



Simonds High School

COURSE CALENDAR 2022-2023



1490 Hickey Road, Saint John, NB, E2J 4K7 • Phone: 506 658 5367 • Website: sh.nbed.nb.ca

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Introduction

This course calendar has been developed to aid our students in registering for the next school year. Parents are encouraged to discuss registration with their child and ask any questions they may have.

Homeroom teachers and guidance counselors will provide you with direction and information, and counsellors will assist you with the course planning and selection process. Students should take every opportunity to discuss course options and post-secondary learning and career plans with their parents, guardians, teachers and guidance counselors. *We are here to help you, but it is ultimately up to the student and his/her/their parents or guardians to ensure courses are selected to meet post-secondary entrance requirements.*

General Information

Course Levels

All courses have a name and number. The first two digits indicate grade, and the third digit indicates the level.

Level 0 courses are offered to all at one level only;	ex: Entrepreneurship 110
Level 1 courses are enriched university preparatory.	ex: English 111, Physics 121
Level 2 courses are academic/university/college preparatory.	ex: Music 112, Biology 122
Level 3 courses are general/college preparatory.	ex: English 123

Many electives are open to both grades 11 and 12; read descriptions and pre-requisites carefully.

Prerequisites

Many courses have required or recommended prerequisites or co-requisites. Please read the course descriptions carefully prior to course selection. Students without the required prerequisites will not be allowed to enroll in the course. *See page 5 for a listing of courses requiring prerequisites.*

Prerequisite: A course that must have been successfully completed prior to enrolling in the course.

Co-requisite: A course that, if not previously completed, must be taken during the same semester as the course.

Course Applications

Please note that some courses require applications - due April 8th to the guidance department.

New Brunswick High School Graduation Requirements

In order to graduate, you must meet all of the following requirements:

- Complete the entire Grade 9-10 program
- Pass 18 out of 22 credits in Grades 10-12, eight of which are compulsory courses listed below
- Five of these credits must be Grade 12 courses including one English
- Pass the English Language Proficiency Assessment
- Have no more than two local options courses out of the 18 required courses
- Students are expected to attempt 22 credits

Compulsory (must select and pass) courses:

- English 11 (2 credits)
- Math – must pass GMF 10 and two more Math credit courses (2 credits total)
- Science (1 credit) *See below for a list of Science courses.*
- Modern History 11 (1 credit)
- Fine Arts and Life Role Development (1 credit) *See below for a list of courses.*
- English 12 (1 credit)

***Notes** – French Immersion students must successfully complete five credits (over the two years) in French to obtain their FI certificate in grade 12. To be eligible for the oral proficiency interview in grade 12, a grade 12 French course must be taken in grade 12.

Science Courses for Graduation (1 credit required)

Physics, Biology, Chemistry, Introduction to Environmental Science 120, Robotics and Automated Technology 120, Micro Electronics 120, Introduction to Electronics 110, Physical Geography 110, Human Physiology 110

Fine Arts and Life Role Development (1 credit required)

Visual Arts 110/120, Music 112, Graphic Art and Design 110, Individual and Family Dynamics 120, Co-op Ed 120, Outdoor Education 110, Physical Education Leadership 120, Wellness Through Physical Education 110, Entrepreneurship 110, Reading Tutor 120, Nutrition and Healthy Living 120, Health Care 110, Goals Growth and Grit 120, Culinary Technology 110/120, Electrical Wiring 110, Fashion Design 120, Fashion Technology 110, Framing and Sheathing 110, Housing and Interior Design 120, Introduction to Applied Technology 110, Metals Fabrication 110, Metals Processing 110/120, Mill and Cabinet Work 120, Residential Finish 120

SIMONDS HIGH SCHOOL ELECTIVES 2022-2023

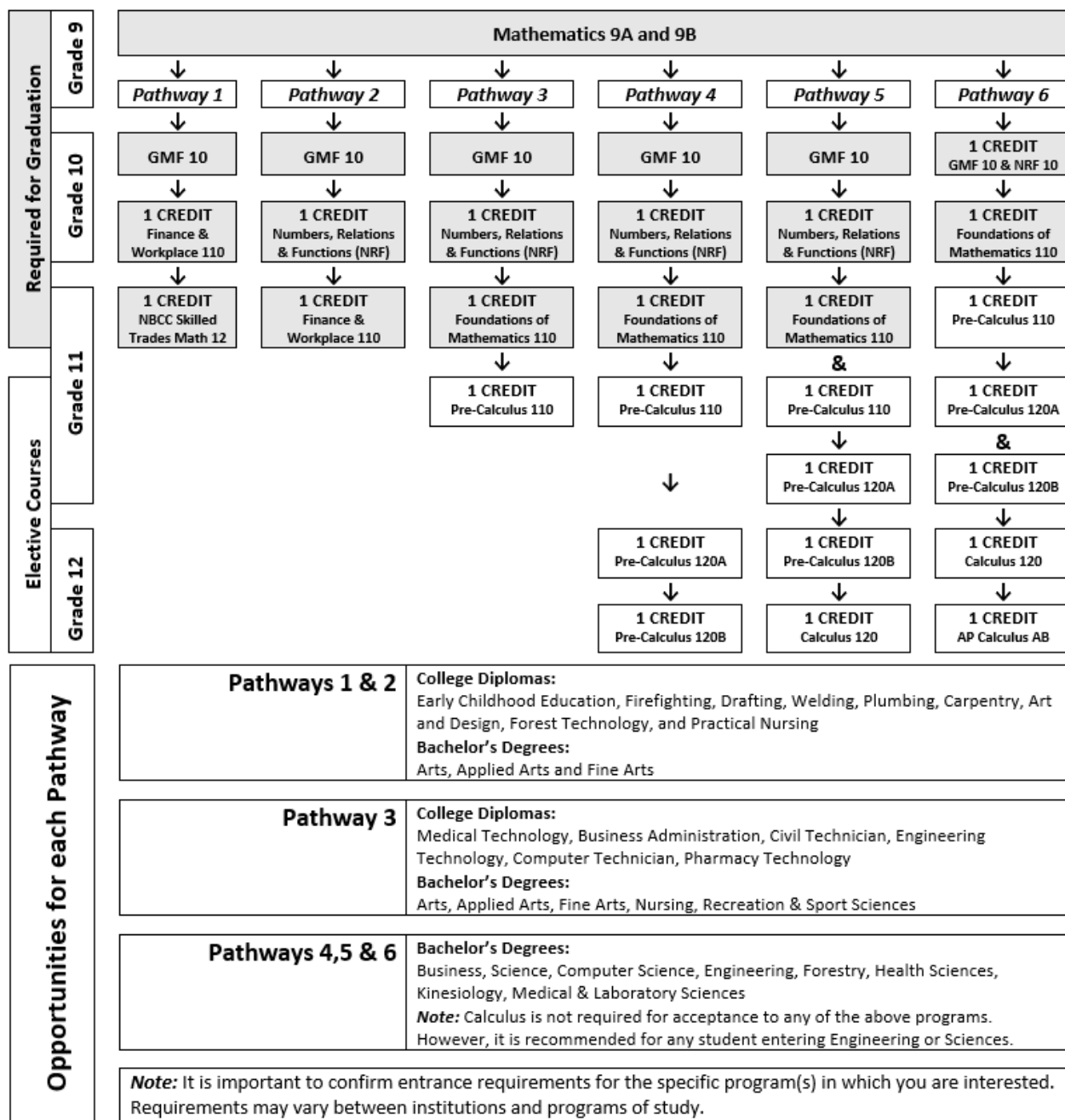
Grade 10 Electives	Law 120	Fin & Workplace Math 110 (PR)
AP Comparative Government and Politics	Media Studies 120	Foundation Math 110 (PR)
AP Computer Science Principles	Metals Fabrication 110 (Welding)	Framing and Sheathing 110
Biology 111/112 (PR)	Metals Processing 110/120 (PR)	Graphic Arts and Design 110 (PR)
Chemistry 111/112 (PR)	Mill and Cabinet 120	Growth, Goals and Grit 120
Computer Aided Design 110	Music 112 (PR)	Health Care 110
Computer Science 110	NBCC Sk Trd Wrk Ready Math 120 (PR)	Hospitality and Tourism 110
Culinary Technology 110	Nutrition for Healthy Living 120	Housing and Design 120 (PR)
Early Childhood Serv 110	Outdoor Education 110	Human Physiology 110
FI/FSL Biology 111/112 (PR)	Pathology 120 (PR-Biology 112) (LD)	Individual Family Dynamics 120
Hospitality and Tourism 110	PE Leadership 120 (PR)	Intro Accounting 120
Human Physiology 110	Personal Interest Course	Intro Applied Technology 110
Intro Applied Technology 110	Physical Geography 110	Intro Electronics 110
Music 112 (PR)	Physics 111/112 (PR)	Intro Environmental Science 120
Personal Interest Course	Police Foundations 120 (LD)	Journalism 120
Physical Geography 110	Political Science 120	Law 120
Post Intensive French 110 (PR)	Post Intensive French 110 (PR)	Media Studies 120
Wellness 110 (PR)	Pre-Calculus 110/120 A (PR)	Metals Fabrication 110 (Welding)
Writing 110	Psychology 120 (LD)	Metals Processing 110/120 (PR)
Grade 11 Electives	Residential Finish 120	Mill and Cabinet 120
Advanced Technology 120 (PR)	Robotics and Technology 120	Music 112 (PR)
AP Biology (PR)	Sociology 120 (PR)	NBCC Sk Trd Wrk Ready Math 120 (PR)
AP Comparative Government and Politics	Theatre Arts 120	Nutrition for Healthy Living 120
AP Computer Science Principles	Visual Arts 110/120 (PR)	Outdoor Education 110
AP English Language and Composition	Wellness 110 (PR)	Pathology 120 (PR-Biology 112) (LD)
AP European History	World Issues 120 (PR)	PE Leadership 120 (PR)
AP French Language and Culture	Writing 110	Personal Interest Course
AP Psychology	Grade 12 Electives	Physical Geography 110
Biology 111/112 (PR)	Advanced Technology 120 (PR)	Physics 111/112 (PR)
Biology 121/122 (PR)	AP Biology (PR)	Physics 121/122 (PR)
Business Org and Management 120	AP Calculus AB (PR)	Police Foundations 120 (LD)
Canadian Literature 120	AP Comparative Government and Politics	Political Science 120
Chemistry 111/112 (PR)	AP Computer Science Principles	Post Intensive French 110/120 (PR)
Chemistry 121/122 (PR)	AP English Language and Composition	Pre-Calculus 110/120 A/120 B (PR)
Child Studies 120	AP English Literature and Composition	Psychology 120 (LD)
Computer Aided Design 110	AP European History	Residential Finish 120
Computer Science 110	AP French Language and Culture	Robotics and Technology 120
Culinary Technology 110/120 (PR)	AP Psychology	Science 122 (PR)
Cybersecurity and Tech Sup 110	Biology 111/112 (PR)	Sociology 120 (PR)
Cybersecurity 120 (PR)	Biology 121/122 (PR)	Theatre Arts 120
Early Childhood Serv 110	Business Org and Management 120	Visual Arts 110/120 (PR)
Entrepreneurship 110	Calculus 120 (PR)	Wellness 110 (PR)
FI/FSL Biology 111/112 (PR)	Canadian History 121/122 (PR)	World Issues 120 (PR)
FI/FSL Ind Family Dyn 120	Canadian Literature 120	Writing 110
Fin & Workplace Math 110 (PR)	Chemistry 111/112 (PR)	
Foundation Math 110 (PR)	Chemistry 121/122 (PR)	
Framing and Sheathing 110	Child Studies 120	
Graphic Arts and Design 110 (PR)	Computer Aided Design 110	
Growth, Goals and Grit 120	Computer Science 110	
Health Care 110	Co-op 120 (Application Required)	
Hospitality and Tourism 110	Culinary Technology 110/120 (PR)	
Human Physiology 110	Cybersecurity and Tech Sup 110	
Individual Family Dynamics 120	Cybersecurity 120 (PR)	
Intro Accounting 120	Early Childhood Serv 110	
Intro Applied Technology 110	Entrepreneurship 110	Legend
Intro Electronics 110	FI/FSL Biology 111/112 (PR)	
Intro Environmental Science 120	FI/FSL Ind Family Dyn 120	LD - Locally Developed
Journalism 120	FI Tech de Comm 120 (LD)	PR - Prerequisite

Simonds High Prerequisites

Course	Prerequisites
AP Biology	Biology 11 and Chemistry 11
AP Calculus AB	Calculus 120
AP Statistics	Pre-Calculus 110
Biology 111/112	Recommended Science 10
Biology 121/122	Recommended Biology 111/112
Calculus	Pre-Calculus 120A and Pre-Calculus 120B
Canadian History 121/122	Modern History 111/112
Chemistry 111/112	Recommended Science 10
Chemistry 121/122	Chemistry 111/112
Cooperative Education	Application Required
Culinary Technology 120	Culinary Technology 110
Cyber Security 120	Cyber Security and Tech Support 110
Financial Workplace Math	GMF 10
Foundations Math 110	GMF 10 and NRF 10
Housing and Design 110	2 of the following 3: Mill and Cab; Residential Finish, Framing
Metals Processing 120	Metals Processing 110
Music 112	Music 10
Music 122	Music 112
Pathology 120	Recommended Biology 111/112
Physics 111/112	Recommended Science 10, NRF 10
Physics 121/122	Physics 111/112
Post Intensive French 110	Post Intensive French 10
Pre-Calculus 110	Foundations in Math 110 (Prerequisite or Corequisite)
Pre-Calculus 120A	Pre Calc 110
Pre-Calculus 120B	Pre Calc 120A (Prerequisite or Corequisite)
Science 122	Physics 121/122; Chemistry 121/122
Visual Arts 120	Visual Arts 110

Graduation Pathways for Mathematics

Each pathway is designed to provide students with the mathematical competencies and critical thinking skills they will need after high school. Students should select courses in the pathway that best fits their interests and plans for after high school. Each pathway provides students with a different focus on math concepts and skills. Students may choose to take additional mathematics courses beyond the graduation requirements to better prepare them for what they want to do following high school. Please note that Pathways 5 & 6 require students to take two math courses in one semester.



Course Descriptions for Simonds High School

AP COURSE DESCRIPTIONS

AP Biology

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. *Prerequisite:* Biology 11 and Chemistry 12

AP Calculus AB

AP Calculus AB and AP Calculus BC focus on students' understanding of calculus concepts and provide experience with methods and applications. Using big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), each course becomes a cohesive whole, rather than a collection of unrelated topics. Both courses require students to use definitions and theorems to build arguments and justify conclusions. The courses feature a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. *Prerequisite:* Calculus 120

AP Comparative Government and Politics

AP Comparative Government and Politics introduces students to the rich diversity of political life outside the United States/Canada. 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 compare the effectiveness of approaches to many global issues by examining how different governments solve similar problems. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments.

AP Computer Science Principles

AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems - including the internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

AP English Language and Composition

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts - including images as forms of text, from a range of disciplines and historical periods.

AP English Literature and Composition

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Recommend: English 121/122

AP European History

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations. Recommend: Modern History 111/112

AP French

The AP French Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP French Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in French. The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

Recommend: FILA 12

AP Music Theory

The AP Music Theory course corresponds to one-to-two semesters of typical, introductory college music theory coursework that covers topics such as musicianship, theory, and musical materials and procedures. Musicianship skills, including dictation and listening skills, sight singing, and harmony, are an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural (listening) skills is a primary objective. Performance is also part of the curriculum through the practice of sight-singing. Students learn basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized.

Recommend: Music 11

AP Psychology

The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation, and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatments of psychological disorders, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims, and evidence, and effectively communicate ideas. Recommend: Psychology 120

AP Statistics

The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

Prerequisite: Pre-calculus 110

AP World History: Modern

In AP World History: Modern, students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. Recommend: Modern History 111/112

APPLIED TECHNOLOGY & SKILLED TRADES COURSE DESCRIPTIONS

Advanced Technology 120

The objective of this course is for students to construct technological solutions to real-world problems. Students will identify a problem, develop a plan, research/collect data, analyze a design, implement a plan, and test their solution. The course follows Intro to App Tech 110 where students continue to apply the 4 C's...Creativity, Critical Thinking & Problem Solving, Collaboration, and Communication in the SHS Makerspace. Students will develop a detailed project proposal, develop an instructible to journal their progress and present their results to not only their peers but also invited guests.

Introduction to Applied Technology 110

The Introduction to Applied Technology course introduces students to a variety of careers in trades, providing opportunities to explore and research practices and skills required for employment in trades/technology sectors. This course utilizes small group instruction, placing an emphasis on student directed learning and is structured to reflect the reality of work. Problem identification, teamwork and leadership skills are reinforced.

Computer Aided Design 110

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 to both visualize and present ideas graphically. 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

This is a practical, introductory course in programming (coding) using PYTHON. Students will acquire skills in using Python the third most popular programming language in the world. Creating video games and working on projects of their own design, students will experience some of what it is like to work in the CS field. It is estimated that hundreds of thousands of jobs in the computer science field are unfilled each year. Students graduating from university with a CS degree are almost guaranteed employment upon graduation.

Child Studies 120

The purpose of this course is to develop in students the learning skills for successful relationships with children. The students explore how children develop physically, socially, emotionally, and intellectually to gain an understanding of human development from conception to school age. Students will apply basic theory to hands on activities in a lab consisting of a 6-week preschool program, with observation techniques being applied through completion of a preschool journal as well as the Baby Think It Over program.

Culinary Technology 110

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.

Culinary Technology 120

The Culinary Technology Program 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 service preparation but focuses on the development of personal skills and knowledge that can be applied to the food service industry. Laboratory experimentation, food preparation and service are an integral part of this program. It gives students lifelong learning skills that may be transferable to future training and/or food services employment at an advanced level.

Early Childhood Services 110

Early Childhood Services 110 helps students understand the role of caregiver as well as the parents in a child's development. It prepares students for entry-level jobs in the childcare profession through a knowledge of physical, social, emotional, and intellectual development. This course will focus on the skills to prepare young people to work with children. This is a "how to" program applying basic theory to hands on activities including laboratory and/or observation with children. The theory in Early Childhood Services 110 best applies to the age group infancy to two years old.

Fashion Design 110

This course aims to cultivate the need and desire of students to follow safe work practices and to develop the language and work skills of the trade. It incorporates a hands-on approach of both project-based and experiential learning with the interdisciplinary skills of observation, reflection, documentation, purposeful/intentional planning, goal setting, decision making, and problem solving. Students will examine the world of textiles, their production process, and explore various fibers and fabrics. Students will reflect on their own clothing needs and choices, examine the environmental impact of those choices, and hypothesize potential solutions for improvement. Students will learn to follow commercial patterns and apply current construction techniques.

Fashion Technology and Design 110

This course is primarily skills based and project based. As such, the “process” is just as important as the “product”. Teachers will act as an instructor but also as a facilitator. Assessments should reflect what students know as well as what they can do.

Framing and Sheathing 110

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 which include interpretation of the National Building Code, blueprint reading, estimating and material layout.

Graphic Arts and Design 110

This course includes developing foundational skills such as drawing, understanding various media, working with principles and elements of design, and image manipulation. Students will be introduced to creative problem solving and design processes to create art and design products. Attention will be paid to critical visual literacy in the industry of graphic art and design.

Health Care 110

In Health Care 110, students learn about and experience many different aspects of our health care system in New Brunswick. They explore with a class set of laptops different medical cases and find out what a patient must do to get treatment for the illness or condition. They also do hands on activities where they learn basic skills such as: making a hospital bed, using a wheelchair, taking vital signs, and applying bandages, just to name a few. First Aid and Occupational Health and Safety training is provided as well. It is an exciting new course in the Province of New Brunswick and is presently only offered here at Simonds High School.

Housing and Design 110

Housing and design is intended for students who wish to increase their awareness of the housing environment and the implications of technological advancement. Housing decisions represents the single largest expenditure of the family income for many households. The course demonstrates the value of creativity and individuality in designing a living environment.

This course will incorporate using a hands-on approach of both project-based and experiential learning. The overall aim of this course is to provide students with lifelong learning skills that are transferable to future learning related to the housing environment and interior décor. This course will raise the students’ awareness of architectural aesthetics; understand the motivating factors that have an impact on the economy and environment; utilize the elements and principles of design as they apply to interior décor; encourage individual creativity through interior design; incorporate technology options in the living environment; and identify issues related to human needs and their impact on future housing trends.

Introduction to Electronics 110

This is an introduction to electronics, introducing basic electronics components such as diodes, transistors, integrated circuits, inductors, and capacitors, along with basic electronic circuitry. Introductory electronics is application based using the components and circuitry in such applications as rectification, filtering, and amplification. Computer assisted instruction and computer simulation of electrical circuits is an integral part of this course. Introductory Electronics will be of interest to students with a career objective in the electrical occupational area as well as those who plan to continue their education at the technical or engineering level.

Introduction to Police Foundations 120 (Locally Developed Course)

Introduction to Police Foundations will study a variety of subject areas, including human behaviour, criminology, communication, law, community policing, the Criminal Code, safety, policing interventions, ethics, forensics in police work and the physical demands of working in this sector. Students interested in criminology, policing and security services as a career path would find this course interesting.

MakerSpace

SHS MakerSpace explores STEAM projects that involve Science, Technology, Engineering, Arts and Mathematics. This course will enable students to undertake creative, innovative, and entrepreneurial projects in the classroom. Students will explore a variety of technologies while designing and engineering their own project. The course is designed to apply the 4 C's...Creativity, Critical Thinking & Problem Solving, Collaboration, and Communication. These skills are beneficial in any workplace and are essential for life-long learning. The course will also emphasize all the global competencies: Innovation/Creativity/Entrepreneurship; Critical Thinking/Problem Solving; Self-Awareness/Self-Management; Sustainability/Global Citizenship; Collaboration and Communication. The goal of the course is to improve these skills so they can be used in any of your future endeavors.

Metals Fabrication 110

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 layout, cut and form sheet metal are also introduced. This course will appeal to students interested in entering occupations in metalworking, mechanical technology, mechanical service, and primary resource industries.

Metals Processing 110

This course is a study of standard machine shop processes used in the manufacture of metal products. Proper operating instruction 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 interested 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

This course is the study of advanced 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, focusing on more complex and intricate projects made of metal.

Prerequisite: Metals Processing 110

Mill and Cabinet Work 120

This is a finish woodworking course in which students will develop the necessary skills, knowledge, and work habits required constructing 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 estimating, operation of woodworking equipment and machines and finish operations. 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.

Music 112

The course consists of three major outcomes that require students to demonstrate achievement in performing music, in the application of theoretical and aural skills and concepts, and, in understanding music in a historical context. Music 112 is designed to articulate with Music 122.

Nutrition for Healthy Living 120

This course studies the science of food relating to Canada's Food Guide and the relationship between food, nutrition, and wellness. It emphasizes the decision-making process concerning the use of both human and non-human resources required for safety and sanitation, dietary planning, food preparation and the concept of nutritional wellness. Nutrition issues are discussed regarding food on a global and regional level, food trends and lifestyles, eating disorders and new food technologies. Hands on laboratory experiments provide an integral part of this program.

Residential Finish & Insulation 120

This course examines the work required to finish a family dwelling once it is framed in. Topics, which are covered, include: insulation, wall cladding, doors, windows, cornice trim and roof covering. Students will study these topics both in theory and through practical project work. This course should be of interest and value to those students interested in pursuing a career related to the residential construction industry.

Robotics and Automated Systems 120

This course explores the field of robotics and automated systems. Experimenting and building projects of their own design, students will learn and apply automation concepts such as logic programming and integration of technologies including electrical, mechanical and computer. The knowledge and skills developed in this course would be an asset to any student who will at some point become involved in exploration, system design, processing, or manufacturing whether at the entrepreneurial, administration, engineer, and technologist or technician level. Students have worked on projects such a selfie stick for a physically challenged person, a system to automatically pump water to a reservoir when it is at low levels, an autonomous roving fire suppression system and a self-tuning system for a guitar. Students from this course have competed in the Youth Entrepreneurial Challenge and done well at the provincial level.

LANGUAGE ARTS COURSE DESCRIPTIONS

English Language Arts 111-121

English 111-121 are designed for students whose aptitudes and interests in language/literature are above average. These courses will provide an enriched variety of experiences 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. *Prerequisites:* English 111: 75% in English 10; English 121: English 111A (1 credit) and English 111B (1 credit) or 75% in English 112A (1 credit) and English 112B (1 credit)

English Language Arts 112-122

English 112-122 are appropriate for students intending to pursue studies at a post-secondary institution. Each of the courses will provide a wide variety of experiences. English 112 will encompass a study of literary and informational texts focusing on argument, persuasion, fact and opinion, and critical analysis. Students will respond critically to texts and demonstrate an awareness of writing strategies and processes that work for them. English 122 will concentrate on critical comprehension and evaluation skills of Canadian and world literature. Students will demonstrate proficiency in speaking, writing, and listening to explore and reflect on challenging texts and issues. *Prerequisites* for English 112: 60% in English 10; English 122, 60% in Eng 112A and Eng 112 B (2 Credits)

English Language Arts 113-123

English 113-123 are courses intended for students who do not plan to attend academic post-secondary institutions. These English courses 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. *Prerequisite* for English 123 is Eng 113A (1 Credit) and Eng 113B (1 Credit)

English Language Arts 10

Students meet learning tasks by listening to, viewing, reading, and discussing increasingly complex texts, representing a variety of voices, for enjoyment, learning and personal understanding, collaboratively and independently. Increasing sophistication in selecting specific strategies to meet their needs as readers/listeners/viewers and text creators will be modelled and acquired. They will understand the learning processes and strategies that work for them when creating a variety of texts.

English Language Arts 9

Students will build understanding by listening to, reading, and viewing a range of spoken, written, and visual texts representing all voices. They will respond personally and critically to the works of authors, creators, illustrators, and speakers. They will speak, write, and create texts to learn about self, others, and the world. Students will also write the English Language Proficiency Assessment (ELPA) and it is compulsory for graduation.

Canadian Literature 120

The goal of the Canadian Literature 120 curriculum is to promote an interest in important Canadian Literature and other creative tests. The course is for students who have successfully completed Grade 10 English Language Arts Literary Text A and Grade 10 English Language Arts Informational Text B, who demonstrate an interest in literature and deconstructing texts, and who wish to explore Canadian identity through a variety of literary texts worthy of study and appreciation.

Journalism 120

Journalism 120 provides students with intensive practice in writing and editing. Students learn to identify or generate story ideas, to gather pertinent information and to write and edit their stories with a view to publication or broadcast.

Growth, Goals and Grit 120

The primary purpose of the course is to aid in reading and writing skills development. It is an intervention course where students will learn various reading strategies and reading fix-up strategies to aid in their reading skills development. They will also concentrate on their writing skills development.

Media Studies120

Media Studies 120 offers an introduction to the evolution and impact of mass media on the individual and society. The primary purpose of the course is to have students learn through experiment and exploration; the course is practical, and activity based.

Theatre Arts 120

This course offers many aspects of theatre performance, including acting, movement, memorization, improvisation, character interpretation, play management, play writing and theatre history. The course is activity based with an element of research and requires students to be independent and reliable.

Writing 110

This course offers students opportunity to reinforce and enrich their writing skills through a “writing lab” approach where exploring, drafting, revising, proofreading, sharing and reflection are encouraged. Students may enter the course with varying skill levels, from university bound students looking to enhance their essay writing to students with basic literacy requirements.

FRENCH COURSE DESCRIPTIONS

French Immersion Courses

Students who have successfully completed the Early or Late French Immersion programs in Middle School and have followed the French Immersion program through Grades 9 and 10, and other students with a similar proficiency in French as a second language may opt to take the following French Immersion courses:

FI Language Arts 110

FI Language Arts 120

FI Techniques de Communication 120

FI Individual and Family Dynamics 120

FI Modern History 110

AP French

Please Note: FI Language Arts 110 & 120 are not available to Francophone students.

Certificate of Oral Proficiency

All students enrolled in either Post Intensive French 120 or FI Language Arts 120 will be interviewed by a professional interviewer from the Department of Education. Those students who have completed all the required French courses (Post-Intensive or Immersion) from Elementary to Grade 12 will be presented a certificate at graduation indicating their level of oral proficiency.

Certificate of Immersion

To obtain the Certificate of Completion of Immersion, a student must meet the following requirements:

- 50% of instruction in French in Grades 9 and 10
- Five (5) French Immersion credits successfully taken during Grade 11 and 12.

The certificate shall be presented at graduation.

AP French

The Advanced Placement (AP) Program provides an opportunity to high school students to pursue and receive credit for university-level work. AP French emphasizes the use of language for active communication. Within this course, the students will develop:

1. The ability to understand spoken French in various contexts.
2. A vocabulary sufficiently ample for reading newspaper and magazine articles, literary texts, and other non-technical writings without dependence on a dictionary.
3. The ability to express themselves coherently, resourcefully, and with reasonable fluency and accuracy in both written and spoken French.

There will be a continued insistence on the use of French both as the language of instruction and communication in the classroom. The examination is the most important form of assessment in the course and there is a fee attached to its writing. *Prerequisite:* 85% or above in FI Language Arts 110

FI Individual Family Dynamics 120

This course will expose the students to the skills and information necessary to make informed decisions about personal development, lifestyle choices, and healthy relationships. This curriculum will help prepare the students to have a better understanding of themselves, their family and the world around them. The course touches on aspects of sociology, psychology, economics and anthropology. The knowledge and skills presented in the course will benefit students who may wish to pursue fields of study such as: law enforcement, social services, family law, careers in counseling, psychotherapy and family medicine. There will be a continued insistence on the use of French both as the language of instruction and communication in the classroom. This is a **compulsory** course for those students who have elected to follow the French Immersion option at the high school level.

FI Language Arts 110

Through this course students will continue to expand their facility in oral and written French with the following objectives:

1. To ensure the maintenance and progression of the linguistic acquisitions of the student.
2. To continue to emphasize communication to foster growth of the language skills: listening, speaking, reading and writing.
3. To encourage the use of the language as a vehicle allowing students to express themselves in a fitting manner suited to their intellectual, social, and emotional growth.
4. To increase the student's cultural knowledge and experiences to promote an appreciation for the French speaking population and culture of our country and of other parts of the world.

The course emphasizes vocabulary and oral expression, literature, grammar, written expression and composition and culture. The objectives of the course will be realized through exposure to various texts, novels and short stories, poetry, drama, newspapers, magazines, and films. A formal oral presentation is part of the evaluation. **There will be a continued insistence on the use of French both as the language of instruction and communication in the classroom.**

This is a **compulsory** course for those students who have elected to follow the French Immersion option at the high school level. *Prerequisite* FI Language Arts 10

FI Language Arts 120

This course is the final French Immersion Language Arts course in the French Immersion option. Through this course students will continue to expand their facility in oral and written French with the general objectives as stated in the course description for FI Language Arts 110. The content of the course is based on five components: oral expression, composition, grammar, literature and culture. To realize the stated objectives of the course, there will be continued exposure to various texts, novels and short stories, poetry, drama, newspapers, magazines and films. A formal oral presentation is part of the evaluation. This is a **compulsory** course for those students who have elected to follow the French Immersion option at the high school level.

Prerequisite: FI Language Arts 110

FI 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 Revolution, the Industrial Revolution, the World Wars and the Cold War. A formal essay will be part of the evaluation. It is a prerequisite for Canadian History 121/122. This is a **compulsory** course for those students who have elected to follow the French Immersion option at the high school level.

FI Techniques de Communication 120

This course is designed to develop effective communication skills. It emphasizes the use of set-up phrases, idiomatic expressions, correct pronunciation and intonation, development of useful vocabulary, and ability to communicate without hesitation in a given situation. Students will be required to do oral presentations either individually or in pairs. An oral exam will be given at the end of the semester as part of the formal evaluation. This is a **compulsory** course for those students who have elected to follow the French Immersion option at High School level. The New Brunswick Oral Proficiency Interview is a required part of this course. *Prerequisite:* FI Language Arts 110

Post Intensive French 110

The goal of this course is to further enhance the oral and written communication skills. The course continues the sequence of the Post Intensive French Program. This course extends the range of language skills: listening, speaking, reading, and writing, structures and concepts for effective communication in French in a variety of situations. It is designed for students who have successfully completed PIF 10 and who wish to broaden the scope of their communicative skills in the second official language. Oral presentations in pairs or in small groups are part of this course. An individual exit project with an oral, reading, and written component is part of the formal evaluation. *Prerequisite:* 85% or above in Post Intensive French 10

Post Intensive French 120

This course continues the sequence of the Post Intensive French 110. It is for student who enjoy French and are interested in an enriched atmosphere. This course extends the range of language skills: listening, speaking, reading, and writing, structures and concepts for effective communication in French in a variety of situations. It is designed for students who have successfully completed PIF 110 and who wish to broaden the scope of their communicative skills in the second official language. Oral presentations in pairs or in small groups are part of this course. An individual exit project with an oral, reading, and written component is part of the formal evaluation. *Prerequisite:* Post Intensive French 110

HUMANITIES COURSE DESCRIPTIONS

Individual & Family Dynamics 120

This course is an elective that provides students with skills and information relating to personal development, healthy relationships, mental illnesses, lifestyle choices, budgeting, and the differences in family dynamics. The curriculum touches on aspects of psychology, sociology and economics and will help prepare students to better understand themselves, their families and the world around them. The knowledge and skills in this course will benefit students who wish to pursue careers in law enforcement, social services, counseling, and family medicine.

Entrepreneurship 110

This course is an introductory course to the world of owning your own business. Students will study various types of businesses, consumer wants and needs, marketing and advertising, competition in business and organizing a professional business plan. This class is a project-based class and presentations are mandatory. Students will be expected to create their own business, write a business plan, and sell their products/services to students and staff.

Sociology 120

This course is an academic social science which focuses on the study of society and human behaviour in groups. The main topics of study will include culture, socialization, social structure, inequality, discrimination and racism, stereotyping and prejudice as well as deviance and crime. There will be an expectation of an in-depth research project.

Modern History 112/113

Modern History 112/113 provides the opportunity for students to engage with citizenship concepts crucial to the functioning of a democracy and explore how they have appeared over time. Students will use historical thinking concepts to inquire about and investigate major events in Western history that have shaped how the world functions today.

Modern History 111

Modern History 111 is an in-depth thematic study of major events in modern European history that have shaped the 21ST century. Topics discussed include the French Revolutions, the Revolutions of 1848, the Industrial Revolution, the Russian Revolution, the World Wars and the Cold War. Student will be expected to make oral presentations, analysis from primary sources and write formal essays as part of the evaluation. It is a prerequisite for Canadian History 121/122.

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 Revolution, the Industrial Revolution, the world wars and the Cold War. A formal essay will be part of the evaluation. It is a prerequisite for Canadian History 121/122.

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: Basic World Geography, Industrialization, Life in the 20's and 30's, World War I, World War II, and the Cold War.

FI 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 Revolution, the Industrial Revolution, the World Wars and the Cold War. A formal essay will be part of the evaluation. It is a prerequisite for Canadian History 121/122. This is a **compulsory** course for those students who have elected to follow the French Immersion option at the high school level.

AP Comparative Government and Politics

AP Comparative Government and Politics introduces students to the rich diversity of political life outside the United States/Canada. 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 compare the effectiveness of approaches to many global issues by examining how different governments solve similar problems. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. No pre-requisite.

Nutrition for Healthy Living 120

This course studies the science of food relating to Canada's Food Guide and the relationship between food, nutrition, and wellness. It emphasizes the decision-making process concerning the use of both human and nonhuman resources required for safety and sanitation, dietary planning, food preparation and the concept of nutritional wellness. Nutrition issues are discussed regarding food on a global and regional level, food trends and lifestyles, eating disorders and new food technologies. Hands on laboratory experiments provide an integral part of this program.

Political Science 120

Political Science 120 is an introductory political science course designed to develop an understanding of various political ideologies and systems. The merits of each will be compared and contrasted to the Canadian system.

Social Studies 9

This course provides opportunity for students to understand and investigate geography, history, economics, sociology and political science. Students will explore the impact of Canada's vast and diverse geography on identities, how historical events, trends, and peoples have contributed to the development of Canadian identities, as well as how Canadian political institutions, laws, rights and responsibilities have affected and reflected Canadian identities.

Social Studies 10

This course provides students an awareness and understanding of the human past. Students work towards becoming familiar with different regions of the ancient world and the contributions that each made to the development of civilizations. Students will use historical thinking concepts to inquire about and investigate major events and inventions in ancient history that have shaped how the world functions today.

Personal Development and Career Planning 9/10

The goal of Personal Development and Career Planning 9/10 is for learners to gain the knowledge, skills and attitudes necessary to effectively negotiate the life/work process. The activities undertaken by students will assist them in making informed decisions about their future personal and educational goals. The content includes, but is not limited to, the promotion of positive self-image, values identification as well as the development of strategies to effectively manage physical, mental/emotional, intellectual and social change.

Cooperative Education 120

Cooperative Education 120 is an experiential course that offers youth in grades 11/12 the opportunity to engage in a work placement in a chosen area of career interest. A detailed workplace skills learning plan is developed to support a focused learning experience in the workplace. *This is a three-credit course, and an application is required.*

AP European History

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations. Recommend: Modern History 112/111

Hospitality & Tourism 110

This course is an introductory course providing students with an awareness of career opportunities in a dynamic and growing industry sector. Students are made aware of potential social and economic benefits. Emphasis is placed on Tourism in Atlantic Canada. A combination of sound business principles and vision are demonstrated throughout the course.

Business Organization and Management 120

This course will allow students to work successfully in small business, by providing the students with skills in leadership, critical thinking and problem solving. Students will develop communication and collaboration skills while working on project-based learning assignments. Through this course students will develop 21st century skills which will help students to become more creative innovators who will be able to quickly adapt to an ever-changing business environment.

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.

AP Psychology

This course is designed as a college-level Psychology program. Students study in preparation for the AP Exam in May. Psychology, the scientific study of human behavior and mental processes, stands between the social and biological sciences; therefore, unique to many of the courses that students experience in high school. The course not only gives insight to how and why our bodies and minds work the way they do, but also exposes students to research methods, theoretical frameworks for development, and debates going on in the modern world.

Child Studies 120

The purpose of this course is to develop in students the learning skills for successful relationships with children. The students explore how children develop physically, socially, emotionally, and intellectually to gain an understanding of human development from conception to school age. Students will apply basic theory to hands on activities in a lab consisting of a 6-week preschool program, with observation techniques being applied through completion of a preschool journal as well as the Baby think it over program.

Canadian History 122

This course presents the history of Canada from the early years of the nineteenth century to the present. Topics examined include: The Maritime Provinces (1815-1864), the Canadas, 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

Early Childhood Services 110

Early Childhood Services 110 helps students understand the role of caregiver as well as the parents in a child's development. It prepares students for entry-level jobs in the childcare profession through a knowledge of physical, social, emotional, and intellectual development. This course will focus on the skills to prepare young people to work with children. This is a "how to" program applying basic theory to hands on activities including laboratory and/or observation with children. The theory in Early Childhood Services 110 best applies to the age group infancy to two years old.

Law 120

This course is designed to give students knowledge of the law, the courts' changing trends, and the major changes the constitution has brought about. Areas of study include the origins of the Canadian legal system, criminal law, civil and human rights, torts/civil law, and contracts. Actual case studies are used to illustrate situations within these areas of law.

Introduction to Police Foundations 120 (Locally Developed Course)

Introduction to Police Foundations will study a variety of subject areas, including human behaviour, criminology, communication, sociology, law, community policing, the Criminal Code, safety, policing interventions, ethics, and physical demands of working in this sector. Students interested in criminology, policing and security services as a career path would find this course interesting.

Spanish 110

Spanish 110 is an introductory course in one of the world's most widely spoken languages. A large component of this course is orally based with some focus on reading, writing and basic grammar. The study of culture and geography will also be an element of the course. Students must be willing to fully participate in communicative exercises and work in pairs and groups. Video presentations, films and dialogues contribute to make this a very active learning experience. It is an excellent preparation for a university Spanish course. Recognized as a credit at NBCC. Available to students entering Grade 11 and Grade 12.

World Issues 120

This course examines various issues that are global in nature and that require a global solution. An examination of how countries are working independently and collaboratively to solve world issues is at the forefront. The concept of the global village is studied, as is the relationship between nations in the global community. *Prerequisite:* Modern History 11

Social Studies 10

This course provides students an awareness and understanding of the human past. Students work towards becoming familiar with different regions of the ancient world and the contributions that each made to the development of civilizations. Students will use historical thinking concepts to inquire about and investigate major events and inventions in ancient history that have shaped how the world functions today.

MATHEMATICS COURSE DESCRIPTIONS

Calculus 120

This one semester course is recommended for students who wish to enter the sciences or engineering at university. It includes the following topics: limits, slopes and rates of change, differentiation rules for sums, differences, products and quotients of functions including trigonometric, exponential and logarithmic functions, applications of derivatives such as curve sketching, velocity, acceleration and related rates. *Prerequisites:* Pre-Calculus 12A & 12B

Financial & Workplace Mathematics 110

This course is the first course in the Financial and Workplace pathway that is designed for entry into many trades and technical programs, and 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 2D and 3D objects are constructed from various views and perspectives. Students are challenged to solve problems that involve numerical reasoning related to financial mathematics and personal budgets. Students manipulate and apply formulas in a variety of ways and solve problems using proportional reasoning and unit analysis.

Prerequisite: Geometry, Measurement & Finance 10

Foundations of Mathematics 110

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 inequalities in two variables and explore characteristics of quadratic functions. Costs and benefits of renting, leasing and buying are explored in relation to financial mathematics. *Prerequisites:* Geometry, Measurement and Finance 10 AND Number, Relations, and Functions 10. This is a pre-requisite or co-requisite for Pre-Calculus 11.

Geometry, Measurement and Finance 10 (GMF 10) and FI GMF 10

This is a one semester course that includes the following topics: unit pricing and currency exchange, earning an income (net income, deductions), financial services (such as choosing an account, simple and compound interest, credit cards), measurement involving surface area and volume, angles and parallel lines, and right triangular trigonometry. This course is a pre-requisite for Financial and Workplace Math 110 and Foundations of Math 110.

Introduction to Accounting 120

This course introduces the student to accounting procedures, concepts, and applications. Course topics include nature of business, accountancy as a career, bookkeeping procedures, accounting theory, the accounting cycle, subsidiary ledgers, inventory control systems, accounting controls, payroll, adjustments, accruals, partnerships, corporations, statement analysis, and automated accounting. The course is designed for those students intending to study business at post-secondary institutions.

NBCC Skilled Trades and Work-Ready Math 120

The purpose of this course is to refresh skills in mathematics developed throughout school in areas deemed essential for the successful completion of trades programs. Although the topics covered in this course are common to any math program, every effort is made to illustrate their usage in the trades' professions. Upon completion of this course students will receive a high school credit and, in addition, if they attend a trades program at NBCC they may apply for the Math 1208 credit thus this course provides dual credit at high school and NBCC. Topics include decimals, fractions, percentages, measurement, area, volume and perimeter.

Prerequisite: Financial & Workplace Math 110

Numbers, Relations and Functions 10 (NRF 10) and FI NRF 10

This is a one semester course that includes the following topics: factors and multiples of whole numbers, perfect squares and cubes and their roots, common factors of a polynomial, factoring, irrational numbers, mixed and entire radicals, fractional and negative exponents, relations and functions, graphs, linear functions, and systems of linear equations. This may be used as a credit toward graduation and is a pre-requisite for Foundations 11.

Pre-Calculus 110

This is a one semester course designed for students who are interested in attending university or community college and taking post-secondary programs that require mathematics. Specifically, this pathway is designed to provide students with the mathematical understandings and critical thinking skills identified for entry into postsecondary programs that require the study of theoretical calculus. Topics include algebra and numbers, trigonometry, relations and functions, and more. The pre or co-requisite for this course is Foundations of Mathematics 110. This course is a pre-requisite for Pre-Calculus 12A.

Pre-Calculus 120A

The Pre-Calculus pathway is designed for entry into post-secondary programs that require the study of theoretical calculus. Topics include in-depth study of trigonometry and various functions both graphically and algebraically. This course will allow students demonstrate and apply an understanding of the effects of transformations on graphs of functions and their related equations. It includes an introduction to inverses of functions, logarithms, and the relationship between logarithmic and exponential functions to solve problems. This course is a pre-requisite for Pre-Calculus 12B. *Prerequisite:* Pre-Calculus 11

Pre-Calculus 120B

The Pre-Calculus pathway is designed for entry into post-secondary programs that require the study of theoretical calculus. Topics include sequences and series, factoring analyzing and graphing polynomial functions, rational and reciprocal functions. Students will also be introduced to the concept of limits and determine the limit of a function at a point both graphically and analytically. *Prerequisite:* Pre-Calculus 12A

PHYSICAL EDUCATION COURSE DESCRIPTIONS

Physical Education 9/10

The goal of the Physical Education and Health Grade 9/10 curriculum is to promote healthy active living for life. These courses are comprised of 3 “blocks”. Physical Education 9 covers block one, and Physical Education 10 covers blocks 2 and 3. Students are assessed on personal growth throughout the duration of the courses.

Outdoor Pursuits 110

Outdoor Pursuits allows students to step outside of their comfort zone to take part in various outdoor activities such as snowshoeing, hiking, skiing, and canoeing in a safe and respectful environment. They will learn the values of intelligent risk taking, perseverance and resilience.

Wellness 110

This course is designed to promote physical and mental well-being. Topics covered: mental health, stress, strategies for coping with stress/anxiety, how to identify the signs of anxiety/mental health issues, risky behaviours and the implications (substance abuse, addictive behaviors, sexual decision-making, etc.), proactive decision-making, healthy relationships, fitness, and how to evaluate and address personal wellness needs.

Leadership 120

This course is designed to improve Leadership Skills through physical activity in recreational settings. Participants learn the various forms/styles of Leadership, teaching/coaching theory, how to work in a group, strengths and limitations of those we lead, and interpersonal skills.

SCIENCE COURSE DESCRIPTIONS

Biology 112

This introductory Biology course covers a wide variety of topics including cell structures and processes, microscopes, body systems (digestive, excretory, circulatory, respiratory, immune) with a focus on maintaining homeostasis, biodiversity, and classification. There is also a focus on lab work involving microscope use and dissection.

FI Biology 112

The same outcomes that are taught in Biology 112 are taught in FI Biology 112, except in French. This introductory Biology course covers a wide variety of topics including cell structures and processes, microscopes, body systems (digestive, excretory, circulatory, respiratory, immune) with a focus on maintaining homeostasis, biodiversity, and classification. There is also a focus on lab work involving microscope use and dissection.

Biology 111

This introductory Biology course covers a wide variety of topics including cell structures and processes, microscopes, body systems (digestive, excretory, circulatory, respiratory, immune) with a focus on maintaining homeostasis, biodiversity, and classification. Biology 111 includes more outcomes than Biology 112 and is most appropriate for an above average student with a deeper interest in Biology. It involves independent study, and major research projects. There is also a focus on lab work involving microscope use and dissection.

FI Biology 111

The same outcomes that are taught in Biology 111 are taught in FI Biology 11, except in French. This introductory Biology course covers a wide variety of topics including cell structures and processes, microscopes, body systems (digestive, excretory, circulatory, respiratory, immune) with a focus on maintaining homeostasis, biodiversity, and classification. FI Biology 111 includes more outcomes than FI Biology 112 and is most appropriate for an above average student with a deeper interest in Biology. It involves independent study, and major research projects. There is also a focus on lab work involving microscope use and dissection.

Biology 121

This course looks at the more complex topics within Biology including mitosis, meiosis, genetics, DNA structure and replication, protein synthesis and sexual reproduction. Topics are covered in more depth than Biology 122. There is also a focus on lab work involving microscope use and dissection. Background in chemistry is an asset. Independent study is required, as well as completion of major projects. Students choosing this course should be above average science students. *Recommended:* Biology 111

Biology 122

This course looks at the more complex topics within Biology including mitosis, meiosis, genetics, DNA structure and replication, protein synthesis, the nervous system, the reproductive system, the endocrine system, and evolution. There is also a focus on lab work involving microscope use and dissections. Background in chemistry is an asset.

Recommended: Biology 112

Chemistry 112

Chemistry 112 is the first of a two-year sequential course in which emphasis is placed on teaching chemistry using the scientific method. The experiments are designed so students make observations and draw conclusions, which lead directly to important chemical principles. Topics include matter and energy in chemical change, matter as solutions and gases, quantitative relationships in chemical changes, and chemical bonding.

Chemistry 111

Chemistry 111 is a first of two-year sequential course recommended for students who may be pursuing science or engineering at the university level. Students choosing this course should have a genuine interest and a better than average ability in science and mathematics. Topics covered will be the same as those for Chemistry 112, but the depth of coverage will be greater.

Chemistry 122

Chemistry 122 is the second of a two-year sequential course in which emphasis is placed on teaching chemistry using the scientific method. The experiments are designed so the students make observations and draw conclusions, which lead directly to important chemical principles. Topics include organic chemistry, thermo chemical changes, equilibrium, acids and bases.

Prerequisite: Chemistry 112

Chemistry 121

Chemistry 121 is the second of a two-year sequential course recommended for students who may be pursuing science or engineering at the university level. Students choosing this course have a genuine interest and a better than average ability in science and mathematics. Topics covered will be the same as those for Chemistry 122, but the depth of coverage will be greater.

Prerequisite: Chemistry 111

Introduction to Environmental Science 120

This course investigates the abiotic and biotic factors, which influence the ecosystem. Several biomes are studied in detail as climate and adaptation of animals and plants are examined. Special topics, which influence biomes, such as global warming and acid rain, will be considered.

Physical Geography 110

This course focuses on the study of all the processes that affect the surface of the earth. Topics include Plate Tectonics, earthquakes, volcanoes, mountain ranges, mountain building, continental drift, groundwater, weather, climate, maps, and the formation of the universe and the earth. This course can be used as a science credit.

Pathology 120 (Locally Developed Course)

This course is intended for students who are thinking about pursuing careers in the medical field, or have a higher interest in Biology. Students will study the immune system, the biology of pathogens, how various diseases affect the human body, and how diseases are diagnosed and treated. There is also a lab component.

Physics 111

This course covers the same topics as in Physics 112, but to a greater depth. Students taking this course should have a genuine interest in Physics and a better than average achievement in both Science and Math. Laboratory work is important to the course and is done in a rigorous manner. This course includes a scientific research paper.

Physics 112

This course is the first part of a two-year study of how energy and matter interact. Topics covered include motion, graphing, displacement, vectors, forces, waves and sound. Students choosing Physics should be comfortable in Math.

Physics 122

This course is the second of a two-year course designed for students intending to go to university or technical school following graduation. Topics include linear motion, forces, static equilibrium, two-dimensional motion, impulse and angular momentum, work energy and power. As with Physics 112, each of these topics is studied in its societal context. Students will complete laboratory investigations. *Prerequisite:* Physics 112

Physics 121

This course covers the same topics as in Physics 122, but to a greater depth. This course is the second of a two-year course designed for students intending to go to university or technical school following graduation. Topics include linear motion, forces, static equilibrium, two-dimensional motion, impulse and angular momentum, work energy and power. As with Physics 111, each of these topics is studied in its societal context. Students will complete laboratory investigations. *Prerequisite:* Physics 111

Science 122

This course involves an intensive study of the following topics: oxidation-reduction reactions, electrochemistry, atomic and nuclear structure, magnetism, electromagnetism, applications of electromagnetism. It is intended for students preparing to take post-secondary study in chemistry, physics and engineering. *Prerequisites:* Physics 122 and Chemistry 122

Human Physiology 110

The focus of this course is the human body. Students will begin by exploring wellness and mental health in depth; and will study the effects of stress, addiction, disease, nutrition, and sleep on mental and physical well-being. Focus then shifts to human anatomy (body systems) and physiology (how our body works), with a continued link to wellness throughout. Students will set wellness goals and participate in various wellness activities throughout the course. No prerequisite.