

*THROUGH LEARNING LIBERTY IS BORN*

# Horton High School

2016 -2017

## Course Registration Handbook



Inquiries are welcome

Phone: (902) 542-6060

Fax: (902) 542-6066

E-mail: [hhs@avrsb.ca](mailto:hhs@avrsb.ca)

Web: [hortonhighschool.ca](http://hortonhighschool.ca)

## TABLE OF CONTENTS

<b>General Information</b>	<b>Page</b>
The Coding System	1
Choosing Your Program	1
High School Graduation Diploma Requirements	1
Selecting the Courses	1
NSSAF Eligibility	2
Challenge for Credit and Independent Study Credits	2
Homeroom Grade Promotion Policy	2
Averaging/Honours	2
Guidelines for Understanding Scholarships, Bursaries and Awards	3
Student Services	3
Career Access Program	3
Options and Opportunities Program (O2)	4
AVRSB Fine Arts Certificate	4
International Baccalaureate Diploma Program	5
Advanced Placement Courses - Virtual	5, 6
Course Offerings by Department	7
Course Categories/Requirements Chart	39

### I. COURSE DESCRIPTIONS

#### GRADE 10

<b>Course Title</b>	<b>Course Code</b>	<b>Page</b>
Biology 11	BIOLOGY 11	25
Construction Technology 10	CNT 10	36
Core French 10	CORE FR 10	30
Drama 10	DRAMA 10	14
English 10	ENGLISH 10	10
Exploring Technology 10	EXP TEC 10	37
Food Technology/Preparation & Service	FOOD TEC 10	11, 37
Français-Immersion 10	FRA-IMM 10	31
Geography 10	GEOG 10	33
Histoire Ancienne et Med 10	HIS ANC 10	31, 34
History 10	HISTORY 10	34
Science 10	SCIENCE 10	28
Science 10 Support	SCI 10S	28
Mathematics 10	MATH 10	19
Math Essentials 10	MATH-E 10	17
Mathematics at Work 10	MTW 10	17
Music 10 (Instrumental)	MUS/INS 10	15
Physical Education 10	PHYS ED 10	22
Visual Arts 10	VIS ART 10	13

**GRADE 11**

<b>Course Title</b>	<b>Course Code</b>	<b>Page</b>
Accounting 11	ACC11	8
Advanced Art 11	ADV ART 11	13
Advanced Biology 11	ADV BIO 11	25
Advanced Chemistry 11	ADV CHEM 11	26
Advanced English 11	ADV ENG 11	10
Advanced Music 11	ADV MUS 11	15
Advanced Physics 11	ADV PHY 11	29
African Canadian Studies 11	AFR CAN 11	32
Biology 11	BIOLOGY 11	25
Business Technology 11	BUS TEC 11	8
Canadian History 11	CAN HIS 11	32
Chemistry 11	CHEM 11	26
Child Studies 11	CHLD ST 11	12
Communications Technology 11	COM TEC 11	36
Core French 11	CORE FR 11	30
Dance 11	DANCE 11	14, 22
Design 11	DESIGN 11	14, 36
Drama 11	DRAMA 11	14
Economics 11	ECON 11	32
Energy/Power/Transportation 11	ENERGY 11	36
English 11	ENGLISH 11	10
English/Communications 11	ENG/COM 11	10
Français-Immersion 11	FRA-IMM 11	31
Geography 11	GEOG 11	33
Histoire du Canada 11	HS CA 11	31
Human Biology 11	HUM BIO 11	28
Mathematics 11	MATH 11	19
Mathematics Essentials 11	MATH-E 11	17
Mathematics Extended 11	MTEXT11	20
Mathematics at Work 11	MTW11	18
Mi'kmaq Studies 11	MST 11	35
Mode de Vie Actif 11	MODE DE VIE ACTIF	31
Music 11	MUS 11	15
Oceans 11	OCS 11	28
Physically Active Living 11	PH AC LV11	22
Physics 11	PHYSICS 11	29
Pre-Calculus Mathematics 11	PRE CAL 11	20
Production Technology 11	PRO TEC 11	38
Tourism 11 (Immersion)	TOU 11 IMM	31
Yoga 11	YOGA 11	23

## GRADE 12

<b>Course Title</b>	<b>Course Code</b>	<b>Page</b>
Advanced Placement Biology 12 - <i>Virtual</i>	AP BIO 12	6
Advanced Placement Calculus 12 - <i>Virtual</i>	AP CAL 12	6
Advanced Placement Chemistry 12 - <i>Virtual</i>	AP CHEM 12	6
Advanced Placement English Literature 12 - <i>Virtual</i>	AP ENG LIT 12	6
Advanced Placement Human Geography 12 - <i>Virtual</i>	AP HUM GEO 12	6
Advanced Art 12	ADV ART 12	13
Advanced Biology 12	ADV BIO 12	26
Advanced Chemistry 12	ADV CHE 12	27
Advanced English 12	ADV ENG 12	11
Advanced Music 12	ADV MUS 12	16
Advanced Physics 12	ADV PHY 12	30
Art 12	ART 12	13
Biology 12	BIOLOGY 12	26
Business Management 12	BMAN 12	9
Calculus 12	CALCULUS 12	21
Canadian Families 12	CAN FAM 12	12
Chemistry 12	CHEM 12	27
Communications Technology 12	COM TEC 12	36
Co-operative Education 12	CO-OP ED 12	9
Core French 12	CORE FR 12	30
Drama 12: Theatre Arts	DRAMA 12	14
Droit 12	DROIT 12	32
English 12	ENGLISH 12	10
English/Communications 12	ENG/COM 12	10
English 12: African Heritage	ENG 12:AH	11
Film and Video Production 12	FLM VID 12	14, 37
Français Immersion 12	FRA-IMM 12	31
Geology 12	GEOL 12	27
Global Geography 12	GL GEOG 12	34
Global History 12	GL HIST 12	34
Histoire Planétaire 12	HIS PLA 12	32
Law 12	LAW 12	35
Mathematics 12	MATH 12	20
Mathematics at Work 12	MTW 12	18
Multimedia Art 12	MLT MED 12	15, 37
Music 12	MUS 12	16
Physical Education 12	PHYS ED 12	23
Physical Education Leadership 12	PE LEAD 12	23
Physics 12	PHYSICS 12	29
Political Science 12	POL SCI 12	35
Pre-Calculus Mathematics 12	PRE-CAL 12	21
Production Technology 12	PRO TEC 12	38
Sociology 12	SOCIOL 12	35
Sociology 12: Academic	SOC 12: ACAD	35
Textile Technology 12	TEX TEC 12	12, 38

## HORTON HIGH SCHOOL



### THE CODING SYSTEM

Each course description in this booklet is identified by: course title, grade level, credit type (academic, advanced, graduation or open) and credit value (one credit or ½ credit).

The description for each credit type is as follows:

Academic – These courses are designed for students who expect to enter college, university or other post-secondary institutions.

Advanced – These courses are designed to meet the needs of students who have demonstrated an exceptional degree of academic ability or achievement.

Graduation – These courses are designed for students who wish to obtain a graduation diploma with a view to proceeding to employment or some selected area of post-secondary study.

Open – Although none of these courses is designed to meet the specific entrance requirements of any post-secondary institution, individual courses may meet entrance requirements and they can be useful for all students in providing for a well-rounded education.

### CHOOSING YOUR PROGRAM

Students going into grade ten at Horton will find a wide variety of courses offered at different levels of ability and interest. All of these courses will lead to a **Nova Scotia High School Graduation Diploma**. If you plan to attend university, you should concentrate on courses identified as **Academic** or **Advanced**, although some **Open** credits are permissible. If you recognize that you are not going to attend university, you should still take a majority of **Academic** courses if you can cope with the expectations at that level. The majority of community colleges accept all credit types (Academic, Advanced, Graduation and Open) but many require academic credits for specific programs. It is anticipated that some students will graduate having completed a program of mostly university preparatory courses. Some will graduate with a combination: Academic, Advanced, Graduation and Open category courses. You should talk with your parents, teachers and guidance counselors when making decisions about courses and how they affect your future.

Post-secondary institution requirements are constantly changing; therefore, students need to regularly check the entrance and the program requirements. These are easily accessed through the institutions' web sites and calendars.

### HIGH SCHOOL GRADUATION DIPLOMA REQUIREMENTS

Please see the chart on the inside back cover for details. Please note that students cannot receive credit for two courses in the same subject at the same grade level. For example, a student cannot receive credit for both Math 10 and Math at Work 10 (MTW 10), BIOLOGY 11 (BIO 11) and Human Biology (HUM BIO 11), nor for both ENGLISH 12 and English/Communications (ENG/COM 12). One exception includes math. Students should consult with their guidance counselor for details. It is the student's responsibility to make sure that he or she chooses and has the right credits necessary for graduation.

### SELECTING THE COURSES

Horton High School operates on a semester system. Students in grades 9 and 10 will register for 8 credits per year. Students in grade 11 will register for a minimum of 7 credits. Except for special circumstances, students in grade 12 will register for a minimum of 6 credits. Returning graduates will meet with administration to determine the courses for which they will register. Students are encouraged to meet with their guidance counselor if they have questions about course selections and post-secondary admission requirements.

## ***NSSAF ELIGIBILITY***

In order to be eligible to participate in a Nova Scotia School Athletic Federation-sponsored activity, a student must be taking at least three (3) courses during the semester that the activity is taking place.

**It may not be possible to schedule all the courses requested by all students. There may be courses with insufficient enrollment; some courses will be in conflict with each other within an individual student's timetable; courses may have enrollments that exceed the maximum capacity of the course.**

Grade 10 students should develop a three-year plan in which they are careful to select courses to satisfy graduation requirements and to establish a basis for the remaining two years in high school.

**Please Note:** No more than 7 grade ten level credits can be used for graduation requirements.

Students and parents are encouraged to look ahead to possible post-secondary programs and to consult calendars from these institutions for particulars. **NOTE:** Not all academic courses are accepted by all universities. Completing ENG 12 and four other academic courses does not guarantee admission to all universities. The counselors will be able to assist in course selection and in providing information on post-secondary entrance requirements; however, the ultimate responsibility for course selection rests with the student and the parents.

All students should be in direct touch with **Student Services** regarding the appropriate selection of courses to gain entrance to various programs after high school graduation, as well as for scholarship requirements.

## ***CHALLENGE FOR CREDIT AND INDEPENDENT STUDY CREDITS***

An opportunity is now available for students to achieve high school credit for courses through Challenge for Credit and Independent Study.

Challenge for Credit involves a process for senior high school students to demonstrate that they have achieved learning outcomes as defined in the Department of Education and Culture's Public School Program and the curriculum guide for a specific course. Students are limited to no more than two credits at each grade level for a maximum of six credits toward graduation. Challenge can be made in Fine Arts (Music, Art and Drama), Languages (French, German and Spanish), Mathematics and Physical Education. The deadline for The Notice of Intent to Challenge is October 7<sup>th</sup>. Application forms are available at Student Services.

Independent Study Credits provide students an opportunity to initiate and develop courses tailored to their needs, abilities and interests under the guidance and supervision of the course-related mentoring teacher. This option is open to students of grades 11 and 12 who may earn a maximum of two independent study credits toward graduation. Interested students must check with their teachers and guidance personnel for further details. Application forms are available at Student Services. The first steps to the application procedure are made in the spring. Approvals, arrangements with an advisor, and all other details must be completed by September 26<sup>th</sup>. Students cannot acquire a course listed in the Nova Scotia PSP but must create their own course based on strengths and interest.

## ***HOMEROOM GRADE PROMOTION POLICY***

Students are placed in homerooms prior to the beginning of school in September. Students must have at least five credits to be eligible for placement in a grade 11 homeroom and ten credits to be eligible for placement in a grade 12 homeroom. Only students scheduled with sufficient courses to graduate in June are eligible to be placed in a grade 12 homeroom.

## ***AVERAGING/HONOURS***

Students in grade 9, 10, or 11 must achieve a minimum average of 80% from 6 credit courses to receive Honours. Students in grade 12 must achieve a minimum average of 80% in five credit courses. Students with an average of 90% or higher will receive "Honours with Distinction." Students attending for 1 semester only require 3 courses to be eligible for "Honours" and "Honours with Distinction".

**Please Note:** Students cannot receive Honours or Honours with Distinction if they fail any courses.

## ***GUIDELINES FOR UNDERSTANDING SCHOLARSHIPS, BURSARIES AND AWARDS***

Scholarships, bursaries and awards are contributions from individuals, community organizations, service clubs, government and professional associations. The competition for these awards can be at a national, provincial or local level. Each application states the level, sponsor, criteria, instructions, and description of the award and deadline.

**Scholarships** are amounts of money, based upon academic achievements and usually require evidence of school and community involvement or leadership.

**Bursaries** are based upon the financial need of the individual within a family/dependent situation. Sometimes the student is asked to give supporting documents of the picture. The definition of “financial need” varies with each sponsor.

**Awards** are forms of recognition that can be in the form of a financial amount or a certificate for special contribution or achievement. The criteria in each application are usually specific. Students who have worked hard and have supporting character references should be encouraged to apply. There are only a few awards that are applied for in the fall and these require a grade 11 record of marks. Applications for President/ Chancellor National scholarships are due for Ontario universities from December to March. The majority of universities base their entrance scholarships on a student's February marks, but it is essential that students know the system for each post- secondary institution that interests the student. Students and parents/guardians can reach the school database on local bursaries and scholarships by going to our website. When new information arrives in the school, this information is included in the daily announcements.

Students and parents/guardians can check the daily announcements by going to the Horton Website at [www.hortonhighschool.ca](http://www.hortonhighschool.ca). Awards and opportunities are on-going from September to June on the web page link called “Scholarships”. Students, parents/guardians can also access information in the Student Services' files.

## ***STUDENT SERVICES***

The Student Services Department at Horton is designed to assist students—individually and in small groups—as well as teachers. At the present it is comprised of two guidance counselors, four resource teachers and a Career Access Program. This department is also responsible for facilitating Individual Program Plans (IPP) and Individual Transitional Plans (ITP). Identified students receive assistance in a small group setting with individualized test and exam schedules being arranged as appropriate. Additional assistance for students can be obtained from Public Health, Board Program Advisors, Speech and Hearing Consultants, a Work Experience Coordinator, an Addictions Counselor and a RCMP Liaison Officer.

### ***The Counseling Centre***

The counseling centre is part of student services. The counseling program relates to the personal, social, academic, and career development of students. Please contact Jacqueline Langille to book a guidance/counseling appointment.

## ***CAREER ACCESS PROGRAM***

Career Access provides students with an opportunity to develop employability skills while achieving their High School Graduation Diploma. Students may enter the Career Access program at any grade level. The Career Access Program is primarily designed for students who are going to enter the work force after graduation. The students wishing to pursue their high school education through Career Access will:

- make application to enter the program, participate with their parents/guardians in an interview process;
- be at least sixteen years of age;
- attend school two days each week and spend the three remaining days in a work setting;
- while in the work place, assume the same responsibilities as their co-workers;
- attend work experience on the days specified during school hours;
- be monitored closely by the work experience coordinating teacher;
- attend all scheduled classes while in school;
- complete all assigned school work;
- display a positive attitude in school and at the workplace.

While on work experience, students are covered by a blanket insurance policy through the Annapolis Valley Regional School Board.

## ***OPTIONS AND OPPORTUNITIES***

### ***(O2)***

The AVRSB is offering opportunities for schools to provide programs that will engage students in skills based learning opportunities through an Academy approach. Academies are clusters of courses that focus on developing skills in particular lifework/career pathways. The AVRSB has developed a list of criteria that would qualify students to receive a certificate celebrating a student's successful completion of a cluster of related courses.

The certificate is presented to qualifying students at Graduation in addition to the NS High School Leaving Certificate.

Through this initiative, Horton High School is offering an opportunity for students considering the Options & Opportunities program to complete an application form. All applicants must undergo an interview process before being scheduled into the Academy.

**Applications may be picked up from Student Services or from the Horton High School Lead teacher.**

In order to receive the Options & Opportunities Certificate, students must complete high school graduation requirements. In addition to these requirements, students must successfully complete mandatory O2 credits:

- Career Development 10
- Community Based Learning 10
- Career Development 11
- Workplace Health & Safety 11
- Cooperative Education (4 credits of 100 hour placements)

Students may choose to focus on an academic stream for course selection or those more suitable to their post- secondary needs.

## ***AVRSB FINE ARTS CERTIFICATE: IN BRIEF***

Do you feel at home in the arts? If you are taking courses in any combination of music, drama, visual art, or dance, at school or in the greater community, then you may be a candidate for an AVRSB Fine Arts Certificate. Upon graduation, this certificate would indicate to post-secondary institutions that you are committed to the arts and have had an art education that promotes excellence, rigor, and life-long learning in and through the arts.

The AVRSB Fine Arts Certificate is designed for students who wish to develop their potential in Visual Arts, Music, Dance and/or Drama. An arts education offers you unique ways of knowing and experiencing your world and who you are. Moreover, an arts education can help prepare you for a successful career in Canada's largest growth sectors, particularly culture and information technologies.

Students are eligible to receive an AVRSB Fine Arts Certificate for producing a portfolio of 12 art works and by earning 5 arts credits (among music, art, drama and dance) taken throughout grades 10, 11, and 12. While Design 11, Film and Video Productions 12 are not courses that can be used to satisfy the graduation component of earning a fine arts credit; these courses may be used towards earning an AVRSB Fine Arts Certificate.

For more information, please inquire through your arts teacher or guidance counselor.

## IB DIPLOMA PROGRAM



Horton is officially authorized by the International Baccalaureate Organization to offer the IB Diploma Program, becoming part of the IB global family of 3000+ schools throughout 140 countries. This comprehensive approach to learning emphasizes academic excellence and fosters personal development by encouraging community service and involvement in creative and physically active pursuits. This free, open access, alternate pathway through grades 11 and 12 is truly a gift, as the inherent value of the program provides unique perspectives and experiences that are specific to IB. Contact Mr. Fuller (IB Coordinator) via email ([jasfuller@gnspe.ca](mailto:jasfuller@gnspe.ca)) or in person, for a separate course registration booklet pertaining to both pre-IB and IB. More details about the program and specific course descriptions can be found on the Horton website using the “Students” link then clicking on “IB Diploma Program”.

Did you know that the IB Diploma Program:

- **Holistic Program: The IB is a course of study made up of six areas which are studied concurrently. Students also take a class called Theory of Knowledge, write a senior research project (Extended Essay), and complete 150 Creativity, Action and Service hours**
- **Asks “why” more than “what”**
- **Significant accountability for teacher and student**
- **Graded world-wide**
- **Multiple Assessments: Essays, orals, and projects, performances in addition to the written exam, determine the final score (1-7)**
- **Emphasizes process and integration of content across content areas—process, application, integration**
- **IB students may also sit for AP exams if they choose**

## ***AVRSB VIRTUAL ADVANCED PLACEMENT (AP) COURSES***

### **AVRSB VIRTUAL ADVANCED PLACEMENT (AP) COURSES**

AP courses provide the rigor and depth beyond the academic or advanced courses. Students, working virtually online with their AP teacher, cover a College Board approved curriculum and prepare to write external exams in May. Due to the nature of the curriculum and exam, most colleges and universities in Canada and the United States grant students credit, placement, or both for qualified AP exam grades. Students enrolling in AP courses must be highly motivated, have good time management skills and be capable of independent study. It is likely that the online instruction would take place before or after regular school hours. The AVRSB Virtual Advanced Placement Program allows students in every school to choose from the following five courses. For more detailed information on the Virtual AP courses, please visit the AVRSB website at <http://www.avrsb.ca> and click on the **Families** link and follow the **Advanced Placement** link on the left.

### **Advanced Placement Biology 12 (AP BIO 12)**

#### **Advanced, 1 credit**

AP Biology is designed to offer students a solid foundation in introductory university-level biology. In this course, you will be held to high expectations and mature responsibilities just like a university freshman taking Intro Biology. What we know today about biology is a result of inquiry. Science is a way of knowing. Therefore, the process of inquiry in science and developing critical thinking skills is the most important part of this course. This course will emphasize how scientists use their observations and readings to ask questions that can lead to new experiments. These experiments build on the work of others and eventually lead to additional evidence on different topics. This investigative process will be used throughout this AP Biology course. It is important for students to become excited with discovery as they ask and answer their own questions about natural/biological phenomena that they see, read about, or experience in the laboratory and field. Students meet virtually with the instructor twice per week beginning in September, ending upon completion of the AP Biology exam in May. Also, students will be required to travel to the lab site for two full day labs along with four after-school (2:00-5:00) labs.

### **Advanced Placement Calculus 12 (AP CAL 12)**

#### **Advanced, 1 credit**

AP Calculus 12 (Calculus AB) presents the rigor and depth comparative to introductory university calculus. The focus of this course includes both a study of differential calculus and integral calculus. As well, the AP Calculus course contains topics to develop rich problem-solving skills. Students meet virtually with the AP Calculus teacher twice per week beginning in September, ending upon completion of the AP Calculus exam in May. AP Calculus is designed to have a pre-requisite of Math 11 and Pre-Calculus 11 and a co-requisite of Pre-Calculus 12.

### **Advanced Placement Chemistry 12 (AP CHEM 12)**

#### **Advanced, 1 credit**

The AP Chemistry 12 course is equivalent in depth and breadth to an introductory university chemistry course. The AP Chemistry course is a content-intensive course that expands on many of the topics covered in Chemistry 11 Advanced and Chemistry 12 Advanced with some additional topics such as Gas Laws. Throughout the course there is an emphasis on inquiry and critical thinking skills including: problem solving, mathematical reasoning, and experimental investigations. Students meet virtually with the instructor twice per week beginning in September, ending upon completion of the AP Chemistry exam in May. The AP Chemistry course is enhanced by more than 20 laboratory experiments and activities that are part of the course requirements. The AP Chemistry course is designed to have a pre-requisite of Advanced Chemistry 11 or Chemistry 11 and Math 11 and a co-requisite of Math 12. Also students will be required to travel to West Kings to undertake periodic AP chemistry labs. These are done from 2:00 PM – 5:00 PM in the afternoon of selected days throughout the year (approximately once a month).

### **Advanced Placement English Literature and Composition 12 (ENG LIT AP 12)**

#### **Advanced, 1 credit**

This AP English Literature and Composition 12 course provides students with an enriched program of study on literature and writing, using a variety of texts as the means to achieving this goal. The course explores literary elements such as a work's structure, style and themes, as well as the use of figurative language, imagery, symbolism and tone. It seeks to develop your writing skills as you express your ideas and analysis in expository, analytical, and argumentative essays. Course work is accelerated. Students meet virtually with the AP English teacher twice per week beginning in September, ending upon completion of the AP English exam in May. The AP English credit does satisfy the requirements as a third NS English credit. The AP English course is designed to have a pre-requisite of Advanced English 11 or English 11.

### **Advanced Placement Human Geography (AP HUM GEO 12)**

#### **Advanced, 1 credit**

The Human Geography course is designed to be the equivalent of an introductory human geography course usually taken by geography majors during their first year of university. This course is an in-depth, content-intensive study of geographic concepts/topics and models dealing with all aspects of human geography. Students meet virtually with the AP Human Geography teacher twice per week beginning in September, ending upon completion of the AP Human Geography exam in May. The AP Human Geography credit does satisfy the global studies requirements for Nova Scotia graduation. Having some Geography background will be an asset but not required. Having a strong academic background, being self-motivated, outgoing and comfortable with completing work independently are ingredients for successful learning in the course.

## *Course Offerings by Department*

<i>Course</i>	<i>Page</i>
<i>Business Education</i>	<i>8</i>
<i>Career Education</i>	<i>9</i>
<i>English</i>	<i>9</i>
<i>Family Studies</i>	<i>11</i>
<i>Fine Arts</i>	<i>13</i>
<i>Mathematics</i>	<i>16</i>
<i>Physical Education</i>	<i>21</i>
<i>Science</i>	<i>24</i>
<i>Second Language (French)</i>	<i>30</i>
<i>Social Studies</i>	<i>32</i>
<i>Technology Related Education</i>	<i>36</i>

## BUSINESS EDUCATION

None of the courses offered under the heading of business education are compulsory in order for a student to graduate, but the courses do cover an important series of skills that all students would benefit from mastering. Grade 12 students, for example, who are not fully timetabled, should give serious consideration to enrolling in a business education course.

As of the fall of 2004, the Annapolis Valley Regional School Board offers a **Business Education Certificate** to those students who take a concentration of courses with a business background. Below are the requirements to receive this certificate upon graduation from high school:

13 required courses by the province of Nova Scotia

*Plus:*

Accounting 11

Business Management 12

Business Technology 11

*One computer-related business technology course such as:*

Communication Technology 11 or 12

Multimedia 12

Film & Video 12

Design 11

*One other course from:*

Economics 11

Law 12

Political Science 12

Sociology 12

-Students must complete an application form as well as:

- current life-work portfolio

- community-based education experience related to business: job shadow, test drive, work experience, cooperative education placement, mentorship, volunteer experience, entrepreneur venture.

### **Accounting 11**

**(ACA 11) Academic, 1 credit**

#### Accounting 11

The aim of Accounting 11 is to provide the opportunity for students to develop the problem-solving and decision-making skills used to interpret accounting and financial information. Students will be able to connect accounting theory and concepts in authentic situations through case studies. Emphasis will be placed on the accounting cycle, which includes opening entries, transaction analysis, financial statements, adjustments, and end-of-fiscal-period work.

Students will research careers and opportunities in the field of accounting. They will increase their awareness of employability skills as they relate to the work environment, and develop accounting skills that may lead to successful employment.

There are five modules: Beginning the Accounting Cycle, Completing the Accounting Cycle, Cash Control and Banking, Subsidiary Ledgers, and Careers in Accounting. This course is an **academic credit** and will fulfill a **requirement for the AVRSB Business Education Certificate**.

### **Business Technology 11**

**(BUS TEC 11) Academic, 1 credit**

Business Technology 11 introduces students to a range of business productivity software tools and their applications. The course consists of five modules. In Module 1, students will learn proper keyboarding technique and develop speed and accuracy in touch keyboarding. In Module 2, students will integrate their proficiency in touch keyboarding to design and apply document processing skills using Microsoft Word. In Module 3, students will learn to apply the principles and practices of spreadsheet software, including charting, using Excel. In Module 4, students will apply the principles and practices of desktop publishing, using Word and/or Publisher. Module, 5, computers and technology, will be integrated throughout the course.

NOTE: This course is considered a **technology credit** and will fulfill a **requirement for the AVRSB Business Education Certificate**.

## **Business Management 12**

### **(BMAN 12)**

#### **Academic, 1 credit**

Business Management 12 is recommended for students interested in pursuing business as a career. This course will reflect change in our economic and business environment and will provide valuable analytical, problem solving and communication skills through an understanding of how companies operate and are managed from both an employer and employee perspective.

Students will be required to do an independent research project and write a final exam.

Business Management 12 is an **academic credit** and will fulfill a **requirement for the AVRSB Business Education Certificate**.

## ***CAREER EDUCATION***

### **Co-operative Education**

#### **(CO-OP ED 12)**

#### **Academic/Open, 1 credit**

Co-operative Education is open to grade 11 and 12 students. It is a unique educational partnership between the student, the school and employers. Students can take Co-op more than once, getting a credit for each course. No matter whether you are headed for university, college or right out to work after high school, this course is a really practical way to explore careers; help to define your plans for the future; and make sure you are on the right track for a career that matches your talents, skills and personality. It will also give you the chance to learn what qualities and skills employers are looking for. Co-op placements can be found in business, the trades, the arts, the service industry, professions (e.g. dentistry), human services and more.

Co-op is comprised of three main components:

- In-school preparation: workplace skills such as First Aid and WHMIS training, career research, resume/portfolio building and interview preparation;
- Out-of-school work placement of 100 hours;
- Reflective learning: occasional in-school sessions after work placements are underway.

Students apply to participate in this program and are selected based on maturity and ability to commit to a work placement while continuing to be successful in their other courses. Students register for Co-op Education on the course selection form, and will be interviewed and chosen before the end of the current school year. Students who plan to attend university should check with Student Services to ensure their credit requirements are met. \*Please note: there is an option to complete this course over the summer. Please register as above and discuss this during your interview in May. For more information please visit <http://www.ednet.ns.ca/coop/>

## ***ENGLISH***

Students must have three English credits to graduate, one from each grade level.

Grade 10 students must register for ENGLISH 10.

Grade 11 students may register for ADVANCED ENGLISH 11, ENGLISH 11 (Academic), or ENGLISH COMMUNICATIONS 11 (ENG/COM 11).

Grade 12 students may register for ADVANCED ENGLISH 12, ENGLISH 12 (Academic), ENGLISH COMMUNICATIONS 12 (ENG/COM 12), or ENGLISH 12: AFRICAN HERITAGE.

Students who wish to attend university and some colleges MUST register for ENGLISH 11, ADVANCED ENGLISH 11, followed by ADVANCED ENGLISH 12, ENGLISH 12 or ENGLISH 12: AFRICAN HERITAGE, or AP ENG 12 (virtual).

Students whose goals include attending community colleges or entering directly into the workforce, might choose the non-academic program, English Communications. Any student with concerns about his or her ability to successfully complete academic courses should consider English Communications 11 and 12. Students who are not sure should consult with their English teacher and the Guidance Counselor.

## **English 10**

### **(ENG 10)**

#### **Academic, 1 credit**

This English Language Arts credit is required of all students for graduation. The curriculum and learning environment in ENGLISH 10 is flexible enough to accommodate a wide range of student backgrounds, abilities and interests. The course is a balance of the three main strands of Language Arts: *Reading and Viewing*, *Speaking and Listening* and *Writing and Representing*. Many of the ELA Outcomes focus around the ideas of “writing for a specific purpose for a specific audience”, “reading for deeper meaning” and “expressing and sharing opinions in detail”.

## **Advanced English 11**

### **(ADV ENG 11)**

#### **Academic, 1 credit**

Advanced English 11 offers a challenging curriculum for self-motivated students with a passion for language, literature and learning. This course is characterized by enriched content and extended curriculum outcomes. Learning experiences in Advanced English 11 focus on in-depth treatment of selected topics and sophisticated texts, independent learning and reflection, extended research projects, creation of texts and inter-related learning experiences.

A student who demonstrates several, or all, of the following attributes may be interested in Advanced English 11:

- Has a passion for language, reading, writing and literature
- Is a proficient writer, eager to develop a range of writing
- Is a conscientious, self-directed learner
- Is an avid reader
- Explores contemporary and non-contemporary literature in a variety of genres
- Challenges comfort levels by taking risks as a reader and writer
- Contributes enthusiastically to collaborative learning experiences
- Relishes sophisticated learning experiences
- Explores creative potential and imagination in a variety of ways
- Is inquisitive, reflective, and
- open to new ideas
- Is intrigued by diverse interpretations of a text or event
- Seeks to comprehend and connect complex ideas and perspectives (e.g. the “big picture”)

## **English 11**

### **(ENGLISH 11)**

#### **Academic, 1 credit**

#### **And**

## **English 12**

### **(ENGLISH 12)**

#### **Academic, 1 credit**

ENGLISH 11 and ENGLISH 12 are academic courses intended for students whose goals include post-secondary academic studies, particularly at universities. These courses focus on increasingly complex and sophisticated literary and other texts. Students will learn to be more perceptive, analytical and critical as they study novels, stories, poetry, drama and non-fiction. At Horton, the literature studied ranges from medieval literature, through Shakespeare, to contemporary writing. Students will learn to express themselves in a variety of forms, with increasing confidence and competence.

## **English /Communications 11 (ENG/COM 11)**

### **Graduation, 1 credit**

#### **And**

## **English/Communications 12 (ENG/COM 12)**

### **Graduation, 1 credit**

English Communications courses are intended primarily for non-university-bound students and are designed to engage students in practical, yet interesting language experiences closely related to their lives and the world. These courses are designed to be flexible, meeting individual student needs and interests. A student who completes ENG/COM 11 could move into ENGLISH 12, but any student considering this should consult with teachers and the guidance office.

## **Advanced English 12 (ADV ENG 12)**

### **Academic, 1 credit**

Students in Advanced English 12 must be committed and independent learners. Students must be prepared to read extensively for this course. The course parallels the Academic English 12 course, but includes additional readings, concepts and assignments. The Department of Education for the Province of Nova Scotia intends that this course balance learning experiences in three required areas: in-depth treatment of selected topics, independent learning and reflection, and extended research projects/case studies and related activities.

A major focus of the course is to prepare students for post-secondary education. Sophisticated and challenging plays, short stories and novels will be used to stimulate creative, critical thinking and writing. Process writing will be an added dimension to the course. Students should have the expectation of being actively and fully involved in the learning process.

Students of Advanced English 12 must expect to work hard and it is recommended that students taking this course have achieved 80% or higher in English 11 or Advanced English 11.

## **English 12: African Heritage (ENG 12: AH)**

### **Academic, 1 credit**

English 12: African Heritage is designed to prepare students to meet key stage outcomes for Grade 12: Speaking and Listening; Reading and Viewing; and Writing and Other Ways of Representing, through a variety of learning and teaching strategies, and assessment practices. This course will engage students in a critical and analytical response to numerous literary texts, with a major focus on African Heritage, including: short fiction, the novel, poetry, spoken word, and various elements of African oral traditions. Students are given increased opportunities to demonstrate their ability as thoughtful, critical readers/viewers of literary and other texts. Effective argument is emphasized in oral, written forms and other ways of representing. English 12: African Heritage fulfills the English language arts requirements for graduation and is accepted by universities for admission purposes.

## ***FAMILY STUDIES***

Family Studies courses are concerned with all aspects of daily living including: human relationships and development, resource management, consumerism, foods and nutrition, clothing and textiles, technology integration and aesthetics.

## **Food Technology, Preparation and Service 10 (FOOD TEC 10)**

### **Open/Tech, 1 credit**

Food Technology, Preparation and Service, an ideal course for students wishing to gain skills in production style food preparation with an understanding of technology and public food service. It is officially composed of two half credit courses that we offer (in combination only) for a full credit:

#### Food Technology

Food Technology 10 (Open) is one of the half-credit options that may be used towards a technology credit for graduation purposes. It is an exciting course in which students explore food technology for the home and industry. This course takes students from a historical perspective to understanding current technology and encourages them to anticipate future developments in food preparation, food preservations, and consumer practices. Each unit has a theory and practical component. Students sample foods prepared using various technologies and examine issues such as genetic modification, organic food production, and the impact of kitchen and industrial food technology on families and the environment.

#### Food Preparation and Service

Food Preparation and Service 10 (Open) is one of the half-credit options that may be used towards a technology credit for graduation purposes. Through food preparation and presentation students develop skills which may be transferred to food service skills in the workplace. Students are provided with practical experiences in food preparation and service. They look at the impact of technology on the preparation of food in the home and the workplace. Topics include: meal planning and preparation, food service and hospitality, food handling procedures, health and safety in the food industry and food marketing.

## **Child Studies 11**

### **(CHLD ST 11) Open, 1 credit**

Child Studies 11 (Open) is a Family Studies credit emphasizing child development and parenting skills. The purpose of this course is to develop in students the knowledge, skills and attitudes which would best prepare them to be responsible caregivers. Students will study human reproduction, pregnancy, and childbirth. The course will take students through the development stages of the newborn, toddler, and preschooler. Students will participate in individual and group projects, class discussions, and the preparation of creative and inexpensive play materials for young children. Students will gain an understanding of self through the study and observation of children. Students will have the opportunity to experience parenting through the use of “Baby Think It Over”, a computerized baby simulator. Students will also participate in an in-school practicum by participating with the children enrolled in the Horton High School Childcare Centre. Evaluation will be based on homework, assignments, quizzes, tests, projects and practicum.

## **Canadian Families 12**

### **(CAN FAM 12) Open, 1 credit**

Canadian Families is a course designed to develop an understanding of the nature of families, reflecting the diversity that is represented in today's society. The family is examined in historical, social, cultural and global contexts.

This course is developed around three modules:

- Images of Families (historical perspective, families today, families in later life, families of the future).
- Living in Families (family economics, families and work, family shelter).
- Family Well-being (family health, family crisis, family law).

Students will participate in two community-based projects, as well as complete the Mock Marriage project. Evaluation will be based on assignments, community practicum, tests, projects and exams.

## **Textile Technology 12**

### **Open/Tech, 1 credit (TEX TEC 12)**

Textile Technology 12 combines theory with a hands-on approach to fashion and fibre arts. It is an exciting course for those interested in fashion, craft and art, as well as technology and materials science. The curriculum is designed to encourage students to develop advanced skill sets related to textile arts and technologies. Textile Technology 12 can be used as one of the five credits needed to earn the AVRSB Fine Arts Certificate. Students will develop a portfolio of work and a final textile project to demonstrate their learning in the following areas:

Creating Fabrics: Students will explore the characteristics of various textiles that are developed for the apparel industry, household usage and other applications. Textile development and production such as weaving, knitting and felting will be explored through artistic expression.

Elements and Principles of Textile Design:

Students will learn to apply an understanding of design to textile selection. Students will interpret the principles and elements of design on finished textile goods.

Textile Construction Tools: Students will learn about various technologies related to the textile industry: sewing, pressing, embellishment, applying finishes/designs, pattern creation. Where available, students will develop competency with the technology.

Textile Production: Students will apply problem solving skills to create or adapt textile designs to address issues of end use, efficiency or economy. Students will develop and apply consumer skills to managing a textiles budget. Students will use recycled textile items for project work.

Aesthetic and Cultural Appreciation:

Students will research the evolution of the textile arts and the factors that impact textiles such as culture, industry and geography.

Life Work Skills: Students will learn to identify lifework connections to textile skill development and explore career opportunities related to the textile industry.

Independent Study: Students will be expected to create and share a culminating textile project that illustrates their skill and knowledge development throughout this course.

## FINE ARTS

To graduate, all students must have a minimum of one Fine Arts credit.

**Please Note:** Although Design 11, Film Video 12 and Multimedia 12 are not courses that can be used to satisfy the graduation component of earning a fine arts credit, these courses may be used towards earning an AVRSB Fine Arts Certificate.

### Visual Arts 10

#### (VIS ART 10)

##### Academic, 1 credit

Art 10 students experience art making and investigate art history and techniques through drawing, painting, printmaking, sculpture, and computers. It is a fundamental goal of this course to help students explore their own identity and to creatively express themselves. This course promises to provide students of all abilities with exciting and fun opportunities to be creative. Art 10 satisfies the fine arts credit requirement for graduation.

### Advanced Art 11

#### (ADV ART 11)

##### Advanced, 1 credit

Advanced Art 11 is for students who, through their rigor and passion for art making, have demonstrated an outstanding commitment to the visual arts. Advanced art students are serious about art making and are able to work independently. Though there are assigned art projects, much of this program is self-directed so students will have the opportunity explore modes of art production and to begin to create a body of work.

Advanced Art 11 has four components: Studio or Portfolio Development, the Investigative Workbook, Community Connections (working with artists in the community), and Exhibition.

Students registered for this program will be expected to have reached a high level of achievement in their Art 10 course and be able to demonstrate advanced maturity and excellence in their drawing and overall artistic endeavors. Advanced Art 11 is offered as a one credit, intensive program to run along with the IB Visual Art SL course. Students in this program may have the opportunity to make this experience a two-year program, continuing their advanced art education in Advanced Art 12.

### Art 12

#### (ART 12) Academic, 1 credit

Continuing on skills learned in Art 10, Design 11 and/or Advanced Art 11, students in this course will take on the challenge of exploring and creating art through various media and techniques. While developing higher order skills in observational drawing, students will also stretch their imagination and capacity in the creation of large artworks. Other components of this course include art history and theory, drawing, and the organization of a portfolio, which may be used for application to post-secondary studies in an art or design-related program. Much of this course is self-directed and it depends on a student's self-motivation. This is a rigorous academic course, ideal for those who take art seriously and are considering pursuing art studies beyond high school.

### Advanced Art 12

#### (ADV ART 12) Advanced, 1 credit

Advanced Art 12 is for students who have an unrelenting hunger to make visual art. Students who are enrolled in Art 12 and can demonstrate an ability to meet all deadlines with work that demonstrates excellence and rigor may apply to be part of the Advanced Art 12 program. This course is for the students with a NEED for deeper opportunities to explore and grow with art. This will enable students to build a portfolio that shows personal creativity, rigor, and excellence. This course will help you prepare a university entrance portfolio. Students will be expected to:

- be self-motivated to produce strong observational drawing, showing confident technical ability (e.g. figures, still life and landscape);
- commit to maintaining a studio practice outside of class time;
- work outside of their comfort zone;
- talk and write about art;
- be endlessly curious and research; and
- curate a public art exhibit.

**Dance 11**  
**(DANCE 11)**

**Academic, 1 credit**

Dance 11 is designed for all students, with or without previous formal dance training, and builds on a student's experiences in dance throughout the physical education curriculum, grades primary to nine. It emphasizes creative movement as a form of communication and self-expression, as a unique way of learning about oneself and others. Learning experiences in this course offer students opportunities to explore a range of dance styles with more focused sequences; respond critically to their own dance works and those of others; and make connections with dance in local and global contexts, both past and present. Students also have opportunities to examine the connections between dance and other arts disciplines. The course comprises four components: elements of movement, creation and composition, presentation and performance, and dance and society. The course can be used to satisfy the fine arts credit requirement or the physical education requirement.

**Design 11**  
**(DESIGN 11)**

**Academic, 1 credit**

Design 11 is offered through our Art program and can be counted as a Technology credit. Students in Design 11 will explore rich conceptual ideas, processes, and technologies that are native to the practice of Design. After developing competence in the Fundamentals of Design, students will work to create major projects in Communication Design and the design of the Built Environment.

To succeed, students must come to the course with a foundation in Art practices and terms (e.g. found in Art 10), be willing to work in teams, and be willing to take on the challenge of learning new technologies and new creative processes.

**Drama 10**  
**(DRAMA 10) Academic, 1 credit**

Drama 10 is an introductory course in drama, which is open to grade 10 students. The course is designed to develop the physical, emotional and creative resources of the student. A variety of developmental drama activities, with an emphasis on improvisation, will be utilized. Students will have opportunities to develop their skills in movement, voice and group work. They will also take part in the presentation of a one-act play and will present a monologue to the class. This course can be used to satisfy the fine arts credit requirement.

**Drama 11**  
**(DRAMA 11) Academic, 1 credit**

The Drama 11 program builds upon the components and dramatic forms introduced and developed in the Drama 10 program. Therefore, it is recommended that students will have successfully taken the Drama 10 course or have experience equivalent to that in the Drama 10 program. Students who have not taken Drama 10 should receive permission from the instructor. These students will be admitted to the program if they are able to demonstrate that they have had sufficient experience or by recommendation from an experienced drama specialist. Students will have opportunities to explore movement and speech and to combine these in a greater range of dramatic form. The emphasis is on the process of creating script and bringing script to production. Students will create original scripts or theatre pieces from any number of texts such as music, literature, improvisation, and existing script. The elements of theatre production and the skills required for presentation, including acting skills, will also be explored.

**Drama 12: Theatre Arts**  
**(DRAMA 12) Academic, 1 credit**

In Drama 12: Theatre Arts, the emphasis shifts to production and many of the components involved in staging a production. The essential difference from Drama 10 and 11 is that theatre pieces are produced for an audience. All students must write and take part in the staging of a play. It is critical that students enrolled in this course have a background in developmental drama, which is most effectively met through the Drama 10 and Drama 11 courses.

**Film and Video Production 12 (FLM VID 12)**  
**Academic, 1 credit**

FVP 12 will change the way you watch video. This course is for students who have an interest in learning about the video production process...from script to screen. Students will learn how to collaboratively create meaningful video "shorts" and explore a variety of roles over the duration of the course. The students will discover the essence of story and experience the struggle to shape and express their ideas in a visual artistic medium. Those considering this course must be prepared to participate maturely, responsibly, and cooperatively with others. Previous experience in Art or Drama is encouraged. This course can be used as either a Technology credit or an Art credit for the AVRSB Art Certificate but may not be used as the fine arts credit required to graduate.

## **Multimedia Art 12**

### **(MLT MED 12) Academic, 1 credit**

Multimedia Art 12 provides students with the abilities required to understand how media affects their lives and how to create meaningful multimedia themselves. Students use digital images, animation, video and sound in a series of individual and collaborative projects. Students acquire an understanding of aesthetic/artistic implications of multimedia products, become aware of and respect ethical/social and legal implications of multimedia products, and apply the elements and principles of art and design to construct multimedia art. Multimedia 12 is an academic credit and may be counted as a technology credit or an arts credit for the AVRSB Art certificate but may not be used as the fine arts credit required to graduate.

## ***MUSIC PROGRAM***

### **Music Program Information:**

Music is a unique art form that offers experiences in, and opportunities for, self-expression. In these comprehensive, performance-based courses, students will learn about music, the world and themselves, while performing music. Music is offered as an academic or advanced credit. All academic music courses satisfy the compulsory fine arts credit requirement and are designed to meet the outcomes as defined in the Atlantic Provinces Foundation Document. These outcomes are grouped according to the types of understanding and processes that are common to all arts disciplines: creating works of art; responding critically to their own works and the works of others; and making connections in local, global, and historical contexts.

### **MUSIC 10**

#### **(MUS/INS 10) Academic – Instrumental, 1 credit**

Academic – Instrumental, 1 credit Prerequisite: Successful completion of a Junior High Instrumental Music Program or permission of the instructor. This course is designed to develop instrumental techniques on traditional band instruments at an intermediate level. It includes the study of various elements of music through performance, including but not limited to, theory, history, tone production, intonation, interpretation of non-verbal cues, sight-reading, and the connection of music to life and culture. All classes and most rehearsals will be scheduled within the regular timetable. The student will also be introduced to the IB Music Program through additional projects and assignments geared to enhancing the regular instruction.

### **Music 11**

#### **(MUS 11) Academic – 1 credit**

Prerequisite: Successful completion of Music 10 or permission of the instructor.

This course is designed to further develop musical skills, both instrumentally and vocally, through a variety of studies to include: performance, theory, history, tone production, intonation, conducting, sight-reading, appreciation, and the connection to World Music. Students in this course are required to participate for the full school year in one of the school ensembles: Concert Band, Jazz Band, Choir, Glee Club, Drum Line, or Orchestra, or any ensemble that is approved by the director.

### **Advanced Music 11**

#### **(ADV MUS 11) Advanced – 1 credit**

Advanced Music 11 is for students in Music 11 who, through their rigor and passion for music making, have demonstrated an outstanding commitment to the musical arts. The successful candidates need to be serious about music making and be able to demonstrate the ability to work independently. Advanced Music 11 is offered as a one-credit intensive music program to run alongside the IB Music – Standard Level course. This course is for those students who are not taking the IB diploma studies, but would like a similar level of intensity when learning about musical concepts. There are 4 Modules on Advanced Music Courses:

1. Music-Making
  - a. Performance
  - b. Composition
2. Music Literacy
3. Global Music Study
4. Student Interest Module

Each student interested in this course will sign up for Music 11 and upon completion of interviews and discussions with parents, student and guidance counselor, will be placed in the course. Students in this course are required to participate for the full school year in one of the school ensembles: Concert Band, Jazz Band, Choir, Glee Club, Drum Line, or Orchestra, or any ensemble that is approved by the director.

## **Music 12**

### **(MUS 12) Academic – 1 credit**

Prerequisite: Successful completion of Music 11/Advanced Music 11 or permission of the instructor.

This course is designed to further develop musical skills as outlined in Music 11. The course will extend the individual contribution of music students to the advanced level. Through increased sophistication in understanding and advanced technical skill, students will be challenged with difficult and representative musical literature. Students will also enjoy units of study on composition, conducting, small ensemble performance, solo performance and World Music. Students in this course are required to participate for the full school year in one of the school ensembles: Concert Band, Jazz Band, Choir, Glee Club, Drum Line, or Orchestra, or any ensemble that is approved by the director.

### **Advanced Music 12 (ADV MUS 12) Advanced – 1 credit**

Advanced Music 12 is for students who have an unrelenting hunger to make musical art. Students who are enrolled in Music 12 and can demonstrate an ability to meet all deadlines with work that demonstrates excellence and rigor may apply to be part of the Advanced Music 12 program. This course is for the students with a NEED for deeper opportunities to explore and grow with music. This will enable students to build a portfolio of musical examples that shows personal commitment, rigor, and excellence. This course will help you prepare a university entrance portfolio. Advanced Music 12 is offered as a one-credit intensive music program to run along with the IB Music – Standard Level course. This course is for those students who are not taking the IB diploma studies, but would like the level of intensity to learning about musical concepts. Students in this course are required to participate for the full school year in one of the school ensembles: Concert Band, Jazz Band, Choir, Glee Club, Drum Line, or Orchestra, or any ensemble that is approved by the director.

There are four modules in Advanced Music Courses:

1. Music-Making
  - a. Performance
  - b. Composition
2. Music Literacy
3. Global Music Study
4. Student Interest Module

Learning opportunities in Advanced Music 12 are characterized by the following:

- In-depth treatment of selected music topics
  - Independent learning and reflection
  - Extended research projects/case studies and related activities
  - Successful candidates are expected to:
    - Be self-motivated to produce;
    - Produce strong compositions/performance;
    - Find a musician, music school, or other musical entity to establish and work through a community link;
    - Commit one to two hours of out of class time to match each in class hour;
    - Work outside of their comfort zone in music-making and be willing to try new strategies and concepts;
    - Talk, write and perform music;
    - Research through the internet and area libraries, to include music libraries and listening libraries.
- Each student interested in this course will sign up for Music 12 and upon completion of interviews and discussions with parents, student and guidance counselor, will be placed in the course.

## **MATHEMATICS**

### **Mathematics Essential Courses**

Typically, students who enroll in Mathematics Essentials will have a history of difficulty in achieving the outcomes of the junior high mathematics program. The content of the courses will focus on the development of the skills and understandings required in the workplace as well as those required for everyday life at home and in the community. Students who enroll in these courses will become better equipped to deal with mathematics in the real world and will become more confident in their mathematical abilities.

## **Math Essentials 10**

### **(MATH-E 10) Graduation, 1 credit**

Mathematics Essentials 10 is designed to provide students with the development of the skills and understandings required in the workplace, as well as those required for everyday life at home and in the community.

Students will become better equipped to deal with mathematics in the real world and will become more confident in their mathematical understandings.

Students will explore the following topics:

- Mental math, working and earning, deductions and expenses, paying taxes, making purchases, buying decisions, probability, measuring and estimating, transformation and design, and buying a car.

## **Math Essentials 11**

### **(MATH-E 11) Graduation, 1 credit**

This course will be presented as a 110-hour course.

**Prerequisite:** Successful completion of Mathematics Essentials 10 or Mathematics at Work 10.

Mathematics Essentials 11 is designed for students who either do not intend to pursue post-secondary study or plan to enter post-secondary programs that do not have any mathematics pre-requisites.

The Mathematics Essentials pathway is designed to provide students with the development of the skills and understandings required in the workplace, as well as those required for everyday life at home and in the community. Students will become better equipped to deal with mathematics in their everyday life and will become more confident in their mathematical abilities.

The typical pathway for students who successfully complete Mathematics Essentials 11 is Mathematics for the Workplace<sup>12</sup>.

Students in Mathematics Essentials 11 will explore the following topics:

- Mental mathematics; collecting, organizing and graphing data; borrowing money; renting or buying; household budgets; investing money; measuring; and 2-D and 3-D design, mathematics in content areas such as science and social studies.

## **Mathematics at Work Courses**

Please note, that with the introduction of the Mathematics Essentials courses, the content of the Foundations courses has changed from previous years. These changes will be phased in over time.

It is highly recommended that those students who have experienced trouble with previous math courses and not intending to continue their education at an institution that requires academic mathematics consider enrolling in Mathematics at Work or Mathematics Essentials.

Students who have struggled with academic mathematics in grade 10 and made less than 60% or who took Mathematics 10 at Work should enroll in the grade 11/12 Mathematics at Work courses.

Some programs at some universities and community colleges accept Mathematics at Work as the necessary math course for admission. Students may wish to check with their math teachers and/or guidance counselor for more information.

## **Mathematics at Work 10 (MTW 10)**

### **Graduation, 1 credit**

- a 110 hour, graduation, 1 credit course
- a high school mathematics course which demonstrates the application and importance of key math skills.

There will be a provincial assessment for Mathematics at Work 10. It will be written in January and June of each school year.

Mathematics at Work 10 is a new course designed to provide students with the mathematical understandings and critical-thinking skills identified for direct entry into the work force or for entry into programs of study that do not require *academic* mathematics.

Students will explore the following topics:

Measurement, area, Pythagorean Theorem, right triangle trigonometry, geometry, unit pricing and currency exchange, income and basic algebra.

### **Mathematics at Work 11 (MTW 11)**

#### **Graduation, 1 credit**

This course will be presented as a 110-hour course.

**Prerequisite:** Successful completion of Mathematics at Work 10 or Mathematics 10.

Mathematics at Work 11 demonstrates the application and importance of key mathematical skills. The typical pathway for students who successfully complete Mathematics at Work 11 is Mathematics at Work 12. (The Mathematics at Work pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for direct entry into the work force or for entry into programs of study that do not require academic mathematics.) Some students who successfully complete Mathematics at Work 11 may choose to take Mathematics for the Workplace 12.

Students in Mathematics at Work 11 will explore the following topics:

- measurement systems volume, 2-D and 3-D geometry, scale, exploded diagrams, numerical reasoning, personal budgets, compound interest, financial institution services, and formula manipulation for various contexts.

### **Mathematics at Work 12 (MTW 12)**

#### **Graduation, 1 credit**

This course will be presented as a 110-hour course.

**Prerequisite:** Successful completion of Mathematics at Work 11 or Mathematics 11. The prerequisite for Mathematics at Work 12 must be taken and successfully completed prior to starting Mathematics at Work 12. Therefore, these courses are to be taken consecutively, not concurrently, and the order may not be reversed.

The Mathematics at Work pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for direct entry into the work force or for entry into programs of study that do not require academic mathematics. Mathematics at Work 12 is the third course in this pathway.

Students in Mathematics at Work 12 will study the following topics:

- measurement and probability
- measures of central tendency
- scatterplots
- linear relationships
- owning and operating a vehicle
- properties of polygons
- transformations
- trigonometry

## Academic Mathematics Courses

### **Mathematics 10 (MATH 10) Academic, 2 credits**

Students taking Mathematics 10 will have demonstrated satisfactory achievement of learning outcomes in grade 9 Mathematics.

Mathematics 10 is designed to provide students with an initial course in the pathway to develop mathematical understandings and critical thinking skills identified for post-secondary studies in programs that require an academic or Pre-Calculus mathematics credit.

Students will explore the following topics:

Measurement systems, surface area and volume, right triangle trigonometry, exponents and radicals, polynomials, linear relations and functions, linear equations and graphs, solving systems of equations, and financial mathematics.

Mathematics 10 is:

- a 220 hour, academic, 2-credit course. This will mean that students will have mathematics class every day for their grade 10 year.
- two Grade credits awarded
  - 1 academic mathematics credit
  - 1 credit in the science, mathematics and/or technology category.
- an academic high school mathematics course which is a pre-requisite for all other academic and advanced mathematics courses.

There will be a provincial assessment for Mathematics 10. It will be written in June of each school year by students in Mathematics 10 and Mathematics Pre-IB 10.

### **Mathematics 11 (MATH 11) Academic, 1 credit**

Prerequisite: Successful completion of Mathematics 10.

This course will be presented as a 110-hour course.

Mathematics 11 is an academic high school mathematics course. Students who select Mathematics 11 should have a solid understanding of the Mathematics 10 curriculum. Mathematics 11 is a prerequisite for Pre-calculus 11. These courses are to be taken consecutively, not concurrently.

There are two typical pathways for students who successfully complete Mathematics 11:

► For those students intending to follow the academic pathway, Mathematics 11 will be followed by Mathematics 12. (Mathematics 11 and Mathematics 12 are designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that require academic Mathematics 11 and/or Mathematics 12).

► For those students intending to follow the advanced pathway, Mathematics 11 will be followed by Pre-calculus 11, and then Pre-calculus 12.

Alternatively, students who successfully complete Mathematics 11 may choose to select a graduation level course in grade 12.

Students in Mathematics 11 will explore the following topics:

• applications of rates, scale diagrams and factors, inductive and deductive reasoning, an introduction to proof, cosine law, sine law, spatial reasoning, statistics, systems of linear inequalities, and quadratic functions.

## **Mathematics Extended 11**

**(MTEXT11)**

**Academic, 2 credits**

This course will be presented as a 220-hour course.

Prerequisite: Successful completion of Mathematics 10

Extended Mathematics 11 satisfies the prerequisite for both Mathematics 12 and Pre-calculus 11. The majority of students who take Extended Mathematics 11 will pursue the academic pathway and continue on to Mathematics 12 in their grade 12 year.

Students in Extended Mathematics 11 will study the following topics: applications of rates, scale diagrams and factors, inductive and deductive reasoning, an introduction to proof, cosine law, sine law, spatial reasoning, statistics, systems of linear inequalities, quadratic functions and big data/data analytics.

While studying the topics in an academic mathematics course, the pace for Extended Mathematics 11 will allow more time for students to activate prior knowledge, engage in sense making tasks and projects and consolidate their understanding.

Extended Mathematics 11 will be counted as one academic mathematics credit and one technology credit.

## **Mathematics 12**

**(MATH 12) Academic, 1 credit**

This course will be presented as a 110-hour course.

Prerequisite: successful completion of Mathematics 11 or Pre-calculus 11. The prerequisite for Mathematics 12 must be taken and successfully completed prior to starting Mathematics 12. Therefore, these courses are to be taken consecutively, not concurrently, and the order may not be reversed.

The Mathematics pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of theoretical calculus. Mathematics 12 is the third course in this pathway.

Students who select Mathematics 12 should have a solid understanding of the Mathematics 11 curriculum.

Students in Mathematics 12 will study the following topics:

- borrowing money
- investing money
- set theory
- logical reasoning
- counting methods
- probability
- polynomial functions
- exponential and logarithmic functions
- sinusoidal functions

## **Pre-Calculus Mathematics Courses**

### **Pre-Calculus 11**

**(PRE-CAL 11) Advanced, 1 credit**

Prerequisite: Successful completion of Mathematics 11. This course will be presented as a 110-hour course.

Pre-calculus 11 is an advanced high school mathematics course. Students who select Pre-calculus 11 should have a solid understanding of the Mathematics 11 curriculum.

Pre-calculus 11 is a prerequisite for Pre-calculus 12. These courses are to be taken consecutively, not concurrently.

The typical pathway for students who successfully complete Pre-calculus 11 is Pre-calculus 12. (Courses in the Pre-calculus pathway are designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that require the study of theoretical calculus.)

Some students who successfully complete Pre-calculus 11 may choose to take Mathematics 12.

Alternatively, students who successfully complete Pre-calculus 11 may choose to select a graduation credit in grade 12.

Students in Pre-calculus 11 will explore the following topics:

•Absolute value, radical expressions and equations, rational expressions and equations, angles in standard position, analyze and solve quadratic equations, linear and quadratic equations and inequalities in two variables, arithmetic and geometric sequences, and reciprocals of linear and quadratic functions.

### **Pre-Calculus 12**

#### **(PRE-CAL 12) Advanced, 1 credit**

This course will be presented as a 110-hour course.

Prerequisite: Successful completion of Pre-calculus 11. Pre-calculus must be taken and successfully completed prior to starting Pre-calculus 12. Therefore, these courses are to be taken consecutively, not concurrently, and the order may not be reversed.

The Pre-calculus pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that require the study of theoretical calculus.

Students who select Pre-calculus 12 should have a solid understanding of the Pre-calculus 11 curriculum.

Students in Pre-calculus 12 will study the following topics:

- transformations
- radical functions
- polynomial functions
- trigonometry
- exponential and logarithmic functions
- rational functions
- function operations
- permutations, combinations and the binomial theorem

### **Calculus 12**

#### **(CALCULUS 12) Advanced, 1 credit**

This course will be presented as a 110-hour course. Prerequisite : Successful completion of Pre-calculus 12.

This course includes the following topics : the concept of a limit, simple derivatives, properties of derivatives, derivatives of trigonometric, exponential and logarithmic functions, applications of derivatives – tangents, rates of change, motion, curve sketching, anti-derivatives, differential equations and applications of anti-derivatives.

## **PHYSICAL EDUCATION**

### **Mandatory High School Credit**

**Beginning in 2008-2009, students entering grade 10 are required to earn (1) one physical education credit toward graduation.** Therefore, students will need to take one (1) physical education course over three years at high school to meet the requirement. Compulsory credits will remain at 13, and the minimum number of graduation credit requirements remain at 18. This requirement applies to *all* students wishing to earn the Nova Scotia High School Graduation Diploma.

## **Eligible Credits**

The following full courses are eligible to meet the physical education requirement:

- Physical Education 10
- Dance 11
- Physically Active Living 11
- Physical Education 12
- Physical Education Leadership 12
- Yoga 11

IPPs approved by the school board are recognized as meeting the physical education requirement.

### **Physical Education 10 (PHYS ED 10) Open, 1 credit**

This course provides students with a variety of fitness and sport experiences to enhance their understanding of personal fitness and growth. Physical Education 10 includes some theory components, coupled with predominately active experiences whereby students will have the opportunity to participate in a variety of indoor and outdoor fitness, sport, and recreational experiences. The emphasis of this curriculum is to provide students with experiences that require them to take, and reflect on their personal responsibility for active, healthy living now and throughout life. The course is divided into (4) four modules: Outdoor Pursuits, Exercise Science, Personal Fitness, and Leadership

### **Dance 11 (DANCE 11) Academic, 1 credit**

Dance 11 is designed for all students, with or without previous formal dance training, and builds on a student's experiences in dance throughout the physical education curriculum, grades primary to nine. It emphasizes creative movement as a form of communication and self-expression, as a unique way of learning about oneself and others. Learning experiences in this course offer students opportunities to explore a range of dance styles with more focused sequences; respond critically to their own dance works and those of others; and make connections with dance in local and global contexts, both past and present. Students also have opportunities to examine the connections between dance and other arts disciplines. The course comprises four components: elements of movement, creation and composition, presentation and performance, and dance and society. The course can be used to satisfy the fine arts credit requirement or the physical education requirement.

### **Physically Active Living 11 (PH AC LV11) Open, 1 credit**

This course will promote and engage students in a wide range of physically active experiences, with an overall theme of exploring options and opportunities for being active for life, both in school, and in their community. Physically Active Living 11 encompasses both an activity component, as well as a theory component, with an emphasis on engagement in physical activity.

The activity component of the course is designed to provide opportunities for students in active experiences that promote and engage youth in traditional and non-traditional forms of physical activity.

The theoretical component of the course will provide and enhance student understanding of healthy eating, injury prevention, mental and emotional health, and substance use highlighting the connection between healthy living and being physically active.

**Yoga 11**  
**(YOGA 11)**  
**Open, 1 credit**

Yoga 11 will introduce students to the tradition of Yoga with its various forms and styles and provide students with the opportunity to develop a personal practice of yoga to maintain vibrant health, enhance healthful relationships with self and others and understand that yoga can be enjoyed as a regular form of physical and leisure activity throughout the lifespan. Throughout the course, students will be participating in various learning experiences which will include physical practice, personal reflection, group discussion and classroom theory.

The physical aspect of yoga will include the acquisition and development of skills including strength, flexibility, cardiovascular endurance, balance, regulation of energy through breathing and mental focus. All of these skills are of great benefit to overall health and to other physical pursuits. Classroom sessions will address topics such as: meditation, the essentials of good nutrition, ethical yogic principles like kindness and generosity and discussion on becoming positive contributing members of society.

**Physical Education 12**  
**(PHYS ED 12)**  
**Open, 1 credit**

The focus of PHYS ED 12 Open is on personal fitness, nutrition and sport. Activities will include most traditional sports as well as life skill sports and activities with an emphasis on fitness training and testing. Theory will be taught on personal nutrition, fitness, energy production and issues in sport. Students are expected to participate fully in all physical activities as well as complete basic theory work to meet course outcomes. They will be given an opportunity to exercise their bodies and take a break from the routine of classroom to recharge their bodies and minds.

**Physical Education 12 Leadership**  
**(PE LEAD 12)**  
**Academic, 1 credit**

The course focus is on leadership development in physical education and recreation. It includes micro teaching in PE, assisting in event organizing, coaching certification, fitness education, issues in sport and volunteer practicums requiring time outside of class.

The course combines physical activities in a variety of environments as well as theory in the class room. Students are expected to participate in all physical activities and fitness components as well as complete a variety of leadership tasks and theory assignments and tests to meet course outcomes.

Class room theory on fitness, coaching, leadership and introduction to kinesiology will be covered. Activity based learning will utilize traditional and non-traditional sports to develop leadership skills.

This course would be of assistance to students interested in pursuing careers in kinesiology, sports or coaching and human relations or in improving interpersonal skills or learning about and improving personal fitness and health.

Students who successfully complete the requirements in the course also receive their Level 1 Theory Coaching Certification from the National Coaching Certification Program NCCP. PE LEAD 12 Leadership is an academic credit and is directed at self- motivated students who wish a more in depth experience in physical education with a focus on leadership.

# SCIENCE

All students wishing to attain a Nova Scotia Graduation Diploma must have credits in two science courses from the courses listed below. In addition, students are required to choose two additional credits from math, science or technology. When starting at the grade 10 level, it is difficult to decide what courses you plan to take over the next three years, especially with the number of choices at the grade 11 level. The following are the basic paths that are followed by many students at Horton who have varying interests in science. We are not suggesting these as mandatory paths but these identify some possible options for parents/guardians with students starting at the grade 10 levels.

## **PATH A - Career in Science-Related Field**

### **Grade 10**

Choose Both

Science 10

Science 10 Support

Biology 11

---

### **Grade 11**

Choose Both

Chemistry 11

Physics 11

---

### **Grade 12**

Choose Two

Chemistry 12

Physics 12

Canadian Geology 12

Biology 12

---

## **PATH B - Unsure of Career Plans**

### **Grade 10**

Choose Both

Science 10

Science 10 Support

Biology 11

---

### **Grade 11**

Choose Both

Chemistry 11

Physics 11

---

### **Grade 12**

Choose One, Two or Three

Chemistry 12

Physics 12

Canadian Geology 12

Biology 12

---

## **PATH C**

Requirements for Diploma  
(Science and One Other)

---

### **Grade 10**

Science 10

Science 10 Support

---

and/or

---

### **Grade 11**

Human Biology 11

Oceans 11

---

and/or

---

### **Grade 12**

Geology 12

---

All students should plan their courses appropriately so that they have a good balance of social studies, language, science, and math courses when looking at future careers. The goal is to develop a well-rounded student who will have many career options available upon graduation.

### **Who should take advanced (honours) science courses, and are there advantages to taking them?**

The science department offers advanced (honours) courses in both levels of biology, chemistry and physics. These courses parallel the curriculum used in the academic courses, but the content is taught in greater depth with an emphasis on independent study, problem solving, data collection and analysis, and project work. Each student undertaking an advanced course must complete an independent research project sometime during the year. Students registering for these courses should be honours students who are self-motivated and have an interest in the sciences. We have heard the concern expressed that student marks drop if a student undertakes an Honours course. It has been found that students tend to respond to the challenge of an advanced level course and the marks do not suffer. The goal of honours courses is to prepare students for a university education and offer them the chance to excel in the science curriculum at a higher level of complexity. Students are always concerned about which is more advantageous for university entrance. Generally, Maritime universities accept Grade 12 Academic and Advanced courses on an equal basis for entrance requirements. In the competition for entrance scholarships it is our belief that the presence of an honours course on a transcript can only enhance an individual's chances of acceptance. The main advantage to the students is that the knowledge and skill development that takes place in an honours course provides the students with the opportunity for greater success in introductory university courses. Students are responsible for checking on entrance requirements and the criteria for various scholarships.

#### **Biology 11**

#### **(BIOLOGY 11)**

**Academic, 1 credit**

**OR**

#### **Advanced Biology 11**

#### **(ADV BIO 11)**

**Advanced, 1 credit**

**OBJECTIVES:** Above all, the main objectives of Biology 11 is to awaken students to the diversity of life around them and to better understand the urgency to allow our globe to balance its existence between its organic components (plants, animals, and microorganisms) and its inorganic components (water, air and soil). This course is designed to be an enjoyable discovery of the microscopic world and to experience a variety of interesting labs and activities that reinforce the specific topics. The Biology 11 course is designed as an entry-level course to introduce students to the study of biology. Throughout the year, students will be guided to develop their skills with the microscope, slide work, microbiology, dissections, research, analysis and independent thinking. Biology 11 is an attractive course to many students who require a science credit to graduate due to its many interesting topics, labs, and hands-on activities. As well, this course lays the groundwork for further studies in future biology courses.

#### **Should grade 10 students consider registering for BIO 11?**

Traditionally it has been mainly grade 10 students who register for BIO 11. We do recommend that incoming grade 10 students with a 70% or above average in grade 9 Science strongly consider this option.

**Advanced Biology 11** students will study the same topics outlined below but with additional investigations. Advanced students will be expected to do independent research and extra lab activities. **Additional reading, homework and an expectation that advanced students maintain good steady work habits throughout the term will also be considered integral elements to Advanced Biology 11.** The advanced students will be integrated with the academic Biology 11 students to form a blended class.

#### **OUTLINE OF TOPICS:**

The Cell and Microscope (review of grade 9 work, plus more in-depth studies)

Biological Classification (Taxonomy)

#### Viruses

A Survey of Five Kingdoms (bacteria, protists, pond water project, fungi, plants, animals & earthworm dissection)

#### Importance of Photosynthesis & Respiration

Human digestion, respiration and circulation (this unit includes a frog dissection and project on human anatomy)

Ecology: In semester 2 there will be a study of the Fundy shore ecosystem (this term 2 unit includes a field trip to Black Rock at the end of May.

**Biology 12**  
**(BIOLOGY 12)**  
**Academic, 1 credit**

The Biology 12 program is based on four units of study and is intended for the grade 12 student. The principal emphasis is on change, diversity, equilibrium and systems. The Biology 12 course at Horton High consists of the following units of study as prescribed by the Department of Education:

- Systems Regulating Change in Human and Other Organisms (Human Anatomy and Physiology – nervous and endocrine systems regulating change).
- Reproduction and Development
- Chromosomes, Genes and DNA (Genetics)
- Change in Population, Communities and Species (Evolution).

Biology 11 is not a required prerequisite for this course but is recommended as a prerequisite, as is Chemistry 11. Technology will play an integral role in the teaching of this course with the technology being integrated into most activities of this course. Students will use computers for research, simulations, measurement, collection and analysis of data, as well as for report and project work.

**Advanced Biology 12**  
**(ADV BIO 12)**  
**Advanced, 1 credit**

The Advanced Biology 12 program is based on the same four units of study as the Biology 12 program. The key components of the course are Mendelian genetics, molecular genetics, photosynthesis and respiration, human control systems and the evolution of species. The course is designed for students having a high level of academic ability in the sciences and math and who are willing to take on the challenge of an accelerated course offering. Registrants should have a 75% or above average in grade 11 and also have taken Biology 11 and Chemistry 11. It is recommended that students in grade 11 homerooms not take this course as grade 11 Math, chemistry and biology are essential courses for undertaking this program. This means the course is intended for grade 12 students! This course is more investigative and contains student research projects, problem solving and critical analysis. Students registering for this course should be highly motivated, enthusiastic and capable of undertaking independent study.

**Chemistry 11**  
**(CHEM 11)**  
**Academic, 1 credit**

Through the study of grade 11 and 12 chemistry, students will develop an understanding and appreciation of chemistry in the world around them and how it affects their everyday lives. Through participation in co-operative labs, independent research, and other classroom experiences, students will acquire knowledge, skills, and attitudes that will include safe handling of materials, careful observation and measurement, effective problem solving and precise communication. Approximately 20 hours of laboratory activity are integrated throughout the program. Some of these require students to design and conduct their own investigations. Many of these investigations will be performed at the Microscale level to maintain a clean, odorless, comfortable work environment. Chemistry 11 includes the following units of study:

- from structures to properties: a review of atomic structures and the periodic table, chemical reactions, and bonding;
- stoichiometry: an introduction to the quantitative aspect of chemistry;
- organic chemistry: the study of molecular compounds of carbon.

This course, or ADV CHEM 11, is a suggested requirement for grade 12 level chemistry. Math 10 and Science 10 are **highly recommended prerequisites**.

**Advanced Chemistry 11**  
**(ADV CHE 11)**  
**Advanced 1 credit**

This program is similar to chemistry 11 (see above) but it is intended for those students who have a strong background in mathematics and science and who either intend to take science at the post-secondary school level or who have a particular interest in chemistry. In addition to the above topics, which are studied at a more in-depth level, students will undertake a research project each term. Math 10 and Science 10 are **highly recommended prerequisites**.

## **Chemistry 12**

### **(CHEM 12)**

#### **Academic, 1 credit**

Chemistry 12 and Advanced Chemistry 12 are extensions of Chemistry 11 and Advanced Chemistry 11 programs expanding the concepts and skills introduced at the 11 level. (Please refer to Chemistry 11.) The Chemistry 11 or Advanced Chemistry 11 is therefore a strongly suggested prerequisite. Math 11 is also considered a strongly suggested prerequisite for this course. The Chemistry 12/Advanced Chemistry 12 helps students to:

- comprehend the natural environment
- employ a variety of technological processes and recognize the potential consequences of their use
- understand various other pure and applied sciences, as well as the nature of scientific inquiry

Topics include:

- Properties of Solutions
- Thermochemistry: The Study of Energy Changes in Reactions
- Kinetics: The Rates of Various Reactions and How They are Measured
- Solution Equilibria
- Acid, Bases and Salts
- Oxidation and Reduction Reactions
- Electrochemistry

Laboratory activities are an essential part of the program to help support the classroom lectures and activities.

## **Advanced Chemistry 12**

### **(ADV CHE 12)**

#### **Advanced, 1 credit**

This course is intended for those students who did well at the grade 11 level and intend to take further chemistry courses at the post-secondary school level, or have a particular interest in chemistry. Topics of study are the same as those for chemistry 12 but are covered in more depth. A research project is completed each term and probeware is used extensively in the laboratory.

## **Geology 12**

### **(GEOL 12)**

#### **Academic, 1 credit**

Did you know that:

- We have earthquakes in the Maritimes?
- There are diamonds in Canada?
- Nova Scotia had a gold rush to rival the Yukon's?
- The world's smallest known dinosaur footprints are across the Bay in Parrsboro?
- Geology is playing a key role for local wineries!

Whether you are considering a geology-based career in paleontology (fossils), mining, oil and gas, exploration, or just because you find rocks and minerals intriguing, you'll find this course informative and practical.

Geology is a key science course, particularly significant in a world concerned with limited energy and resources, as it incorporates understanding in environment, chemistry, biology, oceanography and physics. In the last 10 years alone we have learned how to predict more reliably events such as earthquakes and volcanic eruptions, discovered sources of valuable minerals and ores, and realized even more the necessity of being environmentally responsible in our use of the land.

With much emphasis on local and Canadian examples, we will explore:

Earth history, geologic time, paleontology

Matter and minerals; special study on zeolites and gemstones

Mining and environmental issues; oil and gas

Igneous, sedimentary and metamorphic rocks; how to recognize and identify rocks

Plate tectonics, mountain building, earthquakes, volcanic activity

Weathering and mass wasting; soil formation

Technology will be applied in the exploration of many of these topics using computers to access information, assist simulations of real-life applications, and the development of models. Evaluation is based upon field trips, group activities, independent study, labs, assignments, quizzes, projects, portfolio and rock collection, and tests. There are two full day field trips that are integral to the course.

## **Human Biology 11**

### **(HUM BIO 11)**

#### **Open, 1 credit**

This course can only be used as a **second** science credit. The course is designed for those students not wishing to pursue a post-secondary academic career, especially in the sciences. It has been developed to introduce students to the study of human biology, especially with regard to how the body is built and how it functions. Students cannot receive a credit in both BIO 11 and Human Biology 11. Students will take a practical look at the maintenance and functioning of a healthy body and its role in nature. As a result of this information, it is hoped that students will be able to make more informed decisions that will lead to healthy lifestyles. The teaching methodology of this course will move away from the traditional lecture approach towards group activities, guest speakers, project work and presentations.

#### TOPICS COVERED:

- The Cell and Body Organization
- Respiratory and Circulatory Systems - Cardiovascular Health
- Digestive System & Food and Nutrition
- Excretory System - Fluid Balance
- The Nervous System & The Brain
- Reproductive Systems
- First Aid
- The Senses (eyes and ears)

## **Science 10**

### **(SCIENCE 10)**

#### **Academic, 1 credit**

At no other time in the history of humankind has the need for scientific and technological literacy been so crucial. As we enter the 21<sup>st</sup> century, both of these fields are expanding at a phenomenal rate. By integrating accurate presentations of the nature of science, technology and the interactions of these with each other and particularly with the environment, students are encouraged to approach concepts with an open mind, as new frontiers begin to challenge some of our traditional beliefs and values.

Science 10 is **very highly** recommended as a prerequisite course for Chemistry 11 and Physics 11 in particular and for Oceans 11. The key units will involve the study of sustainability of ecosystems, environmental issues, chemical nomenclature and reactions, physical motion, thermodynamics and meteorology. Computers will be used as a research tool to enhance the knowledge base, explore supporting simulations and for data-collection through probe systems.

Student progress is assessed by a wide variety of methods, including group work and simulations, experimental lab work, opportunities to display creative and critical thinking, problem solving; class participation, portfolio work, projects, assignments, quizzes, tests, and a formal examination.

## **Science 10 Support**

### **(SCI 10S)**

#### **Academic, 1 credit**

Science 10 support is for students who struggle with science material. The SUPPORT option of this course is designed for students who may experience difficulty in an academic class. Individual student needs may be met through variations in pace, classroom organization, homework and evaluation.

## **Oceans 11**

### **(OCS 11)**

#### **Academic, 1 credit**

Welcome to an in-depth introduction to a fascinating world under the sea! The more we learn about the oceans, the more we understand the inter-connected importance for our survival - from physical characteristics to life in the sea, problems of overfishing, oil exploration to global warming.

This university prep level course incorporates understanding in environment, chemistry, biology, geology and physics through exploring the oceans, "new frontiers" of wonder and an integral part of the planet. The course also connects the study of oceanography with local entrepreneurial interests, as one of the goals is to increase students' knowledge of

emerging new economies and opportunities in such areas as aquaculture, marine biology and oceans management, which offer diverse career opportunities.

The topics include Oceans - Structure and Motion (marine geology); The Marine Biome (biology and dissections); Aquaculture and the Fisheries (economics and resources); and Coastal Zones (environment and resources). Technology will be applied in the exploration of many of these topics using computers to access information, assist simulations of real-life applications, and the development of models. Evaluation is based upon a variety of group activities, independent study, field work, labs, assignments, quizzes, projects and tests. There are several full day field trips integral to the course, including the Bedford Institute of Oceanography. Successful completion of Science 10 is highly recommended as a prerequisite course for Oceans 11, as it provides supportive foundation knowledge in ecosystems, chemistry and meteorology.

## *Physics*

Physics is primarily intended to provide the necessary background for the further study of the sciences at universities, technical schools, and community colleges. However, it is also appropriate for students who will not study more science, as it presents a way of understanding the physical world and processes of science. Students will be given the necessary learning opportunities to understand the basic concepts of Physics and their applications within our society, apply scientific reasoning to problem solving, and develop learning skills to be used throughout life.

Computers will be used extensively for the exploration of simulations, the collection of experimental data, and the subsequent analysis of the data obtained. The Internet will provide a means for students to keep up to date in the world of Physics.

Advanced Physics is an enriched version of PHYSICS 11 and PHYSICS 12 for students with above-average ability and with a particular interest in science. These Advanced courses will provide an excellent background for further work in science at the university level. The topics are the same as the academic courses but students are expected to make use of more advanced problem solving skills, to take a more mathematical approach to problems, and to work more independently. In addition to the standard topics, there may be opportunity to explore other timely or interesting topics. A project will be assigned each term.

### **Physics 11**

#### **(PHYSICS 11)**

#### **Academic, 1 credit**

Topics include:

- Kinematics
- Dynamics
- Momentum and Energy
- Waves

Course recommendations: Successful completion of both MATH 10 and SCIENCE 10 is expected. Students should be in their grade 11 year and registered for MATH 11 and MATH 12.

### **Advanced Physics 11**

#### **(ADV PHY 11)**

#### **Advanced, 1 credit**

Course recommendations: Successful completion (with honours) of both MATH 10 and SCIENCE 10 is expected. Students should be in their grade 11 year and registered for MATH 11 and PRE CAL MATH 11.

### **Physics 12**

#### **(PHYSICS 12)**

#### **Academic, 1 credit**

Topics include:

- Force, Motion, Work, and Energy
- Electric, Gravitational, and Magnetic Fields
- Waves and Modern Physics
- Nuclear Physics

Course recommendations: Successful completion of PHYSICS 11, MATH 11, and MATH 12 is expected. Students should be in their grade 12 year and registered in PRE-CAL 12.

## **Advanced Physics 12**

**(ADV PHY 12)**

**Advanced, 1 credit**

Course recommendations: Successful completion (with honours) of ADV PHY 11, MATH 11, and PRE-CAL 11 is expected. Students should be in their grade 12 year and registered in PRE-CAL 12 and CALCULUS 12.

# **SECOND LANGUAGE COURSES**

## **FRENCH**

There are two levels of French offered at Horton; they are:

- Core French: this course level prepares students for the language requirement in the Arts degree at most universities.
- Immersion Française: the Department of Education also offers a “Certificat d’immersion française” to those students who were registered in an early or late French Immersion program before entering high school. Students must complete half of the 18 required courses for graduation in French; three of the 18 must be Français Immersion 10, 11, and 12. The total after three years must be at least **9 immersion credits**.

French immersion is an expanding and increasingly popular program within the schools of the Annapolis Valley Regional School Board. Unfortunately, this expansion has occurred at a time when there is a growing national shortage of immersion teachers. Some of the new subject offerings depend on funding, the number of student requests that would warrant a course to be offered, and the Annapolis Valley Regional School Board being able to attract qualified staff.

### **Core French 10**

**(CORE FR 10)**

**Academic, 1 credit**

This course will concentrate on the development of writing and reading as well as oral communication in the French. Students will work on four to five units which will integrate all three of the above strands. Authentic communication is the goal of the program. Therefore students will be encouraged to speak in French at all times in the classrooms while working on a variety of activities in a setting which promotes second language acquisition.

### **Core French 11**

**(CORE FR 11)**

**Academic, 1 credit**

Core French 11 is a continuation of Core French 10. Student participation and use of French will be an important part of the evaluation process. Students will learn and work with various language skills, cultural elements pertaining to the francophone world and facts relating to their immediate surroundings. It is hoped that through a variety of activities, students will gain an understanding and an appreciation for French as a second language within Canada, as well as in other parts of the world. Students will be expected to learn to use the French keyboard and to do research on the Internet in French.

### **Core French 12**

**(CORE FR 12)**

**Academic, 1 credit**

The grade twelve French course is a continuation of the grade 11 program with the four skills of listening, speaking, reading and writing being stressed. Units will include two global simulations, advertising and a novel study. By the end of this course students should be able to converse in French at a reasonable level, in what is called the “comfort zone” of bilingualism.

**Please Note: A sufficient number of requests are required**

<b>IMMERSION COURSE CHART</b>		
<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
Fra Imm 10	Fra Imm 11	Fra Imm 12
HIS ANC 10	HS CA 11	HIS PLA 12
PAL 11 IMM	Tourism 11	DROIT 12

### **Français-Immersion 10**

#### **(FRA-IMM 10)**

#### **Academic, 1 credit**

Ce cours explore en profondeur plusieurs œuvres littéraires ainsi que de nombreux aspects de la langue et de la culture québécoise. Ce cours est requis pour ceux et celles qui veulent obtenir le certificat d'immersion française.

### **Français-Immersion 11**

#### **(FRA-IMM 11)**

#### **Academic, 1 credit**

Ce cours explore en profondeur plusieurs œuvres littéraires ainsi que de nombreux aspects de la langue et de la culture française. Ce cours est requis pour celles et ceux qui veulent obtenir le certificat d'immersion française.

### **Français-Immersion 12**

#### **(FRA-IMM 12)**

#### **Academic, 1 credit**

Ce cours explore en profondeur plusieurs œuvres littéraires ainsi que de nombreux aspects de la langue et la culture francophone à travers le monde. Ce cours est requis pour celles et ceux qui veulent obtenir le certificat d'immersion française.

### **Histoire Ancienne et Médiéval 10**

#### **(HIS ANC 10)**

#### **Academic, 1 credit**

En exposant les élèves à plusieurs cultures dans le passé on espère leur donner une appréciation des cultures qui nous ont influencés.

### **Mode de Vie Actif Imm 11**

#### **(PAL 11 IMM)**

#### **(Instructed in French - both students and teacher are to only speak French)**

Physically Active Lifestyles is a full-credit course and may be used for the mandatory physical education credit for graduation. This course is designed to educate and motivate students to stay physically active and to appreciate the benefits of a healthy lifestyle. Through active living, students will know how to make appropriate choices and set personal goals that enhance their lives. They will understand the implications of and the benefits from involvement in physical activities. Opportunities will be provided to participate in a wide range of activities that promote well-being. Maintaining personal fitness is an inherent part of this course and students will be expected to dress appropriately when involved in physical activity.

### **Histoire du Canada 11**

#### **(HS CA 11)**

#### **Academic, 1 crédit**

Ce cours examine les grands courants de l'histoire canadienne en suivant une approche thématique. Le cours est divisé selon cinq thèmes principaux: la mondialisation; la gouvernance; la souveraineté et la justice.

### **Tourism 11 IMM**

#### **(TOU 11)**

#### **Academic, 1 credit**

This course is designed for students who are interested in the Tourism/Hospitality industry. Students will be introduced to the eight industry sectors of Tourism and the occupations they offer. Students will examine both the tourism industry in Nova Scotia and in Canada as a whole. Industry professionals will be invited to class to share their expertise. This will provide students with a better understanding of the career opportunities in Tourism. Through classroom work, research projects and class trips, students will better understand the Tourism industry.

**Histoire Planétaire 12  
(HIS PLA 12)**

**Academic, 1 credit**

Ce cours examine les grands courants de l'histoire du 20<sup>ième</sup> et 21<sup>ième</sup> siècle. Ce cours est divisé selon cinq unités principales: Est-Ouest; les défis de la disparité économique; la poursuite de la justice; les changements sociaux et technologiques et l'interdépendance mondiale.

**Droit 12  
(DROIT 12)**

**Academic, 1 credit**

Ce cours a pour objectif de faire acquérir aux élèves une connaissance de la loi et de sa fonction dans la société. Parmi les sujets abordés, on trouve: l'appareil judiciaire canadien, la lutte contre les crimes et la criminalité, les droits de l'homme, les relations familiales, et les tribunaux et les procès.

## ***SOCIAL STUDIES***

To graduate, students must have a minimum of two social studies credits, though students are encouraged to take a social studies course during each year of high school. For all students, the requirement is that they must have a **global course credit** as well as a **Canadian history credit**.

**Canadian history credit:**

Students needing a Canadian history credit must take either African Canadian Studies, Canadian History/Histoire Canadienne or Mi'kmaw Studies. Students may take both courses but, in such cases, one of the courses will count as an elective credit towards graduation and one will count as one of the two required credits for graduation.

**African Canadian Studies 11 (AFR CAN 11)**

**Academic, 1 credit**

Priority will be given to students registered in grade 11 and 12. African Canadian Studies offers students opportunities to explore the contributions of Africans and people of African descent to world history. It examines history from the origins of humanity to present day. The course is divided into five major units as follows:

- Pre-European Africa
- Slavery and the Middle Passage to the 1860's
- Blacks in Canada to Confederation
- Confederation to the Civil Rights Movement
- Local History

Evaluation procedures will be varied and flexible. Students will be expected to assume a high degree of independence in their learning.

**Canadian History 11  
(CAN HIS 11)**

**OR**

**Histoire du Canada  
(HS CA 11I/E)**

**Academic, 1 credit**

Horton offers the Canadian History 11 course both in English and French. This course will satisfy the compulsory credit for all students. Priority will be given to students registered in grades 11 and 12. Canadian History 11 is a course that will examine Canadian history from the pre-contact to modern era. It will cover this history through thematic units such as Development, Sovereign, Justice, Globalization, and Governance. The course hopes to examine the persistent questions that have faced Canadians for the past 500 years.

**Economics 11  
(ECON 11)**

**Academic, 1 credit**

This course is designed to give students an understanding of their place within our economic system and is available to students registered at the grade 10, 11, or 12 levels. Subjects covered include, but are not limited to, basic economic concepts, entrepreneurship, business organizations, marketing, advertising, labor unions, government revenues and expenditures, unemployment, inflation, international trade and personal finance. Throughout the year special emphasis is

placed on learning to apply economic knowledge by following stock market trends. Students are expected to perform in this course much as they would in a work environment. Therefore, in-class performance is just as important as test and exam marks for student success in Economics 11.

## **Geography 10 (GEOG 10)**

### **Academic, 1 credit**

Physical Geography deals with the physical elements of the earth and the interaction between these elements and humans. The course is *divided* into 6 units as listed below.

- Creation of the Solar System and Evolution of the Earth (a view of currently accepted theories)
- Geology (rocks, minerals and mining)
- Tectonic Forces (plate tectonics, earthquakes, and volcanoes)
- Gradational Forces (running water, gravity, waves, oceans and shorelines, glaciers)
- Topographic Maps
- Graphing

The course involves both the learning of geographic content and the development of geographic skills. Successful completion of this course would be beneficial to those students who select Global Geography 12 as their required Global Studies credit and for students wishing to take Geology 12. Evaluation will be based on quizzes, tests, a final exam written assignments, and graphic presentations.

## **Geography 11 (GEOG 11)**

### **Academic, 1 credit**

This grade 11 academic course does not use the traditional 'regional' approach; rather it follows a systematic or topical approach. It examines a series of key geographic concepts and topics by studying examples from all across the country.

Questions such as: why are some parts of the country so much richer than other parts, why are most of the large scale manufacturing plants located in the Canadian Heartland and not the Maritimes, why is the agricultural settlement pattern of the Prairies so much different than that found in the Atlantic region, why did the provincial and federal government try to move thousands of Newfoundlanders from their homes and close their communities during the 1950s and 60s, how do different religions in Canada influence the cultural landscape, and why do cities such as Toronto, Vancouver, and Montreal attract the vast majority of immigrants to Canada, are explored throughout the course.

Students will be involved with group and individual projects, class discussions, regular short assignments, viewing videos, simulation activities, and computer-based assignments. The computer work will include research, preparation of graphic presentations, and Geographic Information Systems (the fastest growing field of geography). Evaluation will be based upon assignments, projects, group presentation, tests, and exams. Although this course is not a mandatory prerequisite for the Global Geography and Global Studies, it would be very useful for students who choose one of these options. It is strongly recommended for those students considering the AP Human Geography course.

### **Global course credits:**

To graduate, students must have a credit in one of the following five courses:

- Global History
- Global Geography
- Global Studies
- Histoire Planetaire
- AP Human Geography - Virtual

Students may take both Global History and Global Geography, with one course counting as an elective and the other course counting as one of the two required credits for graduation.

**Global Geography 12**  
**(GL GEOG 12)**

**Academic, 1 credit**

This university preparatory course tries to answer two important questions: How did the world get in its present state, and what will the future be like on Earth? One of the key themes of the course revolves around the concept of a shrinking world and how global interaction is becoming more common and more important. How large will the world's population become, can we provide food and other resources for everyone, will we eventually all live in cities, what will these cities of the future be like, and how are we going to fix the damage we have done to the environment, are all major topics of the course. Students will be involved with group and individual projects, class discussions, regular short assignments, viewing videos, simulation activities, and computer-based assignments. The computer work will include research, preparation of graphic presentations, and Geographic Information Systems (the fastest growing field of geography). Evaluation will be based upon assignments, projects, group presentation, tests, and exams.

**Global History 12**  
**(GL HIST 12)**

**Academic, 1 credit**

**OR**

**Histoire Planétaire 12**  
**(HIS PLA 12)**

**Academic, 1 credit**

Global History is a university preparatory course that satisfies the global graduation requirement. The course examines the second half of the twentieth century through five key units: the Cold War, North-South relations, the notion of global justice, social change, and technological change. Students attempt to formulate ideas that may explain how historical events of this half-century have brought us to where we are globally today. The text for the course is VIEWPOINTS by Susan Aliphat *et al.* Students will be required to read numerous other materials as well. Extra help in this course is available upon request.

**Histoire Ancienne et Med 10**  
**(HIS ANC 10)**

**Academic, 1 credit**

**OR**

**History 10 Ancient History**  
**(HISTORY 10)**

**Academic, 1 credit**

This course traces the development of people from our prehistoric beginnings to the time of the Roman Empire. The development of early civilizations is stressed with in-depth studies of Mesopotamia, Egypt, Greece, and Rome. Interesting figures, both male and female, will be addressed throughout the course. The skills of the historian and the development of critical thinking processes are constant concerns in this program. It is hoped that through this course students will gain an appreciation of other cultures and civilizations. Evaluation will be based on quizzes, tests, a final exam and assignments.

The course is divided into units as listed below.

1. An Introduction to History:
  - The Significance of History
  - Primary and Secondary Sources
  - Geography's Role in History
  - Archaeology
2. The Emergence of Life:
  - Creation and Evolution
  - Ascent of Man
  - Stone Ages
  - Bronze Age
3. Early Civilizations:
  - Factors Leading to Civilizations
  - Mesopotamia, Ancient Middle East and Egypt
4. Ancient Greece
5. Ancient Rome

## **Law 12**

### **(LAW 12) Academic, 1 credit**

This grade twelve course is an introduction to Canadian law. The course is designed to provide students with a broad knowledge and understanding of Canadian law and its function in society. Students will be provided with opportunities to develop skills and attitudes that will enable them to understand the operation, benefits and limitations of the Canadian legal system. Students will examine social, moral and legal issues, while recognizing the balance between the rights of individuals and the values that the majority of Canadians choose to protect.

Topics include:

- The history and development of the Canadian legal system
- The Canadian Charter of Rights and Freedoms
- Human Rights Legislation
- Criminal Law
- Tort Law (Intentional and Unintentional Torts)
- Other types of law such as Environmental, Consumer, Immigration, Employment, may be covered in individual or group projects/presentations.

Students will be involved in a variety of activities including group work, role-playing, library and Internet research, projects and presentations (group and individual). Evaluation will include tests, quizzes, exams, assignments, projects and presentations.

## **Mi'kmaq Studies 11**

### **(MST 11) Academic, 1 credit**

Mi'kmaq Studies 11 is a course that serves not only to highlight the Mi'kmaq experience, but also to provide opportunities for learners to gain an understanding how they are connected to the history and culture of the First Peoples of the Maritimes. The course incorporates an inquiry-based approach and examines broad concepts such as governance, culture, justice, spirituality, and education. Students will analyse historical and contemporary Mi'kmaq issues, which enables them to achieve a greater understanding of, and respect for, both Mi'kmaq society and Mi'kmaq contributions to Canadian society.

## **Political Science 12**

### **(POL SCI 12) Academic, 1 credit**

The political science course is a university preparatory course that examines the theory behind governance as well as the practical application of government systems. Many forms of government are examined ranging from German National Socialism to the various incarnations of communism in this century, as well as the many forms of socialism in the post war world. Western democratic systems are given special emphasis and are examined through the concepts which compete within them such as the balance between individual freedoms and the good of the collective. Students will consider who has power, how they obtain it and how it is used in a democracy.

## **Sociology 12**

### **(SOCIO 12) Open, 1 credit**

This course is not accepted as a university entrance-level credit. Sociology 12 covers the basic aspects of sociology. It allows students to examine Canadian sociological issues such as: the family; students and schools; poverty; minority groups; multiculturalism; gender; women in society; labor and management conflict; crime in Canada; punishment and rehabilitation, and the future. Students will examine these issues using hands-on methods that will involve multi-media exposure to issues, discussion, and analysis. The expectations for written work and reading in this course will not be as demanding as in the case with SOC 12:ACAD.

## **Sociology 12: Academic**

### **(SOC 12: ACAD) Academic, 1 credit**

This course introduces students to the study of sociology by covering units such as Culture, Socialization, Deviance, Social Stratification, Research, and Social Institutions. This is a university preparatory course but is flexible enough to meet a wide range of student strengths and needs. In this course students will be evaluated in a variety of ways that will include tests, assignments, essays, presentations, article analyses along with end-of-term exams. Students in this course will be involved in many classroom activities such as discussion, reading, viewing films, analyzing magazine articles, researching the Internet and working in small groups. A particular emphasis will be placed on understanding sociological theory and applying it to relevant issues in society.

## TECHNOLOGY-RELATED EDUCATION

Students must take two math, two science (may come from additional math science courses), and two technology credits to meet graduation requirements.

### **Communications Technology 11**

**(COM TEC 11)**

**Open, 1 credit**

Students will explore a wide range of communication and design tools. Using graphic, electronic, and audio/video systems, students will work in a hands-on environment to learn skills and communicate effectively in different mediums. They will be challenged to develop their technological literacy by developing solutions to real world design and communication problems. Topics explored will include digital photography and image manipulation, animation, graphic design, screen-printing, 3D CAD/printing, and broadcasting.

### **Communications Technology 12**

**(COM TEC 12)**

**Open, 1 credit**

Students will experience a variety of communications media with emphasis placed on the visual and multi-media technologies. Course work will focus on various topics including website design and interactivity, animation, electronics, robotics, architecture, video production, audio production, graphic design and screen-printing. This is an excellent opportunity for those interested in pursuing a career in the ever-growing information technology field.

### **Construction Technology 10**

**(CNT10)**

**Open, 1 credit**

Construction Technology is an exploratory course where students will gain knowledge about basic construction, materials, tools, machines, processes, and standards. The course is not intended to produce professional trades people, but will allow students to discover vocational or leisure-time interests. Topics explored will include Architectural Design and Drawing, Architectural Model Building, House Design, Building Construction, Cabinet Construction, and Careers in Construction.

### **Design 11**

**(DESIGN 11)**

**Academic, 1 credit**

Design 11 is offered through our Art program and can be counted as a Technology credit. Students in Design 11 will explore rich conceptual ideas, processes, and technologies that are native to the practice of Design. After developing competence in the Fundamentals of Design, students will work to create major projects in Communication Design and the design of the Built Environment.

To succeed, students must come to the course with a foundation in Art practices and terms (e.g. found in Art 10), be willing to work in teams, and to take on the challenge of learning new technologies and new creative processes.

### **Energy, Power, and Transportation 11**

**(ENERGY 11)**

**Open, 1 credit**

Human energy demands have never been higher. The push for innovation and discovery of how to produce, control, and use energy more efficiently has never been stronger. We are in the midst of an energy revolution! In this course, students will explore various sources of energy and how we control them. Units include engines, alternative vehicles, rocketry, aviation, renewable energy sources, and energy control. Students will be challenged to design and construct solutions to convert various energy sources into power plus examine inventions of the past, present, and possibilities for the future. This is a great opportunity for those considering a career in mechanics, design, or engineering, and those interested in how and why things work.

## **Exploring Technology 10 (EXT TEC 10)**

### **Academic, 1 credit**

The ability to use technology is a basic literacy skill in Canada. Technology has a significant role to play in our constantly changing society. Today, more than ever, people need strong technological literacy skills to keep pace in a complex world. Exploring Technology 10 offers students a practical connection between Science, Math, Engineering, and Technology. Experiences offered in Exploring Technology 10 include designing and creating solutions in Robotics, 3D Printing, Digital Electronics, CADD, CNC Machining, Digital Image Manipulation, Video, Animation, and even Small Engine Mechanics. Students who have a strong interest in technology and who work well in a multi-activity environment should take advantage of this course.

## **Food Technology, Preparation and Service (FOOD TEC 10)**

### **Open/Tech, 1 credit**

Food Technology, Preparation and Service, an ideal course for students wishing to gain skills in production style food preparation with an understanding of technology and public food service. It is officially composed of two half credit courses that we offer (in combination only) for a full credit:

#### **Food Technology**

Food Technology 10 (Open) is one of the half-credit options that may be used towards a technology credit for graduation purposes. It is an exciting course in which students explore food technology for the home and industry. This course takes students from a historical perspective to understanding current technology and encourages them to anticipate future developments in food preparation, food preservations, and consumer practices. Each unit has a theory and practical component. Students sample foods prepared using various technologies and examine issues such as genetic modification, organic food production, and the impact of kitchen and industrial food technology on families and the environment.

#### **Food Preparation and Service**

Food Preparation and Service 10 (Open) is one of the half-credit options that may be used towards a technology credit for graduation purposes. Through food preparation and presentation students develop skills which may be transferred to food service skills in the workplace. Students are provided with practical experiences in food preparation and service. They look at the impact of technology on the preparation of food in the home and the workplace. Topics include: meal planning and preparation, food service and hospitality, food handling procedures, health and safety in the food industry and food marketing.

## **Film and Video Production 12 (FLM VID 12)**

### **Academic, 1 credit**

FVP 12 will change the way you watch video! This course is for students who have an interest in learning about the film/video production process...from script to screen. Students will learn how to collaboratively create meaningful video "shorts" and explore a variety of roles over the duration of the course. The students will discover the essence of story and experience the struggle to shape and express their ideas in a visual artistic medium. Those considering this course must be prepared to participate each day, act responsibly, and work cooperatively with others. Previous experience in Art or Drama is an asset. This course can be used as either a Technology credit or an Art credit for the AVRSB Art Certificate but may not be used as the fine arts credit required to graduate.

## **Multimedia Art 12 (MLT MED 12)**

### **Academic, 1 credit**

Multimedia Art 12 provides students with the abilities required to understand how media affects their lives and how to create meaningful multimedia themselves. Students use digital images, animation, video and sound in a series of individual and collaborative projects. Students acquire an understanding of aesthetic/artistic implications of multimedia products, become aware of and respect ethical/social and legal implications of multimedia products, and apply the elements and principles of art and design to construct multimedia art. Multimedia 12 is an academic credit and may be counted as a technology credit or an arts credit for the AVRSB Art certificate but may not be used as the fine arts credit required to graduate.

**Production Technology 11**  
**(PRO TEC 11) Open, 1 credit**

This course challenges students to work with their hands to produce useful projects. The emphasis of this course is on skill development. Students will learn and practice the basics of design and problem-solving by solving teacher and student-generated problems using wood, metal, and plastic. Any student considering this course must have a mature respect for working safely with machines and be willing to undertake the challenges that come with good design and quality workmanship.

**Production Technology 12**  
**(PRO TEC 12) Open, 1 credit**

The emphasis of this course is mass production. Students learn the required skills, processes, and safety practices necessary in a production lab. The students organize into companies and attempt to operate a successful business by mass-producing products and marketing the items they produce. This is a great opportunity for those with fresh entrepreneurial ideas and a willingness to work with others in a team. Students work with both traditional and computer-controlled machines that will expose them to specialized skills and career possibilities for the future.

**Textile Technology 12**  
**Open/Tech, 1 credit (TEX TEC 12)**

Textile Technology 12 combines theory with a hands-on approach to fashion and fibre arts. It is an exciting course for those interested in fashion, craft and art, as well as technology and materials science. The curriculum is designed to encourage students to develop advanced skill sets related to textile arts and technologies. Textile Technology 12 can be used as one of the five credits needed to earn the AVRSB Fine Arts Certificate. Students will develop a portfolio of work and a final textile project to demonstrate their learning in the following areas:

Creating Fabrics: Students will explore the characteristics of various textiles that are developed for the apparel industry, household usage and other applications. Textile development and production such as weaving, knitting and felting will be explored through artistic expression.

Elements and Principles of Textile Design:

Students will learn to apply an understanding of design to textile selection. Students will interpret the principles and elements of design on finished textile goods.

Textile Construction Tools: Students will learn about various technologies related to the textile industry: sewing, pressing, embellishment, applying finishes/designs, pattern creation. Where available, students will develop competency with the technology.

Textile Production: Students will apply problem solving skills to create or adapt textile designs to address issues of end use, efficiency or economy. Students will develop and apply consumer skills to managing a textiles budget. Students will use recycled textile items for project work.

Aesthetic and Cultural Appreciation:

Students will research the evolution of the textile arts and the factors that impact textiles such as culture, industry and geography.

Life Work Skills: Students will learn to identify lifework connections to textile skill development and explore career opportunities related to the textile industry.

Independent Study: Students will be expected to create and share a culminating textile project that illustrates their skill and knowledge development throughout this course.

### HHS COURSE CATEGORIES 2016-2017

COURSE CATEGORIES	COURSE REQUIREMENTS 2015-2016	REQUIRED COURSES	CHOICES IN THE REQUIRED OPTIONS
<b>ENGLISH</b>	1 course at each grade level	3	ENG 10, ADV ENG 11, ENG 11, ENG/COM 11, AP ENG LIT12 (virtual), ADV ENG12, ENGLISH 12, ENG/COM 12, ENG 12 AH
<b>MATHEMATICS</b>	2 courses at 2 different grade levels	2	MATH-E10, MTW10, MATH10, MATH-E11, MTEXT11, MTW11, MATH 11, PRE-CAL11, MTW12, MATH 12, PRE-CAL12, CALCULUS12
<b>SCIENCE</b>	1 from BIOLOGY (not HUM BIO 11), CHEM, PHYSICS, SCIENCE 10 <b>AND</b> 1 other Science course	2	SCIENCE 10, SCIENCE 10S, BIOLOGY 11, ADV BIO 11, BIOLOGY 12, ADV BIO 12, CHEM 11, ADV CHEM 11, CHEM 12, ADV CHEM 12, PHYSICS 11, ADV PHY 11, PHYSICS 12, ADV PHY 12, AP BIO 12 (virtual), AP CHEM 12 (virtual). <b>Other approved science courses:</b> GEOL 12 (Acad), HUM BIO 11 OR OCS 11
<b>SCIENCE MATH TECHNOLOGY</b>	2 more from Math, Science or Technology  (All computer Related Studies and Technology Education courses are eligible)	2	See Science and Math above in addition to the following: <b>TECHNOLOGY:</b> CNT10, EXP TEC10, FOOD TEC10, COM TEC11, DESIGN 11, PRO TEC11, BUS TEC11, COM TEC12, PRO TEC12, FLM VID12, ENERGY 11, MULTIMED12, TEXTEC12
<b>SOCIAL STUDIES</b>	1 Canadian History course  AND 1 global course	2	<b>4 OPTIONS:</b> MST 11, AFR CAN11, CAN HIS11, HIS CAN11.  <b>3 OPTIONS:</b> GL GEOG12, GL HIST12, HIS PLA12.
<b>PHYSICAL EDUCATION</b>	Must have PH AC LV11 or PE credit (exception: students who completed Sty Vie Car Vie)	1	PHYS ED10, PH AC LV11, MODE DE VIE ACTIF 11, DANCE 11, YOGA 11, PHYS ED 12, PHYS ED LEAD 12.
<b>FINE ARTS</b>	1 course from Art, Drama or Music	1	VIS ART10, DRAMA 10, MUSIC 10 ADV ART11, DANCE 11, DRAMA 11, MUSIC 11 ART 12, MUSIC 12, ADV ART 12
<b>TOTAL</b>	<b>COMPULSORY CREDITS</b>	<b>13</b>	
<b>ELECTIVES</b>		<b>5</b>	Electives include any courses not previously used to fulfill graduation requirements.
<b>LIMITS</b>	No more than 7 grade 10 level No fewer than 5 grade 12 level	<b>18 or more credits in total to graduate</b>	Cannot receive credit for 2 courses in the same subject as the same grade level (i.e. ENG 11 and ECM 11) or Bio 11 and Human Bio 11.

#### ADDITIONAL COURSES:

Business Ed.	Co-op Education	Family Studies	Languages	Social Studies
ACCOUNTING 11 BUS TEC11 BUS MAN12	CO-OP ED 12	CHLD ST11 CAN FAM12	FR-CORE 10, 11, 12 FRA IMM 10, 11, 12	GEOG 10, HIST 10, GEOG 11, ECON 11, DROIT 12, LAW 12, POLI SCI112, SOC 12, SOC 12: ACAD.