John Caldwell School

Course Selection

Catalogue

2021-2022



**Introduction and General Comments**

The purpose of this guide is to provide pertinent information for students as they select grade 11 and 12 courses.

There is a new Mathematics Pathway to Graduation beginning September 2020. This will apply to students entering grade 10 in September 2020. All students are required to successfully complete Geometry, Measurement and Finance 10. This will be offered during first semester.

Numbers, Relations and Functions 10 has become a credit course for high school graduation. It is a pre-requisite course taken prior to the Foundations of Mathematics and Calculus mathematics pathways. It is not necessary to take NRF 10.

In Grade 11 , students will choose between Foundations of Mathematics 110 or Financial and Workplace Mathematics 110. Further explanation of the new mathematics pathway can be found on page 5 of this booklet.

**Essential Skills Achievement Pathway** – students on this pathway will speak with the guidance counselor to choose their courses.

**Choosing Courses**:

Each spring, students select courses for the following academic year. There is a wide variety of courses from which to choose in grades 11 and 12, and a number of factors that should be considered when making these choices. It is important that students take time to carefully consider their options since it can be difficult to make changes once scheduling for the year is complete.

**Course Load**:

Students are required to take a full course load each semester. All students must attempt 20 credits in grades 11 and 12 and complete four semesters. In order to be eligible for graduation, 17 of 20 credits are required for graduation. A student needing an additional semester past the grade 12 year may take the minimum number of courses to complete graduation requirements.

Beginning September 2020, students expected to graduate in 2023 must complete 18 credits for high school graduation, 2 of which must be mathematics credits.

**Course Descriptions**: All courses have a name and a number. The first two digits indicate grade and third digit indicates the level.

Open or “0” courses are offered at one level only.

Level 1 courses are academic/university/college preparatory and are more challenging.

Level 2 courses are academic/university/college preparatory.

Level 3 courses are general/college preparatory.

**Pre-requisites**: Please read the course descriptions and requirements carefully prior to course selection as many courses have pre-requisites. Many courses must be taken in sequence to fulfill the pre-requisites; students without pre-requisites will not be allowed to take the course. For example, Chemistry 112 must be completed successfully before enrolling in Chemistry 122.

**Course Fees**: Please note that some courses require additional supplies and/or payment of lab, studio, or other fees. The following courses will have a $25 course fee: Culinary Technology 110, Visual Arts 110, Introduction to Applied Technology 110, Mill and Cabinet 120, Framing and Sheathing 110, Outdoor Education 110, Theatre Arts 120

**Transcripts**: All grade 11 and 12 courses and final marks are permanently recorded on a student’s transcript. NRF 10 will also be recorded if students choose to take it. The school transcript provides an ongoing record of high school courses taken and marks obtained. It is the official document required by post-secondary institutions to verify a student’s academic record.

**GRADUATION REQUIREMENTS FOR A NEW BRUNSWICK HIGH SCHOOL DIPLOMA (Revised April 2021)**

In the 20-credit system, students must:

• meet the requirements of the prescribed common curriculum of the 9/10 program as outlined in the Grades 9/10 Companion Document (completing Information Technology outcomes satisfies the Computer Literacy requirement);

• attain 17 of 20 credits (including compulsory credits);

• accumulate a minimum of 5 credits at the grade 12 level;

• acquire a literacy credential by achieving a successful rating on the English Language Proficiency Assessment in grade 9. A reassessment in grades 11 and 12 is available to students who have not achieved a successful rating.

As of September 2020, grade 10 students will be required to complete 18 credits for graduation in June of 2023, two of which must be Math credits. Numbers, Relations and Functions 10 (NRF) will be considered a credit and will be prerequisite for Foundations of Math 11 and which is required for the Pre-Calculus 11 pathway.

There are 7 compulsory credits for graduates until June 2022. In June 2023 graduates will be required to have 8 compulsory credits.

1. English grade 11 (2 credits)
2. English grade 12 (1 credit) 3.
3. Financial and Workplace Mathematics 110 or Foundations of Mathematics 110 (Graduates in 2023 will be required to complete one additional credit designated as a Math credit)
4. Modern History grade 11 (1 credit)
5. Science (1 credit) from Physics, Biology, Chemistry, Introduction to Environmental Science 120, Robotics and Automated Technology 120, Automotive Electrical Systems 120, Micro Electronics 120, Introduction to Electronics 110, Physical Geography 110, Human Physiology 110
6. Fine Arts/Life Role Development (1 credit) from Visual Arts 110/120, Music 111/112/113, Music 120, Music 122, Creative (Fine) Arts 110, Dramatic (Theatre) Arts 110/120, Graphic Art and Design 110, Individual and Family Dynamics 120, Co-op Ed 120, Career Explorations 110, Outdoor Education 110 (regular course or Challenge for Credit with successful completion of the Duke of Edinburgh's Award - Young Canadians Challenge (Silver or Gold level) or completed level 4 cadet training (in Air, Army, or Sea) or the Scout Exploration Activity Award), Physical Education Leadership 120, Wellness Through Physical Education 110, Entrepreneurship 110, Reading Tutor 120, select Applied Technology/Skilled Trades Course at the 110 or 120 level4 , Nutrition and Healthy Living 120, Health Care 110, Goals, Growth and Grit 120. French language requirements are met in the grade 9/10 program.
7. Students learning English as an Additional Language (EAL) may use successful completion of EAL Expressions B1.1 and B1.2 (2 credits) to satisfy their Grade 11 English requirement. Students must take Grade 12 English Language Arts (ELA) to satisfy their grade 12 English requirement but can count EAL courses beyond the 180 credit hours as electives. 3 Newcomers who arrived in New Brunswick at age 14 or older, and who have English language levels of A1- B1 on the Common European Framework of Reference (CEFR), may take Social Studies 9: Canadian Identities in place of Modern History 11 as a graduation requirement. 4 Applied Technology and Skilled Trades Courses for Fine Arts/Life Role: Automotive Electrical Systems 120 (Note: if used as a Science credit, it is not permitted in the Fine Arts/Life Role), Culinary Technology 110/120, Electrical Wiring 110, Fashion Design 120, Fashion Technology 110, Framing and Sheathing 110, Housing and Interior Design 120 - IEDEL1200, Internal Combustion Engines 110, Introduction to Applied Technology 110, Metals Fabrication 110, Metals Processing 110/120, Mill and Cabinet Work 120, Power Train and Chassis 110, Residential Finish 120, Tune-up and Emissions 120 5 Newcomers in high school with English language levels of A1-B1 on the CEFR may take EAL classes in place of Post-Intensive French 9-10. Given the value of plurilingual competence, students are encouraged to DEPARTMENT OF EDUCATION AND EARLY CHILDHOOD DEVELOPMENT POLICY 316 Page 3 of 4 Students may take up to 2 Challenge for Credit Courses and 1 Independent Study for graduation purposes. Only 2 Locally Developed Courses are eligible for credits for graduation purposes, but these courses may not replace a compulsory course.

**Science Credit:** The following courses which JCS offers will count as your 1 required science credit – Physics 112/122, Biology 112/122, Chemistry 112/122, Introduction to Environmental Science 120, Introduction to Electronics 110, Human Physiology 110, Physical Geography 110

**Science Rotation:** Level 2 sciences will follow the rotation below if numbers and staffing allow. When circumstances warrant more or less sciences may be offered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **2020-2021** | **2021-2022** | **2022-2023** | **2023-2024** |
| **Courses Offered** | Chemistry 112  Chemistry 122  Biology 112  Biology 122  Physics 112 | Chemistry 112  Biology 112  Biology 122  Physics 112  Physics 122 | Chemistry 112  Chemistry 122  Biology 112  Biology 122  Physics 112 | Chemistry 112  Biology 112  Biology 122  Physics 112  Physics 122 |

**Skilled Trade Rotation:** The following skilled trade courses will follow the rotation below if numbers and staffing allow. When circumstances warrant more or less skilled trade courses may be offered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **2020-2021** | **2021-2022** | **2022-2023** | **2023-2024** |
| **Courses Offered** | Introduction to Applied Technology 110  Framing & Sheathing 110  Mill & Cabinet Work 120 | Introduction to Applied Technology 110  Electrical Wiring 110  Residential Finish 120 | Introduction to Applied Technology 110  Framing & Sheathing 110  Mill & Cabinet Work 120 | Introduction to Applied Technology 110  Electrical Wiring 110  Residential Finish 120 |

**French Immersion Certificate Requirements:** The minimum yearly percentages of instructional time in French for Early French Immersion students are:

a) Grade 1 and 2 receive a minimum of 90 percent of their instructional time in French.

b) Grades 3, 4 and 5 receive a minimum of 80 percent of their instructional time in French.

c) Grades 6 through 8 receive a minimum of 70 percent of instructional time in French.

d) Grades 9 and 10 receive a minimum of 50 percent of instructional time in French. (10 courses)

e) Grades 11 and 12 receive a minimum of 25 percent of instructional time in French. (5 courses)

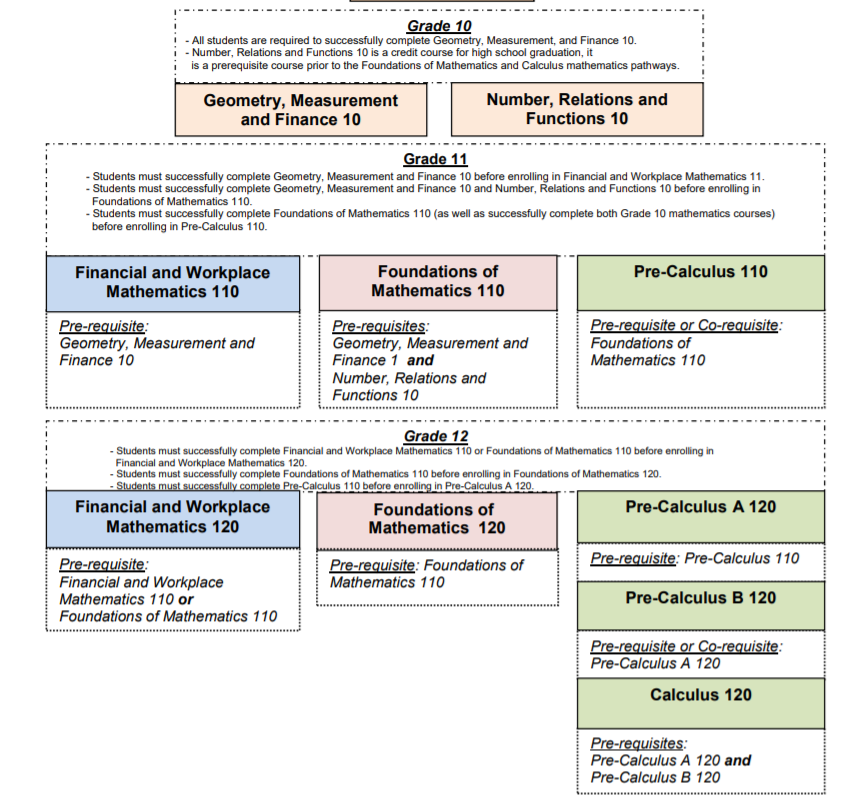
\*In order to receive 25% of grades 11 and 12 in French, students must choose 2 French Immersion electives. For example, FI Co-op 120 would be 2 electives. Choosing 2 e-learning courses from the available FI courses would also meet the requirement.

**French Immersion Modern History Rotation:** This course will be offered every other year unless numbers are warranted to offer it each year.

**Fine Arts/Life Role Development Credit**: The following courses which JCS offers will count as your 1 required fine arts/life role development credit – Visual Arts 110, Theatre Arts 120, Individual and Family Dynamics 120, Co-Operative Education 120, Outdoor Education 110, Leadership Through Physical Education and Recreation 120, Wellness Through Physical Education 110, Entrepreneurship 110, Reading Tutor 120, Nutrition for Healthy Living 120, Culinary Technology 110, Framing and Sheathing 110, Introduction to Applied Technology 110, Mill and Cabinet 120.

**Post-Secondary Requirements**: Graduation requirements and post-secondary requirements are not the same. It’s up to you to research and ensure you have the right courses for admission. What is accepted for admission at one school is not necessarily accepted at another school. Please remember you can always make an appointment with the guidance counselor to discuss your options.

**Enrollment Guidelines**: All courses are subject to limited enrollment and may be cancelled if numbers do not warrant a place in the timetable. Staffing allocations ultimately determine availability of sections/courses. Administration reserves the right to review section/course numbers each semester.

**Mathematics Graduations Pathways Updated September 20**

**Course Descriptions**

**Biology 112**: Biology 112 is an introductory exploration of both the unity and diversity among living things. Students first review key scientific principles. Advancing microscope technology is tracked in tandem with the historical development of cell theory. Students study the cell as the basic unit of life, followed by a broad survey of the wide diversity of living organisms with whom we share our planetary home. Throughout the course, newly acquired knowledge is linked to the continuing story of human discovery of structures, functions and evolutionary trends of living organisms. Along the way, students investigate the impact of biology and technology on society, and the impact of human activities on the natural world. Finally, students investigate some of the systems that allow multicellular organisms to maintain dynamic equilibrium, or homeostasis, as they interact with the natural environment—specifically, the circulatory, respiratory, digestive, excretory and immune systems.

Pre-requisite – Science 10

**Biology 122**: Biology 122 focuses on the molecular level of vital life processes. Students first study how organisms grow and pass along characteristics to future generations. The processes of mitosis, meiosis and protein synthesis are explored in some depth. Students then investigate the details of Mendelian genetics, inheritance, genomics and the tools and techniques of modern genetic engineering. Diversity and natural variation are investigated as a reflection of the theory of evolution and its mechanism of natural selection. Students learn about the way in which genes change and impact the survival and reproduction of wildlife populations over periods of time. Continuing on from Biology 112, the nervous, endocrine and reproductive systems are explored in detail, with particular attention given to their relationship to overall homeostasis. Throughout the course, the complexity and continuity of life is demonstrated through the molecular basis of heredity, adaptation and regulation.

Pre-requisite – Science 10

**Business and Organization Management 120**: Business Organization and Management 120 is an introductory course in business organization, functions of management, ethics, and international business. Through exploration, students will understand how the business world operates. They also become more conscientious and informed consumers. The concepts presented in this business course will prepare students to apply knowledge and skills in New Brunswick, as well as in national and global business situations.

**Calculus 120**: This is the last course offered in the Pre-Calculus Pathway, and follows *Pre-Calculus B 120*. The course introduces derivatives of polynomial, trigonometric, inverse trigonometric, exponential and logarithmic functions, and the product, quotient and chain rules. Applications of derivatives will be explored including rates of change, increasing and decreasing functions, maximum and minimum values, optimization problems, concavity and the second derivative, curve sketching, indeterminate forms and l'Hôpital's Rule. Integrals will also be explored including interpretations, properties and numerical approximations of definite integrals, applications of integrals, and techniques and applications of antidifferentiation.

Pre-requisite- Pre-Calculus A 120 and Pre-Calculus B 120

**Canadian Geography:** Canadian Geography 120 is an introductory course on the economic and social geography of Canada. The course is designed to introduce Canada, its landforms and climate, and how these have related to our patterns of settlement and the development of our economic base. It is a study of the ever-changing cultural and physical landscapes of Canada and how they impact on each other. This course examines physical systems and how they interrelate with man-made systems and structures. Assessment is based on contribution to discussion topics, many self-assessments and activities, module assignments and tests. The course finishes with research into a geographical issue currently of importance to the lives of Canadians.

**Chemistry 112:** In Chemistry 112, students first study the theoretical foundation of some qualitative aspects in chemistry. Students learn to identify and describe properties of ionic and molecular compounds and metallic substances. They investigate the details of a wide variety of bonding types between chemicals. In the second half of the course, students examine the quantitative aspect of chemistry, stoichiometry. Applications of chemistry in everyday life and industry are considered throughout the course and students will complete a variety of laboratory activities using readily available household chemicals and equipment. Topics in Chemistry 112 include atomic structure and properties, quantum mechanics, periodicity, chemical bonding, chemical reactions, quantitative analysis, gases, solutions and stoichiometry. Students choosing this course should have a genuine interest in chemistry as well as a reasonable ability in mathematics and science generally.

Pre-requisite – Science 10

**Chemistry 122**: Chemistry 122 builds on the theoretical and applied knowledge of chemistry acquired in the grade 11 course. It starts with a review of key scientific principles, namely the skills of scientists and the scientific method of inquiry. The course continues with a study of thermochemistry, kinetics and equilibrium, then acids and bases. The last module of the course introduces organic chemistry and nomenclature, with many connections to thermochemical concepts previously studied. Applications of chemistry in everyday life and industry are considered throughout the course and students will complete a variety of laboratory activities using readily available household chemicals and equipment. Students will apply the chemistry principles being studied to solving problems, so a general aptitude for and knowledge of mathematics is essential.

Pre-requisite – Chemistry 112

**Child Studies 110**: This course is designed for students who are interested in pursuing post-secondary education in early childhood education, pediatric medicine, nursing, child psychology or social work. Topics include heredity, conception, prenatal development, pregnancy and childbirth, as well as child growth and development. Learning strategies as well as intelligence and attachment theories are a major focus.

**Co-operative Education 120**: Do you want to learn more about a specific area of career interest, experience what working in that area or related area might be like, develop workplace skills and earn 2 or 3 credits while still in school? Cooperative Education will allow you to explore your career interest though an extensive workplace component during which you will learn more about your career field and the skills and learning required for success. Co-Op will help you to formulate more specific learning and career goals. Trades related placement hours can be credited towards Apprenticeship Certification. Due to the out of school workplace component of this course, an application is required that will consider teacher recommendations, attendance patterns, commitment to learning and the ability to represent the school in a mature and responsible manner. Application required-see the guidance counselor.

**Culinary Technology 110** and **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 food knowledge that can be applied to the food industry. Learning experiences include food and meal preparation in a real restaurant environment.

Culinary Technology 110 has an emphasis on bakeries, baked goods, breads and pastries. Culinary 120 has an emphasis on food and meal preparation in a real restaurant environment.

**Dramatic Arts 110**: This course will introduce students to a cross sectional study of theatre and various approaches to theatre. Emphasis will be placed upon the study of theatre from a practical perspective. Other areas of interest will involve props, costumes, make-up, lighting design, stage structure, play writing and production. Students are expected to contribute significantly each day to group discussions, projects and productions.

**Early Childhood Studies 110**: This course will focus on the skills to prepare people to work with children. It is a how to program, applying basic theory to hands-on activities. Child caregivers are important in our society, for they guide and teach today’s children, who become tomorrow’s adults.

**English 112**: This is a year-long course worth two credits and is designed for those students who wish to pursue a post-secondary education. As a result, you will notice an increase in the volume of independent reading and expected depth of understanding. Formal and informal speaking and listening presentations (including a formal speech) will be conducted throughout the year. Writing assignments will include a formal literary essay, research writing, creative writing, poetry analysis, etc. Close reading of a variety of literary genres (ie. short stories, fiction, poetry, drama etc.) including opportunities for personal choice will be the focus of your reading and viewing experiences

Pre-requisite- English 10

**English 113**: This full-year course (2 credits) is designed to prepare you for college entry or the world of work. The communication skills you will need to be successful after high school are the focus of this course. In English 113 you will be required to read novels of your choosing as well as class novels. Other topics include short stories, poetry, drama and many different forms of writing (literature response, journals, personal responses, etc). In addition to this, you will participate in formal and informal presentations, complete hands on assignments and work collaboratively with your peers.

Pre-requisite- English 10

**Entrepreneurship 110**: This course is designed for Grade 11 or Grade 12 students interested in developing the skills essential for starting a small business or pursuing careers in marketing, business or finance. Through a combination of classroom theory, group tasks, and individual work, students will develop their own comprehensive business plan, based on an original idea. Entrepreneurship 110 meets the Fine Arts/Life Role Development graduation requirement.

**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 110 to complete graduation requirements. This is a pre-requisite for Financial and Workplace Mathematics 120.

**Framing and Sheathing 110**: Students in this course will participate in the planning and construction of wooden structures in a large, well-equipped shop. Students will learn the safe operation of carpentry tools and equipment. Emphasis will be placed on the interpretation of the National Building Code, Blueprint reading, estimating and material layout. This course will be of interest to students exploring career opportunities in the building construction industry.

**Foundation of Mathematics 110**: This course is a pre-requisite 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 pre-requisite for the pre-calculus pathway. 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. Students have a choice of this course or **Financial and Workplace 110** to complete graduation requirements. This is a pre-requisite for **Foundations of Mathematics 120** and a pre-requisite or co-requisite for **Pre-Calculus 110**.

Pre-requisite – GMF 10 and NRF 10

**French Immersion Language Arts 110**: This course is the second compulsory of a three course sequence of French Immersion Language Arts course in the French Immersion option. Students will continue to expand their facility in oral and written French to ensure the maintenance and progression of the linguistic skills and increase students’ cultural knowledge and experiences. Students will be present a debate and participate in group role play scenarios. This course is a pre-requisite to take French Immersion Language Arts 120.

Pre-requisite- French Immersion Language Arts 10

**French Immersion Language Arts 120**: Students who have successfully completed F.I. Language Arts 110 will continue to expand their facility in oral and written French. To realize the main objectives of the course, there will be exposure to various texts, activities, and novels, in the final preparation for the interview to determine students’ level of competency in French second language.

Pre-requisite- French Immersion Language Arts 110

**French Immersion Modern History 112**: This course continues the student’s progress through the French Immersion option at the high school level. FI History 112 presents a study of the principal historical developments that have occurred on the world scene in modern times. In addition, it assists students to understand and use several of the skills used in historical research and writing; such as the recognition of a frame of reference, asking questions, forming a hypothesis, and evaluating an hypothesis. Students must write one major research paper and present independent and group seminar findings.

Pre-requisite- FI Language Arts 10 and Social Studies 10

**Global Competencies 120**: This is a local option elective course that is divided into 5 sections. Introduction to the six New Brunswick global competencies, leadership skills and development, teambuilding in the 21st century, community partnerships and experiential leadership opportunities.

**Goals, Growth, and Grit: Skills for Success 120**: This course will provide students with skills in three main areas - positive and productive mindsets and behaviours, organizational patterns, as well as functional and critical literacy. Within the broad learning expectations of the course, specific success skills, strategies, and practices will be explored. Students will be supported to apply and transfer these skills, strategies, and practices to other courses and real-life situations. Students will learn how these support postgraduate pursuits.

**Hospitality & Tourism 110**: The general aim of the Hospitality and Tourism 110 program for New Brunswick is to develop an understanding of the tourism industry, create an appreciation for New Brunswick and to prepare students for work in the industry.

**Human Physiology 110**: The goal of this course is to build an understanding of the physiology of the human body. This course focuses on developing an understanding of the structure and functioning of each human body system, including the causes, symptoms, and treatments of diseases and conditions. This includes the ways in which the health of each system impacts on, and is impacted by the health of the whole body. By the end of the 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.

**Individual and Family Dynamics 120**: This course will expose students to the skills and information necessary to make informed decision about personal development, lifestyle choices and healthy relationships.

**Introduction to Accounting 120**: Introduction to Accounting 120 introduces students to skills necessary for general accounting and bookkeeping. The nine-module course, both academic and practical, will emphasize steps of the service industry's accounting cycle, accounting processes from a business event to year-end reporting and the basics of spreadsheets. Students will receive a solid grounding for post-secondary study in business as well as skills for employment and/or personal finance.

**Introduction to Applied Technology 110**: This 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. Problem identification, teamwork and leadership skills are reinforced. Student creativity and life skill development in the design, construction, repair and maintenance modules reinforce situations that are found in industry.

**Introduction to Electronics 110**: The basics of electronic theory and components of electronic devices are the subjects of this course. Students learn through a series of lab activities including many types of Direct Current circuit construction. This course will be of interest to students exploring career opportunities in many skilled trades and also those interested in many Engineering and technology disciplines. This course may be used as a Science credit for graduation purposes and also be used as an entrance elective for the University of New Brunswick

**Introduction to Environmental Science 120**: Introduction to Environmental Science 120 helps students develop the knowledge base and skills for investigating and analyzing environmental world issues and for communicating their knowledge and analysis to others. Course topics include basic ecology, environmental awareness, population growth and resource limitations, and sustainable ecosystems and communities. Students learn how to research a variety of current environmental issues and present their findings.

Pre-requisite- Science 10

**Journalism 120**: Journalism 120 is intended for those who wish to explore journalism as a career or field of study following high school. Participants will be involved in the intensive practice of writing stories and articles in various journalistic styles. This course is for writers, not just critics of writing. Students must commit to practical outcomes and work towards publication of their work.

**Law 120**: Law 120 introduces students to general concepts of Canadian law and the justice system, while developing students’ abilities to reflect critically on the role of law in society. Students will develop the skills required to clearly express ideas, to argue effectively for both the prosecution and the defense, and accurately interpret the written word. The course consists of five modules: Foundations of Law, Criminal Law, Civil Law, Family Law, and Succession Law.

**Leadership Through Physical Education and Recreation 120**: The focus of this course is to develop leadership skills through the medium of physical education and recreation. The following inter-related units will be considered throughout the semester: Leadership Theory, Sports Administration, Teaching, Officiating, Coaching and Sports Medicine. Students will also be required to teach specific lessons and skills as part of their developmental experience. Students will be expected to participate in public speaking and frequently conduct presentations to the class. In addition to the academic requirement in the classroom, students must also commit to volunteering 30 hours of extracurricular involvement outside the normal classroom setting. Some of this time may be assigned at lunch time (intra-murals for example) or after school.

**Media Studies 120**: Media Studies 120 introduces students to the evolution and impact of mass media on the individual and society. The course, both academic and practical, emphasizes the content and processes of media. Students will study six modules, four compulsory: Introduction to Media, Film/Video, Television and Advertising and two optional ones to be chosen from a teacher-created listing.

**Mill and Cabinet Work 120**: Students in this course build a series of wooden products to learn the safe operation of woodworking tools and equipment. They also learn project planning and estimating as well as finishing and installation of cabinets and furniture. This course will be of interest to students exploring career opportunities in the building construction industry as well as those with a general interest in woodworking.

**Modern History 112**: History 112 presents a study of the principal historical events that have occurred in modern times. It is an overview of the major changes in political, social, and economic institutions beginning with absolutism. Topics presented are the French Revolution, Napoleon, Industrial Revolution, Nationalism, the rise of Germany and Italy, World War I, post-World War 1 era, World War II, Russian Revolution, Fascism, Marxism, post-World War II period, and current problems in Southeast Asia and Middle East. In addition, it assists students to understand and use several of the skills used in historical research and writing such as recognition of a frame of reference, asking questions, forming an hypothesis, and evaluating a hypothesis. This course is accepted for university entrance.

Pre-requisite- Social Studies 10

**Modern History 113**: History 113 is designed to provide an understanding of the main events of the twentieth century, as well as some familiarity with a few of the basic skills used to interpret historical accounts. A survey approach is given to the following topics: Basic World Geography, Industrialization, life in the 1920’s and 1930’s World War 1, World War II, Cold War and United Nations with a focus on the 20th Century.

Pre-requisite- Social Studies 10

**Numbers, Function and Relation 10**: Prime numbers, common factors, square and cube roots, irrational numbers, integral and rational exponents, polynomial expressions, trinomial factoring, linear relations and functions, slope, distance formula, midpoint formula. This course is a pre-requisite for Foundations of Mathematics 110.

**Nutrition for Healthy Living 120:** Nutrition for Healthy Living is designed to make students aware of how to contribute to their overall wellness, make healthy food choices and maintain a balance between eating habits and physical activity. Topics include wellness, digestion, macronutrients, micronutrients, alternative medicine, and food safety. Students will analyze their own diet by tracking their eating habits, determining their nutrient intake and comparing it to Health Canada’s recommendations.

**Outdoor Education 110**: The focus of this course is to develop personal outdoor recreation skills based on environmental ethics. Class outings are compulsory and may take place during class or for an extended period of time. The class will participate in several half day and full day outings we well as a mandatory overnight camping excursion. The course will take advantage of local outdoor adventure areas. Students must be prepared to plan, lead and evaluate outing experiences from a personal and group perspective. Students are admitted to the course based on:

1. Strong attendance during the previous academic year.
2. Ability to work independently and collaboratively with minimal supervision.
3. Mature and responsible work ethic.

**Physical Geography 110**: This course involves students in an examination of the current state of planet Earth. Students will determine how it got to be this way and look at the long-term future of the planet and its passengers. The course is particularly recommended to students who are interested in pursuing a science degree in astronomy, oceanography, geology, meteorology, mapping, or urban and rural planning. The course presents an introduction to skills and methods that are basic to further study of survey engineering.

**Physics 112:**Physics 112 is the first of two physics courses designed for students who intend to go to university or technical school. Topics include one-dimensional kinematics and dynamics, wave motion, sound and light, introduction to electromagnetic radiation and a study of work/energy/power. The course aims to engage students in relating physics concepts to societal contexts and applications.

Pre/Co-requisite- Foundations of Mathematics 110

**Physics 122**: Physics 122 is the second of two physics courses designed for students who intend to go to university or technical school. Topics include linear motion, forces, two-dimensional motion, projectiles, circular motion and gravitation, fields (gravitational/electric/ magnetic), electric circuits, electric motors and generators.

Pre-requite- Physics 112 and Foundations of Mathematics 110

**Post-Intensive French 110**: Post-Intensive French is a literacy‐based, non‐immersion program for students choosing to continue to learn French as a second Language. The themes are: the power of photography, injustices, and mysteries. All students not in an immersion program may enroll in Post-Intensive French classes.

Pre-requisite – Post-Intensive French 10

**Pre-Calculus 110**: This course, followed by later courses in 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 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. This course is a pre-requisite for Pre-Calculus 12A

Pre-Requisite- Foundations of Mathematics 110

**Pre-Calculus A 120**: Pre-Calculus A 120 is the first of three grade 12 courses on the New Brunswick calculus high school math pathway, Pre-Calculus 110 is a prerequisite course.  The course covers two strands: Relations and Functions, and Trigonometry.  Students are expected to understand and apply the effects of translations, stretches, and reflections on the graphs of functions.  Students work with the inverses of functions, radical functions, logarithms, and exponential functions. Learners increase their understanding of angles in standard position by expressing in both degrees and radians, and applying the equation of the unit circle.  Student use of trigonometric ratios is expanded and learners will prove trigonometric identities.

**Pre-Calculus B 120**: The Pre-Calculus pathway is designed for entry into post-secondary programs that require the study of theoretical calculus. Topics include sequences and series, radical, polynomial, rational and reciprocal functions. Students entering this pathway should have a 70% or higher in the Pre-Calculus 120A course. Required for programs, such as: Bachelor Degrees in Science, Engineering, Mathematics, Computer Science.

Pre-requisite- Pre-Calculus A 120

**Reading Tutor 120**: This course presents a unique opportunity for students with good academic achievement, excellent attendance and good communication skills. Under the guidance of the instructor, tutors work on a one-to-one basis with students who are seeking to raise their reading level to improve their writing skills. Tutors learn basic reading theory and teaching techniques and are assigned one student to work with for the term. A real commitment is required (in attendance and day by day planning), since the student depends on the tutor. This is a chance to make a positive contribution to our school, to acquire leadership skills, and to experience a real-life teaching situation. This course is recommended for those planning careers in education, guidance or the social services.

**Residential Finish and Insulation 120**: This advanced building construction course enables students to acquire knowledge and skills in the installation interior and of insulation, wall and ceiling cladding and the installation of trim, doors and windows. This course will be of interest to students exploring career opportunities in the building construction industry.

**Visual Arts 110**: The student will be working towards an emphasis on personal expression and individual style. This course focuses on drawing, painting, print making, sculpture, art appreciation and art history.

**Wellness Through Physical Education 110**: This course is intended to allow students an opportunity to be active, while further enhancing their decision-making skills towards personal wellness. 40% of the course will be theoretical in a classroom setting with the remaining 60% spent on practical work in an active setting. This course will help students increase their awareness of the role of physical activity towards a healthy, active lifestyle.

**World Issues 120:** World Issues 120 examines various current events that are global in nature and require global solutions. Various issues are examined to acknowledge that events in any part of the world have an impact globally. Students will explore world issues through the lenses of people—humanity, globalization, sustainability, and the UN's Global Goals; and geopolitics— political, environmental, social, and economic interactions.

**Writing 110**:Do you enjoy writing poetry? Have you ever thought you might have a great idea that you could turn into a best-seller? Writing 110 is an elective that could help you get started on the path toward achieving your writing goals. It is designed for highly creative, proficient, and articulate students who want to find an outlet for their literary talents. The course focuses on the writing process and consists of journal writing, and other forms of narrative writing, as well as expository and persuasive writing. Students will share their work with peers, as well as conference with the teacher. Within this course structure, opportunity exists for creative, individual expression.