer technologies, and develop an understanding of environmental and ethical issues related to the use of computers.

#### **ICS3U INTRODUCTION TO COMPUTER SCIENCE, University Preparation**

**Prerequisite:** None 1 credit in Computer Studies

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

**ICS4U COMPUTER SCIENCE, University Preparation** 1 credit in Computer Studies

**Prerequisite:** Introduction to Computer Science, University Preparation

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

## ENGLISH (Compulsory)

The following courses meet the Compulsory English requirements for an OSSD as listed on page 8.

 **ENG1LG ENGLISH, Essential Program** 1 credit in English

This course provides foundational literacy and communication skills to prepare students for success in their daily lives, in the workplace, and in future English courses. The course is organized by strands that develop listening and talking skills, reading and viewing skills, and writing skills. In all strands, the focus is on developing foundational literacy skills and in using language clearly and accurately in a variety of authentic contexts. Students develop strategies and put into practice the processes involved in talking, listening, reading, viewing, writing, and thinking, and reflect regularly upon their growth in these areas.

 **ENG1P ENGLISH, Applied** 1 credit in English

This course emphasizes key reading, writing, oral communication, and thinking skills that students need for success in secondary school and their daily lives. Students will study plays, short stories, and newspaper and magazine articles, and will describe and create media works. An important focus will be the correct use of spoken and written language.

 **ENG1D ENGLISH, Academic** 1 credit in English

This course emphasizes analytical reading, oral communication, and thinking skills that students need for success in secondary school and their daily lives. Students will study and interpret texts from contemporary and historical periods including plays, short stories, and short essays and will investigate and create media works. An important focus will be the correct and effective use of spoken and written language.

**ENG2LG ENGLISH, Essential Program** 1 credit in English

**Prerequisite:** ENG1LJ

In this course, students focus on extending their literacy and communication skills to prepare for success in their daily lives, in the workplace, and in the English Grade 11 Workplace Preparation course. The course is organized by strands that extend listening and talking skills, reading and viewing skills, and writing skills. In all strands, the focus is on refining foundational literacy skills and in using language clearly and accurately in a variety of authentic contexts. Students build on their strategies and engage in the processes involved in talking, listening, reading, viewing, writing, and thinking, and reflect regularly upon their growth in these areas.

**ENG2P ENGLISH, Applied** 1 credit in English

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

This course extends the range of key reading, writing, oral communication, and thinking skills that students need for success in all areas of the curriculum. Students will study novels, poems, magazines, and reports, and will describe, design and produce effective media works. An important focus will be the clear and coherent use of spoken and written language.

**ENG2D ENGLISH, Academic** 1 credit in English

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

This course extends the range of analytic, reading, writing, oral communication, and thinking skills that students need for success in secondary school academic programs. Students will study and interpret challenging texts from contemporary and historical periods, including novels, poems, plays, and opinion pieces, and will analyse and create effective media works. An important focus will be the thoughtful use of spoken and written language.

**ENG3E ENGLISH, Workplace Preparation** 1 credit in English

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

This course emphasizes the development of literacy, critical thinking, and communication skills. Students will study the content, form, and style of informational texts and literary works; write explanations, letters, and reports; and investigate the connections among media forms, audiences, and media industry practices. An important focus will be on using language clearly, accurately, and effectively in a variety of contexts.

**ENG3C ENGLISH, College Preparation** 1 credit in English

**Prerequisite:** Grade 10 English, Applied

This course emphasizes the development of literacy, critical thinking and communication skills. Students will study the content, form, and style of informational texts and literacy works from Canada and other countries; write reports, correspondence, and persuasive essays; and analyse media forms, audiences, and media industry practices. An important focus will be on establishing appropriate voice and using business and technical language with precision and clarity.

**ENG3U ENGLISH, University Preparation** 1 credit in English

**Prerequisite:** Grade 10 English, Academic

This course emphasizes the development of literacy, critical thinking, and communication skills. Students will analyse challenging texts, both contemporary and historical; conduct research and analyse the information gathered; write persuasive and literary essays; and analyse the relationship among media forms, audiences, and media industry practices. An important focus will be on understanding the development of the English language.

**ENG4E ENGLISH, Workplace Preparation** 1 credit in English

**Prerequisite:** Grade 11 English, Workplace Preparation

This course emphasizes consolidation of literacy, critical thinking, and communication skills. Students will study informational texts and literature from various countries and cultures; write summaries, reports, resumes, and short essays; complete an independent research project; and explain the connections among media forms, audiences, and media industry practices. An important focus will be on using specialized language related to the workplace accurately and coherently in appropriate contexts.

**ENG4C ENGLISH, College Preparation** 1 credit in English

**Prerequisite:** Grade 11 English, College Preparation

This course emphasizes consolidation of literacy, critical thinking, and communication skills. Students will analyse informational texts and literary works from various time periods, countries, and cultures; write research reports, summaries, and short analytical essays; complete an independent study project; and analyse the interactions among media forms, audiences, and media industry practices. An important focus will be on establishing appropriate style and using business and technical language effectively.

**ENG4U ENGLISH, University Preparation** 1 credit in English

**Prerequisite:** Grade 11 English, University Preparation

This course emphasizes consolidation of literacy, critical thinking, and communications skills. Students will analyse a range of challenging texts from various time periods, countries, and cultures; write analytical and argumentative essays and a major paper for an independent literary research project; and apply key concepts to analyse media works. An important focus will be on understanding academic language and using it coherently and confidently in discussion and argument.

**OLC40 ONTARIO SECONDARY SCHOOL LITERACY COURSE, Open** 1 credit in English

**Prerequisite:** Students who have been eligible to write the OSSLT and who have been unsuccessful at least once are eligible to take the course.

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

 **FTEARTS ARTS PERFORMANCE PROJECT, Open** 1 credit in English

This 2 credit program includes both English (Applied or Academic) and Integrated Arts, 1 credit in the Arts  
Open level.



## FRENCH as a SECOND LANGUAGE

### CORE FRENCH

 **FSF1P CORE FRENCH, Applied** 1 credit in French

This course provides opportunities for students to communicate and interact in French in structured situations, with a focus on everyday topics, and to apply their knowledge of French in everyday situations. Students will develop listening, speaking, reading, and writing skills introduced in the elementary Core French program, through practical applications and concrete examples, and will use 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.

 **FSF1D CORE FRENCH, Academic** 1 credit in French

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.

**FSF2D CORE FRENCH, Academic** 1 credit in French

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

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.

**FSF3U CORE FRENCH, University Preparation** 1 credit in French

**Prerequisite:** Grade 10 Core French, Academic

This course offers students extended opportunities to speak and interact in real-life situations in French with greater independence. Students will develop their listening, speaking, reading, and writing skills, as well as their creative and critical thinking skills, through responding to and exploring a variety of oral and written texts. They will also broaden their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

**FSF4U CORE FRENCH, University Preparation** 1 credit in French

**Prerequisite:** Grade 11 French, University Preparation

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.

### FRENCH IMMERSION PROGRAM

 **FIF1D FRENCH IMMERSION, Academic** 1 credit in French

**Prerequisite:** *Minimum of 3800 hours of instruction in elementary Extended French, or equivalent*

This course provides opportunities for students to speak and interact in French independently in a variety of real-life and personally relevant contexts. Students will develop their skills in listening, speaking, reading, and writing, as well their ability to communicate in French with confidence, by using language learning strategies introduced in the elementary French Immersion program. Students will enhance their knowledge of the French language through the study of French Canadian literature. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

**CGC1DF ENJEUX GÉOGRAPHIQUES DU CANADA, Academic**

1 credit in Canadian Geography

This course is similar to CGC1D except the language of instruction is French. This course is offered in alternate years. See page 27 for course description. It will be offered in the 2017-2018 school year.

**FIF2D FRENCH IMMERSION, Academic**

1 credit in French

**Prerequisite:** FIF1D

This course provides students with extensive opportunities to communicate, interact, and think critically and creatively in French. Students will use a variety of language learning strategies in listening, speaking, reading, and writing, and will respond to and interact with print, oral, visual, and electronic texts. Students will develop their knowledge of the French language through the study of contemporary French literature and historically well-known French European literature. They will also increase their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

**CHC2DF HISTOIRE DU CANADA DEPUIS LA PREMIERE GUERRE MONDIALE, Academic**

1 credit in Canadian History

This course is similar to CHC2D except the language of instruction is French. See page 28 for course description. This course is offered in alternate years. It will be offered in the 2016-17 school year.

**FIF3U FRENCH IMMERSION, University Preparation**

1 credit in French

**Prerequisite:** Grade 10 Extended French, Academic

This course provides opportunities for students to consolidate the communication skills required to speak and interact with increasing confidence and accuracy in French in a variety of academic and social contexts. Students will use their skills in listening, speaking, reading, and writing and apply language learning strategies while exploring a variety of concrete and abstract topics. Students will increase their knowledge of the French language through the study of French literature from around the world. They will also deepen their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

**HSB4UF CHANGEMENTS DÉFIS SOCIAUX, University Preparation**

1 credit in French

This course will be offered in French. 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 used those ideas to analyse causes of and responses to challenges such as technological change, deviance, and global inequities. Students will explore ways in which social science research methods can be used to study social change. This course will be offered in alternate years. It will be offered in the 2017-2018 school year.

**FIF4U FRENCH IMMERSION, University Preparation**

1 credit in French

**Prerequisite:** Grade 11 French Immersion, University Preparation

This course provides students with extensive opportunities to communicate, interact, and think critically and creatively in French. Students will consolidate their listening, speaking, reading, and writing skills and apply language learning strategies while communicating about concrete and abstract topics, and will independently respond to and interact with a variety of oral and written texts. Students will study a selection of French literature from the Middle Ages to the present. They will also enrich their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

**INTERNATIONAL LANGUAGES****LWSAD INTERNATIONAL LANGUAGES, (Spanish) Academic Level 1****Prerequisite:** None

1 credit in International Languages

This introductory course is designed to enable students to begin to develop competence in listening, speaking, reading, and writing in Spanish. Students will participate in interactive activities in which they can apply their language skills to communicate with native speakers of the language. They will explore aspects of culture in regions of the world where the language is spoken, including formal and informal forms of address, naming practices, family life and relationships, and celebrations.

## **LWSBD INTERNATIONAL LANGUAGES, (Spanish) Academic Level 2**

**Prerequisite:** LWSAD

1 credit in International Languages

This course provides students with the language learning experiences that will enable them to communicate in the language of study. Students will continue to develop and apply their speaking skills in a variety of contexts, and will participate in activities that will improve their reading comprehension and writing skills. They will also continue to explore aspects of the culture of countries where the language under study is spoken by taking part in community-sponsored events and activities involving both print and technological resources. Although students will continue to expand their vocabulary and repertoire of language structures, the language they will use at this level will still be simple.

## **GUIDANCE & CAREER EDUCATION**

### **GLC20 CAREER STUDIES, Open**

0.5 credit in Career Studies

This compulsory course is a half-credit, to be combined with CHV20, Civics. See page 29 for course description. To choose Civics & Career Studies select CHV20 on Option card.

### **GLC20G CAREER STUDIES, Essential Program**

0.5 credit in Career Studies

This course follows the same expectations as GLC20, but the course is modified to meet the needs of an Essential level program.

### **GLE10G LEARNING STRATEGIES 1 - SKILLS FOR SUCCESS IN SECONDARY SCHOOL, Essential Program**

1 credit in Guidance and Career Education

This course focuses on learning strategies to help students become better, more independent learners. Students will learn how to develop and apply literacy and numeracy skills, personal management skills, and interpersonal and teamwork skills to improve their learning and achievement in school, the workplace, and the community. The course helps students build confidence and motivation to pursue opportunities for success in secondary school and beyond.

### **GPP30 LEADERSHIP AND PEER SUPPORT, Open**

1 credit in Guidance and Career Education

This course prepares students to act in leadership and peer support roles. They will design and implement a plan for contributing to their school and /or community, develop skills in communication, interpersonal relations, teamwork, and conflict management; and apply those skills in leadership and/or peer support roles - for example, as a student council member or a peer tutor. Students will examine group dynamics and learn the value of diversity within groups and communities. Students will be asked to complete an application and will be selected after an interview. See BOH4M for more information.

## **HEALTH & PHYSICAL EDUCATION**

Welcome to the world of healthy, active living. Before making your selections, please read the descriptions carefully. **You should also note that participation in physical education courses requires proper gym attire. This will consist of T-shirts and shorts in school colours, sport socks and proper running shoes which can be tied up tightly.**



### **PPL10X (female) HEALTHY ACTIVE LIVING, Open PPL10Y (male)**

1 credit in Health & Physical Ed.

This course equips students with the knowledge and skills they need to make healthy choices now and lead healthy, active lives in the future. Through participation in a wide range of physical activities, students develop knowledge and skills related to movement competence and personal fitness that provide a foundation for active living. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**PPL20 HEALTHY ACTIVE LIVING (Co-ed), Open** 1 credit in Health & Physical Ed.

**Prerequisite:** None

This course enables students to further develop the knowledge and skills they need to make healthy choices now and lead healthy, active lives in the future. Through participation in a wide range of physical activities, students develop knowledge and skills related to movement competence and personal fitness that provide a foundation for active living. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**PPL30 HEALTHY ACTIVE LIVING (Co-ed), Open** 1 credit in Health & Physical Ed.

**Prerequisite:** None

This course enables students to further develop the knowledge and skills they need to make healthy choices now and lead healthy, active lives in the future. Through participation in a wide range of physical activities and exposure to a broader range of activity settings, students enhance their movement competence, personal fitness, and confidence. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**PAF30X PERSONAL AND FITNESS ACTIVITIES, (Female), Open** 1 credit in Health & Physical Ed.

**Prerequisite:** None

This course follows the same guidelines as PPL30, but the focus is on personal and fitness activities. Students will design and implement individual training plans. As well, the focus of this course is on enjoying a series of activities which will enable students to live active lives now and in the future.

Please note: This course requires a mature and motivated student.

**PAF30Y PERSONAL AND FITNESS ACTIVITIES, (Male), Open** 1 credit in Health & Physical Ed.

**Prerequisite:** None

This course follows the same guidelines as PPL30, but the focus is on personal and fitness activities. Students will design and implement individual training plans. As well, the focus of this course is on enjoying a series of activities which will enable students to live active lives now and in the future.

Please note: 1. This course requires a mature and motivated student.

2. Cycling is an integral part of this course; therefore, the student must have access to a bicycle and helmet.

**PAR40X HEALTHY LIVING AND RHYTHM and MOVEMENT ACTIVITIES, (Female), Open**

**Prerequisite:** None

1 credit in Health & Physical Ed.

This course follows the same course guidelines as PPL40, but the focus is on rhythm and movement activities.

Students will spend much of their time in the fitness studio participating in zumba, step classes etc. Students will enjoy a series of activities that will enable them to live active lives now and in the future.

**PPL40 HEALTHY ACTIVE LIVING EDUCATION, Open** 1 credit in Health & Physical Ed.

**Prerequisite:** None

This course enables students to further develop the knowledge and skills they need to make healthy choices. It places special emphasis on how students can maintain the habits of healthy, active living throughout their lives as they make the transition to adulthood and independent living. Through participation in a wide range of physical activities in a variety of settings, students can enhance their movement competence, personal fitness, and confidence. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively.

**PSK4U INTRODUCTORY KINESIOLOGY, University Preparation** 1 credit in Health & Physical Ed.


**Prerequisite:** Any grade 11 University or University/College course in Science or any grade 11 or 12 course in Health & Physical Education

This course focuses on the study of human movement and of systems, factors and principles involved in human development. Students will learn about the effects of physical activity on health and performance, the evolution of physical activity and sport, and the physiological, psychological, and social factors that influence an individual's participation in physical activity and sport. The course prepares students for university programs in physical education and health, kinesiology, health sciences, health studies, recreation, and sports administration.

**PLF4M RECREATION & HEALTHY ACTIVE LIVING LEADERSHIP, College/University Preparation**

**Prerequisite:** Any grade 11 or 12 Health & Physical Education course 1 credit in Health & Physical Ed.

This course enables students to explore the benefits of lifelong participation in active recreation and healthy leisure and to develop the leadership and coordinating skills needed to plan, organize, and safely implement recreational events and other activities related to healthy, active living. Students will also learn how to promote the benefits of healthy, active living to others through mentoring and assisting them in making informed decisions that enhance their well-being. The course will prepare students for university programs in physical education and health and kinesiology and for college and university programs in recreation and leisure management, fitness and health promotion, and fitness leadership.

 **FTEHOC HOCKEY SKILLS PROGRAM, (grade 9) Open** 1 credit in Canadian Geography

This 2 credit program will cover the curriculum of both Grade 9 1 credit in Health & Phys. Ed.  
Healthy Active Living (PPL1O) and Issues in Canadian Geography (CGC1D or CGC1P). Both of these courses will count as compulsory credits towards the OSSD. The focus in Healthy Active Living will be hockey through on and off ice skills development. Students will have the opportunity to be on the ice for up to 5 hours a week with professional instruction. There is a fee of \$300 for students taking this program to assist with the costs of ice time and transportation. Although this program is designed to assist all levels of hockey players, a minimum competency is required. Students must have their own equipment including a helmet with face guard and a neck protector. Applications for this exciting program are available on the Norwell website.

**FTEHOC2 GRADE 11 HOCKEY FOCUS COURSE, Open** 1 credit in Canadian Geography

This 2 credit program will cover the curriculum of both Grade 11 Physical 1 credit in Health & Phys. Ed.  
Education courses. The PAL3O course follows that same guidelines as the PPL3O but will focus on large group games with a particular emphasis on hockey skill development and team tactics. Students will have the opportunity to be on the ice for up to 5 hours a week with professional instruction. The focus in PAF3O will be personal and fitness activities with a particular emphasis on the components of fitness related to hockey. There is a \$300 fee for students taking this program to assist with the costs of ice time and transportation. Although this program is designed to assist all levels of hockey players, a minimum competency is required. Students must have their own equipment, including a helmet with face guard and a neck protector. Applications for the program are available in Guidance, Phys. Ed. or on the Norwell website.

## MATHEMATICS

 **MAT1LG FOUNDATION OF MATHEMATICS, Essential** 1 credit in Mathematics

This course emphasizes further development of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, and future math courses. The course is organized by three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on developing and consolidating key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to further develop their mathematical literacy and problem-solving and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

 **MFM1P FOUNDATION OF MATHEMATICS, Applied** 1 credit in Mathematics

This course leads to MFM2P.  
This course enables students to develop understanding of mathematical concepts related to the introductory algebra, proportional reasoning, and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations of linear relationships, and will determine the connections between the representations. They will also explore certain relationships that emerge from the measurement of three-dimensional objects and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problem and communicate their thinking.

**MPM1D PRINCIPLES OF MATHEMATICS, Academic**

1 credit in Mathematics

This course leads to MPM2D or MFM2P

This course enables students to develop 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 relationship. They will also explore relationships that emerge from the measurement of three-dimensional objects and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**MAT2LG FOUNDATIONS OF MATHEMATICS, Essential**

1 credit in Mathematics

**Prerequisite:** Grade 9 Math, Essential

This course emphasizes the extension of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, and in the Mathematics Grade 11 and Grade 12 Workplace Preparation courses. The course is organized by three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on strengthening and extending key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to extend their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

**MFM2P FOUNDATIONS OF MATHEMATICS, Applied**

1 credit in Mathematics

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

This course leads to MCF3M, MFB3C or MEL3E.

This course enables students to consolidate their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology, and hands-on activities. Students will develop and graph equations in analytic geometry; solve and apply linear systems, using real-life examples; and explore and interpret graphs of quadratic relationships. Students will investigate similar triangles, and the measurement of three-dimensional objects. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**MPM2D PRINCIPLES OF MATHEMATICS, Academic**

1 credit in Mathematics

**Prerequisite:** Grade 9 Math, Academic

This course leads to MCR3U or MCF3M.

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 relationships 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 as they solve multi-step problems and communicate their thinking.

**MEL3E MATHEMATICS FOR WORK AND EVERYDAY LIFE, Workplace Preparation**

**Prerequisite:** Grade 9 Math, Academic or Applied, or Grade 10 Math, Essential

1 credit in Mathematics

This course leads only to MEL4E.

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will solve problems associated with earning money, paying taxes, and making purchases; apply calculations of simple and compound interest in saving, investing, and borrowing; and calculate the costs of transportation and travel in a variety of situations. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**MBF3C FOUNDATIONS FOR COLLEGE MATHEMATICS, College Preparation**

**Prerequisite:** Grade 10 Math, Applied

1 credit in Mathematics

This course leads only to MAP4C.

This course enables students to broaden their understanding of mathematics as a problem-solving tool in the real world. Students will extend their understanding of quadratic relations; investigate situations involving exponential growth; solve problems involving compound interest; solve financial problems connected with vehicle ownership; and develop their ability to reason by collecting, analysing, and evaluating data involving one and two variables. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**MCF3M FUNCTIONS AND APPLICATIONS, University/College Preparation** 1 credit in Mathematics

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

This course leads to MDM4U, MCT4C or MAP4C.

This course introduces basic features of the function by extending students' experiences with quadratic relations. It focuses on quadratic, trigonometric, and exponential functions and their use in modeling real-world situations. Students will represent functions numerically, graphically, and algebraically; simplify expressions; solve equations; and solve problems relating to financial and trigonometric applications. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**MCR3U FUNCTIONS, University Preparation** 1 credit in Mathematics

**Prerequisite:** Grade 10 Math, Academic

This course leads to MHF4U or MDM4U.

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; and develop facility in simplifying polynomial and rational expressions. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**MEL4E MATHEMATICS FOR WORK AND EVERYDAY LIFE, Workplace Preparation**

**Prerequisite:** Grade 11 Mathematics for Work and Everyday Life 1 credit in Mathematics

This course enables students to broaden their understanding of mathematics as it is applied in the workplace and daily life. Students will investigate questions involving the use of statistics; apply the concept of probability to solve problems involving familiar situations; investigate accommodation costs and create household budgets; use proportional reasoning; estimate and measure; and apply geometric concepts to create designs. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**MAP4C FOUNDATIONS FOR COLLEGE MATHEMATICS, College Preparation**

**Prerequisite:** Grade 11 Foundations for College Mathematics 1 credit in Mathematics

This course enables students to broaden their understanding of real-world applications of mathematics. Students will analyse data using statistical methods; solve problems involving applications of geometry and trigonometry; simplify expressions; and solve equations. Students will reason mathematically and communicate their thinking as they solve multi-step problems. This course prepares students for college programs in areas such as business, health sciences, and human services and for certain skilled trades.

**MCT4C MATHEMATICS FOR COLLEGE TECHNOLOGY, College Preparation** 1 credit in Mathematics

**Prerequisite:** Grade 11 Functions and Applications

This course leads to MHF4U.

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

**MDM4U MATHEMATICS OF DATA MANAGEMENT, University Preparation** 1 credit in Mathematics

**Prerequisite:** Grade 11 Functions and Applications, or Grade 11 Functions

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

**MHF4U ADVANCED FUNCTIONS, University Preparation**

**Prerequisite:** Grade 11 Functions, or Grade 12 Mathematics for College Technology 1 credit in Mathematics

This course leads to, or can be taken concurrently with, MCV4U.

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

**MCV4U          CALCULUS AND VECTORS, University Preparation** 1 credit in Mathematics

**Prerequisite or co-requisite:** Grade 12 Advanced Functions, University preparation

This course builds on students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors, and representations of lines and planes in three-dimensional space; broaden their understanding of rates of change to include the derivatives of polynomial, rational, exponential, and sinusoidal functions; and apply these concepts and skills to the modelling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who plan to study mathematics in university and who may choose to pursue careers in fields such as physics and engineering.

## SCIENCE

 **SNC1LG    SCIENCE, Essential Program** 1 credit in Science

This course emphasizes reinforcing and strengthening science-related knowledge and skills, including scientific inquiry, critical thinking and the relationship between science, society, and the environment, to prepare students for success in everyday life, in the workplace and future science courses. Students explore a range of topics including science in daily life, properties of common materials, life sustaining processes in simple and complex organisms, and electrical circuits. Students have the opportunity to extend mathematical and scientific process skills and to continue developing their skills in reading, writing, and oral language through relevant and practical science activities.

 **SNC1P    SCIENCE, Applied** 1 credit in Science

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science to everyday situations. They are also given opportunities to develop practical skills related to scientific investigation. Students will plan and conduct investigations into practical problems and issues related to the impact of human activity on ecosystems; the structure and properties of elements and compounds; space exploration and the components of the universe; and static and current electricity.

 **SNC1D    SCIENCE, Academic** 1 credit in Science

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.

**SNC2PG          SCIENCE, Essential Program** 1 credit in Science

**Prerequisite:** Grade 9 Science, Essential

This course follows the same expectations as SNC2P, but the course is modified to meet the needs of an Essential level program.

**SNC2P          SCIENCE, Applied** 1 credit in Science

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

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science in real-world situations. Students are given opportunities to develop further practical skills in scientific investigation. Students will plan and conduct investigations into everyday problems and issues related to human cells and body systems; chemical reactions; factors affecting climate change; and the interaction of light and matter.

**SNC2D          SCIENCE, Academic** 1 credit in Science

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

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.



**SVN3E ENVIRONMENTAL SCIENCE, Workplace Preparation** 1 credit in Science

**Prerequisite:** Grade 9 Science

This course provides students with the fundamental knowledge of and skills relating to environmental science that will help them succeed in work and life after secondary school. Students will explore a range of topics, including the impact of human activities on the environment; human health and the environment; energy conservation; resource science and management; and safety and environmental responsibility in the workplace. Emphasis is placed on relevant, practical applications and current topics in environmental science, with attention to the refinement of students' literacy and mathematical literacy skills as well as the development of their scientific and environmental literacy.

## **BIOLOGY**

**SBI3C BIOLOGY, College Preparation** 1 credit in Science

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

This course focuses on the processes that occur in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, genetics, the anatomy of mammals, and the structure of plants and their role in the natural environment. Emphasis will be placed on the practical application of concepts, and on the skills needed for further study in various branches of the life sciences and related fields.

**SBI3U BIOLOGY, University Preparation** 1 credit in Science

**Prerequisite:** Grade 10 Science, Academic

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.

**SBI4U BIOLOGY, University Preparation** 1 credit in Science

**Prerequisite:** Grade 11 Biology, University Preparation

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

## **CHEMISTRY**

**SCH3U CHEMISTRY, University Preparation** 1 credit in Science

**Prerequisite:** Grade 10 Science, Academic

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.

**SCH4C CHEMISTRY, College Preparation** 1 credit in Science

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

This course enables students to develop an understanding of chemistry through the study of matter and qualitative analysis, organic chemistry, electrochemistry, chemical calculations, and chemistry as it relates to the quality of the environment. Students will use a variety of laboratory techniques, develop skills in data collection and scientific analysis, and communicate scientific information using appropriate terminology. Emphasis will be placed on the role of chemistry in daily life and the effects of technological applications and processes on society and the environment.

**SCH4U CHEMISTRY, University Preparation** 1 credit in Science

**Prerequisite:** Grade 11 Chemistry, University Preparation

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

## PHYSICS

**SPH3U            PHYSICS, University Preparation** 1 credit in Science

**Prerequisite:** Grade 10 Science, Academic

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.

**SPH4C            PHYSICS, College Preparation** 1 credit in Science

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

This course develops students' understanding of the basic concepts of physics. Students will explore these concepts with respect to motion; mechanical, electrical, electromagnetic, energy transformation, hydraulic, and pneumatic systems; and the operation of commonly used tools and machines. They will develop their scientific investigation skills as they test laws of physics and solve both assigned problems and those emerging from their investigations. Students will also consider the impact of technological applications of physics on society and the environment.

**SPH4U            PHYSICS, University Preparation** 1 credit in Science

**Prerequisite:** Grade 11 Physics, University Preparation

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

## SOCIAL SCIENCES and HUMANITIES

### FAMILY STUDIES

**HFN20            FOOD AND NUTRITION, Open** 1 credit in Social Sciences & Humanities

**Prerequisite:** None

This course focuses on guidelines for making nutritious food choices. Students will investigate factors that influence food choices, including beliefs, attitudes, current trends, traditional eating patterns, food marketing strategies, and individual needs. Students will also explore the environmental impact of a variety of food choices at the local and global levels. The course provides students with opportunities to develop food preparation skills and introduces them to the use of social science research methods in the area of food and nutrition.

**HFC3E            FOOD AND CULTURE, Workplace** 1 credit in Social Sciences & Humanities

**Prerequisite:** None

This course focuses on the flavours, aromas, cooking techniques, foods, and cultural traditions of world cuisines. Students will demonstrate the ability to cook with ingredients and equipment from a range of cultures, describe food-related etiquette in a variety of countries and cultures, and explore ways in which Canadian food choices and traditions have been influenced by other cultures. Students will have opportunities to develop practical skills and apply research skills as they investigate foods and food practices from around the world.

**HNL20            CLOTHING, Open** 1 credit in Social Sciences & Humanities

**Prerequisite:** None

This course introduces students to the world of clothing. Students will gain knowledge about clothing and will demonstrate basic skills associated with techniques and technologies used to create garments and accessories. Students will learn about the functions of clothing and accessories and what clothing communicates about the wearer. They will learn how to enhance their personal wardrobe by assessing garment quality and will develop shopping strategies and an understanding of various retail formats. Students will develop research skills as they investigate topics related to clothing. This course is offered in alternate years. It will be offered in the 2016-17 school year. These fashion courses are open to students of any grade level, do not require a prerequisite, and can be taken in any order.

**HNC3C UNDERSTANDING FASHION, College Preparation** 1 credit in Social Sciences & Humanities

**Prerequisite:** None

This course introduces students to the world of fashion. Students will gain an understanding of theories related to fashion trends and of how culture, media, fashion cycles, retailing, and social and environmental factors influence fashion trends and consumer behaviour. Students will use various tools, technologies, and techniques safely and correctly to create fashion items. They will apply knowledge of fibres, fabrics, and the elements and principles of design when creating and assessing fashion-related products. Students will develop research skills as they investigate topics related to fashion. These fashion courses are open to students of any grade level, do not require a prerequisite, and can be taken in any order. This course will be offered in the 2017-18 school year.

**HPC30 RAISING HEALTHY CHILDREN, Open** 1 credit in Social Sciences & Humanities

**Prerequisite:** None

This course focuses on the skills and knowledge parents, guardians, and caregivers need, with particular emphasis on maternal health, pregnancy, birth, and the early years of human development (birth to six years old). Through study and practical experience, students will learn how to meet the developmental needs of young children, communicate with them, and effectively guide their early behaviour. Students will develop their research skills through investigations related to care giving and child rearing.

**HFA4U NUTRITION AND HEALTH, University Preparation** 1 credit in Social Sciences & Humanities

**Prerequisite:** Any University or University/College preparation course in Social Sciences & Humanities, English, or Canadian and World Studies

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

**HHG4M HUMAN DEVELOPMENT THROUGHOUT THE LIFESPAN, University/College Preparation**

**Prerequisite:** Any University, University/College or College preparation course in Social Sciences & Humanities, English or Canadian & World Studies 1 credit in Social Sciences & Humanities

This course offers a multidisciplinary approach to the study of human development throughout the lifespan. Students will learn about a range of theoretical perspectives on human development. They will examine threats to healthy development as well as protective factors that promote resilience. Students will learn about physical, cognitive, and social-emotional development from the prenatal period through old age and will develop their research and inquiry skills by investigating issues related to human development.

## GENERAL SOCIAL SCIENCE

**HSP3U INTRODUCTION TO ANTHROPOLOGY, PSYCHOLOGY & SOCIOLOGY, University Preparation** 1 credit in Social Sciences & Humanities

**Prerequisite:** Grade 10 English, Academic or Grade 10 Canadian and World Studies, Academic

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, and to become familiar with current thinking on a range of issues within the three disciplines.

# TECHNOLOGICAL EDUCATION

## Broad-based Technology

😊 **TIJ101 EXPLORING TECHNOLOGIES, Traditional, Open** 1 credit in Technology

This course enables students to further explore and develop technological knowledge and skills introduced in the elementary science and technology program. Students will be given the opportunity to design and create products and/or provide services related to the various technological areas or industries, working with a variety of tools, equipment, and software commonly used in industry. Students will develop an awareness of environmental and societal issues, and will begin to explore secondary and postsecondary education and training pathways leading to careers in technology-related fields.

😊 **TIJ102 EXPLORING TECHNOLOGIES, Cosmetology / Fashion, Open** 1 credit in Technology

This course covers the same expectations as TIJ101, but the focus is on cosmetology and fashion.

## COMMUNICATIONS TECHNOLOGY

**TGJ20 COMMUNICATIONS TECHNOLOGY, Open** 1 credit in Technology

**Prerequisite:** None

This course introduces students to communications technology from a media perspective. Students will work in the areas of TV/video and movie production, radio and audio production, print and graphic communications, photography, and animation. Student projects may include computer-based activities such as creating videos, editing photos, working with audio, cartooning, developing animations, and designing web pages. Students will also develop an awareness of environmental and societal issues related to communications technology and explore secondary and postsecondary education and training pathways and career opportunities in the various communications technology fields.

**TGJ301 COMMUNICATIONS TECHNOLOGY: BROADCAST AND PRINT PRODUCTION, Open** 1 credit in Technology

**Prerequisite:** None

This course enables students to develop knowledge and skills in the areas of graphic communication, printing and publishing, audio and video production, and broadcast journalism. Students will work both independently and as part of a production team to design and produce media products in a project-driven environment. Practical projects may include the making of signs, video and/or audio productions, newscasts, and documentaries. Students will also develop an awareness of related environmental and societal issues and explore secondary and postsecondary education and training pathways and career opportunities in the various communications technology fields.

**TGJ3M1 COMMUNICATIONS TECHNOLOGY, University/College Preparation** 1 credit in Technology

**Prerequisite:** None

This course examines communications technology from a media perspective. Students will develop knowledge and skills as they design and produce media projects in the areas of live, recorded, and graphic communications. These areas may include TV, video, and movie production; radio and audio production; print and graphic communications; photography; digital imaging; broadcast journalism; and interactive new media. Students will also develop an awareness of related environmental and societal issues and explore college and university programs and career opportunities in the various communications technology fields.

**TGJ401 COMMUNICATIONS TECHNOLOGY: DIGITAL IMAGERY AND WEB DESIGN, Open** 1 credit in Technology

**Prerequisite:** None

This course enables students to develop knowledge and skills in the areas of photography, digital imaging, animation, 3D modelling, and web design. Students will work both independently and as part of a production team to design and produce media products in a project-driven environment. Practical projects may include photo galleries, digital images, animations, 3D models, and websites. Students will also expand their awareness of environmental and societal issues related to communications technology and explore postsecondary education, training, and career opportunities.

**TGJ4M1 COMMUNICATIONS TECHNOLOGY, University/College Preparation** 1 credit in Technology

**Prerequisite:** Communications Technology, Grade 11, University/College Preparation

This course enables students to further develop media knowledge and skills while designing and producing projects in the areas of live, recorded, and graphic communications. Students may work in the areas of TV, video, and movie production; radio and audio production; print and graphic communications; photography; digital imaging; broadcast journalism; and interactive new media. Students will also expand their awareness of environmental and societal issues related to communications technology and will investigate career opportunities and challenges in a rapidly changing technological environment.

## COMPUTER TECHNOLOGY

### **TEJ20            COMPUTER TECHNOLOGY, Open**

1 credit in Technology

**Prerequisite:** None

This course introduces students to computer systems, networking, and interfacing, as well as electronics and robotics. Students will assemble, repair, and configure computers with various types of operating systems and application software. Students will build small electronic circuits and write computer programs to control simple peripheral devices or robots. Students will also develop an awareness of environmental and societal issues related to the use of computers, and learn about secondary and postsecondary pathways to careers in computer technology.

## CONSTRUCTION TECHNOLOGY

### **TCJ20            CONSTRUCTION TECHNOLOGY, Open**

1 credit in Technology

**Prerequisite:** None

This course introduces students to building materials and processes through opportunities to design and build various construction projects. Students will learn to create and read working drawings; become familiar with common construction materials, components, and processes; and perform a variety of fabrication, assembly, and finishing operations. They will use a variety of hand and power tools and apply knowledge of imperial and metric systems of measurement, as appropriate. Students will develop an awareness of environmental and societal issues related to construction technology, and will explore secondary and postsecondary pathways leading to careers in the industry.

### **TWJ3E1          CUSTOM WOODWORKING, Workplace Preparation**

1 credit in Technology

**Prerequisite:** None

This course enables students to develop knowledge and skills related to cabinet making and furniture making. Students will gain practical experience using a variety of the materials, tools, equipment, and joinery techniques associated with custom woodworking. Students will learn to create and interpret technical drawings and will plan, design, and fabricate projects. They will also develop an awareness of environmental and societal issues related to the woodworking industry, and explore apprenticeships, postsecondary training, and career opportunities in the field that may be pursued directly after graduation.

### **TWJ3E2          CUSTOM WOODWORKING, Workplace Preparation**

1 credit in Technology

**Prerequisite:** Must also choose TWJ3E1

This course is a continuation of TWJ3E1. Students will examine and develop additional topics in the same general categories as TWJ3E1.

### **TWJ3EX          CUSTOM WOODWORKING, Workplace Preparation**

1 credit in Technology

**Prerequisite:** None

This course follows the same curriculum as TWJ3E1, but this is an all female class.

### **TWJ4E1          CUSTOM WOODWORKING, Workplace Preparation**

1 credit in Technology

**Prerequisite:** Custom Woodworking, Grade 11, Workplace Preparation

This course enables students to further develop knowledge and skills related to the planning, design, and construction of cabinets and furniture for residential and/or commercial projects. Students will gain further experience in the safe use of common woodworking materials, tools, equipment, finishes, and hardware, and will learn about the entrepreneurial skills needed to establish and operate a custom woodworking business. Students will also expand their awareness of health and safety issues and environmental and societal issues related to woodworking, and will explore career opportunities that may be pursued directly after graduation.

### **TWJ4E2          CUSTOM WOODWORKING, Workplace Preparation**

1 credit in Technology

**Prerequisite:** Must also choose TWJ4E1

Students have an opportunity to develop and improve their skills with this construction credit.

## **GREEN INDUSTRIES**

### **THJ20 GREEN INDUSTRIES, Open (Horticulture)**

1 credit in Technology

**Prerequisite:** None

This course introduces students to the various sectors of the green industries – agriculture, forestry, horticulture, floristry, and landscaping. Using materials, processes, and techniques commonly employed in these industries, students will participate in a number of hands-on projects that may include plant or animal propagation; production, maintenance, and harvesting activities; the development of floral or landscaping designs; and/or related construction activities. Students will also develop an awareness of environmental and societal issues related to green industry activities, learn about safe and healthy working practices, and explore secondary and postsecondary education and training pathways and career opportunities in the various industry sectors.

### **THJ3E GREEN INDUSTRIES, Workplace Preparation (Horticulture)**

1 credit in Technology

**Prerequisite:** None

This course enables students to develop knowledge and skills related to agriculture, floristry, forestry, horticulture, and landscaping. Students will learn to identify a broad range of plant and animal species; examine factors that affect the growth of plants and animals and the quality of products derived from them; and develop process, design, and maintenance skills required in the green industries. Students will also learn about safe and healthy working practices, develop an awareness of environmental and societal issues related to green industry activities, and learn about apprenticeships and other postsecondary education and training opportunities, as well as employment opportunities that may be pursued directly after graduation.

## **HAIRSTYLING AND AESTHETICS**

### **TXJ20 HAIRSTYLING AND AESTHETICS, Open**

1 credit in Technology

**Prerequisite:** None

This course presents hairstyling, skin care, and nail care techniques from a salon/spa perspective. Through a variety of school and community-based activities, students learn fundamental skills in hairstyling, giving manicures and facials and providing hair/scalp analyses, and treatments. Students also consider related environmental and societal issues and explore secondary and postsecondary pathways leading to careers in the field of hairstyling and aesthetics.

### **TXJ3E1 HAIRSTYLING AND AESTHETICS, Workplace Preparation**

1 credit in Technology

**Prerequisite:** None, Grade 10 Hairstyling & Aesthetics is highly recommended

This course enables students to develop knowledge and skills in cosmetology and offers a variety of applications that will equip students to provide services for a diverse clientele. Students identify trends in the hairstyling and aesthetics industry, learn about related health and safety laws, and expand their communication and interpersonal skills through interactions with peers and clients. Students consider environmental and societal issues related to the industry and acquire a more detailed knowledge of apprenticeships and direct-entry work positions.

### **TXJ4E1 HAIRSTYLING AND AESTHETICS, Workplace Preparation**

1 credit in Technology

**Prerequisite:** Grade 11 Hairstyling and Aesthetics, Workplace

This course enables students to develop increased proficiency in a wide range of hairstyling and aesthetics services. Working in a salon/spa team environment, students strengthen their fundamental cosmetology skills and develop an understanding of common business practices and strategies in the salon/spa industry. Students expand their understanding of environmental and societal issues and their knowledge of post secondary destinations in the hairstyling and aesthetics industry.

## **MANUFACTURING TECHNOLOGY**

### **TMJ20 MANUFACTURING TECHNOLOGY, Open**

1 credit in Technology

**Prerequisite:** None

This course introduces students to the manufacturing industry by giving them an opportunity to design and fabricate products using a variety of processes, tools, and equipment. Students will learn about technical drawing, properties and preparation of materials, and manufacturing techniques. Student projects may include a robotic challenge, a design challenge, or a fabrication project involving processes such as machining, welding, vacuum forming, or injection moulding. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about secondary and postsecondary pathways leading to careers in the industry.

**TMJ3C1 MANUFACTURING TECHNOLOGY, College Preparation** 1 credit in Technology

**Prerequisite:** None

This course enables students to develop knowledge and skills through hands-on, project-based learning. Students will acquire design, fabrication, and problem-solving skills while using tools and equipment such as lathes, mills, welders, computer-aided machines, robots, and control systems. Students may have opportunities to obtain industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about pathways leading to careers in the industry.

**TMJ3C2 MANUFACTURING TECHNOLOGY, College Preparation** 1 credit in Technology

**Prerequisite:** Must also choose TMJ3C1

This course is a refinement and extension of skills studied in TMJ3C1 with a heavier focus on developing practical welding and fabricating skills, and a lesser focus on machining.

**TMJ4C1 MANUFACTURING TECHNOLOGY, College Preparation** 1 credit in Technology

**Prerequisite:** Manufacturing Technology, Grade 11, College Preparation

This course enables students to further develop knowledge and skills related to machining, welding, print reading, computer numerical control (CNC), robotics, and design. Students will develop proficiency in using mechanical, pneumatic, electronic, and computer control systems in a project-based learning environment and may have opportunities to obtain industry-standard training and certification. Students will expand their awareness of environmental and societal issues and career opportunities in the manufacturing industry.

**TMJ4C2 MANUFACTURING TECHNOLOGY, College Preparation** 1 credit in Technology

**Prerequisite:** Must also choose TMJ4C1

This course is a refinement and extension of the lessons and skills studied in TMJ4C1 with a stronger focus on developing practical welding and fabricating skills, and a lesser focus on machining.

## TECHNOLOGICAL DESIGN

The *F1 In Schools* project (designing, building and testing CO2 powered Formula 1 model race cars) is offered as an optional component in all Tech Design courses as part of Norwell's *Race Car Program*. Students may choose to participate in this unit or elect to continue with the established curriculum.

**TDJ2O TECHNOLOGICAL DESIGN, Open** 1 credit in Technology

**Prerequisite:** None

This course provides students with opportunities to apply a design process to meet a variety of technological challenges. Students will research projects, create designs, build models and/or prototypes, and assess products and/or processes using appropriate tools, techniques, and strategies. Student projects may include designs for homes, vehicles, bridges, robotic arms, clothing, or other products. Students will develop an awareness of environmental and societal issues related to technological design, and learn about secondary and postsecondary education and training leading to careers in the field.

**TDJ3O1 TECHNOLOGICAL DESIGN AND THE ENVIRONMENT, Open** 1 credit in Technology

**Prerequisite:** None

This course enables students to apply a systematic process for researching, designing, building, and assessing solutions to address specific human and environmental challenges. Through their work on various projects, students will explore broad themes that may include aspects of industrial design, mechanical design, architectural design, control system design, and/or apparel design. Students will develop an awareness of environmental and societal issues related to technological design, and will learn about secondary and postsecondary pathways leading to careers in the field.

**TDJ3M1 TECHNOLOGICAL DESIGN, University/College Preparation** 1 credit in Technology

**Prerequisite:** None

This course examines how technological design is influenced by human, environmental, financial, and material requirements and resources. Students will research, design, build, and assess solutions that meet specific human needs, using working drawings and other communication methods to present their design ideas. They will develop an awareness of environmental, societal, and cultural issues related to technological design, and will explore career opportunities in the field, as well as the college and/or university program requirements for them.

**TDJ4O1      TECHNOLOGICAL DESIGN IN THE TWENTY-FIRST CENTURY, Open**      1 credit Technology

**Prerequisite:** None, but grade 11 Technological Design is strongly recommended

This course focuses on the relationship between society and technological development. Students will use appropriate tools, techniques, and strategies to research, design, build, and assess prototypes for products and/or processes that respond to society's changing needs. Students will describe how social factors, including culture, media, politics, religion, and environmental concerns, influence technological design. Students will also learn about professional practices in the field, and will research postsecondary pathways leading to careers related to technological design.

**TDJ4M1      TECHNOLOGICAL DESIGN, University/College Preparation**      1 credit in Technology

**Prerequisite:** Technological Design, Grade 11, University/College Preparation

This course introduces students to the fundamentals of design advocacy and marketing, while building on their design skills and their knowledge of professional design practices. Students will apply a systematic design process to research, design, build, and assess solutions that meet specific human needs, using illustrations, presentation drawings, and other communication methods to present their designs. Students will enhance their problem-solving and communication skills, and explore career opportunities and the postsecondary education and training requirements for them.

## TRANSPORTATION TECHNOLOGY

**TTJ2O      TRANSPORTATION TECHNOLOGY, Open**      1 credit in Technology

**Prerequisite:** None

This course introduces students to the service and maintenance of vehicles, aircraft, and/or watercraft. Students will develop knowledge and skills related to the construction and operation of vehicle/craft systems and learn maintenance and repair techniques. Student projects may include the construction of a self-propelled vehicle or craft, engine service, tire/wheel service, electrical/battery service, and proper body care. Students will develop an awareness of related environmental and societal issues and will explore secondary and postsecondary pathways leading to careers in the transportation industry.

**TTJ2O1      TRANSPORTATION TECHNOLOGY (Small Engines), Open**      1 credit in Technology

**Prerequisite:** None

This course follows the same expectations as TTJ2O, but the focus is on Small Engines.

**TTJ3C1      TRANSPORTATION TECHNOLOGY (Automotive), College Preparation**      1 credit in Technology

**Prerequisite:** None

This course enables students to develop technical knowledge and skills as they study, test, service, and repair engine, electrical, suspension, brake, and steering systems on vehicles, aircraft, and/or watercraft. Students will develop communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will develop an awareness of environmental and societal issues related to transportation and will learn about apprenticeship and college programs leading to careers in the transportation industry.

**TTJ3C2      TRANSPORTATION TECHNOLOGY (Automotive), College Preparation**      1 credit in Technology

**Prerequisite:** Must also choose TTJ3C1

This is a continuation of TTJ3C1. In this course the main emphasis will be on the development and application of practical skills and problem solving techniques through involvement in the exciting world of Motor-Sports! Students will hone their Transportation Technology knowledge and understanding as they design, build, paint, and service a real race car.

**TTS3C1      TRANSPORTATION TECHNOLOGY: Small Engine and Recreational Equipment,  
College Preparation**      1 credit in Technology

**Prerequisite:** None

This course has similar expectations as TTJ3C1 but the emphasis will be on small engines.

**TTJ4C1      TRANSPORTATION TECHNOLOGY (Automotive), College Preparation**      1 credit in Technology

**Prerequisite:** Transportation Technology, College Preparation, Grade 11

This course enables students to further develop technical knowledge and skills as they study, test, service, and repair engine management systems; power trains; steering/control, suspension, brake, and body systems on vehicles, aircraft, and/or watercraft; and/or small-engine products. Students will refine communication and teamwork skills through practical tasks, using a variety of tools and equipment. Students will expand their awareness of environmental and societal issues related to transportation and their knowledge of apprenticeship and college programs leading to careers in the transportation industry.



**TTJ4C2            TRANSPORTATION TECHNOLOGY (Automotive), College Preparation** 1 credit in Technology

**Prerequisite:** Must also choose TTJ4C1

This course is a continuation of the concepts in TTJ4C1. Emphasis will be on the development of practical skills and problem solving techniques regarding automotive and autobody.

**TTS4C1            TRANSPORTATION TECHNOLOGY: Small Engine and Recreational Equipment,**  
**College Preparation** 1 credit in Technology

**Prerequisite:** None, Grade 11 Small Engines strongly recommended

This course has similar expectations as TTJ4C1 but the emphasis will be on small engines.

# INTERDISCIPLINARY STUDIES

## CELP - COMMUNITY ENVIRONMENTAL LEADERSHIP PROGRAM - INTEGRATED 4 CREDIT PROGRAM

- open to grade 10 students only
- four credit program - second semester only, at an off-school site.

This is a unique opportunity to develop self-confidence, a sense of responsibility, leadership and team building skills in a non-traditional education experience outside the school. Emphasis is put on using the knowledge gained in the 4 courses in practical, hands on ways such as:

- teaching grade 5 students a 2 day environmental program (called Earth Keepers)
- organizing and running extended wilderness field trips
- working with local community groups to design and carry out environmental projects that will enhance the community

Field trips include 3 wilderness outings to a variety of natural settings in the province where students will be involved in activities allowing them to acquire skills in canoeing, hiking, high ropes, orienteering and snowshoeing. CELP students will receive certification in First Aid/CPR.

Choosing CELP will not interrupt the natural progression of course selections through high school. Students will earn credits in the compulsory courses of Science, Civics and Career Studies. Elective credits earned include Outdoor Activities (Phys. Ed.) and Environmental Science.

The practical knowledge and skills gained in this course give the students excellent experience that can be used in resumes and job applications. They are also prepared through their science credit to meet the prerequisite for the Senior Science courses.

Typically 24 students are selected based upon successful completion of the following steps beginning in January: applicant meeting, application form, recommendation forms, personal artifact, and interview. Applicants selected for the program will be notified in early March.

Because of transportation and off-site costs, there is a fee of \$575 for this program which may be paid in instalments.

Students select the code **FTECELP**, which includes the following 4 credits:

**SNC2D4 SCIENCE, Academic (CELP)** 1 Credit in Science  
Students are being prepared for Senior level Science courses at the same time are using practical applications in our environment. The 4 strands being covered are Plant and Animal Systems, Chemical Reactions, Optics and Climate Change. These units are taught outdoors as much as possible. For further course description see page 41.

**SVN3M4 ENVIRONMENTAL SCIENCE, College/University (CELP)** 1 Credit in Science  
This course provides students with the fundamental knowledge of and skills relating to environmental science that will help them succeed in life after secondary school. Students will explore a range of topics, including the role of science in addressing contemporary environmental challenges; the impact of the environment on human health; sustainable agriculture and forestry; the reduction and management of waste; and the conservation of energy. Students will increase their scientific and environmental literacy and examine the interrelationships between science, the environment, and society in a variety of areas.

**PAD2O4 OUTDOOR ACTIVITIES, Open (CELP)** 1 Credit in Health & Physical Education  
Participation in a variety of outdoor and fitness activities such as biking, canoeing, orienteering, snowshoeing, cross-country skiing and hiking. Emphasis is placed upon the use of informed decision-making, conflict resolution, team building, leadership skills and social skills.

**CHV2O4 CIVICS & CITIZENSHIP, Open (CELP)** .5 Credit in Civics  
**(GLC2O4) CAREER STUDIES, Open (CELP)** .5 Credit in Career Studies  
Students will develop and run projects in the community, linking with local community members and experts. Students will examine social issues and social change; students will learn how to think and act critically about public and societal issues. For further course description see page 29.

# CO-OPERATIVE EDUCATION

School to Career Programs provide all students with a series of unique opportunities to learn about the world of work, explore potential careers, and gain valuable work experience. These planned learning experiences assist all students, whether bound for college, apprenticeship, university or the workplace, in making informed career decisions, and in developing the knowledge, skills and attitudes that are essential in today's society.

## How Will Co-op Benefit You?

Co-op will enable you to:

- explore future career possibilities
- understand employer expectations in real job situations
- benefit from the expertise of people in your community
- develop employability skills necessary for success in the workplace

## How Does Co-op Work?

- a 2 to 3 week classroom component helps students prepare for work through health and safety training, and lessons on such topics as resume and interview skills, confidentiality, and employer expectations
- competitive interviews may be conducted; students are not guaranteed a specific placement

## How Do You Apply?

The course selection procedure requires that the student do the following:

- complete the option sheet
- obtain, complete and return the Co-operative Education Application Form to the Co-op teacher
- participate in an interview with the Co-op teacher following course selection. Students will be notified of their acceptance (or conditional acceptance)
- complete health tests and/or Criminal Reference Check if required by the particular placement

## How are Students Selected for Co-op?

- age 16 with 16 credits
- maturity and a positive attitude
- good attendance record
- willingness to learn
- appropriate educational background for the type of placement requested
- adherence to policies and procedures of the school and the placement

## **NORWELL'S CO-OP PROGRAMS:**

**FTECO2      NAVIGATING THE WORKPLACE, CO-OP, Open**      2 credits in Co-operative Education

**Prerequisite:** Students interested in placements related to Technology should also take the technology courses related to their area of interest.

This 2 credit "package" is designed to enable students at the senior level to combine in-school lessons and out of school placement experience. It allows students to "try on" a career by working at a placement related to each student's career goal. After an initial three weeks in school, students will spend four half days per week at their placement and the fifth day in the classroom. This course prepares students to make successful transitions to post secondary destinations as they investigate specific post secondary options based on their skills, interests, and personal characteristics. Students will explore the realities and opportunities of the workplace and examine factors that affect success, while refining their job search and employability. Preference will be given to students entering grade 12. A good attendance record is essential. A driver's licence and daily use of a car are very advantageous.

**FTECO4      DESIGNING YOUR FUTURE, ALL DAY CO-OP PROGRAM, Open**

**Prerequisite:** Students interested in placements related to Technology      4 Credits in Co-operative Education should also take the technology courses related to their area of interest.

This 4 credit "package" enables students to pursue co-operative education in a full semester format. Transportation is essential.

## **FTECO2 PARENTING (CHILD STUDIES) CO-OP, Open**

2 credits in Co-operative Education

**Prerequisite:** HPC300

This 2 credit co-op course is a career-oriented program in which male or female students who have completed the Parenting course can gain more practical experience in the workplace. After completing a 3 week job readiness unit, students normally work 4 to 5 mornings a week in community placements such as nursery schools, day care centres, or elementary school classrooms. All students return to the classroom regularly to share experiences and discuss assignments. This co-op course will give students a greater understanding of child development in preparation for responsible parenting and for careers in early childhood education, teaching or social work. Marks are based on in-school assignments, weekly log reports, and job performance appraisals from the employer. Students must be enrolled in, or have completed the HPC30 Parenting Course.

Preference will be given to students entering grade 12. A good attendance record is essential. A driver's licence and use of a car are very advantageous.

### **Centralized Co-op Programs**

#### **Militia Co-op:**

This program, offered by the Canadian Armed Forces, Upper Grand and Wellington Catholic District School Boards, is open to students throughout the county. It is held at the 11<sup>th</sup> Field Regiment Armouries in Guelph for half days in Semester 2. Academic subjects are combined with military training. Upon completion of the programs, the student receives two credits and their Basic Training Certificate from the Canadian Armed forces. Candidates will learn military law, rank structure, foot and rifle drill, combat first aid and basic weapons handling.

#### **Are You Considering a Career in the Skilled Trades?**

##### **If so, Consider OYAP!**

The Ontario Youth Apprenticeship Program (OYAP) is a specialized Co-op Program for those students interested in Apprenticeship Training. This program allows senior students to complete Co-op credits toward their Ontario Secondary School Diploma (OSSD) and earn hours towards an apprenticeship.

Students who are serious about obtaining an apprenticeship must begin by applying for the Co-op Course related to their chosen occupation.

OYAP students MAY be officially registered as apprentices at any time during the Co-op term, at the discretion of the employer.

#### **How Will OYAP Benefit You?**

OYAP will enable you to:

- focus your educational courses on your desired apprenticeship
- strengthen your skills and expand your knowledge related to your chosen trade
- accumulate a substantial number of hours towards the apprenticeship requirements
- earn a wage

#### **How Do You Apply?**

Students interested in OYAP must do the following:

- select Co-op on their option sheet
- complete and return a Co-op application form to the Co-op teacher, indicating trade interest and interest in OYAP
- submit references from 3 teachers (one of which must be from a teacher in the related subject area)
- obtain the principal's signature
- participate in a structured interview with the Co-op teacher

#### **Students interested in the OYAP Program must...**

- be 16 and have successfully completed 16 credits
- be enrolled as a full-time student
- have an acceptable attendance record
- demonstrate competency in the trade-related subject(s)
- demonstrate a serious attitude and commitment to their apprenticeship goal

Note: 1. A student's acceptance into the OYAP program does NOT guarantee that a student will be "registered" as an apprentice. School staff and the central Co-op office will do their best to locate a position, but placements and registrations rely on the size and type of placement opportunities within the community, on economic conditions, and on job performance skills demonstrated by the student.

2. OSSD requirements must be met to remain in the OYAP program.

3. Students who change their mind about their chosen trade may simply return to a regular school schedule.

**\*Please see Mr. Don Talbot or Mr. Smith for further information concerning OYAP programs at Norwell.**

## Specialist High Skills Major

- **Arts and Culture**
- **Business**
- **Construction**
- **Environment**
- **Health & Wellness**
- **Manufacturing**
- **Transportation**
- 

### What is it?

The SHSM is a Ministry-approved Specialized Program that consists of a defined combination of courses and experiences that relate to a specific economic sector.

The SHSM allows students to customize their high school experience to suit their interests and talents, and prepare for a successful post secondary transition to apprenticeship training, college, university, or employment, while meeting the requirements of the Ontario Secondary School Diploma (OSSD).

The SHSM enables students to gain the sector-identified preparatory credits, skills and knowledge, and make informed career decisions. This makes the learning environment more engaging for students, focuses them on graduation and prepares them to pursue their career goals.

**Why pursue a SHSM?** The SHSM allows students to customize their high school experience to suit their interests and talents, and prepare for a successful post-secondary transition to apprenticeship training, college, university, or employment, while meeting the requirements of the Ontario Secondary School Diploma (OSSD).

The SHSM enables students to gain sector-identified preparatory credits, skills, and knowledge, and make informed career decisions. This makes the learning environment more engaging for students, focuses them on graduation and prepares them to pursue their career goals.

### Components for the SHSM

1. A bundle of Grade 11 and Grade 12 credits that include:
  - i. 4 major credits that provide sector-specific knowledge and skills;
  - ii. 3 or 4 other required credits from the Ontario curriculum, in English and Mathematics, and/or Science
  - iii. 2 cooperative education credits that provide authentic learning experiences in a workplace setting, enabling students to refine, extend, apply, and practise sector-specific knowledge
2. Sector-recognized certifications and training courses (some are compulsory, and a choice of additional training from a list of Ministry approved certifications and training courses. The requirement is different for each sector.
3. Experiential learning activities within the sector
4. "Reach Ahead" experiences in the area of the student's post-secondary destination of choice
5. Development of Essential Skills and work habits required in the sector, and use of the Ontario Skills Passport (OSP) for the purposes of documentation.

### For more information:

Contact: Pam TarBush, ext. 308  
or see the link on the Norwell DSS website.

## ADDITIONAL LEARNING OPPORTUNITIES

### *e-Learning Courses in the Upper Grand District School Board*

#### Secondary Students...

- Is there a course you want to do but can't because it is not offered at your school?
- Is there a course you want to do but it does not fit into your timetable?
- Are you unable to consistently attend regular classes for a particular reason? (e.g., medical, travel as an elite athlete, etc.)
- Do you have a particular learning style that is better served in an on-line learning environment?

If you answered, "Yes" to any of the above, then e-Learning may be the answer for you.

The Upper Grand DSB offers credit courses online, authorized by the Ontario Ministry of Education. They are for eligible students and are delivered by qualified teachers. Below is a list of potential courses to be offered in 2015-16 by the schools in the UGDSB (course offerings subject to change).

Further, the Upper Grand belongs to the **Ontario e-Learning Consortium** with 20 other School Boards, working together to optimize e-Learning programs and enhance student learning through emerging technologies and innovative practices. Through this partnership students in the UGDSB have access to well over 100 different courses by our partner boards. For a full list, go to <http://www.elearningstudents.ca/course-offerings.html?id=7> or see your Guidance Department.

#### **Semester e-Learning:**

- BAT4M – Principles of Financial Accounting
- BBB4M – International Business Fundamentals
- CHA3U – American History
- CHV2O – Civics (.5 credit)
- CLN4U – Canadian and International Law
- ENG3U – English
- ENG4C – English
- ENG4U – English
- EWC4U – The Writer's Craft
- GLC2O – Career Studies (.5 credit)
- HSB4U – Challenge and Change in Society
- HSC4M – World Cultures
- ICS3U – Computer Science
- ICS4U – Computer Science
- IDC4UB – Interdisciplinary Studies – "The Business of Sport"
- MCV4U – Calculus and Vectors
- MCR3U – Functions
- MDM4U – Data Management
- MHF4U – Advanced Functions
- NBV3E – Aboriginal Beliefs, Values, and Aspirations in Contemporary Society
- NDA3M – Current Aboriginal Issues in Canada
- PPZ3O – Health for Life
- SPH4U – Physics



**Profile of a Successful e-Learner:**

- ✓ a problem solver
- ✓ organized
- ✓ self-directed
- ✓ able to manage his/her time
- ✓ able to multi-task
- ✓ flexible – with a willingness to learn
- ✓ willing and able to provide a working computer
- ✓ computer literate
- ✓ self-motivated
- ✓ responsible
- ✓ critical thinker
- ✓ honest
- ✓ an effective communicator

**Time Commitment:** As an e-Learner, you will spend at least as much time with your on-line course as you would expect to spend in a regular classroom.

**Rights and Responsibilities of e-Learning Students:**

*An e-Learning student is responsible for:*

- ✓ obtaining approval for an e-Learning registration through his/her home school guidance department
- ✓ participating in an e-Learning orientation
- ✓ following the policies outlined in the course syllabus with respect to acceptable use and student conduct
- ✓ meeting participation requirements as outlined in the course syllabus

**Guidance for Approval for Enrollment in e-Learning Courses**

*Students must be approved to take an e-Learning course. Criteria to be considered include:*

- ✓ they are home-schooled students
- ✓ the course **is not available** in the home school (because of course conflicts, over or under enrollment)
- ✓ health issues that prevent full-time attendance
- ✓ special education needs (such as giftedness)
- ✓ students who fit the profile of a successful online learner as described in the School Course Handbook.

**In Addition:**

1. A student may only enrol in a maximum of 4 course per semester as this constitutes a full-time course load. This total of 4 includes all classes in the home school as well as online.
2. Any decisions with respect to e-Learning enrolment are made by the student and his\her parent in consultation with the guidance department and the school Principal. Notwithstanding, a Principal may deny a student the opportunity to take an e-Learning course when the Principal feels that the student will not be successful.
3. Students cannot opt out of a course currently offered at a home school to take the same course online. Any courses at the UGDSB secondary schools that are cancelled due to low enrolment in a given location may be available online. Students with these choices will be contacted about availability of courses online by the home school's guidance department.

## Dual Credits 2016-2017

Dual credits allow students to participate in college courses while still in high school. Courses count towards both a high school diploma and a post secondary diploma or certificate. Dual credit programs may provide new and varied learning opportunities by exposing students to the college setting and culture.

Upper Grand is partnered with Conestoga College in Guelph and Kitchener/Waterloo, and Georgian and Humber Colleges in Orangeville in the delivery of dual credit programs. Courses will be offered in both academic areas and in college apprenticeship preparation.

All dual credits will be packaged with Co-operative Education. Speak with Mrs. TarBush or Mrs. Bloch about this opportunity. On your option card, select: FTE\_DU, as well as a 2 or 4 credit co-op package.

Name of Program	Courses taken	College	Semester
Lifestyle Management and Entrepreneurship	1. Lifestyle Management 2. Introduction to Entrepreneurship	Georgian Orangeville	1
Cosmetology	1.Introduction to Cosmetics Management 2. Introduction to Spa Management and Client Service	Humber Orangeville	2
Early Childhood Education	1.Child Development: Prenatal to 2 ½ years 2.Promoting Health and Safety	Humber Orangeville	1
Police Foundations	1.Introduction to the Canadian Criminal Justice System 2.Criminology	Humber Orangeville	2
Exploring the Trades: Motive Power	1.Truck and Coach Technician 2.Heavy Duty Equipment Technician	Conestoga Guelph	2
Exploring the Trades: Construction	Students will take two of: 1.Heating and Plumbing Systems 2.Electrical Fundamentals 3.Welding 4.Plumbing Practical	Conestoga Waterloo	2
Exploring the Trades: Food Production	1.Basic Kitchen Production 2.Kitchen Production	Conestoga/ Community	2
Community Leadership	Students will take two of: 1.Human Services 2.Fitness:Get Fit 3. Canadian Criminal Justice System 4.Security Guard Licensing in Ontario	Conestoga Doon	2
Early Childhood Education	1.Early Childhood Education 2.Child Development	Conestoga Doon	2
Design Fundamentals	1.Basic Design A 2.Basic Design B	Conestoga Doon	2
CAPP- Apprenticeship Preparation Program			
CAPP-Automotive Service Technician	1.Precision Measuring and Basic Electricity 2.Apprenticeship Preparation: Automotive	Conestoga Guelph	2
CAPP- Truck and Coach	1.Precision Measuring and Basic Electricity 2.Apprenticeship Preparation: Truck and Coach	Conestoga Guelph	2
CAPP-Motor Cycle	1.Precision Measuring and Basic Electricity 2.Apprenticeship Preparation: Motor Cycle	Conestoga Guelph	2
CAPP-Cook	1.Exploring Culinary Arts 2.Applied Baking Techniques	Conestoga Waterloo	2



CAPP-Welding	1.Thermal Cutting and Brazing 2.Shielded Metal Arc Welding	Conestoga Waterloo	2
CAPP- Machining	1.Metrology 2.Mechanical Engineering Drawings	Conestoga Doon	2

## DAY, EVENING AND SUMMER SCHOOL CREDITS

Continuing Education offers day, evening and summer school credit courses from Grade 10 to 12. Credit courses are offered on a three-semestered basis:

- September to January
- February to June
- July to August

### STUDENTS

- day school students are admitted only with a “day school eligibility form” signed at the discretion of the day school principal.
- contact your day school guidance office for current course brochures and registration information.
- students who are not attending day school and wish to register for night school require a letter of leaving and an Official Transcript from their last high school.

### ADULTS

- enrol in full credit academic night school courses.
- comprehensive training courses available in Computers, CNC Machine Shop and Welding.
- English as a Second Language, Numeracy, and Literacy courses.
- complete credit programs through correspondence.
- participate in a wide range of leisure and general interest courses to enhance personal development.
- courses will be offered if enrolment meets the minimum requirements.

### WELLINGTON CENTRE for CONTINUING EDUCATION

1428 Gordon St., Guelph N1L 1C8 (519)836-7280 Fax(519)837-0244	405 Sligo Rd. E., Mount Forest N0G 2L2 (519)323-4840 Fax (519)323-0430
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