

COURSE CALENDAR 2019-2020

# Mitchell District High School



# Table of Contents

<b>MDHS Vision Statement</b>	<b>3</b>
<b>MDHS Mission Statement</b>	<b>3</b>
<b>MDHS Student Code of Behaviour</b>	<b>4</b>
<b>Support Services, Resources and Special Programs</b>	<b>4</b>
<b>Course Selection</b>	<b>6</b>
<b>Course Changes</b>	<b>6</b>
<b>Courses Offered in Alternating Years</b>	<b>7</b>
<b>Experiential Learning</b>	<b>8</b>
<b>Dual Credit Offerings at Conestoga, Fanshawe and Lambton Colleges</b>	<b>8</b>
<b>Ontario Youth Apprenticeship Program</b>	<b>9</b>
<b>Specialist High Skills Majors</b>	<b>10</b>
<b>Agriculture SHSM</b>	<b>11</b>
<b>Hospitality &amp; Tourism SHSM</b>	<b>11</b>
<b>Avon Maitland District eLearning Centre</b>	<b>12</b>
<b>Course Selections 2019-2020</b>	<b>13</b>
<b>The Arts</b>	<b>13</b>
<b>Business</b>	<b>15</b>
<b>Canadian &amp; World Studies</b>	<b>16</b>
<b>Cooperative Education</b>	<b>18</b>
<b>English</b>	<b>19</b>
<b>French</b>	<b>22</b>
<b>Guidance &amp; Career Education</b>	<b>24</b>
<b>Health &amp; Physical Education</b>	<b>24</b>
<b>Interdisciplinary Studies</b>	<b>26</b>
<b>Mathematics</b>	<b>27</b>
<b>Native Studies</b>	<b>31</b>
<b>Science</b>	<b>32</b>
<b>Social Science &amp; Humanities</b>	<b>36</b>
<b>Technological Education</b>	<b>38</b>

# MDHS Course Calendar 2019-2020

## Message from Mrs. Goetz, Principal

Mitchell District High School is an incredibly welcoming school where the staff and students actively create a positive climate where everyone is accepted and valued for their individuality and the qualities they bring to our school community. Our talented and highly qualified staff is committed to the well-being and academic success of every student. You will be challenged and well supported as you develop the knowledge and skills necessary to thrive once you move beyond our school community.

The Avon Maitland District School Board is committed to ensuring students have the opportunity to graduate from secondary school in four years and to ensuring a variety of course offerings for our students. In order to achieve both goals efficiently, you will need to be registered full time in a minimum of three courses in each semester. As you review the courses offered in this year's calendar, remember to plan ahead. Some of our courses are offered in alternating years so make a 2-3 year plan to ensure you can take all of your courses of interest. In addition, consider your course choices carefully as your requests will have a direct impact on which courses we run and the number of qualified staff available to meet your needs. Assuming you can just change your mind later may lead to disappointment if the course is no longer offered because too few students selected the course. Research careers of interest, meet with our Student Services counsellor, and review your course selections carefully, ensuring they meet the requirements for graduation and for your post-secondary plans.

Good luck in the coming year and remember that we are here to support you in any way we can.

## MDHS Vision Statement

Community and school must continue to maintain a close relationship in order to provide opportunities for all students to realize their diverse potential and to become productive citizens both locally and globally.

## MDHS Mission Statement

Our purpose is to develop in our students those academic skills necessary for them to become enthusiastic, independent, life-long learners and to encourage them to achieve their fullest potential as responsible, productive members of society. By providing a positive learning environment, we are committed to instill in our students such values as self-worth, co-operation, and respect for others so that they will be able to cope successfully with the challenges of the future.



# MDHS Student Code of Behaviour

Mitchell District High School has rules or guidelines for appropriate behaviour. These guidelines, which were established by staff, students, parents and our Safe School Committee, reflect the school's philosophy of openness and mutual respect. They are intended to ensure the well-being and security of everyone at Mitchell District High School while in school, on out-of-school activities and while traveling on a school bus.

## **Be Punctual and Regular in Attendance**

Punctuality is a good habit that will be expected of you on the job and in your personal relationships. You are expected to be on time for every class. You are expected to attend school regularly and to attend all your classes in order to be successful.

## **Be Prepared, Attentive and Hard-working**

You are expected to be prepared for each class, to pay close attention to all classroom activities, and to work to the best of your ability, for the duration of each period. The better prepared, more attentive and harder-working you are, the greater the contribution you will make to the learning of all involved, most importantly, your own. No coats, backpacks or carry bags are to be brought into a classroom; they are to be left in your locker.

## **Be Respectful of and Cooperative with Others**

You are expected to be courteous, co-operative and accepting in your dealings with others. It is understood that you will not harass others either verbally, physically or emotionally. Courteous, co-operative and accepting behaviour creates a positive environment both in school and in the workplace. Inappropriate behaviour used to intimidate others who are perceived to be different or have individual opinions will not be tolerated. Maturity in dealing with relationships is expected in school as well as in the workplace.

## **Be Respectful of Other People's Property**

You are expected to treat the school grounds, the school property, and the personal property of others with respect. This concern for respect extends to our neighbours. Textbooks, library books, lockers, and other school property are on loan to students for use during the school year and must be maintained in good order.

# Support Services, Resources and Special Programs

## **Guidance and Career Education Program**

The Guidance and Career Education Program at MDHS provides the skills,

knowledge, and attitudes necessary for students to know and appreciate themselves, to relate effectively to others, to develop individual interviews and classroom instruction. Student Services is your liaison with community resources, post-secondary educational institutions, the world of work and with the home.

## **Special Education**

All exceptional students are monitored regularly. Throughout the school year, the student's teachers may be asked to make a written report on the student's progress to date. This allows a direct contact with the Resource Teacher, who provides one-on-one support for the student including help with homework, organization, etc. and provides the student opportunities to develop learning strategies. Exceptional students may also choose to include GLE10 in their course selections. This course provides opportunities to refine learning skills.

## **Resource Centre/Cross-Curricular Computer Lab**

The Resource Centre at MDHS provides students with traditional library services: access to books, e-books on a Kindle e-reader, encyclopedias, magazines and newspapers and the librarian and the TRA provide information literacy and teach research skills. In addition, the Resource Centre has a computer lab that may be accessed by students during class time and the lunch hour. There are two additional cross-curricular computer labs available for class and student use. The Resource Centre houses video cameras, Apple computers, portable laptop labs and iPads which are available for video production, editing and other uses.

## **English as a Second Language**

The Avon Maitland District School Board recognizes that secondary ESL students face unique challenges as they pursue their secondary diploma and make the transition to full fluency in English. Students in the early stages of English acquisition may monitor courses or work for partial credits if they are not able to meet the curriculum expectations for a course. Adapted programming helps students achieve credits in courses even if their communication skills are not sufficiently developed to demonstrate their learning. ESL students may also be provided with tutoring to enable them to expand their language skills more rapidly. While students may need more than 4 years to complete their diploma, Avon Maitland District School Board students who take ESL are given the assistance they need to fulfill their long term goals. The Avon Maitland District School Board recognizes that secondary ESL students face unique challenges as they pursue their secondary diploma and make the transition to full fluency in English. Students in the early stages of English acquisition may monitor courses or work for partial credits if they are not able to meet the curriculum expectations for a course. Adapted



programming helps students achieve credits in courses even if their communication skills are not sufficiently developed to demonstrate their learning. ESL students may also be provided with tutoring to enable them to expand their language skills more rapidly. While students may need more than 4 years to complete their diploma, Avon Maitland District School Board students who take ESL are given the assistance they need to fulfill their long term goals.

## **Advanced Placement Program**

Advanced Placement courses offer enrichment to senior high school students as a way of connecting them to greater success and wider opportunities when they enter university. At certain universities, a student who has successfully complete AP in a subject area may be permitted to bypass the first year university course in that subject and directly enter a second year courses, or in some cases, students may be granted a first year credit in the subject. Research has indicated that AP students are more likely to succeed in their first year of university and beyond because of increased independence and self-motivation.

## **Course Selection**

All students have the opportunity to select their courses of study within certain guidelines. With this comes the responsibility to choose wisely, having regard for present interests and abilities and future vocational or educational plans. This responsibility rests on the student and his / her parents after consultation with teachers and guidance personnel. Some courses require previously gained knowledge and skills. The student must complete courses identified as being a prerequisite course successfully before he/she can attempt any course demanding that prerequisite. It is the policy of MDHS that students who have accumulated fewer than 16 credits must enroll in a full eight-credit timetable. Exceptions to this rule may be considered on an individual basis. In all cases, students must be enrolled in a minimum of three courses each semester.

## **Course Changes**

Students wanting to make a course change to their existing timetables should discuss the situation with a Student Services' Counsellor. A course change form will be given to the student. The form begins a process that will involve parents, teachers and the principal. Students must continue to attend the courses in their timetable until written permission is granted by the principal.

Courses in this calendar will be offered where there is sufficient enrolment. All courses are worth one credit unless otherwise noted.

# Courses Offered in Alternating Years

## 2019-2020

- » CHT3O - World History since 1900
- » CHY4U - World History since the15th Century
- » CIE3M - The Individual and the Economy
- » CIA4U - Analysing Current Economic Issues
- » PSK4U - Introduction to Kinesiology

## 2020-2021

- » CGG3O - Travel and Tourism
- » CGW4U - World Issues
- » CLU3M - Understanding Canadian Law
- » CLN4U - Canadian and International Law
- » EWC4U - The Writer's Craft
- » SVN3E - Environmental Science

## 2021-2022

- » CHT3O - World History since 1900
- » CHY4U - World History since the15th Century
- » CIE3M - The Individual and the Economy
- » CIA4U - Analysing Current Economic Issues
- » PSK4U - Introduction to Kinesiology

## 2022-2023

- » CGG3O - Travel and Tourism
- » CGW4U - World Issues
- » CLU3M - Understanding Canadian Law
- » CLN4U - Canadian and International Law
- » EWC4U - The Writer's Craft
- » SVN3E - Environmental Science



## 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 through Experiential Learning. Experiential Learning programs such as Cooperative Education, 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.

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. Experiential learning is an inquiry-based pedagogical approach that provides opportunities for students to co-construct their learning by participating in rich experiences connected to a community outside school; reflecting on those experiences to derive meaning; and applying their learning to influence their decisions and actions in various aspects of their lives.

## 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 you, the student, the chance to experience life and learning in a college environment and allows you 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
- » 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 Co-op 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 Counselor, Student Success teacher or Co-op teacher for an up-to-date listing of course offerings and to obtain 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 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 Co-op teacher to apply. For more information, visit [successforlife.ca/oyap](https://successforlife.ca/oyap) and [oyap.com](https://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. The Specialist High Skills Major programs allow students to focus on a career path that matches their skills and interests. Visit [www.successforlife.ca](https://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
- » Completion of Sector Partnered Contextualized Experience (SPCE) in ICE (Innovation, Creativity, Entrepreneurship), mathematical literacy or coding

### **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 certifications and career-relevant training.
- » 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.

## Coop Course Notes:

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

## Agriculture SHSM

### High Skills Major Pathway

It is clear that agriculture plays a major role in the lives of many families connected to Mitchell District High School. As a result, students will now be given the opportunity to enroll in this specialist high skills program and learn about many different areas of agriculture while completing their regular studies.

The SHSM is a specialized, ministry-approved program that allows students to focus their learning on a specific economic sector while meeting the requirements of the Ontario Secondary School Diploma (OSSD).

Specialist High Skills Majors assist students in their transition from secondary school to apprenticeship training, college, university, or the workplace.

These program enable students to gain sector-specific skills and knowledge in engaging, career-related learning environments, and prepare in a focused way for graduation and post secondary education, training, or employment.

Students who are enrolled in the program will complete sector-recognized certifications and or training courses as well as be part of career exploration activities such as field trips and hearing from expert guest speakers.

## Hospitality & Tourism SHSM

### High Skills Major Pathway

The Hospitality and Tourism Specialist High Skills Major at Mitchell District High School builds on the success of the culinary program. Students operate the “Twisted Carrot” café where they plan, prepare, market and serve a wide variety of meals. Through connections with local farmers and our own garden, the students gain seed-to-table understanding and learn about



the importance of farmers in the food chain and environmental issues. Students also work on catering events that allow them to develop their serving and food preparation skills. Students will complete sector-recognized certifications and or training courses as well as be part of career exploration activities such as field trips and hearing from expert guest speakers.

## 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.

# Course Selections 2019-2020

## The Arts

### **ALC10**

#### **Integrated Arts**

##### **Grade 9, Open**

This course integrates two or more of the arts (dance, drama, media arts, music, and visual arts), giving students the opportunity to produce and present integrated art works created individually or collaboratively. Students will demonstrate innovation as they learn and apply concepts, styles, and conventions unique to the various arts and acquire skills that are transferable beyond the classroom. Students will use the creative process and responsible practices to explore solutions to integrated arts challenges.

### **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.

### **AMU20**

#### **Instrumental 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 self, communities, and cultures.

### **AVI20**

#### **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.

### **ADA30**

#### **Dramatic Arts**

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

This course requires students to engage in dramatic processes and the presentation of works, and emphasizes the application of drama skills in other contexts and opportunities. Students will interpret and present works in a variety of dramatic forms, create and script original works, and critically analyze the processes involved in producing dramatic works. Students will develop a variety of skills related to collaboration and the presentation of dramatic works.

### **AMU3M**

#### **Instrumental 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 exercise 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: Instrumental Music, Grade 9 or 10, Open**

### **AVI3O**

#### **Visual Arts**

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

This course focuses on studio activities in the visual arts, such as drawing, painting, sculpture, photography, printmaking, collage, and/or multimedia art. Students will use the creative process to create art works that reflect a wide range of subjects and will evaluate works using the critical analysis process. Students will also explore works of art within a personal, contemporary, historical, and cultural record.

### **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 text and media sources while learning about various theories of directing and acting. Students will examine the significance of dramatic arts in various cultures, and

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

**Prerequisite: Dramatic Arts, Grade 11 University/ College or Open.**

### **AMU4M**

#### **Instrumental 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 analyse how to apply skills developed in music to their life and careers.

**Prerequisite: Instrumental Music, Grade 11 University/College or 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 Art, Grade 11, University/College Preparation or Visual Arts, Grade 11, Open**

## Business

### **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.

### **BBB4MV**

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

This course will be offered through our Board's AMDEC eLearning Services. 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.

### **BOH4MV**

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

This course will be offered through our

Board's AMDEC eLearning Services. This course focuses on the development of leadership skills used in managing a successful business. Students will analyse the role of a leader in business, with a focus on decision making, management of group dynamics, workplace stress and conflict, motivation of employees, and planning. Effective business communication skills, ethics, and social responsibility are also emphasized.

### **ICS3UV**

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

This course will be offered through our Board's AMDEC eLearning services. 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.

#### **Prerequisite: None**

*Required Hardware/Software: \A PC running Windows or a Mac running macOS NetBeans Java IDE*

### **ICS4UV**

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

This course will be offered through our Board's AMDEC eLearning services. 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.**

*Required Hardware/Software: A PC running Windows or a Mac running macOS NetBeans Java IDE.*

## 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 I  
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 practise 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 I 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**

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

This course explores what it means to be an informed, participating citizen in a democratic society. Students will learn about the elements of democracy in local, national, and global contexts, about political reactions to social change, and about political decision-making processes in Canada. They will explore their own and others' ideas

about civics questions and learn how to think critically about public issues and react responsibly to them.

### **CHT30**

#### **World History since 1900: Global and Regional Interactions**

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

This course focuses on major developments in world history from 1900 to the present. Students will explore the causes and consequences of global and regional conflicts, the impact of significant individuals and social movements, and the effects of social, economic, and political developments around the world. 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 interactions within and between nations and other historical developments and events, including those that continue to affect people in various parts of the world.

**Prerequisite: Canadian History since World War I, Grade 10, Academic or Applied, or the locally developed compulsory course (LDCC) in Canadian history**

### **CIE3M**

#### **The Individual and the Economy**

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

This course explores issues and challenges facing the Canadian economy as well as the implications of various responses to them. Students will explore the economic role of firms, workers, and government as well as their own role as individual consumers and contributors, and how all of these roles contribute to stability and change in the Canadian economy. Students will apply the concepts of economic thinking and the economic inquiry process, including economic models, to investigate the impact

of economic issues and decisions at the individual, regional, and national level.

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

### **CIA4U**

#### **Analysing Current Economic Issues**

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

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

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

### **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 ideas 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**

## Cooperative Education

**COP2X** (2 credit)

#### **Cooperative Education and Work Experience**

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

In this course, students can explore a range of interests or create a focused experience based on a particular interest. Within the context of an experience connected to the community, students work towards achieving the course expectations, which focus on developing skills, knowledge, and habits of mind that will support them in their education and career/life planning; protect and promote their health, safety, and well-being; and strengthen their inquiry, decision-making, and leadership skills. Throughout the course, they make connections between their experience in the community and other aspects of their lives.

**COP4X** (4 credit)

#### **Cooperative Education and Work Experience**

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

In this course, students can explore a range of interests or create a focused experience based on a particular interest. Within the context of an experience connected to the community, students work towards achieving the course expectations, which focus on developing skills, knowledge, and habits of mind that will support them in their education and career/life planning; protect and promote their health, safety, and well-being; and strengthen their inquiry, decision-making, and leadership skills. Throughout the course, they make connections between

their experience in the community and other aspects of their lives.

## 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.

### **ELS2O**

#### **Literacy Skills: Reading and Writing**

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

This course is designed to help students strengthen essential reading and writing skills, providing them with the extra literacy support they need in order to graduate. Students will read informational, graphic, and literary texts, with a focus on locating information, identifying main ideas and supporting details, building vocabulary, and consolidating skills in the application of key comprehension strategies. The course will also help students develop core learning strategies.

**Prerequisite: English, Grade 9, Academic or Applied, or a Grade 9 English LDCC (locally developed compulsory credit) course.**

### **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 by strands that extend listening and talking skills, reading and viewing skills, and writing skills. In all strands, the focus is on refining foundational literacy skills and 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. Students 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 texts 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 English, 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**

**EWC4UV****The Writer's Craft****Grade 12, University Preparation**

This course will be offered through our Board's AMDEC eLearning services. 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. This course is offered in-school in alternate years: to be offered in 2018-2019.**

**EMS3O****Media Studies****Grade 11, Open**

This course emphasizes knowledge and skills that will enable students to understand media communication in the twenty-first century and to use media effectively and responsibly. Through analyzing the forms and messages of a variety of media works and audience responses to them, and through creating their own media works, students will develop critical thinking skills, aesthetic and ethical judgment, and skills in viewing, representing, listening, speaking, reading, and writing.

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

**OLC4O****Ontario Secondary School 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 twice and who have been unsuccessful at least once 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.

**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**

**FSF2P****Core French  
Grade 10, Applied**

This course emphasizes the further development of oral communication, reading, and writing skills using a broad-based theme such as adolescence. Students will expand their knowledge of French by studying a series of theme-related topics such as students' rights and responsibilities, relationships with peers and adults, and part-time jobs.

**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 develop their listening, speaking, reading, and writing skills, apply language learning strategies in a wide variety of real-life situations, and develop their creative and critical thinking skills through responding to and interacting with a variety of oral and written texts. They

will also enrich their understanding and appreciation of diverse French-speaking communities, and will develop skills necessary for lifelong language learning.

**Prerequisite: Core French, Grade 11, Academic**

## Guidance & Career Ed

**GLC20** (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.

**GWL30V**

**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

**PPL10**

**Healthy Active Living Education**

**Grade 9, Open**

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

**PAF20**

**Healthy Active Living Education, Personal and Fitness Activities**

**Grade 10, Open**

This course emphasizes regular participation in a variety of enjoyable physical activities that promote lifelong healthy active living. Student learning will include the application of movement principles to refine skills; participation in a variety of activities that enhance personal competence, fitness and health; examination of issues related to healthy sexuality, healthy eating, substance abuse and the use of informed decision-making, conflict resolution, and social skills in making personal choices.

**PPL20**

**Healthy Active Living Education**

**Grade 10, Open**

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



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

### **PAF30**

#### **Healthy Active Living Education, Personal and Fitness Activities, Grade 11, Open**

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

### **PPL30**

#### **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. Students will begin to build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively. Students will also study the component of healthy relationships, reproductive health, mental health and personal safety.

### **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.

### **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 healthy, active living to others through mentoring and assisting them in making informed decisions that enhance their well-being. The course will prepare students for university programs in physical education and health and kinesiology and for college and university programs in recreation and leisure management, fitness and health promotion, and fitness leadership.

**Prerequisite: Any health and physical education course. Students may receive credit for PSK4U, PPL4O and PLF4M.**

### **PPL4O**

#### **Healthy Active Living 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 as they make the transition to adulthood and independent living. Through participation in a wide range of physical activities in a variety of settings, students can enhance their movement competence, personal fitness, and confidence. Students also acquire an understanding of the factors and skills that contribute to healthy development and learn how their own well-being is affected by, and affects, the world around them. Students build their sense of self, learn to interact positively with others, and develop their ability to think critically and creatively. Students will also study the components of mental health.

### **PSK4UV**

#### **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.

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

**Prerequisite: Any Grade 11 university or university/college preparation course in science, or any Grade 11 or 12 course in health and physical education.** *Students may receive credit for PSK4U, PPL4O and PLF4M. This course will be offered in-school in alternate years, 2019-2020.*

### **PAL2O/PAL3O/PAL4O**

#### **Healthy Active Living Education, Large Group Activities**

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

MDHS 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.

## **Interdisciplinary Studies**

### **IDC30**

#### **Interdisciplinary Studies**

#### **Grade 11, 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.

**IDC4O**  
**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.

**IDC4U**  
**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 analyse historical innovations and exemplary research; and to investigate real-life situations and career opportunities in interdisciplinary endeavours. 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.

**Prerequisites: any university or university/college preparation course**

## Mathematics

**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.

**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 by three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on developing and consolidating key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to further develop their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

**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****Principles 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 courses. The course is organized in three major 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: Grade 9 Mathematics: Applied or Academic**

**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 and two variables. Students will consolidate their mathematical skill 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 the 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: Foundations of Mathematics, Grade 10 Academic or 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**

**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: Principles of Mathematics, Grade 9, Academic or Foundations of Mathematics Grade 9 Applied or Mathematics, Grade 10, Locally Developed**

#### **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 modelling of real world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who plan to study mathematics in university and who may choose to pursue careers in fields such as physics and engineering.

**Note: Advanced Functions must/should be taken concurrently with or can precede Calculus and Vectors (MCV4U is a co-requisite with MHF4U).**

#### **MDM4U**

**Mathematics of 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**

### **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**

## Native Studies

### **NBE3C**

#### **English: Contemporary Aboriginal Voices Grade 11, College Preparation**

This course focuses on themes, forms, and styles of literary, informational, and graphic texts of First Nation, Métis, and Inuit authors in Canada. They will study changes in use of text forms by Aboriginal authors over time when expressing themes of identity, relationships, and sovereignty in the 21st century. Students will create oral, written, and media texts to explore their own ideas and understanding focusing on the development of literacy, communication, critical and creative thinking skills necessary for success in practical and academic life. The course is intended to prepare students for the compulsory Grade 12 English college preparation course.

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

### **NBE3U**

#### **English: Contemporary Aboriginal Voices Grade 12, University Preparation**

This course focuses on themes, forms, and stylistic elements of a range of literary, informational, and graphic texts of First Nation, Métis, and Inuit authors in Canada.

They will analyze changes in use of text forms by Aboriginal authors over time periods and within cultures when expressing themes of identity, relationships, and sovereignty in the 21st century. Students will create oral, written, and media texts to explore their own ideas and understanding focusing on the development of literacy, communication, critical and creative thinking skills necessary for success in academic and daily life. The course is intended to prepare students for the compulsory Grade 12 English university preparation course.

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

### **NDW4M**

#### **Issues of Indigenous Peoples in a Global Context**

#### **Grade 12, University/College 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 in Social Science and the Humanities**

## 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 Grade 11 Science 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 develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science to everyday situations. They are also given opportunities to develop practical skills related to scientific investigation. Students will plan and conduct investigations into practical problems and issues related to the impact of human activity on ecosystems; the structure and properties of elements and compounds; space exploration and the components of the universe; and static and current electricity.

**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**

**SNC2L****Science****Grade 10, Locally Developed**

This course emphasizes reinforcing and strengthening science-related knowledge

and skills, including scientific inquiry, critical thinking, and the environmental impact of science and technology, to prepare students for success in everyday life, in the workplace, and in the Grade 11 Science Workplace Preparation course. Students explore a range of topics, including science in media, interactions of common materials, interdependence of organisms in communities, and using electrical energy. 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.

**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 that occur in biological systems. Students will learn concepts and theories as they conduct investigations in the areas of cellular biology, microbiology, genetics, the anatomy of mammals, and the structure of plants and their role in the natural environment.

Emphasis will be placed on the practical application of concepts, and on the skills needed for further study in various branches of the life sciences and related fields.

**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 on 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 the environment.

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

### **SVN3E**

#### **Environmental Science**

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

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

**Prerequisite: Science, Grade 9, Academic or Applied, or Grade 9 or 10 locally developed compulsory credit (LDCC) course in science. Offered in alternate years; to be offered 2018-2019.**

### **SBI4U**

#### **Biology**

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

This course provides students with the

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

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

### **SCH4C**

#### **Chemistry**

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

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

**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**

### **SPH4C**

#### **Physics**

#### **Grade 12, College 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: Science, Grade 10, Academic or Applied**

### **SPH4U**

#### **Physics**

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

This course enables students to deepen their understanding of physics concepts and theories. Students will continue their exploration of energy transformations and the forces that affect motion, and will investigate electrical, gravitational, and magnetic fields and electromagnetic radiation. Students will also explore the wave nature of light, quantum mechanics, and special relativity. They will further develop their scientific investigation skills, learning,

for example, how to analyze, qualitatively and quantitatively, data relating to a variety of physics concepts and principles. Students will also consider the impact of technological applications of physics on society and the environment.

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

## Social Sciences & Humanities

### **HFN10**

#### **Food and Nutrition**

##### **Grade 9, 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.

### **HPC30**

#### **Parenting**

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

This course focuses on the skills and knowledge needed to promote the positive and healthy nurturing of children, with particular emphasis on the critical importance of the early years to human development. Students will learn how to meet the developmental needs of young children, communicate and discipline effectively, and guide early behaviour. They will have practical experiences with infants, toddlers, and preschoolers, and will

learn skills in researching and investigating questions relating to parenting.

### **HSP3U**

#### **Introduction to Anthropology, Psychology, and Sociology**

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

### **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. They 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.

### **HHS4C**

#### **Families in Canada**

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

This course enables students to develop an understanding of social science theories

as they apply to individual development, the development of intimate relationships, and family and parent-child relationships. Students will explore a range of issues relating to the development of individuals and families in contemporary Canadian society as well as in other cultures and historical periods. They will develop the investigative skills required to conduct research on individuals, intimate relationships, and parent-child roles and relationships in Canada.

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

#### HHS4U

##### Families in Canada

##### Grade 12, University Preparation

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.**

#### HSB4U

##### Challenge and Change in Society

##### Grade 12, University/College 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 analyse how and why cultural, social, and behavioural patterns change over time. They will explore the ideas of social theorists and use those ideas to analyse causes of and responses to challenges such as technological change, deviance, and global inequalities. Students will explore ways in which social science research methods can be used to study social change.

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

#### HSC4M

##### 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**

# Technological Education

## TIJ10

### Exploring Technologies

#### 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.

## 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.

## 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 explore postsecondary and career opportunities in the field.

## 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**

**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 technology, and will explore secondary and postsecondary pathways leading to careers in the field.

**TDJ30****Technological Design and the Environment****Grade 11, Open**

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

**TDJ40****Technological Design in the Twenty-First Century****Grade 12, Open**

This course focuses on the relationship between society and technological development. Students will use appropriate

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

**TFJ20****Hospitality and Tourism****Grade 10, Open**

This course provides students with opportunities to explore different areas of hospitality and tourism as reflected in the various aspects of the tourism industry, with an emphasis on food service. Students will study culinary techniques of food handling and preparation, health and safety standards, the use of tools and equipment, the origins of foods, and event planning, and will learn about tourism attractions across Ontario. Students will develop an awareness of related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the tourism industry.

**TFJ3E****Hospitality and Tourism****Grade 11, Workplace Preparation**

This course enables students to acquire knowledge and skills related to the food and beverage services sector of the tourism industry. Students will learn how to prepare, present, and serve food using a variety of tools and equipment, and will develop an understanding of the fundamentals of providing high-quality service to ensure customer satisfaction and the components

of running a successful event or activity. Students will develop an awareness of health and safety practices, environmental and societal issues, and career opportunities in the food and beverage services sector.

### **TFJ4E**

#### **Hospitality and Tourism**

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

This course enables students to further develop knowledge and skills related to the food and beverage services sector of the tourism industry. Students will demonstrate proficiency in using food preparation and presentation tools and equipment; plan nutritious menus, create recipes, and prepare and present finished food products; develop customer service skills; and explore event and activity planning. Students will expand their awareness of health and safety practices, environmental and societal issues, and career opportunities in the food and beverage services sector.

**Prerequisite: Hospitality and Tourism, Grade 11, Workplace Preparation**

### **TGJ2O**

#### **Communications Technology**

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

This course introduces students to communications technology from a media perspective. Students will work in the areas of video and movie production, radio and audio production, print and graphic communications, photography, and interactive new media 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 will explore secondary

and postsecondary education and training pathways and career opportunities in the various communications technology fields.

### **TGJ3O**

#### **Communications Technology: Broadcast and Print Production**

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

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

### **TMJ2O**

#### **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 explore secondary and postsecondary pathways leading to careers in the industry.



**TMJ3E****Manufacturing Technology  
Grade 11, Workplace Preparation**

This hands-on, project-based course is designed for students planning to enter an occupation or apprenticeship in manufacturing directly after graduation. Students will work on a variety of manufacturing projects, developing knowledge and skills in design, fabrication, and problem solving and using tools and equipment such as engine lathes, milling machines, and welding machines. In addition, students may have the opportunity to acquire industry-standard certification and training. Students will develop an awareness of environmental and societal issues related to manufacturing and will learn about secondary school pathways that lead to careers in the industry.

**TMJ4E****Manufacturing Technology  
Grade 12, Workplace Preparation**

This project-driven, hands-on course builds on students' experiences in manufacturing technology. Students will further develop knowledge and skills related to the use of engine lathes, milling machines, welding machines, and other tools and equipment as they design and fabricate solutions to a variety of technological challenges in manufacturing. Students may also have opportunities to acquire industry-standard training and certification. Students will expand their awareness of environmental and societal issues and of career opportunities in the manufacturing industry.

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

**TTJ2O****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.

**TTJ3O****Transportation Technology: Vehicle  
Ownership  
Grade 11, Open**

This general interest course enables students to become familiar with the options and features of various vehicles, issues of registration, and the legal requirements affecting vehicle owners. Students will also learn about vehicle financing and insurance, vehicle maintenance, emergency procedures, and the responsibilities of being a vehicle owner. Students will develop an awareness of environmental and societal issues related to vehicle ownership and use, and will explore career opportunities in the transportation industry.

**TTJ4E****Transportation Technology: Vehicle  
Maintenance  
Grade 12, Workplace Preparation**

This course introduces students to the servicing, repair, and maintenance of vehicles through practical applications.

The course is appropriate for all students as a general interest course to prepare them for future vehicle operation, care, and maintenance or for entry into an apprenticeship in the motive power trades. Students will develop an awareness of environmental and societal issues related to transportation, and will learn about careers in the transportation industry and the skills and training required for them.

### **TXJ2O**

#### **Hairstyling and Aesthetics Grade 10, Open**

This course presents hairstyling, make-up, and nail care techniques from a salon/spa perspective. Using materials, processes, and techniques used in the industry, students learn fundamental skills in hairstyling, giving manicures and facials, and providing hair/scalp analyses and treatments. Students will also consider related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the field of hairstyling and aesthetics.

### **TXJ3E**

#### **Hairstyling and Aesthetics Grade 11, Workplace Preparation**

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

### **TXJ4E**

#### **Hairstyling and Aesthetics Grade 12, Workplace Preparation**

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

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

COURSE CALENDAR 2019-2020

# Mitchell District High School

