

# ***Course Descriptions***

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***2023 - 2024***

***HARBOUR VIEW HIGH SCHOOL***



*305 Douglas Avenue  
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## **HVHS Credit Course Descriptions**

### ***AP (Advanced Placement)***

Contact SPR: Mrs. J. Brown  
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#### **AP Capstone Diploma**

##### **AP Capstone Diploma**

If you wish to obtain an AP Capstone Diploma you will need to take AP Seminar, AP Research, and **four** other AP courses and exams. If you take AP Seminar and AP Research, you'll earn an AP Research and Seminar Certificate. **These are both impressive accomplishments that demonstrate your ability to successfully manage college-level academic challenges.**

##### **AP Studio Art**

The Advanced Studio is a course designed to be the equivalent of a first-year college art class. It is an intensive hands-on course which develops a comprehensive portfolio that meets the requirements for college-level classes. Students investigate all three portfolio components - Quality, Concentration, and Breadth. To enroll, students must satisfy a pre-requisite of two years of previous study in art during high school and must also pass a portfolio review. A substantial amount of work is required outside of class. **Prerequisite: Visual Art 110/120**

##### **AP Biology**

This course is designed to be equivalent to an introductory college course for science majors. Passing the AP exam may qualify students for credit at many colleges. **It is assumed that all students enrolling in AP Biology have successfully completed Biology 111 and Biology 121 with a high degree of proficiency (mark of 75%).** Taking introductory chemistry before or during AP Biology is also very helpful.

##### **AP Calculus**

The content of the course follows an introductory university calculus course and includes such topics as limits of functions, asymptotic and unbound behaviour, continuity as a property of functions, derivatives, related rates, curve-sketching, interpretation and properties of definite integrals. **Prerequisite: 85% in Calculus 120**

##### **AP Chemistry**

This course is designed to be the equivalent of the general chemistry course usually taken during the first university year. For some students, this course enables them to undertake, as freshmen, second-year work in the chemistry sequence at their institution or to register for courses in other fields where general chemistry is a prerequisite. **It is assumed that all students enrolling in AP Chemistry have successfully completed Chemistry 111 and Chemistry 121 with a high degree of proficiency (mark of 75%).**

##### **AP Comparative Government and Politics**

This is an introductory college-level course in comparative government and politics. The course uses a comparative approach to examine the political structures; policies; and political, economic, and social challenges of six selected countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Students cultivate their understanding of comparative government and politics through analysis of data and text-based sources as they explore topics like power and authority, legitimacy and stability, democratization, internal and external forces, and methods of political analysis. **(Through Distance Learning)**



### **AP Computer Science Principles**

AP Computer Science Principles is an introductory college-level computing course that introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs.

### **AP English Language and Composition / English 111 (three credits)**

This course is designed for students whose aptitudes and interests in language and literature are above average. This full year, three credit courses will provide an enriched variety of experiences with language and texts to challenge and refine students' competencies. Greater range and depth of the English Language Arts English 11 curriculum plus more independent and interdependent experiences will accommodate students' interests and talents. The AP English Language and Composition component cultivates the reading and writing skills that students need for college success and for intellectually responsible civic engagement. Students will become curious, critical, and responsive readers of diverse texts, becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes. The reading and writing students do in the course should deepen their understanding of how written language functions rhetorically: to communicate writers' intentions and elicit readers' responses in particular situations.

**Prerequisite for English 111: 85% in English 10**

**Prerequisite for English 121: an English 111 credit or 80% in English 112**

### **AP English Literature**

This course is for any student who enjoys reading, discussing, and writing about literature. The discussions involve structure, style, and themes, as well as figurative language, imagery, symbolism, and tone. If you are planning on completing a Bachelor of Arts degree, or just love reading and learning about how writers use language to provide meaning and pleasure, you should take this course!

**Prerequisite: English 121 or 80% in English 122 or permission from English SPR.**

### **AP Environmental Science**

The goal of this course is to provide students with the scientific principles, concepts, and field techniques to understand the interconnectedness of the natural world. Students will be expected to identify and analyze naturally occurring and anthropogenic environmental problems. They will be expected to assess the risks associated with these problems and to examine solutions for resolving and/or preventing them. **Prerequisite: Advanced Environmental Science 120 or permission from the Science SPR.**

### **AP European History**

In this course students will do independent, analytical and critical research using primary sources. A strong writing background and ability to do work on one's own is needed. AP will give students an opportunity to take a university level course. **Prerequisite: 85% in Modern History 111 or FI Modern History 11**

### **AP French Language and Culture**

The AP French Language and Culture course is designed to promote proficiency in French and to enable students to explore culture in contemporary and historical contexts. The course prepares students to use the French language in real-life settings and develop language skills that can be applied beyond the French course in further French study. The course focuses on developing skills in the Interpersonal (conversations), Interpretive (reading) and Presentational (speaking and writing) communications through the use of a variety of topics in interesting, meaningful and engaging contexts. **Prerequisite: FI Language Arts 120 or French 121**



## **AP Music Theory**

Learn to recognize, understand, and describe the basic materials and processes of music. You'll develop skills by listening to, reading, writing, and performing a wide variety of music.

## **AP Physics**

This course gives any student considering studying science or engineering subjects after high school the opportunity to take a college-level physics course and exam while still in high school. It is assumed that students enrolling in AP Physics have a genuine interest in Physics and have an above average ability in mathematics. **Prerequisite: Physics 111 and Physics 121**

## **AP Psychology**

Explore the ideas, theories, and methods of the scientific study of behavior and mental processes. You'll examine the concepts of psychology through reading and discussion and you'll analyze data from psychological research studies. Skills you will learn connecting psychological concepts and theories to real-life scenarios, understanding and interpreting data, and analyzing research studies in psychology.

**Prerequisite: Psychology 120 or permission from English and Humanities SPRs.**

## **AP Research**

This course is designed to allow students to explore deeply an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a research investigation to address a research question. Students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; accessing, analyzing, and synthesizing information as they address a research question. The course culminates in an academic paper of 4000-5000 words and a presentation with an oral defense.

**Prerequisite: AP Seminar**

## **AP Seminar / World Issues 120**

AP Seminar/World Issues is a year-long 2 credit courses where students learn to conduct independent research involving advanced texts and media, synthesize information from multiple perspectives, and argue their point of view through written essays and team-based oral presentations. In the process, students engage with complex ideas and events shaping the world today. They learn about the unity and diversity of human experience; the interdependent systems that link humans to each other and the natural world, and the geopolitical tensions arising from competing rights and responsibilities on the local, national, and world stages. Ultimately, the course aims to empower students with the ability to evaluate information with accuracy and communicate evidence-based arguments.

**Prerequisite: English 9 – 85% or Teacher's recommendation.**

## **AP World History: Modern**

This is an introductory college-level modern world history course. Students cultivate their understanding of world history from c. 1200 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. **(Through Distance Learning)**



# ENGLISH

SPR: Miss Jennifer Oram  
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## Canadian Literature 120

Canadian Literature 120 involves the study of a variety of literary genres from past eras to present day. Through the study of selected poems, novels, essays, and plays students will become more aware of our unique style and heritage. This course is open to all students in grades eleven or twelve, but will appeal most to those who like to read, discuss issues, and have a genuine interest in how writers reflect our identity.

## English 111 + AP English Language (3 credits)

This course is designed for students whose aptitudes and interests in language and literature are above average. This full year, three credit courses will provide an enriched variety of experiences with language and texts to challenge and refine students' competencies. Greater range and depth of the English Language Arts English 11 curriculum plus more independent and interdependent experiences will accommodate students' interests and talents. The AP English Language and Composition component cultivates the reading and writing skills that students need for college success and for intellectually responsible civic engagement. Students will become curious, critical, and responsive readers of diverse texts, becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes. The reading and writing students do in the course should deepen their understanding of how written language functions rhetorically: to communicate writers' intentions and elicit readers' responses in particular situations.

**Prerequisite for English 111: 85% in English 10**

**Prerequisite for English 121: an English 111 credit or 80% in English 112**

## English 111 – 121

This pair of courses is designed for students whose aptitudes and interests in language/literature are above average. These courses will provide an enriched variety of experiences with language and texts to challenge and refine students' competencies. Greater range and depth of the content plus more independent and interdependent experiences will accommodate students' interests and talents.

**Prerequisite for English 111: 85% in English 10**

**Prerequisite for English 121: an English 111 credit or 80% in English 112**

## English 112 – 122

This pair of courses is appropriate for students intending to pursue studies at a post-secondary institution. Each of the English courses will provide a wide variety of experiences with literacy skills and writing formats. English 112 will focus on argument, persuasion, fact and opinion, a Shakespearean play and other significant literary pieces; English 122 will concentrate on critical comprehension and evaluation skills of Canadian and world literature, including a Shakespearean play. **Prerequisite for**

**English 112: 60% in English 10**

**Prerequisite for English 122: an English 112 credit.**

## English 113 – 123

These courses are intended for students who do not plan to attend academic post-secondary institutions. English 113 and 123 provide a variety of experiences with language and texts to develop students' competencies in thinking, reading, viewing, writing, listening and speaking. High priority is given to comprehension and to effective written and oral communication. Students will concentrate on improving strategies for learning from literary, technical and media texts; practical and personal writing is stressed.



## **English 110**

This English course is an Additional Language (EAL) course designed for students entering High School whose first language is not English. This course provides a variety of experiences to help students acquire beginner/intermediate skills in reading/writing as well as listening/speaking.

## **Journalism 120**

This is a course designed for students who want to learn more about newspaper publishing, effective communication skills, and proper journalistic writing style. Students in this course gather information, write articles, and edit them for the possibility of publication. Students will also utilize creative skills in photography, design and layout, and learn about journalistic ethics.

**Prerequisite: English 10**

## **Media Studies 120**

This course examines different forms of communication and their impact on the individual and society. The course focuses heavily on class discussions, group work and in-depth examination of various topics associated with Media. Students will learn to recognize the unique attributes of several forms of media and their distinct effects. They will investigate such issues as media ownership, public access, gender issues in advertising, and media literacy to name a few. Students will also examine various media sources/examples to detect inherent strengths and weaknesses like the promotion of humanitarianism, or political propaganda. For their final summative assessment, students will be required to construct their own media product utilizing digital media editing software (GIMP 2.0, Photoshop). Tutorials on how to use the available software will be given.

## **Reading Tutor 120**

In Reading Tutor 120, senior student tutors are paired with younger struggling readers. In the theoretical portion of the course, tutors will be introduced to techniques and methods for teaching reading and writing strategies; in the practical portion, they will actually work with a weaker reader. This course would be of particular interest for those students planning to enter the field of Education.

## **Writing 110**

Writing 110 provides an opportunity for motivated students to hone their writing skills by taking part in a variety of writing activities including, but not limited to, creative non-fiction, fiction, and poetry. Students will have the opportunity to share their work with each other in a workshop setting. Students will participate in NaNoWriMo, writing the first draft of a novel. Student work will be assessed throughout the course and culminate in a portfolio.



# FRENCH

Contact SPR: Mr. Troy Sprague-Hay  
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## **French Immersion Biology 111**

This course covers the same topics as the Biology 112 course (see below) but in greater detail. It is geared for students with a greater interest in biology, those who are looking to further their education in biology and those interested in the AP Biology course. There will be an increased emphasis on evolution and evolutionary trends seen in living organisms. Intensive lab work and dissections are a significant part of Biology 111.

**Prerequisite: 75% in Science 10**

## **French Immersion Biology 112**

This introductory biology course covers a variety of topics. Students will begin with a review of the plant and animal cell. Cellular processes are then examined followed by an examination of the classification system. Representative organisms are looked at from each Kingdom as well as viruses. The second half of the course focuses on the human body. Topics include the digestive, circulatory, endocrine and nervous systems. Lab work and dissections are an important part of this class.

**Prerequisite: Grade 10 Science**

## **French Immersion Foundations of Mathematics 11**

This course is a prerequisite for a second Foundations of Mathematics course in Grade 12, providing a pathway designed for entry into academic programs not requiring Pre-Calculus. It is also a prerequisite for the Pre-Calculus pathway. Students develop spatial sense and proportional reasoning through problems that involve rates, scale diagrams and relationships among similar 2-D and 3-D shapes and objects. Students develop logical reasoning skills and apply this to proofs and problems involving angles and triangles, the sine law and the cosine law. Students model and solve problems involving systems of linear inequality in two variables and explore characteristics of quadratic functions. Costs and benefits of renting and leasing and buying are explored and investment portfolios are analyzed. This is a prerequisite for Foundations of Mathematics 12 and a prerequisite or co-requisite for Pre-Calculus 11.

## **French Immersion Individual and Family Dynamics 120**

The overall aim of Individual and Family Dynamics 120 is to provide students with the necessary knowledge, skills, and abilities to meet the challenges of our dynamic and complex society. The course focuses on the development of resourcefulness to assist students in viewing the family from various perspectives and to make informed decisions about solutions to existing and emerging difficulties occurring in everyday living. The interrelatedness between family and work life is addressed as well as the need to understand better daily family issues and their impact on both the family and work environments. Ind. Family Dynamics 120 has been designed for students who plan to undertake further studies in this field and those who wish to expand their knowledge in the area of family studies.

## **French Immersion Language Arts 120**

Students will focus on written and oral communications skills. Students will be required to read novels and give oral and written presentations based on a variety of subject areas. All students will be given an oral interview evaluated by a representative from the Department of Education. Students will receive a certificate indicating their rating according to the N.B. proficiency scale.

**Prerequisite: F.I. Language Arts 110.**



### **French Immersion Language Arts 110**

Students will focus on written and oral communication skills. Students will be required to read novels, give oral and written presentations based on a variety of subject areas.

**Prerequisite: F.I. Language Arts 10**

### **French Immersion Modern History 112**

The goal of this course is to develop a deeper understanding of modern history's influence on our perception of the world. Refer to the course description in Modern History 112 for curriculum.

### **French Immersion Pre-Calculus 11**

This course, followed by later courses in Pre-Calculus and Calculus, is designed for entry into post-secondary programs requiring Pre-Calculus. Students demonstrate an understanding of absolute value of real numbers, and solve problems that involve radicals, radical expressions, and radical equations. Students determine equivalent forms, simplify rational expressions, and solve problems that involve rational equations. They develop an understanding of angles in standard position ( $0^\circ$  to  $360^\circ$ ) and solve problems for these angles using the three primary trigonometric ratios. Polynomial expressions are factored and absolute value functions and quadratic functions are analyzed and graphed. Students solve problems that involve quadratic equations and solve, algebraically and graphically, problems that involve systems of linear-quadratic and quadratic-quadratic equations in two variables. They also solve problems that involve linear and quadratic inequalities in two variables, and quadratic inequalities in one variable.

**Prerequisite for Pre-Calculus 12A.**

### **French Immersion World Issues 120**

This course examines issues that are global in nature and will require a global solution. Students must stay abreast of 'breaking news' as it affects the relationship amongst all the players in the global community. Students will deconstruct how topical challenges have been faced in the past, and what viable solutions are needed for their generation. Students will be involved in active forms of discussion such as debate, role-playing, seminar presentation and peer evaluation.

**Prerequisite: Grade 11 FI Modern History**

### **Post Intensive French 110**

This course extends the range of language skills, structures and concepts for effective communication in French in a variety of situations. It is designed for students who have successfully completed French 10. Students who wish to broaden the scope of their communicative skills in the second official language are excellent candidates for this course. Daily oral participation and individual and/or group presentations are required during this course.

**Prerequisite: PI French 10 or 75% or higher to take level one.**

### **Post Intensive French 120**

The goals of the course are to broaden the second language students' oral and written communications skills. A variety of project work, novels, newspaper articles and oral presentations are included in this course. All grade twelve French Second language students will participate in the oral interview, which will be evaluated by the Department of Education. Students will receive a certificate indicating their rating of proficiency according to the N.B. proficiency scale.

**Prerequisite: PI French 110.**





## **Ancient and Medieval Studies 112**

The roots of the present lie deep in the past. An understanding of ancient and medieval societies will not only give students the ability to think critically about that influence and about many other issues but also foster the development of historical thinking. Students should have opportunities to examine ancient societies to understand what happened in the past and what characteristics have endured. Ancient and medieval societies have rich primary source traditions, which allows students to grapple with a variety of types of evidence. From Egyptian hieroglyphics to the Roman Colosseum and from the archaeological evidence for everyday life around the world to oral traditions that have been passed down over thousands of years, ancient and medieval histories provide students great opportunities to consider how we know what we think we know and why certain interpretations carry more weight than others.

## **Canadian Geography 120**

Canadian Geography 120 is the study of the ever-changing cultural and physical landscapes of Canada and how they impact on each other. It examines physical systems and interrelates these with human-made structures and systems. It focuses on environmental issues. Geographic understandings and skills are integrated throughout the course.

## **Canadian History 122**

This course presents the history of Canada from the early years of the nineteenth century to the present. Topics examined include: Pre-Confederation, the Confederation Era, the MacDonald Era: Expansion and Consolidation, the Laurier Era: Prosperity and Development, Years of Crisis, Between the Wars, Canada in World War II, and Canada in the Modern World.

**Prerequisite: Modern History 111 or 112**

## **Canadian History 121**

Canadian History 121 is a thematic study of Canada covering the last century. Themes examined include: The Constitution (Dilemma or Identity), Social Issues and Economics (ex: Nationalism versus Internationalism).

**Prerequisite: Modern History 111 or 75% in Modern History 112.**

## **Child Studies 120**

This course is designed for students who plan to undertake further studies in this or related fields, and those students who wish to expand their knowledge of the developing child. The course has three purposes: 1. to help students develop an intellectual and emotional understanding of children; 2. to help gain personal skills for participating with children; and 3. to develop in students the learning skills they will need in order to be successful in their relationships with children.

## **Economics 120**

This is an elective course that provides a general overview of the way our economic system works. It is designed to develop an understanding of the concepts and techniques needed in making economic decisions, and to develop an awareness of the major economic problems and issues of the day. The course also provides some experience in the application of economic knowledge, concepts, and techniques.



### **Hospitality and Tourism 110** (Computer based) (Occupational)

This course creates an appreciation for the Maritimes, particularly New Brunswick. Through exploration of careers, concepts, trends and marketing, this course develops an understanding of the tourism industry and the skills needed to work in this field.

### **Indigenous Studies 120**

This course is designed to discuss and deconstruct the history, culture and conflicts of the First Nation peoples across Canada. Issues of today are examined.

**Prerequisite: Grade 11 Modern History**

### **Law 120**

This course is designed to give students knowledge of Canadian law, changes in Canadian Law caused by changes in the written law, as well as changes caused by court decisions, and the major changes the constitution has brought about. Areas of study include the Origins of the Canadian Legal System, Criminal law, Torts/Civil law, Family Law, and Wills and Estates. In all areas the Charter of Rights and Freedoms and Human Rights Legislation is considered. Actual case studies are used to illustrate situations within these areas of law.

### **Modern History 111**

This enriched course is an in-depth thematic study of major events in modern Europe history that have shaped the 21st century. Topics discussed include the French, Industrial, and Russian Revolutions, the rise of both the far right and left; Totalitarianism; the two world wars and the Cold War. Students may be called upon to make oral presentations and an in-depth essay analysis.

### **Modern History 112**

Modern History 112 follows the secularization of Western society with particular emphasis on the revolutions on the 19th and 20th centuries. Topics will include the French, Industrial and Russian Revolutions, the World Wars, the rise of Totalitarianism and the Cold War. Students may be called upon to make oral presentations or an in-depth essay analysis.

### **Modern History 113**

Modern History 113 is designed to provide an understanding of the main events of the twentieth century, as well as some familiarity with basic skills used to interpret historical accounts. A survey approach is given to the following topics: World Geography, the revolutions of France, Industrialization, and Russia; rise of Totalitarianism, the two world wars and the Cold War.

### **Political Science 120**

This course will introduce students to some of the political philosophers responsible for the systems of government found around the world today. Through contrasting many of these systems, the merits of each will be compared and contrasted to the Canadian system.

**Prerequisite: Grade 11 Modern History**

### **Psychology 120**

This introductory course will offer students an engaging look at the science of psychology. Psychology is the scientific study of behavior and mental processes. We will explore a variety of topics including the history of psychology, important thinkers, the brain structure, the conscious experience and more.



## **Sociology 120**

This dynamic course tries to answer the question of why we behave the way we do. It is the systematic study of human society and social interaction and focuses on how humans behave in and are influenced by groups. Some aspects of psychology as well as cultural anthropology will be examined. Units of study include: The Sociological Perspective; Culture; Racism, Stereotypes and Prejudice; and Socialization.

## **World Issues 120**

This course examines issues that are global in nature and that require a global solution. The concept of the global village is studied, as is the relationship between nations as players in the global community. Students will deconstruct how challenges have been faced and seek solutions for the coming generation.

**Prerequisite: Grade 11 Modern History**



# MATHEMATICS

Contact SPR: Mrs. Katie McDevitt  
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## Calculus 120

This is the last course offered in the Pre-Calculus Pathway and follows Pre-Calculus B 120. This course develops the concepts of average and instantaneous rates of change. Derivatives are determined by applying the definition of a derivative and the derivative rules including the Chain Rule and are determined for trigonometric functions. Limits and derivatives of exponential and logarithmic functions are found. Calculus techniques are used to sketch graphs of functions, and to solve optimization problems. Problems are solved involving inverse trigonometric functions, involving related rates and involving the application of the integral of a function from a variety of fields. The definite integral and the antiderivative of a function are determined.

**Prerequisites: Pre-Calculus A 120 and Pre-Calculus B 120**

## Financial and Workplace Mathematics 110

This course is the first of two courses in the Financial and Workplace pathway designed for entry into post-secondary trades and technical programs, or for direct entry into the work force. Concepts of right triangles, trigonometry, and angles of elevation and depression are applied to contextual problems. Scale models and drawings of 2-D and 3-D objects are constructed from various views and perspectives. Students are challenged to solve problems that involve numerical reasoning. Costs and benefits of renting, leasing and buying are explored, investment portfolios analyzed and personal budgets developed. Students manipulate and apply formulas in a variety of ways and solve problems using proportional reasoning and unit analysis. Students have a choice of this course or **Foundations of Mathematics 11** to complete graduation requirements. **Prerequisites: GMF 10 (Also FI)**

## Foundations of Mathematics 110

This course is a prerequisite for a second **Foundations of Mathematics** course in Grade 12, providing a pathway designed for entry into academic programs not requiring Pre-Calculus. It is also a prerequisite for the Pre-Calculus pathway. Students develop spatial sense and proportional reasoning through problems that involve rates, scale diagrams and relationships among similar 2-D and 3-D shapes and objects. Students develop logical reasoning skills and apply this to proofs and problems involving angles and triangles, the sine law and the cosine law. Students model and solve problems involving systems of linear inequality in two variables and explore characteristics of quadratic functions. Costs and benefits of renting, leasing and buying are explored, and investment portfolios are analyzed. This is a prerequisite for **Foundations of Mathematics 12** and a prerequisite or co-requisite for **Pre-Calculus 11**.

## Foundations of Mathematics 120

This is the second of two courses in the Foundations of Mathematics pathway designed for entry into post-secondary academic programs not requiring Pre-Calculus. In statistics, students are introduced to normal curves, and learn to interpret statistical data, using confidence intervals, confidence levels, and margins of error. To develop logical reasoning students analyze puzzles and games and solve problems that involve application of set theory and conditional statements. The validity of odds and probability statements are assessed, and problems are solved that involve probability of two events, the fundamental counting principle, permutations, and combinations. The binomial theorem is used to expand powers of a binomial. Data is represented using polynomial functions, exponential and logarithmic functions and sinusoidal functions to solve problems.

**Foundations of Mathematics 110** is a prerequisite for this course.



## **Geometry, Measurement, and Finance 10**

Topics: Pythagorean Theorem, polygons, angles, trigonometric ratios, metric and imperial systems of measurement, surface area and volume, unit pricing, currency exchange, income (gross pay and net pay) credit cards, loans, interest.

## **NBCC Skill Trade Work Ready Math 120**

The NBCC Dual-Credit Skilled Trades Mathematics course focuses on refreshing math skills and solving contextual problems related to skilled trades. Students will gain independence by learning in a self-paced environment and will complete personalized, hands-on projects that incorporate multiple trades. **Once a student successfully completes this course, it can be used as a credit toward many trades' programs at NBCC.**

## **Numbers, Function & Relations (NRF)**

This course is the first course on the academic pathway and is the prerequisite for Foundations 110. This course gives students the basic principles in prime and polynomial factoring, radicals and rational exponents, exponent laws, including negative exponents, linear relations and systems of linear equations and the examination of relations and functions, including their similarities and differences along with function notation.

## **Pre-Calculus 110**

This course followed by later courses in Pre-Calculus and Calculus is designed for entry into post-secondary programs requiring Pre-Calculus. Students demonstrate an understanding of absolute value of real numbers, and solve problems that involve radicals, radical expressions, and radical equations. Students determine equivalent forms, simplify rational expressions, and solve problems that involve rational equations. They develop an understanding of angles in standard position ( $0^\circ$  to  $360^\circ$ ) and solve problems for these angles using the three primary trigonometric ratios. Polynomial expressions are factored, and absolute value functions and quadratic functions are analyzed and graphed. Students solve problems that involve quadratic equations and solve, algebraically and graphically, problems that involve systems of linear-quadratic and quadratic-quadratic equations in two variables. They also solve problems that involve linear and quadratic inequalities in two variables, and quadratic inequalities in one variable.

**Prerequisite: Pre-Cal. 12A**

## **Pre-Calculus A 120**

This course follows **Pre-Calculus 110** and is a prerequisite for **Pre-Calculus B 120**. Students demonstrate and apply an understanding of the effects of horizontal and vertical translations, horizontal and vertical stretches, and reflections on graphs of functions and their related equations. They are introduced to inverses of functions, logarithms, and the product, quotient and power laws of logarithms and use these laws and the relationship between logarithmic and exponential functions to solve problems. Students are introduced to angles in standard position, expressed in degrees and radians, and to the unit circle. The six trigonometric ratios, and the sine, cosine and tangent functions are used to solve problems. First and second-degree trigonometric equations are solved algebraically and graphically with the domain expressed in degrees and radians. Trigonometric identities are proven using reciprocal, quotient, Pythagorean, sum or difference, and double-angle identities.

**Prerequisite: Pre-Calculus 110**



## **Pre-Calculus B 120**

This course precedes **Calculus 120**. Students analyze arithmetic and geometric sequences and series to solve problems. They learn to factor polynomials of degree greater than 2, and to graph and analyze polynomial functions. They also graph and analyze radical, reciprocal and rational functions, building a function toolkit. Students are introduced to the concept of limits and determine the limit of a function at a point both graphically and analytically. They explore and analyze left- and right-hand limits as  $x$  approaches a certain value using correct notation, analyze the continuity of a function and explore limits which involve infinity.

**Prerequisite: Pre-Calculus A 120**



## **Advanced Environmental Science 120**

The goal of this course is to provide students with opportunity to explore the scope of environmental science and how it links to other disciplines and will apply their science literacy skills to environmental issues. Students will explore different perspectives, and different world views of the environment and examine how this affects policies, legislation, cultural perspective, economics and community aspects which impact on these issues. Students will describe the biodiversity and the natural dynamics of terrestrial, aquatic and human community systems, both what a healthy ecosystem looks like, and the issues relating to human interaction with the ecosystem. They will be expected to assess the risks associated with these problems and to examine solutions for resolving and/or preventing them. Students will also be required to demonstrate personal appreciation of, stewardship of and advocacy for the environment, and will be challenged to engage others in environmental inquiry. **Prerequisite: Biology 111-112 or Chemistry 111-112 or Introduction to Environ. Science 120**

## **Agriculture 110**

Agriculture 110 includes the history and evolution of Agriculture in New Brunswick which recognizes Indigenous and settler contributions, everyday impacts on life in New Brunswick, and specific types of Agriculture predominant in New Brunswick. Learners will apply knowledge of plants and animals to local contexts, to introductory plant growing and animal care research skills. This leads to creating quality Agriculture products and/or operations. Learners will apply skills during Agriculture experiences and/or work placements and will build knowledge in Agriculture careers. Agriculture 110 allows the opportunity for a learner-led personal choice project or development of a business proposal and plan to summarize and demonstrate learning.

## **Biology 111**

This course covers the same topics as the Biology 112 course (see below) but in greater detail. It is geared for students with a greater interest in biology, those who are looking to further their education in biology and those interested in the AP Biology course. There will be an increased emphasis on evolution and evolutionary trends seen in living organisms. Intensive lab work and dissections are a significant part of Biology 111.

**Prerequisite: 75% in Science 10**

## **Biology 112**

This introductory biology course covers a variety of topics. Students will begin with a review of the plant and animal cell. Cellular processes are then examined followed by an examination of the classification system. Representative organisms are looked at from each Kingdom as well as viruses. The second half of the course focuses on the human body. Topics include the digestive, circulatory, endocrine and nervous systems. Lab work and dissections are an important part of this class.

**Prerequisite: Grade 10 Science.**

## **Biology 121**

The topics covered include ecological issues, genetics, biotechnology and evolutionary theories. Students who have successfully completed Biology 111 will be prepared to take this course. This course is a prerequisite for AP Biology.

## **Biology 122**

This course looks at cellular biology and the impact of the electron Microscope. The biochemistry of the cell physiology, which includes DNA action, cellular respiration and photosynthesis, is considered beyond the introductory level. Human anatomy and physiology using a homeostasis theme is



considered. This section is confirmed through the dissection of a fetal pig. Students who have had Biology 112 and some chemistry will feel comfortable in this course. **Prerequisite: Biology 112**

### **Chemistry 111**

This course is recommended for students who are interested in pursuing a career in science or engineering at the university level. Students who choose this course should have a genuine interest and superior skills in mathematics. Students considering AP Chemistry must take this course.

**Prerequisite: 75% in Science 10**

### **Chemistry 112**

Topics in this course include an introduction to atomic theories, naming elements and compounds, chemical reactions, gases, solutions, stoichiometry and chemical bonding. There is a significant lab component to this course. **Prerequisite: Science 10**

### **Chemistry 121**

This course follows Chemistry 111. Topics include chemical bonding, energy involved in phase, chemical and nuclear changes, organic chemistry and acid/base chemistry. There is a significant lab component to this course. Students considering AP Chemistry must take this course.

**Prerequisite: Chemistry 111**

### **Chemistry 122**

This course follows Chemistry 112. Topics include chemical bonding, energy involved in phase, chemical and nuclear changes, organic chemistry and acid/base chemistry. There is a significant lab component to this course. **Prerequisite: Chemistry 112**

### **Environmental Geoscience**

Geoscience, the study of planet Earth, can include geochemistry, geology, geomatics, geophysics, hydrogeology, paleontology, physical geography, etc. Environmental geoscience can also include environmental sciences, meteorology, soil sciences, oceanography, etc. In Environmental Geoscience 110, learners will consider how Earth systems change over time. Geographic science is applied to the arrangement, interaction, and change of physical/natural features and human activity on and near Earth's surface including safer and more sustainable ways of searching for Earth resources, disposing of waste, selecting places to live and constructing new buildings, etc. Geomatics, a subset of geographic science, allows learners to explore technologies for collecting, managing, and analyzing data about Earth and phenomena arranged on and near its surface

### **Human Physiology 110**

The goal of this course is to build an understanding of the physiology of the human body as a complex dynamic organism that is self-contained but impacted by and responsive to the outside world. Throughout the course students will build their scientific literacy skills as they learn to navigate the information provided on human health and human body systems. By the end of this course, students will have developed a holistic personal wellness plan, demonstrating their understanding of overall health, human physiology, and the effect of disease and lifestyle choices (**This is recommended as the first Science credit before Biology**)

### **Introduction to Environmental Science 120**

The objective of this introductory course is for students to develop the knowledge base and skills for investigating and analyzing environmental issues and for communicating their knowledge and analysis to others. Students will investigate population growth and resource limitations, ecology of natural systems, historical and current approaches to the environment, and sustainability of natural environments. They will explore the interconnectedness of natural ecosystems and human dependence and impact on these systems. They will recognize the importance of considering environmental, social,





cultural and economic aspects of an issue to find solutions. Students will complete a research project on a current issue and present their findings and will further explore this and other environmental issues through various methods of inquiry.

### **Physics 111**

This course follows the same content as Physics 112 (see below) but in greater depth. Students considering taking AP Physics must take this course. **Prerequisite: Grade 10 Science**

### **Physics 112**

This is a course which will be valuable for students interested in medical, engineering, technician, electrical and construction careers, as well as those who are curious about the world around them. The course covers the areas of waves (light and sound), motion, forces, work and energy. There is a strong practical component drawing on experimental and problem-solving skills.

**Prerequisite: Grade 10 Science**

### **Physics 121**

This course will build upon the key principles introduced in Physics 111. The course follows the same content as Physics 122 but in greater depth. Students considering taking AP Physics must take this course. **Prerequisite: Physics 111**

### **Physics 122**

This course will build upon the key principles introduced in Physics 112. Students will examine motion in two dimensions, projectiles, circular motion, force fields and electricity. As in grade 11 there is an emphasis on critical thinking and application of the material covered to everyday problems and engineering. **Prerequisite: Physics 112**

### **Science122**

This course is highly recommended for students who are planning to further their education in engineering, chemistry or any of the other physical sciences. **This course is open to any student who has completed Physics 112/111, Physics 122/121, Chemistry 112/111, and Chemistry 112/121.** Lab work is a significant part of this course.



# TECHNOLOGY

Contact SPR: Mrs. Jennifer Brown  
[JenniferA.Brown@nbed.nb.ca](mailto:JenniferA.Brown@nbed.nb.ca)

## **Computer Aided Design 110**(ICT)

This is an introductory course designed to give students a solid base of knowledge and skill in the drafting area. Through various activities, including sketching and computer assisted drawing (CAD), students gain the skills necessary both to visualize and present ideas graphically. In CAD 110, students will have the opportunity to experience drafting using 2D and 3D computer applications as well as learning about 3D printing. As use of this form of graphic communication is so universal, this course would be of interest and benefit to a wide range of students beyond those pursuing a career specifically in the drafting industry or technology/engineering areas.

## **Computer Science 110**(ICT)

This is a course designed to introduce the student to the process of developing a structured approach to writing computer instructions using a high-level language. Students will learn programming concepts using the Python language. The course is intended to develop problem-solving skills, logical-thinking skills, organizational skills and teamwork approaches. This course is a desired prerequisite for Computer Science 120.

## **Computer Science 120**(ICT)

Computer Science 120 is recommended for students with a strong interest in computer programming. Students will learn the basic syntax of the Java language, program Java Applets and write simple programs using object-oriented design principles. The course provides a good foundation for students who wish to pursue a post-secondary program in computer science.

## **Cybersecurity 120**(ICT)

The Cybersecurity 120 course will inspire students through the experiential learning of the fundamentals and possibilities of cybersecurity. In this course, students will be actively engaged in the design, development and evaluation of defensive cybersecurity projects, including awareness, concepts and challenges. Topics will include networks, vulnerabilities, malware, access control, privacy and encryption.

## **Digital Production 120**(ICT)

Digital Production 120 offers students opportunities to produce different forms of media including websites, digital imaging, audio and video production. Students will also explore ethical issues surrounding media production and consumption, copyright and the appropriate use of copyrighted materials.

## **Information Technology 120**(ICT)

This course introduces students to technical applications necessary to build proficient IT skills. Students will learn, in-depth, the major components of Microsoft Office, including: Word, Excel, Access, Publisher and PowerPoint. With a focus on the communication of information, this course will explore a number of technical ideologies that will give the student the ability to analyze, synthesize and evaluate situations at home, school or work.

## **Robotics & Automated Technology 120**(ICT)

This course introduces students to the skills and knowledge required to pursue further studies in the robotics field. This course is designed for students who are interested in a technical or engineering career. Three main disciplines—computer science, electronics, and engineering—interrelate in robotic technology concepts. Students will be involved with the assembly of components in order to



build a robot. Automated or robotic technology will be explored through experimentation, including hands-on and programming of robotic devices. Students will work to create automatic or robot-operated systems that model concepts used in industry.

## **PERSONALIZED WELL-BEING**

Contact: Appropriate SPR/Teacher

**Agriculture 110** (Career)  
See Science section.

**Co-operative Education 120 (3 credits - application required)** (Career) (Contact: Humanities SPR) This course is available to grades 11 & 12 students. Preference is given to grade 12 students. Students who qualify are placed in a career, and as a result benefit from actual experience in the working world. The experience is worthwhile, and a sense of accomplishment is one of the greatest rewards. Regular class sessions are held in school in order to learn fundamentals of employment readiness and to allow students to evaluate their experiences through reflective study. A high degree of self-discipline proves essential in the students' overall success.

**COOP 120 (2 credits) (Innovation Development Entrepreneurship Action (I.D.E.A))** (Career)

Students will gain experience through high levels of engagement as they work independently and in teams to research problems in their communities, develop social ventures and launch new initiatives to explore the entrepreneurial ecosystem while contributing positively to their communities. Students will develop skills required to work in a business; as an owner, operator, innovator, community organizer, information analyst, marketing consultant, electronic commerce specialist, and be aware of the international and local economy. Through this new program, students will learn technical skills required to analyze market and community problems and opportunities, as well as to develop solutions that incorporate resources, community assets and technology effectively.

Students will identify, research and address community problems through the vehicle of social enterprise and entrepreneurship. The students' work will be guided and accelerated by potential connections with community-based mentors such as Enterprise Saint John, Connexionworks, the Social Enterprise Hub, Junior Achievement, Brilliant Labs and many others. This afternoon course takes place in downtown Saint John and counts for two credits towards graduation.

**COOP 120 (1 credit) (Mentorship Virtual Coop 120)** (Career)

This 1-period coop is for students who are highly motivated, and who can work with limited supervision and direction. Not all students will succeed in this environment. Students will be interviewed to find appropriate mentor. Supplemental resources have been developed online to assist in the delivery of the program. (For more details contact Mike Cusack (mike.cusack@gnb.ca).

**Culinary Technology 110** (Skilled Trade)

**(Course Fee \$10.00)**

This course is an introduction to the food service industry. Through participation in different experiences within a quantity food service, the student learns both to master skills through practice and to become familiar with the required qualities for employment. Some areas to which the students are exposed include personal hygiene, sanitation, safety precautions, time management, the basic principles of food preparation, and the importance of serving nutritious and appetizing meals.



### **Dramatic Arts 110**(Creative Arts)

Drama 110 is a credit course that students in grades 10, 11, and 12 can take. It is a prerequisite to Drama 120.

Drama 110 students would work toward performing a contemporary or modern monologue and in 120 they would build skills toward producing a classical monologue that would require research and more in-depth historical work and preparation.

Also, drama modules will consist of building skills through Drama in Education which spans the curriculum in terms of skill based learning. Through Drama in Education students will learn how to prepare themselves both mentally and physically to face the tumultuous world of high school.

### **Entrepreneurship 110** (Occupational) (Contact: Humanities SPR)

This introductory course provides students with an opportunity to learn about and demonstrate entrepreneurial concepts, including gathering market research and speaking in front of an audience. Entrepreneurship 110 includes the development and implementation of a business plan and a requirement to participate in an entrepreneurship market. Students will develop an innovative product or service and attempt to sell it at a market that takes place near the end of the course.

### **Health Care 110**(Wellness)

This course introduces students to content and concepts related to health care and the healthcare system. Students will learn how the Canadian healthcare system works and will be introduced to various medical professionals that work within the system. Students will learn what it takes to be a professional within the different healthcare occupations. They will examine the rights of a healthcare consumer, develop an awareness of related environmental and societal issues and will begin to explore secondary and post-secondary pathways leading to careers in the field

### **Hospitality and Tourism 110** (Computer based) (Occupational)

This course creates an appreciation for the Maritimes, particularly New Brunswick. Through exploration of careers, concepts, trends and marketing, this course develops an understanding of the tourism industry and the skills needed to work in this field.

### **Individual and Family Dynamics 120 (Also FI)**(wellness) (Contact: Humanities SPR)

This course will expose students to the skills and information necessary to make informed decisions about personal development, lifestyle choices, and healthy relationships. This curriculum will help prepare students to have a better understanding of themselves, their family and the world around them. Topics to be considered include universality and uniqueness of families, the single person, alternate lifestyles, mate selection and marriage preparation, and social issues of concern to the family. The knowledge and skills presented in Individual and Family Dynamics 120 will benefit students who may wish to pursue fields of study such as: law enforcement, social services, family law, careers in counselling, psychotherapy and family medicine.

### **(Instrumental) Music Grade 10 (2nd year)** (Creative Arts)

This performance-based course extends the Grade 9 Instrumental music program. Students will continue ensemble playing through a broad repertoire and study basic music theory. **Prerequisite: (Instrumental) Music 9**

### **Music 111**(Creative Arts) (Contact: Humanities SPR)

This course is intended to further the study of music as initiated in the 9-10 programs. All students taking this course must play an instrument or sing at a level suitable to ensure success in the course. Students taking this course as a level 1 elective are expected to be at a performance level of Toronto Conservatory Grade 6. Level 2 students should be able to play at a Toronto conservatory Grade 4 level. In order to achieve success in the course, students must be able to play at least two solo pieces, as



well as perform in ensemble. The course therefore will include solo and group instruction. Music history and theory are an important component of the course. **Prerequisite: Toronto Conservatory Grade 3 (level 2), Grade 5 (Level 1), or successful completion of the Grade 9-10 program with the permission of the instructor.**

**Music 122**(Creative Arts)

(Contact: Humanities SPR)

This course is intended to further the study of music as initiated in Music 111 course. All students taking this course must play an instrument at a level suitable to ensure success in the course. Music history and theory are an important component of the course. **Prerequisite: Music 111**

**Nutrition and Healthy Living 120** (Wellness)

This course is designed to make students aware of preventative strategies to contribute to overall wellness, make healthy food choices and maintain a balance between eating habits and physical activity. Current issues related to chronic diseases, lifestyles, and food technologies will also be discussed. Students will be encouraged to use reliable information to examine their eating habits and lifestyle choices.

**Outdoor Education 110 (course fee \$125 - application required)** (Wellness) (Contact: Athletic SPR)

Outdoor Pursuits 110 provides opportunities for students to explore various outdoor adventure activities such as camping, kayaking, canoeing, backpacking, hiking, cross-country skiing, downhill skiing, snowshoeing, orienteering, and rock climbing. From these experiences they will gain a greater insight, appreciation, concern and knowledge about the outdoor environment and the opportunities that it holds for educational, recreational, and economic benefit. Also throughout the course students will take part in many team-building activities and group problem solving initiatives, where students learn to communicate and support one another to reach their goals, improve self-esteem, develop leadership skills, develop strategies that enhance decision-making, and to respect the differences within a group.

**Physical Education 10**(Wellness)

This course provides students with the opportunity to acquire knowledge about the relationships between their own personal health and physical activity. It will introduce students to a number of recreational activities, many of which they may pursue beyond their high school years. While the course is concerned with the acquisition of knowledge and skill, an essential goal is the development of positive self-esteem and active participation in physical activities. The course emphasizes “fitness for life.”

**Physical Education 10 – Basketball Academy** (Wellness)

This course will cover the outcomes required for HPE 10 but with basketball-specific elements. Training will focus on improving individual skills such as shooting, ball handling, passing, and one on one moves. Defensive and offensive team tactics will also be taught, but the emphasis will be on the individual skills required to perform at game speed. Physical fitness training will also be included and will emphasize how to train in season with students following their own plans to improve flexibility, strength, aerobic and anaerobic capacity.

**Physical Education Leadership 120** (Wellness)

(Contact: Athletic SPR)

This course is designed to fill needs of the community with qualified volunteers. It is an elective course for students with a special interest in physical activities and healthful living, combined with a desire to develop leadership skills, which will enable them to translate their interests into dynamic personal involvement in the community. This course is not an activity course but a leadership course where leadership skills are taught and developed through activities. Activities include teaching classes, organizing intramural sports & class trips to local recreational facilities, coaching extra-curricular teams, and running designated tournaments during the semester.



**Dramatic Arts 120** (Creative Arts)

(Contact: English SPR)

This is a fun and exciting class where students study the history of theatre, costume, makeup, hair, movement, and play theatre games! Mainly, this is a performance-based course in which students perform contemporary and classical monologues and work as an ensemble class towards producing a show.

**Visual Arts 10** (Creative Arts)

This course builds on the skills previously learned in grade 9 Visual Arts. Students will develop skills in shading, colour theory, pattern and design. Students will also create a sculpture using ground paper. The sketchbook is an integral part of this course.

**Visual Arts 110** (Creative Arts)

(Contact: Humanities SPR)

Visual Arts 110 builds on the techniques learned in Grades 9 and 10 Visual Arts, such as perspective drawing, paint application, and figure studies. This class begins with an in-depth study of portraiture in pencil, charcoal & chalk, paint, collage, and Papier Mache. The sketchbook is also an integral part of this course. After examining the lives of great artists such as Kahlo, Picasso, and Escher we explore print making, and painting (in a Cubist or Surrealist style). **Prerequisite: Art 10**

**Visual Arts 120** (Creative Arts)

(Contact: Humanities SPR)

This course is designed for students who wish to investigate art-related interests or careers. The concepts developed in the grade 11 course are enhanced. This course features a series of projects that develop students' skills on an advanced level, in drawing, painting, printmaking and sculpture. Prerequisite: Visual Arts 110

**Wellness through Physical Education 110** (Wellness)

(Contact: Athletic SPR)

The goal of this course is to promote healthy active living for life, and intended to encourage a broad-based exploration of a variety of activities, highlighting non-traditional approaches to fitness and wellness (e.g. yoga, hiking, ultimate frisbee, personal training, Tai Chi). The course will be for students who have successfully completed Grade 9/10 Physical Education and Health and wish to personalize their learning by researching, self-assessing and determining personal preferences for engaging in lifelong physical activity. Students will apply knowledge of fitness and wellness concepts to the creation of a personal healthy active living plan.



## **BUSINESS ELECTIVES**

Contacts: Humanities SPR  
Mathematics SPR

### **Intro to Accounting 120**

(Contact: Mathematics SPR)

This course introduces students to accounting procedures, concepts, and applications. Course topics include the nature of business transactions, various careers associated with financial management, bookkeeping procedures, accounting theory, the accounting cycle, and financial statement analysis. The course is designed for those students intending to study business at post-secondary institutions. Students who register for this course should have felt comfortable completing their previous math courses.

### **Business Organization & Management 120** (Occupational)

(Contact: Humanities SPR)

This course focuses on ways in which organizations deal with issues affecting their competitiveness in a changing technological and global business environment. Students will study issues such as financial literacy, ethics in business, business environments, management functions, and employee motivation. Students will develop critical thinking and problem-solving skills needed to excel in post-secondary learning and understand/practice the leadership and management skills required to enhance New Brunswick small business enterprise.

### **CO-OP (2 credits)(I.D.E.A.)** (Career)

(Contact: Humanities SPR)

Students will gain experience through high levels of engagement as they work independently and in teams to research problems in their communities, develop social ventures and launch new initiatives to explore the entrepreneurial ecosystem while contributing positively to their communities. Students will develop skills required to work in a business; as an owner, operator, innovator, community organizer, information analyst, marketing consultant, electronic commerce specialist, and be aware of the international and local economy. Through this new program, students will learn technical skills required to analyze market and community problems and opportunities, as well as to develop solutions that incorporate resources, community assets and technology effectively.

Students will identify, research and address community problems through the vehicle of social enterprise and entrepreneurship. The students' work will be guided and accelerated by potential connections with community-based mentors such as Enterprise Saint John, Connexionworks, the Social Enterprise Hub, Junior Achievement, Brilliant Labs and many others. This afternoon course takes place in downtown Saint John and counts for two credits towards graduation.

## **APPLIED TECHNOLOGY**

Contact SPR: Mrs. Jennifer Brown  
[Jennifer.Brown@nbed.nb.ca](mailto:Jennifer.Brown@nbed.nb.ca)

### **Culinary Technology 110** (Skilled Trades)

**(Course Fee \$10.00)**

This course is an introduction to the food service industry. Through participation in different experiences within a quantity food service, the student learns both to master skills through practice and to become familiar with the required qualities for employment. Some areas to which the students are exposed include personal hygiene, sanitation, safety precautions, time management, the basic principles of food preparation, and the importance of serving nutritious and appetizing meals. **To prevent the spread of food borne illness and disease, Culinary Technology students must have excellent personal hygiene (no fake or gel nails allowed). In addition to this, students will be required to taste a variety of foods so fussy eaters may not want to take this course.**



### **Culinary Technology 120**(Skilled Trades)

**(Course Fee \$10.00)**

This course is designed to prepare students for employment and/or future education in the food service industry. This technology-driven and skill-oriented program involves not only the “how and why” of food services preparation but focuses on the development of personal skills and knowledge that can be applied to the food services industry. **Prerequisite: Culinary Tech 110.**

### **Culinary Technology 110/120 (2credits)** (Skilled Trades)

**(Course Fee \$20.00)**

Is an intensive 2 credit course encompassing course material from Culinary 110 and Culinary 120. Students will learn the theory and practical application of the following: basics of safety and sanitation, baking, meat cookery, starch cookery and vegetables. Students will be required to perform class presentations and demonstrations. Upon the completion of this course, students will have the skills and knowledge to create, prepare and serve, restaurant quality, meals. This course would benefit students wishing to enter the culinary field. **To prevent the spread of food borne illness and disease, Culinary Technology students must have excellent personal hygiene (no fake or gel nails allowed). In addition to this, students will be required to taste a variety of foods so fussy eaters may not want to take this course.**

### **Introduction to Electronics 110**

What is going on inside my amplifier or radio or computer? This course will help to answer that question and introduce students to the skills and knowledge required to pursue post-secondary learning in electrical/electronic and computing fields. The course is recognized as a Science or a Technology credit towards graduation. The course presents basic theory and circuitry including components such as resistors, inductors, capacitors, transformers and diodes and explains when and how they can be used in practical applications. Introduction to Electronics 110 will be valuable to students with an interest in engineering or technology careers as well those with a hobbyist interest.

**Prerequisite: Grade 10 mathematics (GMF10/NRF 10)**

### **Framing and Sheathing 110**(Skilled Trades)

This course will provide students with skills and knowledge associated with the framing-in or shell construction of typical single-family dwellings. Students will participate in construction and planning activities with safety as the overriding theme. Activities include such things as measurement, tool identification and use, blueprint reading, material selection, estimating and layout, which culminate in the construction of a shed or similar structure. The course is taught using both theory and practical work and each are allocated approximately the same amount of class time. Students are required to have a pair of CSA certified steel toed work boots. If this is not feasible, arrangements can be made on an individual basis to accommodate the student. Students are also expected to work outside in the elements and be prepared to do so.

### **Metals Fabrication 110**(Skilled Trades)

**(Course Fee \$40.00)**

This course is concerned with the processes used to cut, form and fasten metal. Emphasis is placed on the development of basic skills needed to use electric-arc and oxyacetylene welding and cutting processes. Machines and processes used to lay out, cut and form sheet metal are also introduced. This course will appeal to students interested in entering occupations in metal working, mechanical technology, mechanical service and primary resource industries. **Warning - *Electromagnetic fields and high frequency voltages generated by the various types of welding equipment can cause interference with cardiac pacemakers or other implanted electro medical devices. Talk with welding teacher for any further questions or concerns.***

### **Metals Fabrication 120**(Skilled Trades)

**(Course Fee \$40.00)**

This course is intended to continue development of skills in the SMAW, GMAW, OFG and PAC welding and cutting processes, with the GTAW process being introduced. The students will be





introduced to advanced welding positions and has a capstone project. This course will appeal to students interested in entering occupations in metal working, mechanical technology, mechanical service and primary resource industries. **Warning - *Electromagnetic fields and high frequency voltages generated by the various types of welding equipment can cause interference with cardiac pacemakers or other implanted electro medical devices. Talk with welding teacher for any further questions or concerns.***

**Metals Processing 110**(Skilled Trades)

**(Course Fee \$20.00)**

This course is a study of standard machine shop processes used in the manufacture of metal products. Proper operating instructions will be given on a variety of machine tools common to the machine shop trade. Students will apply theory as well as develop practical skills through the production of practical projects. Instructional time of the course will benefit and appeal to those students in pursuing a career in the metals processing areas, those who are considering a future education in mechanical engineering or drafting technology areas, and those who would like to explore this area for personal interest or career guidance reasons.

**Metals Processing 120**(Skilled Trades)

**(Course Fee \$20.00)**

This is a continuation of Metals Processing 110. During this course students will complete specific projects while practicing operations such as threading, taper turning, and sheet metal work. This course would be of interest to those students wishing to pursue careers in Mechanical Engineering, Drafting, Machinist, and Tool and Die maker, Welder and Sheet Metal Worker.

**Prerequisite: Metals Processing 110**

**Mill and Cabinet Work 120**(Skilled Trades)

**(Course Fee \$30.00)**

This is a woodworking course in which students will develop the necessary skills, knowledge, and work habits required construct cabinets and other miscellaneous millwork typically found in residential dwellings. Students, through a series of projects, will be involved with all aspects of mill work including planning, measuring, estimating, operation of woodworking equipment and machines and finish operations. The course is taught using both theory and practical work and each are allocated approximately the same amount of class time. This course will be of benefit to those students interested in entering the construction or woodworking occupations as well as those with a general interest in woodworking. Required Lab Fee in the amount of \$30.

**Residential Finish and Insulation 120**(Skilled Trades)

This course examines the work required to finish a family dwelling once it has been framed. Each of the following topics covered in the course emphasize safety. Topics include insulation, interior wall cladding, crack filling, door, window and trim installation as well as painting. Students will study these topics both in theory and through project work and each are allocated approximately the same amount of class time. This course should be of interest and value to those students interested in pursuing a career related to the construction industry. Students are required to have a pair of CSA certified steel toed work boots. If this is not feasible, arrangements can be made on an individual basis to accommodate the student. Students are also expected to work outside in the elements and be prepared to do so. **Prerequisite: Framing & Sheathing 110**



# ***HVHS LOCAL OPTION COURSES***

Contact: Appropriate SPR

## **Advanced Training Principles 120**

This course develops physical fitness of students as they learn practical (power lifting techniques, body building, plyometric exercises, cross-, endurance-, alternative and speed-training) and theoretical (sport nutrition, supplementation issues, physiology, biomechanics, sport specific training programs) aspects of physical training.

## **Engineering Technology 110 (1 credits)**

(Contact: Technology SPR)

This course will be of interest to any students interested in pursuing a career in the engineering field [Professional or Engineering Technologist]. The course consists of a two-period block. Approximately half the time will be spent on Computer Aided Design [common to all engineering programs] and the other half will be spent exploring topics related to engineering. Topics will include: types of Engineering, types of work done, entrance requirements, job demographics, guest speakers from mature and recent graduates, and research projects.

## **FI Techniques de Communication 120 (Conversational French)**

(Contact: French SPR)

This course is designed to develop effective communication skills and to help students with day-to-day French. It emphasizes the use of set-up phrases, idiomatic expressions, development of useful vocabulary, and ability to communicate without hesitation in a given situation. The course places special emphasis on pronunciation and intonation and gives oral reinforcement of grammatical and linguistic structures studied concurrently or previously.

**Prerequisite: French 11 credit course**

## **Forensic Science 120 (Introduction)**

(Contact: Science SPR)

This course has been designed as an introduction to the scientific principles and techniques behind the work of forensic scientists. Students will be required to apply scientific skills from a variety of disciplines (biology, geology, chemistry, and physics) to specific crime scene scenarios. This will require collaboration, problem solving skills and the development of strong communication skills. Students will also explore advancements in technologies such as DNA fingerprinting, blood spatter analysis, blood typing, and bone fragment analysis. **Prerequisite: Biology 11, Physics 11, or Chemistry 11**

## **Advanced Principles in Forensic Science 120**

(Contact: Science SPR)

This course is designed for students who have been successful in Introduction to Forensic Science 120. This course will allow students to delve deeper into some of the topics introduced in this introductory course. Students will also be introduced to new topics like; forensic psychology, forensic anthropology (facial reconstruction), forensic aspects of fire and explosion investigation, forensic toxicology, and crime scene search procedures.

**Prerequisite: Forensic Science 120**

## **Human Anatomy 120**

(Contact: Science SPR)

This course will explore beyond the basics of the systems of the human body (Bio 11 & 12) and delve into the medical aspects associated with each. It will explore the design of the human body in substantial detail. This course will provide an introduction to educational content associated with pre medicine, the health sciences, and even animal sciences. **Prerequisite: Biology 111 or 112**



### **Leadership 120**

(Contact: Humanities SPR)

This is an elective course intended for students who desire to improve their leadership skills. The course is designed to enhance students' abilities to lead proactive and productive lives by reinforcing principles of teamwork, citizenship and leadership. Leadership 120 is both a theoretical and practical course. The practical component will involve planning, organizing and facilitating our annual Relay for Life school-wide event and completing volunteer hours at various organizations. No prerequisite is required but an application with teacher recommendations is necessary.

### **Marine Biology 120**

(Contact: Science SPR)

The marine environment and more particularly the local dynamics of such ecosystems will be studied. Those organisms that make these areas their habitat will be researched and those related factors that impact upon them will also be studied through lecture, laboratory work and hands-on lab activities. Further discovery will take place during a field trip to St. Andrew's Huntsman Marine Science Centre. How these environments are impacted by other environmental 'forces' will also be a major focus, as well as study of other marine ecosystems such as coral reefs. **Prerequisite: Biology 111 or 112**

### **Photography 120 (Course Fee - \$10.00)**

(Contact: Humanities SPR)

This course is designed to serve as an introductory to digital photography. In this course, students will learn about the function and capabilities of dsLR cameras, photography techniques and styles, as well as editing and post processing techniques using adobe Photoshop. In addition to this, students will learn about the history of photography focusing on famous photographers and their influences on society. Emphasis will be placed on artistic expression as well as photo and editing techniques.

### **Popular Music 120**

(Contact: Humanities SPR)

This course will cover the major styles of popular music from the 1950's to the present, from rhythm and blues to hip hop, from Elvis Presley to The Beatles to Eminem. The course will examine the musical elements, major artists, and social, political, and economic aspects related to each style and era in popular music. Some of the styles covered as well as the respective artists include: Rhythm and Blues, Country and Western, Pop Rockabilly, Folk, Rock, Fusion, Disco, Rap, Punk, Grunge, Motown, and Alternative.

### **Psychology 120**

(Contact: Humanities SPR)

See Humanities (no longer listed as Local Option)

### **Writing 120**

(Contact: English SPR)

Writing is 10% inspiration and 90% perspiration." – Thomas Edison

Take your writing to the next level with this intense writing course. You've participated in NaNoWriMo, now what? You have pages and pages of unedited poetry and short fiction and now you wonder how to make it better? You're interested in getting published? Writing 120 is a workshop course that encourages you to share your work with others and polish it until it gleams. **Prerequisite Writing 110**

### **Yoga 110**

(Contact: Athletics SPR)

This course will introduce students to the ancient tradition of yoga in its various forms and styles. The main outcome of this course is to develop healthy relationships with self, others and the earth. The intention is for students to develop a lifelong personal practice of yoga not only to maintain exceptional physical condition but also to develop healthy relationships with self and others. Yoga 110 consists of research and activities both in oral and written form. There will be self-assessments, creative writing, asana practice and postures, discussions self-reflection and journal writing. Students are expected to have appropriate clothing for the practice of yoga for this course. The purchase of a yoga mat is not necessary but is recommended.



## **Young Adult Literature 120**

(Contact: English SPR)

Do you LOVE to read? YAL is dedicated to bringing the joy back to reading. This course will appeal to avid readers who enjoy introspective writing and lively discussion. We will take a look at some of the most popular genres in YA literature: dystopian, realistic, supernatural, novels written in verse etc. But mostly we read for FUN!