

COURSE CALENDAR 2018

# Listowel District Secondary School



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# LDSS Course Calendar 2018-2019

**By Kim Crawford - Principal of Listowel District Secondary School**

Listowel District Secondary School is an caring and supportive learning environment and school community that provides a wide variety of programming options and cocurricular activities for students to explore. We aim to engage and inspire all students with learning opportunities that best suit their interests, needs, and goals. Whether you choose to pursue university, college, an apprenticeship or join the workforce immediately upon graduation you will find rich learning opportunities available at LDSS.

The course calendar contains the information you require to investigate your choices. We encourage you to seek advice from teachers and student services when you have questions about courses, and pathway planning. We wish you the best in all your endeavors at LDSS and will work alongside you to help you fulfill your goals.

## Student Responsibilities

### Attendance

Regular attendance is one of the most essential ingredients to facilitate student learning and the achievement of course expectations for success at school. The school attendance policy is in the student handbook under the student resource tab. It is contained within the Six Ways to Ensure Success @ LDSS and is available on <http://www.ldsslistowel.ca/>

### Achievement

The assessment of student achievement is not only an indicator of academic success, but is a tool for learning. Assessment assists in identifying and directing the development of student strengths, and identifying concerns to help students to be successful. Students and parents will receive two provincial reports per course, and two interim reports per year. Parents should feel free to contact subject teachers, Student Services and/or the school administration any time they have a concern.

The assessment and evaluation policy and procedures for each department and course are aligned with those of the Avon Maitland District School Board and the Ministry of Education. At the beginning of the course, the methods of assessment and evaluation and the weighting of term marks are outlined in writing to students by each subject teacher on the Course Information Sheet. Students should be sure they understand the assessment and evaluation policies in each of their courses. School staff are always available for consultation, academic assistance and support.



## Student Conduct

L.D.S.S. Adheres to the policies of the Avon Maitland District School Board and the Ministry of Education. Protocols particular to L.D.S.S. are available in the student handbook posted on our website and are available in the school's main office. The Avon Maitland District School Board's Code of Conduct is available through each school and the Avon Maitland website at [www.yourschools.ca](http://www.yourschools.ca).

## Student Fees

There will be no fees or cost charged to students to participate in the regular day school program. Fees may be charged where the student chooses to upgrade the material or where purchase of material is optional. Students enrolled in secondary schools in Avon Maitland District School Board can expect to be provided with the basic classroom learning resources that are required in order to complete the course expectations. It is recognized there may be optional resources that students may purchase to enhance their program; (e.g. field trips, upgrading materials in courses such as construction technology and visual arts).

Students are expected to come to school ready and willing to participate actively in their own learning. To that end, students are expected to bring materials with them for their own personal note-taking (e.g. pencils, pens, paper, binders).

Students are encouraged to purchase their school's student card by paying the student activity fee. The student card includes but is not limited to the benefit of participating in the co-instructional program and in the Student Council dances and activities. The fee may also be used to reduce the total cost of a student's yearbook. Students involved in co-instructional teams, groups and clubs will be made aware of any additional fund-raising obligations or participation fees prior to making a commitment to participate.

## School Support Services and Resources

### Student Services

The Student Services department assists students in acquiring the skills, knowledge and attitudes necessary to:

- » Relate effectively to others
- » Develop appropriate educational goals
- » Design individual pathway plans
- » Learn school success skills
- » Know and appreciate themselves

## To achieve these goals, the Student Services department provides:

Programs to help grade eight students make the transition to secondary school, individual counseling about timetables, courses, careers and personal concerns  
Printed information and electronic access to information on post-secondary educational and workplace opportunities (university, college, apprenticeship, career info) referrals to community agencies

### Resource Centre and Computer Labs

The L.D.S.S. Joyce Pratt Resource Centre has over 20,000 books as well as many periodicals and internet search facilities available for class and individual student research. The Resource Centre has a student access computer centre with 30 computers available for general use when not reserved for classes. This area is also available from 7:40 am to 2:35 pm. Students are able to access the Library Catalogue from home at [destiny.amdsb.ca](http://destiny.amdsb.ca). Students can also read Follett eBooks on their iPad or Android tablets. Download the BryteWave K-12 App from Google Play or App Store.

## Alternative Education

### Nexus

Nexus is the L.D.S.S. Cooperative Opportunities Providing Education (C.O.P.E.) alternative education program. The program offers an off-campus education opportunity to obtain an Ontario Secondary School Diploma to students currently out of school or who may not have met success in a traditional classroom setting. Nexus is a continuous entry program which includes a cooperative education experience with the delivery of credit courses. For more information please contact the L.D.S.S. Student Services Office or visit <http://www.nexusldss.com/>

### CASE

CASE is an alternative program that is designed to serve students from families whose culture does not support attending a traditional secondary school. CASE combines academic studies and work placements, For more information about this program please contact the Student Services office.

## Special Education

L.D.S.S. provides a variety of programs to meet the needs of identified students who may require enrichment or extra support to meet their full potential for success. The majority of our students meet this success in regular classroom placements while some may require a more specialized class placement. Special Education Resource Teachers and Student Services counsellors are available to help create an educational plan and provide the appropriate learning environment and educational assistance for our exceptional students.



## Course Changes: Policies and Procedures

Students are encouraged to make course selections carefully when planning their programs for next year. Students who do require a course change should consult with a Student Service counsellor prior to the start of the course or within the 1st three weeks of the course starting. Parents/guardians, teachers and the principal must approve student timetable changes. Course changes are subject to space limitations. Students are expected to carry 8 credits per year in grades 9, 10 and 11. Students in grade 12 are expected to carry a minimum of three credits per semester.

## Experiential Learning

Schools are offering more opportunities to customize your high school experience and build on your strengths and interests through a variety of new and enhanced learning options including Experiential Learning. Experiential Learning programs such as Co-op, Dual Credits, Ontario Youth Apprenticeship Program (OYAP) and Specialist High Skills Major (SHSM) enhance your academic background and provide you with opportunities to gain valuable experiences in our community.

New this year is the Grade 11, Creating Opportunities through Co-op course. This allows co-op teachers and students more flexibility through co-op placements so that they can connect their experience and skills to a placement.

No matter what your post-secondary pathway may be, experiential learning can assist you in making career decisions and help you develop the knowledge, skills and habits required in the workplace. All forms of experiential learning are a valuable complement to your post-secondary preparation and future employment.

## Dual Credit Offerings at Conestoga, Fanshawe and Lambton Colleges

### What is a Dual Credit Program

Dual credit programs allow senior high school students the opportunity to earn high school and college credits at the same time. Students typically attend Conestoga, Fanshawe or Lambton College's campuses once a week for a fifteen week period. This unique arrangement allows the student, the chance to experience life and learning in a college environment and allows the ability to fast track towards your post-secondary goals.

#### Examples of dual credit offerings include:

- » Digital Photography
- » Basic Plumbing
- » Basic Electrical

- » Intro to Early Childhood Education
- » Baking & Pastry Arts
- » Basic Welding Process and Fabricating
- » Health and Wellness Fundamentals
- » Recreation and Leisure

Program availability is subject to change. A maximum of 4 college-delivered dual credits can be counted as optional credits towards the Ontario Secondary School Diploma (OSSD). Dual Credits cannot be used as substitutions for compulsory credit requirements.

## What does it cost?

You pay nothing. All books, transportation and tuition are paid for through grants from the School College Work Initiative (SCWI). SCWI is a collaborative partnership between the Ministry of Education and the Ministry of Advanced Education and Skills Development.

## What makes a student eligible?

Dual credit programs are intended to assist secondary school students in the completion of their OSSD and provide a successful transition to college and apprenticeship programs. As well, students in Specialist High Skills Major (SHSM) programs and the Ontario Youth Apprenticeship Programs (OYAP) are eligible to enroll. Enrolment in half or full day Coop allows greater flexibility to participate.

## How do I apply?

You **MUST** be referred to the program through your school Student Success team. Avon Maitland College partners will not accept applications directly.

To find out what dual credit offerings are available and to take advantage of this great opportunity, contact your guidance counsellor or student success teacher for an up-to-date listing of course offerings and to complete an application form. More information can be found at [successforlife.ca/dual-credit](https://successforlife.ca/dual-credit)

## Ontario Youth Apprenticeship Program

- » Are you a hands on learner?
- » Do you like to solve problems?
- » Are you good at fixing things?
- » Do you find it difficult to sit in a classroom all day?
- » If you answered yes to any of the above, the apprenticeship pathway may be for you!



Get started on your apprenticeship while in high school. The Ontario Youth Apprenticeship Program (OYAP) allows you to be considered an OYAP Participant and earn cooperative education credits for work experience in an apprenticeable trade. You may or may not be formally registered as an apprentice while attending secondary school. To participate in OYAP you must: be at least 16 years of age, have completed a minimum of 16 credits, be a full-time student working towards completion of your diploma and complete the OYAP participant form.

A student who participates in OYAP must have a Personalized Placement Learning Plan (PPLP) that is based on the on-the-job training requirements outlined in the government approved training standard for that trade. Training Standard competency booklets can be found at INSERT: the Ontario College of Trades website. The OYAP program is funded by the Government of Ontario, Ministry of Advanced Education and Skills Development.

Fast track through an apprenticeship now and take advantage of Dual Credit and Specialist High Skills Major opportunities. See your Guidance Counsellor or Coop teacher to apply. For more information, visit [successforlife.ca/oyap](http://successforlife.ca/oyap) and [oyap.com](http://oyap.com).

## Specialist High Skills Majors

The SHSM is a specialized program that allows students to focus their learning on a specific economic sector while meeting the requirements for the Ontario Secondary School Diploma (OSSD) and assist in their transition from secondary school to apprenticeship training, college, university, or the workplace. SHSM allow students to focus on a career path that matches their skills and interests. Visit [www.successforlife.ca](http://www.successforlife.ca) to view the SHSM sectors available at this school.

### **Every SHSM must include the following five components:**

- » A bundle of 8-10 Grade 11 and 12 courses in the selected field that includes 2 cooperative education credits
- » Sector-recognized certifications and/or training courses
- » Experiential learning activities within the sector
- » Reach Ahead experiences connected with the student's chosen post-secondary pathway
- » Development of key Essential Skills and Work Habits required for the sector; and the use of the Ontario Skills Passport (OSP) for purposes of documentation

### **Benefits to students enrolled in a SHSM program:**

- » Customize their secondary school education to suit their interests and talents.
- » Develop specialized knowledge and skills.
- » Earn credits that post-secondary educational institutions and the sector recognize.
- » Gain sector-recognized certification and career-relevant training.

- » Develop essential skills and work habits documented through the Ontario Skills Passport.
- » Identify, explore and refine career goals and make informed decisions about their future.
- » Remain flexible, with the option to shift between pathways, should their goals and plans change.

## Cooperative Education

Cooperative Education is a program that offers students the opportunity to extend classroom learning into supervised learning experiences in the community. Students can earn secondary school credits, which are related to specific school subjects in school. Cooperative Education programs combine a work placement component in the community, along with a classroom component. The classroom component includes a pre-placement session prior to attending a placement in the community and integration sessions throughout the school year.

Cooperative Education courses can be selected in either a 2-credit or 4-credit package, depending upon the individual student's timetable and the type of placement and experience desired. Students interested in Cooperative Education must complete a cooperative education application form and interview with the cooperative education teacher prior to starting a co-op course. The student needs to demonstrate maturity, a positive attitude, an ability to be punctual and maintain regular attendance and a willingness to learn. Students must also be prepared to adhere to the policies of the workplace and school and follow health and safety regulations at the workplace. Placements are subject to availability in the community. Students are encouraged to discuss their placement choices with a co-op teacher when registering.

### Coop Course Notes:

- » Summer school coop is an option for students enrolled in a Specialist High Skills Major
- » SHSM candidates may use up to 4 coop credits towards their bundle of SHSM requirements.
- » 2 coop credits are required in the SHSM Credit Bundle. coop tie-in must be within the approved bundle of credits (GLC2O is also available to be used).
- » 1 additional coop credit can be substituted for one Major credit. coop tie-in must be within the approved bundle of credits.
- » 1 additional coop credit can be substituted for one Other required credit. coop tie-in must be within the approved bundle of credits.



## Health and Wellness

### High Skills Major Pathways

Kinesiologist, child care worker, audiologist, fitness instructor, doctor, nurse, physiotherapist, youth care worker, hospital porter, and medical technician are just some of the numerous and varied occupations in the health and wellness sector.

The SHSM–Health and Wellness enables students to build a foundation of sector-focused knowledge and skills before graduating and entering apprenticeship training, college, university, or an entry-level position in the workplace. Depending on local circumstances, this SHSM may be designed to have a particular focus – for example, on health care, fitness, or child care and family services.

## Manufacturing

### High Skills Major Pathways

The Specialist High Skills Major (SHSM) program in Manufacturing gives students an opportunity to specialize, gain qualifications, and plan a career pathway in various areas of the Manufacturing sector while still in high school. The SHSM Program has a number of required training components and certifications, designed to prepare students for post-secondary opportunities in each of the identified sectors, valuing all 4 destinations.

## Avon Maitland District eLearning Centre

AMDEC is a fully online secondary school within the Avon Maitland DSB, which offers courses from grade 9 to grade 12 in most subject areas. Our courses are taught by experienced AMDSB teachers who are committed to student success through a quality eLearning experience. Your success as a student is also supported by our principal, vice principal, guidance counsellor, technical help department, office staff and the home school. We believe that our program provides an excellent educational opportunity for all of our students.

AMDEC delivers semestered, as well as non-semestered continuous intake courses. With the permission of your home school, you may start AMDEC courses any time between September and mid-February, but all students must finish by early June. You have some flexible deadlines for your assignments; however, you are responsible for establishing a schedule that meets both AMDEC's due dates and your own needs (for example, completing the course by the end of first semester or meeting postsecondary mark submission deadlines). Module completion requirements and a list of important due dates are posted in the Student Handbook and are also available on our website: [www.amdec.ca](http://www.amdec.ca).

Students wishing to take an AMDEC course must register through the guidance

department of their home school. You may consider eLearning courses for a number of reasons: to take a course that is not offered at your home school; to solve a timetable conflict; and to experience eLearning before starting post-secondary education. To succeed in eLearning you need skills in: self-motivation, organization, self-direction, time management, computer proficiency, and honesty.

## Mandatory Courses by Grade

### Grade 9 Course

#### Students in Grade 9 will take the following 8 Compulsory Credits

- » Canadian & World Studies - CGC1D or CGC1P
- » English - ENG1D or ENG1L or ENG1P
- » French - FSF1D or FSF1P
- » Mathematics - MPM1D or MAT1L or MFM1P
- » Science - SNC1D or SNC1L or SNC1P
- » Healthy Living - PPL1OMA or PPL1OFE

#### Choose Two of the following:

- » Vocal Music - AMV1O
- » Instrumental Music - AMI1O
- » Visual Arts - AVI1O
- » Drama - ADA1O
- » Introduction to Business - BTT1O
- » Exploring Technologies - TIJ1O
- » Exploring Computer Technology - TEJ1O

### Grade 10 Courses

#### Grade 10 will take the following 5 Compulsory Credits

- » Canadian & World Studies - CHC2D or CHC2L or CHC2P
- » Career Studies (.5 credit) - GLC2O
- » Civics and Citizenship (.5 credit) - CHV2O
- » English - ENG2D or ENG2L or ENG2P
- » Mathematics - MPM2D or MAT2L or MFM2P
- » Science - SNC2D or SNC2P

#### Choose 3 Additional Credits at the Grade 10 Level



## Grade 11 Courses

### **Students in Grade 11 will take Compulsory English and Mathematics Credits**

Students must check carefully that the requirements for the any additional compulsory credits are completed.

- » English - ENG3C or ENG3E or ENG3U
- » Mathematics - MBF3C or MEL3E or MCF3M or MCR3U

### **Choose Up to 6 Additional Credits:**

Students in Grade 11 may select a Grade 12 course if prerequisite has been completed.

## Grade 12 Courses

Grade 12 Students will choose a minimum of 6 Courses. All Students in Grade 12 must choose 1 English Course to Complete Diploma Requirements

- » English - ENG4C or ENG4E or ENG4U

# Course Selections 2018

## The Arts

### Dance

#### ATC20

#### Dance

#### Grade 10, Open

This course emphasizes the development of students' technique and creative skills relating to the elements of dance and the tools of composition in a variety of performance situations. Students will identify responsible personal and interpersonal practices related to dance processes and production, and will apply technologies and techniques throughout the process of creation to develop artistic scope in the dance arts.

### Dramatic Arts

#### ADA10

#### Dramatic Arts

#### Grade 9, Open

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 analyze drama and then reflect on the experiences to develop an understanding of themselves, the art form, and the world around them.

#### ADA20

#### Dramatic Arts

#### Grade 10, Open

This course provides opportunities for students to explore dramatic forms, conventions, and techniques. Students will

explore a variety of dramatic sources from various cultures and representing a range of genres. Students will use the elements of drama in creating and communicating through dramatic works. Students will assume responsibility for decisions made in the creative and collaborative processes and will reflect on their experiences.

#### ADA3M

#### Dramatic Arts

#### Grade 11, University/College Preparation

This course requires students to create and to perform in dramatic presentations. Students will analyze, interpret, and perform dramatic works from various cultures and time periods. Students will research various acting styles and conventions that could be used in their presentations, and analyze the functions of playwrights, directors, actors, designers, technicians, and audiences.

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

#### ADA4M

#### Dramatic Arts

#### Grade 12, University/College Preparation

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 texts 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 analyze how the knowledge and skills developed in drama are related to their personal skills, social awareness, and goals beyond secondary school.

**Prerequisite: Drama, Grade 11, University/College Preparation**

## Vocal Music

### AMV1O

#### Music

#### Grade 9, Open

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. Students will focus on both instrumental (brass/woodwind) and vocal music.

### AMV2O

#### Music

#### Grade 10, Open

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. Students will focus on both instrumental (brass/woodwind) and vocal music.

### AMV3M

#### Music

#### Grade 11, University/College Preparation

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

### AMV4M

#### Music

#### Grade 12, University/College Preparation

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 analyze how to apply skills developed in music to their life and careers. **Prerequisite: Music, Grade 11, University/ College Preparation or Open**

## Instrumental Music

### AMI1O

#### Instrumental Music-Band

#### Grade 9, Open

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. Students will learn to play a woodwind or brass instrument and the course is open to all Grade 9 students regardless of musical background.

**AMI2O**  
**Instrumental Music-Band**  
**Grade 10, Open**

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. This course emphasizes music performance on a band instrument.

**Recommended preparation: AMI10**

**AMI3M**  
**Instrumental Music-Band**  
**Grade 11, University/College Preparation**

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 analyzing 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. They will continue to increase their understanding of the elements of music while developing their technical and imaginative abilities. **Prerequisite: AMI10 or AMI2O**

**AMI4M**  
**Instrumental Music-Band**  
**Grade 12, University/College Preparation**

This course enables students to enhance their musical literacy through the creation, appreciation, analysis, and performance of music, including traditional, commercial, and art 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 analyze how to apply skills developed in music to their life and careers. They will also complete complex creative projects. **Prerequisite: AMI3M**

**Media Arts**

**ASM2O**  
**Media Arts**  
**Grade 10, Open**

This course enables students to create media art works by exploring new media, emerging technologies such as digital animation, and a variety of traditional art forms such as film, photography, video, and visual arts. Students will acquire communications skills that are transferable beyond the media arts classroom and develop an understanding of responsible practices related to the creative process. Students will develop the skills necessary to create and interpret media art works.

**ASM3M****Media Arts****Grade 11, University/College Preparation**

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

**Prerequisite: Media Arts, Grade 10, Open**

**ASM4M****Media Arts****Grade 12, University/College Preparation**

This course emphasizes the refinement of media arts skills through the creation of a thematic body of work by applying traditional and emerging technologies, tools, and techniques such as multimedia, computer animation, installation art, and performance art. Students will critically analyze the role of media artists in shaping audience perceptions of identity, culture, and community values. **Prerequisite: Media Arts, Grade 11, University/College**

**Visual Arts****AVI1O****Visual Arts****Grade 9, Open**

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.

**AVI2O****Visual Arts****Grade 10, Open**

This course enables students to develop their skills in producing and presenting art by introducing them to new ideas, materials, and processes for artistic exploration and experimentation. Students will apply the elements and principles of design when exploring the creative process. Students will use the critical analysis process to reflect on and interpret art within a personal, contemporary, and historical context.

**AVI3M****Visual Arts****Grade 11, University/College Preparation**

This course enables students to further develop their knowledge and skills in visual arts. Students will use the creative process to explore a wide range of themes through 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. The course may be delivered as a comprehensive program or through a program focused on a particular art form (e.g., photography, video, computer graphics, information design). **Prerequisite: Visual Arts, Grade 9 or 10, Open**

**AVI4M****Visual Arts****Grade 12, University/College Preparation**

This course focuses on enabling students to refine their use of the creative process

when creating and presenting two- and three-dimensional art works using a variety of traditional and emerging media and technologies. Students will use the critical analysis process to deconstruct art works and explore connections between art and society. The studio program enables students to explore a range of materials, processes, and techniques that can be applied in their own art production. Students will also make connections between various works of art in personal, contemporary, historical, and cultural contexts. **Prerequisite: Visual Arts, Grade 11, University/College Preparation.**

## Business

### **BTT10 Information and Communication Technology in Business Grade 9, Open**

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

### **BBI20 Introduction to Business Grade 10, Open**

This course introduces students to the world of business. Students will develop an understanding of the functions of business, including accounting, marketing, information technology, human resources, and production,

and of the importance of ethics and social responsibility. This course builds a foundation for further studies in business and helps students develop the business knowledge and skills they will need in their everyday lives.

### **ICS20 Computer and Information Science, Grade 10, Open**

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.

### **BAF3M Financial Accounting Fundamentals Grade 11, University/College Preparation**

This course introduces students to the fundamental principles and procedures of accounting. Students will develop financial analysis and decision-making skills that will assist them in future studies and/or career opportunities in business. Students will acquire an understanding of accounting for a service and a merchandising business, computerized accounting, financial analysis, and current issues and ethics in accounting.

### **BDI3C Entrepreneurship: The Venture Grade 11, College Preparation**

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 student-run school-based or summer business. Through hands-on experiences, students will have opportunities to develop the values, traits, and skills most often associated with successful entrepreneurs.

### **BMI3C**

#### **Marketing: Goods, Services, Events Grade 11, College Preparation**

This course introduces the fundamental concepts of product marketing, which includes the marketing of goods, services, and events. Students will examine how trends, issues, global economic changes, and information technology influence consumer buying habits. Students will engage in marketing research, develop marketing strategies, and produce a marketing plan for a product of their choice.

### **BMX3E**

#### **Marketing: Retail and Service Grade 11, Workplace Preparation**

This course focuses on marketing activities in the retail and service sectors. Students will examine trends and global influences on marketing decisions, and will learn about the importance of customer service in developing a customer base and maintaining customer loyalty. Through hands-on learning, students will develop personal selling and information technology skills that will prepare them for a variety of marketing-related positions in the workplace.

### **ICS3U**

#### **Introduction to Computer Science Grade 11, University Preparation**

This course introduces students to computer science. Students will design software independently and as part of a team, using industry-standard programming tools and

applying the software development life-cycle model. They will also write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields.

### **ICS3C**

#### **Introduction to Computer Programming Grade 11, College Preparation**

This course introduces students to computer programming concepts and practices. Students will write and test computer programs, using various problem-solving strategies. They will learn the fundamentals of program design and apply a software development life-cycle model to a software development project. Students will also learn about computer environments and systems, and explore environmental issues related to computers, safe computing practices, emerging technologies, and postsecondary opportunities in computer-related fields.

### **BAT4M**

#### **Financial Accounting Principles Grade 12, University/College Preparation**

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 further develops accounting methods for assets and introduces accounting for partnerships, corporations, and sources of financing. **Prerequisite: Financial Accounting Fundamentals, Grade 11, University/College Preparation**

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

This course provides an overview of the importance of international business and trade in the global economy and explores the factors that influence success in international markets. Students will learn about the techniques and strategies associated with marketing, distribution, and managing international business effectively. This course prepares students for post-secondary programs in business, including international business, marketing, and management.

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

This course focuses on the development of leadership skills used in managing a successful business. Students will analyze the role of a leader in business with a focus on decision making, management of group dynamics, workplace stress and conflict, motivations of employees, and planning. Effective business communication skills, ethics, and social responsibility will be emphasized throughout the course. **Prerequisite: Any university, University/College, or College Preparation course in Business Studies, English, or Canadian and World Studies**

**ICS4U****Computer Science  
Grade 12, University Preparation**

This course enables students to further develop knowledge and skills in computer science. Students will use modular design principles to create complex and fully documented programs, according to industry standards. Student teams will manage a large software development project, from planning through to project

review. Students will also analyse algorithms for effectiveness. They will investigate ethical issues in computing and further explore environmental issues, emerging technologies, areas of research in computer science, and careers in the field.

**Prerequisite: Introduction to Computer Science, Grade 11, University Preparation****ICS4C****Computer Programming  
Grade 12, College Preparation**

This course further develops students' computer programming skills. Students will learn object-oriented programming concepts, create object-oriented software solutions, and design graphical user interfaces. Student teams will plan and carry out a software development project using industry-standard programming tools and proper project management techniques. Students will also investigate ethical issues in computing and expand their understanding of environmental issues, emerging technologies, and computer-related careers. **Prerequisite: Introduction to Computer Programming, Grade 11, College Preparation**

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

This course examines current national and global economic trends and policies from diverse perspectives. Students will explore the impact of choices that individuals and institutions, including governments, make in responding to local, national, and global economic issues such as globalization and global economic inequalities, trade agreements, national debt, taxation, social spending, and consumer debt. Students will apply the concepts of economic thinking and the economic inquiry process, including

economic models, to investigate, and develop informed opinions about, current economic issues and to help them make reasoned economic decisions. **Prerequisite:** Any university or university/college preparation course in Canadian and world studies, English, or social sciences and humanities

## Canadian & World Studies

### **CGC1D**

#### **Issues in Canadian Geography Grade 9, Academic**

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.

### **CGC1P**

#### **Issues in Canadian Geography Grade 9, Applied**

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.

### **CHC2D**

#### **Canadian History Since World War 1 Grade 10, Academic**

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.

### **CHC2L**

#### **Canadian History Grade 10, Locally Developed**

This course focuses on the connections between the student and key people, events, and themes in Canadian history from World War I to the present. Students prepare for the Grades 11 and 12 Workplace Preparation history courses through the development and extension of historical literacy and inquiry 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 practice reading, writing, visual, and

oral literacy skills, and mathematical literacy skills to identify and communicate ideas in a variety of forms.

### **CHC2P**

#### **Canadian History Since World War 1 Grade 10, Applied**

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

### **CHV2O, (0.5 Credit)**

#### **Civics and Citizenship Grade 10, Open**

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.

### **CHA3U**

#### **American History**

#### **Grade 11, University Preparation**

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

**Prerequisite: Canadian History Since World War 1, Academic or Applied**

### **CHW3M**

#### **World History to the Fifteenth Century**

#### **Grade 11, University/College Preparation**

This course explores the history of various societies around the world, from earliest times to around 1500 CE. Students will examine life in and the legacy of various ancient and pre-modern societies throughout the world, including those in, Africa, Asia, Europe, and the Americas. 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. **Prerequisite:**

**Canadian History since World War I, Grade 10, Academic or Applied**

### **CLU3M**

#### **Understanding Canadian Law**

#### **Grade 11, University/College Preparation**

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 rights and freedoms

in Canada, our legal system, and family, contract, employment, tort, and criminal law. Students will use case studies and apply the concepts of legal thinking and the legal inquiry process to develop legal reasoning skills and to formulate and communicate informed interpretations of legal issues, and they will develop the ability to advocate for new laws.

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

### **CHY4U**

#### **World History Since the Fifteenth Century Grade 12, University Preparation**

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 assess societal progress or decline in world history.

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

### **IDC30/40**

#### **Interdisciplinary Studies Grade 12, Open**

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. Through individual and collaborative inquiry and research, 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. Students will be gradually released to work independently and combine areas such as Law, History, Geography, and/or Economics.

### **IDC4UG**

#### **Interdisciplinary Studies Grade 12, University Preparation**

This course will help students develop and consolidate 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 apply the principles and processes of inquiry and research to effectively use a range of print, electronic, and mass media resources; to analyze historical innovations and exemplary research; and to investigate real-life situations and career opportunities in interdisciplinary endeavors. They will also assess their own cognitive and effective strategies, apply general skills in both familiar and new contexts, create innovative products and communicate new knowledge. Students will gradually be released to pursue their own interests independently (eg. Genocide, climate change, conflict minerals, foreign aid, fair trade, macro-scale natural disasters, pandemics, terrorism, environmental refugees, Arctic sovereignty, religious fundamentalism). **Prerequisites: any university or university/college preparation course**

# Cooperative Education

**COP2X**, 2 Credit

**Co-operative Education and Work Experience**

**Grade 11, Open**

Co-op Education is a unique educational experience that combines in-school theory with practical hands-on experience in a workplace setting in the community. Students explore career opportunities, gain valuable work experience and employability skills.

Co-operative Education credits may be tied to any subject area and students from all disciplines and levels may select cooperative education. Co-operative Education courses can be selected in either a 2-credit or 4-credit package depending upon the individual student's timetable and the type of placement and experience desired. Note: Students must fill out a Co-op Application Form obtained from the Co-op Office, Room 121A.

**COP4X**, 4 Credit

**Co-operative Education and Work Experience**

**Grade 11, Open**

Co-op Education is a unique educational experience that combines in-school theory with practical hands-on experience in a workplace setting in the community. Students explore career opportunities, gain valuable work experience and employability skills.

Co-operative Education credits may be tied to any subject area and students from all disciplines and levels may select cooperative education. Co-operative Education courses can be selected in either a 2-credit or 4-credit package depending upon the individual student's timetable and the type of placement and experience desired. Note: Students must fill out a Co-op Application Form obtained from the Co-op Office, Room 121A.

**Cooperative Education Linked to a Related Course (or Courses),**

This course consists of a community-connected experience and a cooperative education curriculum that incorporates relevant expectations from the student's related course (or courses). Students will develop skills, knowledge, and habits of mind that will support them in their learning at school and beyond, today and in the future, as well as in their education and career/life planning. Within the context of the community-connected experience, students will apply, extend, and refine skills and knowledge acquired in their related course or courses and will apply skills, knowledge, and habits of mind that will protect and promote their health, safety, and well-being. They will create and implement a learning plan that meets their particular interests and needs, reflect on their learning, and make connections between their experience in the community and other aspects of their lives.

**DCO30**

**Creating Opportunities through Co-op, Grade 11, Open**

(This course is to be chosen in conjunction with the Co-op Teacher at beginning of semester) This course consists of a community-connected experience and a cooperative education curriculum focused on developing skills, knowledge, and habits of mind that will support students in their learning at school and beyond, today and in the future, as well as in their education and career/life planning. Within the context of the community-connected experience, students will apply skills, knowledge, and habits of mind that will protect and promote their health, safety, and well-being and that will strengthen their inquiry, decision-making, and leadership skills. Students will create and implement a learning plan that meets their

particular interests and needs, reflect on their learning, and make connections between their experience in the community and other aspects of their lives. **Prerequisite: None, 1. A cooperative education course linked to a related course (or courses) is recorded on the Provincial Report Card and the Ontario Student Transcript (OST) as a separate entry (or entries) identified by the name of the related course (or courses), followed by the term "(Co-op)", and by the course code(s) of the related course(s). On the OST, the notation "C" is entered in the "Note" column.**

## English

### **ENG1D**

#### **English**

#### **Grade 9, Academic**

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

### **ENG1L**

#### **English**

#### **Grade 9, Locally Developed**

This course provides foundational literacy and communication skills to prepare students for success in their daily lives, in the workplace, and in the Grade 10 LDCC Course. The course is organized into 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 on 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**

#### **Grade 9, Applied**

This course is designed to develop the key oral communication, reading, writing, and media literacy skills students need for success in secondary school and daily life. Students will read, interpret, and create a variety of informational, literary, and graphic texts. An important focus will be on identifying and using appropriate strategies and processes to improve students' comprehension of texts and to help them communicate clearly and effectively. The course is intended to prepare students for the Grade 10 applied English course, which leads to college or workplace preparation courses in Grades 11 and 12.

### **ENG2D**

#### **English**

#### **Grade 10, Academic**

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

is intended to prepare students for the compulsory Grade 11 university or college preparation course. **Prerequisite: English, Grade 9, Academic or Applied**

## **ENG2L**

### **English**

#### **Grade 10, Locally Developed**

In this course, students focus on extending their literacy and communication skills to prepare for success in their daily lives, in the workplace, in the English Grade 11 Workplace Preparation course, or in the English: Contemporary Aboriginal Voices, Grade 11 Workplace Preparation course. The course is organized into 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 on 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. **Prerequisite: A Grade 9 English credit**

## **ENG2P**

### **English**

#### **Grade 10, Applied**

This course is designed to extend the range of oral communication, reading, writing, and media literacy skills that students need for success in secondary school and daily life. Students will study and create a variety of informational, literary, and graphic texts. An important focus will be on the consolidation of strategies and processes that help students interpret text and communicate clearly and effectively. This course is intended to prepare students for the compulsory Grade 11 college or workplace preparation course. **Prerequisite: English, Grade 9, Academic or Applied**

## **ENG3C**

### **English**

#### **Grade 11, College Preparation**

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will study the content, form, and style of a variety of informational and graphic texts, as well as literary texts from Canada and other countries, and create oral, written, and media texts in a variety of forms for practical and academic purposes. An important focus will be on using language with precision and clarity. The course is intended to prepare students for the compulsory Grade 12 college preparation course. **Prerequisite: English, Grade 10, Applied**

## **ENG3E**

### **English**

#### **Grade 11, Workplace Preparation**

This course emphasizes the development of literacy, communication, and critical and creative thinking skills necessary for success in the workplace and in daily life. Students will study the content, form, and style of a variety of contemporary informational, graphic, and literary texts; and create oral, written, and media texts in a variety of forms for practical purposes. An important focus will be on using language clearly and accurately in a variety of formal and informal contexts. The course is intended to prepare students for the compulsory Grade 12 workplace preparation course. **Prerequisite: English, Grade 10, Applied or Grade 10, Locally Developed**

## **ENG3U**

### **English**

#### **Grade 11, University Preparation**

This course emphasizes the development of literacy, communication, and critical

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

### **ENG4C**

#### **English**

#### **Grade 12, College Preparation**

This course emphasizes the consolidation of literacy, communication, and critical and creative thinking skills necessary for success in academic and daily life. Students will analyze a variety of informational and graphic texts, as well as literary texts from various countries and cultures, and create oral, written, and media texts in a variety of forms for practical and academic purposes. An important focus will be on using language with precision and clarity and developing greater control in writing. The course is intended to prepare students for college or the workplace. **Prerequisite: English, Grade 11, College Preparation**

### **ENG4E**

#### **English**

#### **Grade 12, Workplace Preparation**

This course emphasizes the consolidation of literacy, communication, and critical and creative thinking skills necessary for success in the workplace and in daily life. Students will analyze informational, graphic, and literary texts and create oral, written, and media texts in a variety of forms for workplace-related and

practical purposes. An important focus will be on using language accurately and organizing ideas and information coherently. The course is intended to prepare students for the workplace and active citizenship. **Prerequisite: English, Grade 11, Workplace Preparation**

### **ENG4U**

#### **English**

#### **Grade 12, University Preparation**

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

### **ETS4U**

#### **Studies in Literature**

#### **Grade 12, University Preparation**

This course is for students with a special interest in literature and literary criticism. Students will study contemporary works of Children's Literature, such as the Harry Potter novels and media adaptations of classic children's stories and fairy tales. The course may focus on themes, genres, time periods, or countries. Students will analyze a range of forms and stylistic elements of literary texts and respond personally, critically, and creatively to them. They will also assess critical interpretations,

write analytical essays, and complete an independent study project. **Prerequisite: English, Grade 11, University Preparation**

### **EWC4U**

#### **The Writers Craft**

#### **Grade 12, University Preparation**

This course emphasizes knowledge and skills related to the craft of writing. Students will analyze models of effective writing; use a workshop approach to produce a range of works; identify and use techniques required for specialized forms of writing; and identify effective ways to improve the quality of their writing. They will also complete a major paper as part of a creative or analytical independent study project and investigate opportunities for publication and for writing careers. **Prerequisite: English, Grade 11, University Preparation**

### **OLC4O**

#### **Ontario Literacy Course**

#### **Grade 12, Open**

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

under special circumstances, at the discretion of the principal.) Book lists for English courses are available upon request to the principal. Requests for substitution must be made in writing to the principal well in advance of the date the book is to be studied.

## **Guidance & Career Education**

### **GLC2O, (0.5 Credit)**

#### **Career Studies**

#### **Grade 10, Open**

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

### **GPP3O**

#### **Leadership and Peer Support**

#### **Grade 11, Open**

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.

**GWL3OV****Designing Your Future****Grade 11, Open**

This course will be offered through our Board's AMDEC eLearning services. This course prepares students to make successful transitions to postsecondary destinations as they investigate specific postsecondary options based on their skills, interests, and personal characteristics. Students will explore the realities and opportunities of the workplace and examine factors that affect success, while refining their job search and employability skills. Students will develop their portfolios with a focus on their targeted destination and develop an action plan for future success.

## Health & Physical Education

**PPL1OFE-PPL1OMA****Healthy Active Living Education****Grade 9, Open**

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.

**PPL2OFE-PPL2OMA****Healthy Active Living Education****Grade 10, Open**

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.

**PPL3OFE-PPL3OMA****Healthy Active Living Education****Grade 11, Open**

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.

**PAF30/40****Healthy Living and Personal and Fitness Activities****Grade 11 & 12, Open**

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. This course is recommended for athletes wanting to improve their fitness level through core/endurance training, speed and agility training, strength training, power training and flexibility.

**PLF4M****Recreation and Healthy Active Living Leadership****Grade 12, University/ College Preparation**

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 a healthy, active lifestyle through mentoring and assisting others in making informed decisions to enhance their well being. This 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. **Prerequisite: Any health and physical education course.**

**PSK4U****Introductory Kinesiology****Grade 12, University Preparation**

This course focuses on the study of human movement and of systems, factors, and principles involved in human development. Student 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.

**Prerequisite: Any Grade 11 university or university/college preparation course in science or any Grade 11 or 12 course in health and physical education.**

**PAD2O****Outdoor Education****Grade 10, Open**

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. Through participation in a wide range of physical activities in a variety of settings such as; canoeing, mountain biking, cross country skiing, backpacking, snowshoeing, skating, rock climbing and camping, students can apply movement principles and refine their skills, as well as, enhance their personal competence and personal fitness. Students will examine issues related to environmental and ecological awareness through outdoor science

activities. They will participate in extended trips designed to apply informed decision making, planning, organization, leadership, conflict resolution and social skills.

### **PAD30**

#### **Outdoor Education**

##### **Grade 11, Open**

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. Through participation in a wide range of physical activities in a variety of settings such as; canoeing, mountain biking, cross country skiing, backpacking, snowshoeing, skating, rock climbing and camping, students can apply movement principles and refine their skills, as well as, enhance their personal competence and personal fitness. Students will examine issues related to environmental and ecological awareness through outdoor science activities. They will participate in extended trips designed to apply informed decision making, planning, organization, leadership, conflict resolution and social skills.

### **PAD40**

#### **Outdoor Education**

##### **Grade 12, Open**

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. Through participation in a wide range of physical activities in a variety of settings such as; canoeing, mountain biking, cross country skiing, backpacking, snowshoeing, skating, rock climbing and camping, students can apply movement principles and refine their skills, as well as, enhance their personal

competence and personal fitness. Students will examine issues related to environmental and ecological awareness through outdoor science activities. They will participate in extended trips designed to apply informed decision making, planning, organization, leadership, conflict resolution and social skills.

### **PAL20-30-40**

#### **Healthy Active Living Education**

##### **(Large Group Activities)**

##### **Grade 10/11/12, Open**

LDSS is excited to offer a Hockey Skills Academy. The Hockey Skills Academy will feature on-ice training and classroom learning with an individualized fitness component. Students receive on-ice instruction combined with off-ice fitness, health and nutrition training that will be specifically designed to meet the needs of each participant. Both the on-ice and off-ice training will be delivered in a manner that will allow for differentiated instruction to ensure that all skill levels can participate with a focus on individual improvement.

### **PPZ3CV**

#### **Health for Life**

##### **Grade 11, College Preparation**

This course will be offered through our Board's AMDEC eLearning services. This course enables students to examine the factors that influence their own health practices and behaviours as well as those factors that contribute to the development of healthy communities. It emphasizes the concept of wellness, which addresses all aspects of well-being—physical, cognitive, emotional, spiritual, and social—and promotes healthy eating, physical activity, and building and maintaining a positive sense of self. Students will develop the skills necessary to make healthy choices and create a personal wellness plan. They will also design initiatives

that encourage others to lead healthy, active lives. The course prepares students for college programs in health sciences, fitness, wellness, and health promotion.

## Mathematics

### **MAT1L**

#### **Mathematics**

##### **Grade 9, Locally Developed**

This course emphasizes further development of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, and in the Grade 10 LDCC course. The course is organized in 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 skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

### **MPM1D**

#### **Principles of Mathematics**

##### **Grade 9, Academic**

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

### **MFM1P**

#### **Foundations of Mathematics**

##### **Grade 9, Applied**

This course enables students to develop an understanding of mathematical concepts related to 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 relations, and will determine the connections between the representations. They will also explore certain relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

### **MPM2D**

#### **Foundations of Mathematics**

##### **Grade 10, Academic**

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

### **MAT2L**

#### **Mathematics**

##### **Grade 10, Locally Developed**

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 Grade 11 Mathematics Workplace Preparation course. The course is organized in 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. **Prerequisite: A Grade 9 Mathematics credit**

**MFM2P**  
**Foundations of Mathematics**  
**Grade 10, Applied**

This course enables students to consolidate their understanding of linear relations 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 relations. Students will investigate similar triangles, the trigonometry of right triangles, and the measurement of three-dimensional figures. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Prerequisite: Principles of Mathematics, Grade 9, Academic or Foundations of Mathematics, Grade 9, Applied**

**MBF3C**  
**Foundations for College Mathematics**  
**Grade 11, College Preparation**

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; as well as of measurement and geometry, 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, analyzing, and evaluating data involving one or two variables. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

**Prerequisite: Foundations of Mathematics, Grade 10, Applied**

**MCF3M**  
**Functions and Applications**  
**Grade 11, University/College Preparation**

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.

**Prerequisite: Principles of Mathematics, Grade 10, Academic, or Foundations of Mathematics, Grade 10, Applied**

**MCR3U**  
**Functions**  
**Grade 11, University Preparation**

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions; represent functions numerically, algebraically, and graphically; solve problems

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

**Prerequisite: Principles of Mathematics, Grade 10, Academic, or Foundations of Mathematics, Grade 10, Applied**

### **MEL3E**

#### **Mathematics for Work and Everyday Life Grade 11, Workplace Preparation**

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. **Prerequisite: Mathematics, Grade 9, Academic or Foundations of Mathematics, Grade 9, Applied, or ministry-approved locally developed Grade 10 mathematics course**

### **MAP4C**

#### **Foundations for College Mathematics Grade 12, College Preparation**

This course enables students to broaden their understanding of real-world applications of mathematics. Students will analyze 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. **Prerequisite: Foundations for College Mathematics, Grade 11, College Preparation**

### **MCT4C**

#### **Mathematics for College Technology Grade 12, College Preparation**

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

### **MCV4U**

#### **Calculus and Vectors Grade 12, University Preparation**

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

as physics and engineering. **Prerequisite/Co-requisite: Advanced Functions must be taken concurrently with or must precede Calculus and Vectors**

#### **MDM4U**

##### **Mathematics and Data Management Grade 12, University Preparation**

This course broadens students' understanding of mathematics as it relates to managing data. Students will apply methods for organizing 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. **Prerequisite: Functions and Applications, Grade 11, University/College Preparation, or Functions, Grade 11, University Preparation**

#### **MEL4E**

##### **Mathematics for Work and Everyday Life Grade 12, Workplace Preparation**

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. **Prerequisite: Mathematics for Work and Everyday Life, Grade 11, Workplace Preparation**

#### **MHF4U**

##### **Advanced Functions Grade 12, University Preparation**

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; 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. **Prerequisite: Functions, Grade 11, University Preparation, or Mathematics for College Technology, Grade 12, College Preparation**

#### **IDC4UM**

##### **Interdisciplinary Studies Grade 12, University Preparation**

This course will help students develop and consolidate 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 apply the principles and processes of inquiry and research to effectively use a range of print, electronic, and mass media resources; to analyze financial literacy issues and how it relates to their own personal finance; and to investigate real-life situations and career opportunities in interdisciplinary endeavors. They will also assess their own cognitive and affective strategies, apply general skills in both familiar and new contexts, create innovative products and communicate new knowledge. Students will gradually be released to

pursue their own interests independently (eg. budgeting, debt, taxes, costs of higher education, lease vs buy, mortgages, investing, insurance etc) **Prerequisite: Functions and Applications, Grade 11, University/College Preparation, or Functions, Grade 11, University Preparation**

## French

### FSF1D

#### **Core French Grade 9, Academic**

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 continue to develop language knowledge and skills 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 the skills necessary to become life-long language learners. **Prerequisite: Minimum of 600 hours of elementary Core French instruction, or equivalent.**

### FSF1P

#### **Core French Grade 9, Applied**

This course provides opportunities for students to communicate and interact in French in structured situations on everyday topics and to apply their knowledge of French in everyday situations. Students will continue to develop language knowledge and 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 the skills necessary to become life-long language learners. **Prerequisite: Minimum of 600 hours of elementary Core French instruction, or equivalent**

### FSF2D

#### **Core French Grade 10, Academic**

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 continue to develop their language knowledge and skills 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 continue to develop the skills necessary to become life-long language learners. **Prerequisite: Core French, Grade 9, Academic or Applied**

### FSF3U

#### **Core French Grade 11, University Preparation**

This course offers students extended opportunities to speak and interact in real-life situations in French with greater independence. Students will develop their creative and critical thinking skills through responding to and exploring a variety of oral and written texts. They will continue to broaden their understanding and appreciation of diverse French-speaking communities and to develop the skills necessary for life-long language learning. **Prerequisite: Core French, Grade 10, Academic**

**FSF4U****Core French****Grade 12, University Preparation**

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

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

## Modern Languages

**LWGBD****German****Grade 10, Academic**

This course provides students with the language learning experiences that will enable them to communicate in German. 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 German 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.

**LWGCU****German****Grade 11, University Preparation**

This course offers students opportunities

to further develop their knowledge of the German language and to enhance their communication skills. Students will use increasingly sophisticated language in a variety of activities that will enable them to speak and write with clarity and accuracy. Students will also enhance their thinking skills through the critical study of literature, and continue to explore aspects of the culture of countries where the language is spoken through a variety of print and technological resources.

**Prerequisite: German, Grade 10, Academic**

**LWGDU****German****Grade 12, University Preparation**

This course prepares students for university studies in German. Students will enhance their ability to use the language with clarity and precision, and will develop the language skills needed to engage in sustained conversations and discussions, understand and evaluate information, read diverse materials for both study and pleasure, and write clearly and effectively. Students will also have opportunities to add to their knowledge of the culture of countries where the language is spoken through the use of community resources and computer technology. **Prerequisite: German, Grade 11, University Preparation**

## Science

**SNC1D****Science****Grade 9, Academic**

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.

### **SNC1L**

#### **Science**

#### **Grade 9, Locally Developed**

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 in the Science Grade 11 Workplace Preparation course. 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**

#### **Grade 9, Applied**

This course enables students to understand basic concepts in biology, chemistry, earth and space science, and physics; to develop practical skills in scientific investigation; 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.

### **SNC2D**

#### **Science**

#### **Grade 10, Academic**

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

### **SNC2P**

#### **Science**

#### **Grade 10, 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. **Prerequisite: Science, Grade 9, Academic or Applied**

**SBI3C****Biology****Grade 11, College Preparation**

This course focuses on the processes involved in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, genetics, 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. **Prerequisite: Science, Grade 10, Academic or Applied**

**SBI3U****Biology****Grade 11, University Preparation**

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

**SCH3U****Chemistry****Grade 11, University Preparation**

This course enables students to deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behaviour of gases. Students will further develop their analytical skills and investigate the qualitative and

quantitative properties of matter, as well as the impact of some common chemical reactions in society and the environment.

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

**SPH3U****Physics****Grade 11, University Preparation**

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

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

**SVN3M****Environmental Science****Grade 11, University/College Preparation**

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. This course will be delivered through an inquiry (project) based model. **Prerequisite: Grade 10 Science, Applied or Academic**

**SBI4U****Biology****Grade 12, University Preparation**

This course provides students with the opportunity for in-depth study of the concepts and processes associated with 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 achievement of the detailed knowledge and refinement of skills needed for further study in various branches of the life sciences and related fields. **Prerequisite: Biology, Grade 11, University Preparation; Recommended preparation: SCH3U**

**SCH4C****Chemistry****Grade 12, College Preparation**

This course introduces students to the concepts that form the basis of modern chemistry. Students will study qualitative analysis, quantitative relationships in chemical reactions, organic chemistry and electrochemistry, and chemistry as it relates to the quality of the environment. Students will employ 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 in the development of new technologies and products. **Prerequisite: Science, Grade 10, Academic or Applied**

**SCH4U****Chemistry****Grade 12, University Preparation**

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, the structure

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

**SES4U****Earth and Space Science****Grade 12, University Preparation**

This course develops students' understanding of Earth and its place in the universe. Students will investigate the properties of and forces in the universe and solar system and analyse techniques scientists use to generate knowledge about them. Students will closely examine the materials of Earth, its internal and surficial processes, and its geological history, and will learn how Earth's systems interact and how they have changed over time. Throughout the course, students will learn how these forces, processes, and materials affect their daily lives. The course draws on biology, chemistry, physics, and mathematics in its consideration of geological and astronomical processes that can be observed directly or inferred from other evidence. This course will be delivered through an inquiry (project) based model. **Prerequisite: Science, Grade 10, Academic**

**SNC4E****Science****Grade 12, Workplace Preparation**

This course provides students with fundamental science knowledge and workplace skills needed to prepare them for success beyond secondary school. Students

will explore hazards in the workplace, chemicals in consumer products, disease and its prevention, electricity at home and at work, and nutritional science. Emphasis is placed on current topics in science and relevant, practical activities that develop students' literacy and mathematical literacy skills and enhance their scientific literacy. This course is recommended for Grade 11 and 12 workplace students that need a second science credit to meet diploma requirements. **Prerequisite: Science, Grade 10 Applied, or a locally developed compulsory credit in science.**

### **SNC4M**

#### **Science**

#### **Grade 12, University/College Preparation**

This course enables students, including those pursuing postsecondary programs outside the sciences, to increase their understanding of science and contemporary social and environmental issues in health-related fields. Students will explore a variety of medical technologies, pathogens and disease, nutritional science, public health issues, and biotechnology. The course focuses on the theoretical aspects of the topics under study and helps refine students' scientific investigation skills. This course will be delivered through an inquiry (project) based model.

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

### **SPH4C**

#### **Physics**

#### **Grade 12, College Preparation**

This course develops students' understanding of the basic concepts of physics. Students will explore these concepts as they relate to mechanical, electrical, fluid (hydraulic and pneumatic), and communications systems, as well as

to the operation of commonly used tools and equipment. They will develop scientific-inquiry skills as they verify accepted laws of physics and solve both assigned problems and those emerging from their investigations. Students will consider the impact of technological applications of physics on society and the environment. **Prerequisite: Science, Grade 10, Academic or Applied**

### **SPH4U**

#### **Physics**

#### **Grade 12, University Preparation**

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

## **Social Science & Humanities**

### **HFN2O**

#### **Food and Nutrition**

#### **Grade 10, Open**

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 level. 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.

### **HNC3C**

#### **Understanding Fashion**

##### **Grade 11, Open**

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 fibers, 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.

### **HPC3O**

#### **Raising Healthy Children**

##### **Grade 11, Open**

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 caregiving and child rearing.

### **HPW3C**

#### **Working with infants and Young Children Grade 11, College Preparation**

This course prepares students for occupations involving children from birth to six years of age. Students will study theories about child behaviour and development, and will have opportunities for research and observation and for practical experiences with young children. Students will become familiar with occupational opportunities and requirements related to working with infants and young children. They will also have opportunities to develop research and critical-thinking skills as they investigate and evaluate current research about early childhood education.

### **HSP3C**

#### **Introduction to Anthropology, Psychology, and Sociology, Grade 11, College Preparation**

This course introduces students to theories, questions, and issues related to anthropology, psychology, and sociology. Students learn about approaches and research methods used by social scientists. Student will be given opportunities to apply theories from a variety of perspectives, to conduct social science research, and to become familiar with current issues within the three disciplines.

### **HSP3U**

#### **Introduction to Anthropology, Psychology, and Sociology, Grade 11, University Preparation**

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.

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

#### **HFA4U**

##### **Nutrition and Health**

##### **Grade 12, University Preparation**

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

#### **HFL4E**

##### **Food and Healthy Living**

##### **Grade 12, Workplace Preparation**

This course focuses on the fundamental food needs of young adults. Students will learn how to stock a kitchen, make nutritious food choices, and accommodate the food needs of others. Through a range of practical experiences, they will develop skills needed in food preparation for personal use and for employment in the food industry. They will also learn about dining etiquette in different contexts and about responsible consumer practices. Students will use social science research methods to investigate issues related to food preparation and nutrition.

#### **HSB4U**

##### **Challenge and Change in Society**

##### **Grade 12, University Preparation**

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 analyze how and why cultural, social, and behavioural patterns change over time. They will explore the ideas of social theorists and use those ideas to analyze causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change. **Prerequisite: Any university or university/college preparation course in social sciences and humanities, English, or Canadian and world studies.**

#### **HHG4M**

##### **Issues in Human Growth and Development**

##### **Grade 12, University Preparation**

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.

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

**HZT4U****Philosophy: Questions and Theories  
Grade 12, University Preparation**

This course enables students to acquire an understanding of the nature of philosophy and philosophical reasoning skills and to develop and apply their knowledge and skills while exploring specialized branches of philosophy (the course will cover at least three of the following branches: metaphysics, ethics, epistemology, philosophy of science, social and political philosophy, aesthetics). Students will develop critical thinking and philosophical reasoning skills as they formulate and evaluate arguments related to a variety of philosophical questions and theories. They will also develop research and inquiry skills related to the study and practice of philosophy. **Prerequisite: Any university or university/college preparation course in social sciences and humanities, English, or Canadian and world studies.**

**NDW4M****Issues of Indigenous People  
In a Global Context  
Grade 12, University Preparation**

This course examines historical and contemporary issues of concern to Indigenous peoples from a global perspective. Students will explore the richness, depth, and diversity of Indigenous cultures, traditions and knowledge. They will consider how diverse Indigenous communities persevere despite recent global environmental and economic trends. Topics such as identity, social justice, human rights and abuses, spirituality, resistance and protest for change will be investigated. **Prerequisite: Any Grade 11 First Nations, Métis and Inuit Studies or any Grade 11 University, University/College, or College Preparation course in Canadian and**

**world studies or any Grade 11 University, University/College, or College Preparation course Social Science and Humanities.**

**HIP4O****Personal Life Management  
Grade 12, Open**

This course focuses on preparing students for living independently and working successfully with others. Students will learn to manage their personal resources to meet their basic needs for food, clothing, and housing. They will also learn about their personal, legal, and financial responsibilities and develop and apply interpersonal skills in order to make wise and responsible personal and occupational choices. Students will apply research and inquiry skills while investigating topics related to personal life management. The course emphasizes the achievement of expectations through practical experiences.

**HHS4UV****Families in Canada  
Grade 12, University Preparation**

This course will be offered through our Board's AMDEC eLearning services. This course enables students to draw on sociological, psychological, and anthropological theories and research to analyse the development of individuals, intimate relationships, and family and parent-child relationships. Students will focus on issues and challenges facing individuals and families in Canada's diverse society. They will develop analytical tools that enable them to assess various factors affecting families and to consider policies and practices intended to support families in Canada. They will develop the investigative skills required to conduct and communicate the results of research on individuals, intimate relationships, and parent-child relationships.

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

## HSC4MV

### World Cultures

#### Grade 12, University/College Preparation

This course will be offered through our Board's AMDEC eLearning services. This course examines the nature of culture; how cultural identities are acquired, maintained, and transformed; and theories used to analyse cultures. Students will explore world cultures, with an emphasis on the analysis of religious and spiritual beliefs, art forms, and philosophy. They will study the contributions and influence of a range of cultural groups and will critically analyse issues facing ethnocultural groups within Canada and around the world. Students will develop and apply research skills and will design and implement a social action initiative relating to cultural diversity. **Prerequisite: Any university or university/college preparation course in social sciences and humanities, English, or Canadian and world studies.**

## Special Education

### GLE10

#### Learning Strategies:

#### Skills for Success in Secondary School, Grade 9, Open

These courses focus on learning strategies to help students become better, more independent learners. Students will learn how to develop and apply literacy and numeric skills, personal management skills, and interpersonal and teamwork skills to improve their learning and resources to support their achievement in school, the workplace, post-secondary employment, and the community. The course training, and/or education helps students build

confidence and choices and develop a plan to motivation to pursue opportunities help them meet their learning for success in secondary school and beyond. **Prerequisite: Recommendation of Principal**

### GLE20

#### Learning Strategies:

#### Skills for Success in Secondary School, Grade 10, Open

These courses focus on learning strategies to help students become better, more independent learners. Students will learn how to develop and apply literacy and numeric skills, personal management skills, and interpersonal and teamwork skills to improve their learning and resources to support their achievement in school, the workplace, post-secondary employment, and the community. The course training, and/or education helps students build confidence and choices and develop a plan to motivation to pursue opportunities help them meet their learning for success in secondary school and beyond. **Prerequisite: Recommendation of Principal**

### GLE30

#### Advanced Learning Strategies:

#### Skills for After Secondary School, Grade 11, Open

These courses improve students' learning and personal management skills, preparing them to make successful transitions to work, training, and/or post-secondary education destinations. Students will assess their learning abilities and use literacy, numeracy, and research skills and personal management techniques to maximize their learning. Students will investigate trends and resources to support their post-secondary employment, training, and/or education choices and develop a plan to help them meet their learning and career goals.

**Prerequisite: Recommendation of Principal**

**GLE4O****Advanced Learning Strategies:  
Skills for After Secondary School  
Grade 12, Open**

These courses improve students' learning and personal management skills, preparing them to make successful transitions to work, training, and/or post-secondary education destinations. Students will assess their learning abilities and use literacy, numeracy, and research skills and personal management techniques to maximize their learning. Students will investigate trends and resources to support their post-secondary employment, training, and/or education choices and develop a plan to help them meet their learning and career goals.

**Prerequisite: Recommendation of Principal**

**GLD2O****Discovering the Workplace  
Grade 10, Open**

This course provides students with opportunities to discover and develop the workplace essential skills and work habits required to be successfully employed. Students will develop an understanding of work through practical hands-on experiences in the school and in the community, using real workplace materials. They investigate occupations of interest through experiential learning opportunities, such as worksite visits, job shadowing, work experience, simulations, and entrepreneurial projects. This course helps students make plans for continued learning and work.

**Prerequisite: None**

**GLN4O****Navigating the Workplace  
Grade 12, Open**

This course provides students with opportunities to develop the workplace essential skills and work habits required for

success in all types of workplaces. Students will explore occupations and careers of interest through participation in real workplace experiences. They will make plans for continued learning and work, work with others to design learning experiences, and investigate the resources and support required to make a smooth transition to their postsecondary destination. **Prerequisite: None**

## Technology

### Communications Technology

**TGJ3M****Communications Technology:  
TV, Video and Movie Production  
Grade 11, University/College Preparation**

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.

**TGJ4M****Communications Technology:  
TV, Video and Movie Production,  
Grade 12, 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. **Prerequisite: Communications Technology, Grade 11, University/College Preparation**

## Computer Engineering

### TEJ3M

#### **Computer Engineering Technology Grade 11, University/College Preparation**

This course examines computer systems and control of external devices. Students will assemble computers and small networks by installing and configuring appropriate hardware and software. Students will develop knowledge and skills in electronics, robotics, programming, and networks, and will build systems that use computer programs and interfaces to control and/or respond to external devices. Students will develop an awareness of environmental and societal issues related to the use of computers, and will learn about college and university programs leading to careers in computer engineering.

### TEJ4M

#### **Computer Engineering Technology: Electronics, Robotics Grade 12, University/College Preparation**

This course extends students' understanding of computer systems and computer interfacing with external devices. Students will assemble computer systems by installing and configuring appropriate hardware and software, and will learn more about

fundamental concepts of electronics, robotics, programming, and networks. Students will examine environmental and societal issues related to the use of computers, and explore postsecondary pathways leading to careers in computer engineering and related fields. **Prerequisite: Computer Engineering Technology, Grade 11, University/College Preparation**

## Construction Technology

### TCJ3E

#### **Construction Technology Grade 11, Workplace Preparation**

This course enables students to develop technical knowledge and skills related to carpentry, masonry, electrical systems, heating and cooling, and plumbing for residential construction. Students will gain hands-on experience using a variety of materials, processes, tools, and equipment to design, lay out, and build projects. They will create and read technical drawings, learn construction terminology, interpret building codes and regulations, and apply mathematical skills as they develop construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and will explore postsecondary and career opportunities in the field.

### TCJ3EZ, Dual Credit

#### **Construction Technology Grade 11, Workplace Preparation**

This course enables students to develop technical knowledge and skills related to carpentry, masonry, electrical systems, heating and cooling, and plumbing for residential construction. Students will gain hands-on experience using a variety of materials, processes, tools, and equipment to design, lay out, and build projects. They

will create and read technical drawings, learn construction terminology, interpret building codes and regulations, and apply mathematical skills as they develop construction projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and will explore postsecondary and career opportunities in the field. This course will be partially team-taught with a college instructor. Upon successful completion of the college portion of the secondary course, the student will be eligible to receive a college credit (pending approval).

### **TCE3E**

#### **Construction Technology, Electricity Grade 11, Workplace Preparation**

This course has an emphasis on electrical wiring in residential homes. This course enables students to develop technical knowledge and skills related to carpentry, masonry, electrical systems, heating and cooling, and plumbing for residential construction. Students will gain hands on experience using a variety of materials, processes, tools, and equipment to design, lay out, and build projects. Students will also develop an awareness of environmental and societal issues related to construction technology, and explore postsecondary and career opportunities in the field.

### **TWJ3E**

#### **Custom Woodworking Grade 11, Workplace Preparation**

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.

### **TCJ4E**

#### **Construction Technology Grade 12, Workplace Preparation**

This course enables students to further develop technical knowledge and skills related to residential construction and to explore light commercial construction. Students will continue to gain hands-on experience using a variety of materials, processes, tools, and equipment; create and interpret construction drawings; and learn more about building design and project planning. They will expand their knowledge of terminology, codes and regulations, and health and safety standards related to residential and light commercial construction. Students will also expand their awareness of environmental and societal issues related to construction technology, and will explore entrepreneurship and career opportunities in the industry that may be pursued directly after graduation.

#### **Prerequisite: Construction Technology, Grade 11, Workplace Preparation**

### **TCJ4EZ, Dual Credit**

#### **Construction Technology Grade 12, Workplace Preparation**

This course enables students to further develop technical knowledge and skills related to residential construction and to explore light commercial construction. Students will continue to gain hands-on experience using a variety of materials, processes, tools, and equipment; create and interpret construction drawings; and

learn more about building design and project planning. They will expand their knowledge of terminology, codes and regulations, and health and safety standards related to residential and light commercial construction. Students will also expand their awareness of environmental and societal issues related to construction technology, and will explore entrepreneurship and career opportunities in the industry that may be pursued directly after graduation. This course will be partially team-taught with a college instructor. Upon successful completion of the college portion of the secondary course, the student will be eligible to receive a college credit (pending approval).

**Prerequisite: Construction Technology, Grade 11, Workplace Preparation**

#### **TCE4E**

#### **Construction Technology: Electricity Grade 12, Workplace Preparation**

This course will have an emphasis on industrial wiring. This course enables students to further develop technical knowledge and skills related to residential construction and to explore light commercial construction. Students will continue to gain hands on experience using a variety of materials, processes, tools, and equipment; create and interpret construction drawings; and learn more about building design and project planning. They will expand their knowledge of terminology, codes and regulations, and health and safety standards related to residential and light commercial construction. Students will also expand their awareness of environmental and societal issues related to construction technology and explore entrepreneurship and career opportunities in the industry that may be pursued directly after graduation.

**Prerequisite: Construction Technology, Grade 11, Workplace Preparation**

#### **TWJ4E**

#### **Custom Woodworking Grade 12, 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 related to woodworking, and will explore career opportunities that may be pursued directly after graduation. **Prerequisite:**

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

#### **TCJ3CH, 0.5 Credit**

#### **Construction Engineering Technology Grade 11, College Preparation**

This course is designed for female students. Participants will learn valuable skills for home maintenance and repair, and gain hands-on experience with a variety of carpentry, drywall, painting, plumbing and electrical tasks. Students will gain hands-on experience using a variety of construction materials, processes, tools, and equipment; learn about building design and planning construction projects; create and interpret working drawings and sections; and learn how the Ontario Building Code and other regulations and standards apply to construction projects. Students will develop and awareness of environmental and societal issues related to construction technology, and will explore career opportunities in the field. This is a half credit, and must be selected with TMJ3CH.

**TCJ4CH, 0.5 Credit****Construction Engineering Technology  
Grade 11, College Preparation**

This course is designed for female students. Students will gain hands-on experience using a variety of materials, processes, tools, and equipment, and will learn more about building design and project planning. They will continue to create and interpret construction drawings and will extend their knowledge of construction terminology and of relevant building codes and regulations, as well as health and safety standards and practices. Students will also focus on environmental and societal issues related to construction engineering technology, and will explore career opportunities in the field. This is a half credit, and must be selected with TMJ4CH.

**Prerequisite: Construction Engineering Technology, Grade 12, College Preparation**

**Manufacturing****TMP3C****Manufacturing Technology,  
(Machine Shop)****Grade 11, College Preparation**

The emphasis on this course is machining practices and use of tools i.e. lathes, milling machines etc. 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.

**TMP4C****Manufacturing Technology,  
(Machine Shop)****Grade 12, College Preparation**

The emphasis on this course will be machining practices and use of tools i.e. lathes, milling machines etc. 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. **Prerequisite: Manufacturing Technology, Grade 11, College Preparation Note: Students should have a grade 11 course in Machining to be successful in this course. If a student does not have a grade 11 machining course they must speak with the Technical Director.**

**TMY3C****Manufacturing Technology, (Welding)  
Grade 11, College Preparation**

This course will emphasis welding practices and project manufacturing. 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 equipments 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.

**TMY4C****Manufacturing Technology, (Welding)  
Grade 12, College Preparation**

This course will emphasis welding practices and project manufacturing. The emphasis on this course will be machining practices and use of tools i.e. lathes, milling machines etc. 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. **Prerequisite: Manufacturing Technology, Grade 11, College Preparation** **Note: Students should have a Grade 11 Course in Welding to be successful in this course. Students that do not have a grade 11 course in Welding must meet with the Technical Director.**

**TMJ3CH, 0.5 credit****Manufacturing Technology  
Grade 11, College Preparation**

This course is designed for female students. Participants will develops skills in metal manufacturing, welding and vehicle maintenance. 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. This is a half credit, and must be selected with TCJ3CH.

**TMJ4CH, 0.5 credit****Manufacturing Technology  
Grade 12, College Preparation**

This course is designed for female students. Participants will develop skills in metal manufacturing, welding and vehicle maintenance. Students will use a broad range of tools and equipment, enhance their skills in computer-aided design, and collaborate in managing a project. Students will critically analyse and solve complex problems involved in manufacturing products. Students will expand their awareness of environmental and societal issues and of career opportunities in the manufacturing industry. This is a half credit, and must be selected with TCJ4CH. **Prerequisite: Manufacturing Technology, Grade 11, College Preparation**

**Technological Design****TDJ3M****Technological Design  
Grade 11, University/College Preparation**

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.

**TDJ4M****Technological Design  
Grade 12, 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 will explore career opportunities and the postsecondary education and training requirements for them. **Prerequisite: Technological Design, Grade 11, University/College Preparation**

## Technological Studies

### TEJ10

#### Exploring Computer Technology Grade 9, Open

This course has an emphasis on hands on activities involving computer hardware and electronic circuits. This course introduces students to concepts and skills in computer technology, which encompasses computer systems, networking, interfacing, and programming, as well as electronics and robotics. Students will develop an awareness of related environmental and societal issues, and will begin to explore secondary and postsecondary pathways leading to careers in the field.

### TIJ10

#### Exploring Technology Grade 9, Open

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. Students will rotate through up to six shop areas.

### TCJ20

#### Construction Technology Grade 10, Open

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.

### TDJ20

#### Technological Design Grade 10, Open

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 will learn about secondary and postsecondary education and training leading to careers in the field.

**TEJ20**  
**Computer Technology**  
**Grade 10, Open**

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.

**TGJ20**  
**Communications Technology**  
**Grade 10, Open**

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.

**TMJ20**  
**Manufacturing Technology**  
**Grade 10, Open**

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.

**TTJ20**  
**Transportation Technology**  
**Grade 10, Open**

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.

**Transportation Technology**

**TTJ3C, 2 Credits**  
**Transportation Technology**  
**Grade 11, College Preparation**

This course is designed for the student wishing

to explore the apprenticeship and college opportunities of Automotive Technology. 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.

**TTJ4C, 2 Credits**

### **Transportation Technology**

#### **Grade 12, University/College Preparation**

This course is designed for the student that is focused on apprenticing as an Automotive Service Technician or enrolling in a Motive Power college program. 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. **Prerequisite:**

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

COURSE CALENDAR 2018

# Listowel District Secondary School

