

Graduation Requirements for the New Brunswick High School Diploma

Completion of Grade 9/10 Program

Meet the requirements of the prescribed common curriculum of the grade 9/10 program as outlined in the *Grades 9/10 Companion Document*. These courses are prerequisites for credits taken during grade 11 and 12.

English Language Proficiency Assessment (ELPA)

Successful completion on the reading and writing components of the ELPA in grade 9. A reassessment in grades 10, 11, and 12 is available to students who have not achieved a successful rating on the reading and/or writing components.

Completion of 17 Credits during Grades 11 and 12

This includes seven compulsory and ten elective credits, a minimum of five credits must be at the grade 12 level. All courses are single credit unless otherwise noted. Some students will complete a grade 11/12 credit during grade 10. The seven compulsory credits are:

English English 111/112/113 - 2 credits, full year, **and** English 121/122/123

Math Geometry and Applications in Mathematics 111/112
or Applications in Mathematics 113

History Modern History 111/112/113
or French Immersion Modern History 112

Science Physics 111/112, Biology 111/112/113, Chemistry 111/112,
Environmental Science 122/123, Robotics and Automated
Technology 120, Physical Geography 110

Fine Arts/Life Role Development

Visual Arts 110, Music 112, Theatre Arts 120, Graphic Art and Design 110, Family Living 120, Co-op Education 120 (2 or 3 credits), Career Explorations 110 (2 credits), Outdoor Pursuits 110, Health and Physical Education 120, Entrepreneurship 110, Reading Tutor 120

Electives Ten (10) in total

Preparation for Post-secondary Study

Student for a Day

Many post-secondary institutions offer a *Student for a Day* program. High school students can attend classes, meet with instructors, professors and current students, and visit campus facilities. See your guidance counsellor to arrange a visitation.

Gathering Information

The career exploration website www.careercruising.com offers online career guidance and planning tools that include job-interest matching, career descriptions, résumé preparation, and helpful links. The passwords are posted in your homeroom and in the Guidance Office (licensing agreements do not permit publication). When researching post-secondary websites, look for words like *admissions, prospective students, recruitment, future applicants and new students* to help navigate and download admissions requirements, fee tables and application forms. Also, visit the Association of Universities and Colleges of Canada at www.aucc.ca for a wealth of post-secondary information.

Selecting Credits for University

Students who apply to university should pay careful attention when selecting 121 or 122 or 120 credits. The chart below provides some examples of specific high school credits which satisfy university entrance requirements. **Keep in mind that these are only suggestions.** University admission requirements vary among institutions. A general guideline is a minimum of five credits for Atlantic Canadian universities and a minimum of six for Ontario universities. Having at least one additional acceptable credit than the minimum required is strongly recommended.

Bachelor's Degree	High School Credits often required by Universities
Bachelor of Arts	English 122
Bachelor of Science	English 122, Trigonometry & 3-Space 122, Advanced Mathematics with Calculus 120, Two out of Biology 122, Physics 122, Chemistry 122
Bachelor of Commerce Bachelor of Business Administration	English 122, Trigonometry & 3-Space 122, Advanced Mathematics with Calculus 120
Bachelor of Engineering	English 122, Trigonometry & 3-Space 122, Advanced Mathematics with Calculus 120, Chemistry 122, Physics 122
Bachelor of Nursing	English 122, Functions and Relations 112 and/or Trigonometry & 3-Space 122, Chemistry 122, Biology 122
Bachelor of Computer Science	English 122, Trigonometry & 3-Space 122, Advanced Mathematics with Calculus 120, Chemistry 122, Physics 122
Bachelor of Fine Arts.	English 122

Canadian universities often accept these High School Credits	Canadian universities sometimes accept these High School Credits
Grade 12 Math & Science courses (level 1 or 2) French 122 & French Immersion Language Arts 120 Canadian Geography 120, Canadian History 120 Canadian Literature 120, Economics 120 Law 120, Political Science 120	Business Organization & Management 120 Music 120, Theatre Arts 120, Visual Arts 120 Co-op Education 120, Computer Science 120 Environmental Science 122, Introduction to Accounting 120 Journalism 120, World Issues 120, Media Studies 120

Selecting Credits for Community and Private College

Students who apply to college should pay careful attention when selecting credits during grades 11 and 12. College admission requirements vary among institutions. Additionally, some programs may require specific High School credits, a portfolio, a personal interview, and/or other qualifications. For further information please refer to the college website or calendar or consult your guidance counsellor. This table indicates the admission requirements over and above a high school diploma for some New Brunswick Community College (NBCC) programs:

Programs	Required High School Credits
Business Administration * Computer Network Design Computer Programming Technology * Electronic Game – 3D Graphics & Design Graphic Design Mechanical Technician (Co-op)	Outlined under Profile B in NBCC calendar Functions and Relations 112
Chemical Technology (Co-op) Civil Engineering Technology * Electrical Engineering Technology* Environmental Technology Industrial Control Technology (Co-op) Mechanical Control Technology (Co-op)* Power Engineering Technology (Co-op) Process Control Technician Laboratory Techniques (Co-op) Medical Laboratory Assistance	Outlined under Profile C in NBCC calendar Functions and Relations 112 One of: Biology 122, Chemistry 112 / 122 or Physics 112 / 122
Medical Laboratory Technology Respiratory Therapy	Outlined under Profile D in NBCC calendar: Functions and Relations 112, Two of Biology 122, Chemistry 112 / 122 or Physics 112 / 122
Pharmacy Technician	Outlined under Profile S in NBCC calendar: Functions and Relations 112, One of Chemistry 112 / 122 or Physics 112 / 122
Practical Nurse	Outlined under Profile S in NBCC calendar: One of Biology 122 (recommended), Chemistry 112 / 122 or Physics 112 / 122
*Note: These programs offer different specializations	

French Immersion Certificates

In order to fulfill the requirements of the **Province of New Brunswick Certificate of French Immersion** as established by the Provincial Second Language Policy, students must complete five (5) Immersion Credits of the seventeen (17) required credits for graduation. Students can fulfill the requirements of the **Moncton High School Certificate of French Immersion** by completing four (4) Immersion Credits of the seventeen (17) required credits for graduation. Certificates are awarded at graduation. High school students may take an oral proficiency interview during their graduation year in order to earn a **Certificate of Second Language Proficiency**. Only students taking French 122 or French Immersion Language Arts 122 will be tested. The Language Proficiency Interview allows students to demonstrate mastery of spoken French in a face-to-face situation with a trained language interviewer. The interview is designed to test pronunciation, grammatical accuracy, vocabulary, fluency, and listening comprehension. The interview produces a single, overall language proficiency score based on a scale which can range from *unrated* to *superior*.

Course Selection & Career Planning

Future Career and Job Ideas

Post-secondary: Ideas and plans for college and/or university

Grade 10 Elective(s) taken _____ or no elective taken

Grade 11 Compulsory Credits:

Compulsory English 11 (full year, 2 credits); circle only one: 111 or 112 or 113

Compulsory Grade 11 Math: circle only one: Geometry & Application 112 or Applications in Math 113

Compulsory Modern History circle only one: 112 or 113 or French Immersion Modern History 112

Compulsory Science Course name and Number _____

Compulsory Life Role Development/Fine Arts Course name and Number _____

This can be taken in grade 11 or 12.

Elective _____

Elective _____

Elective _____

Elective _____

Grade 12 *Compulsory English 12* (one semester, 1 credit); circle only one: 121 or 122 or 123

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

ENGLISH	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Business Communication 110 This course contributes to improved language arts skills. Topics include basic elements of grammar and composition, business communication, such as email, letters, oral communication, personal management skills and speaking skills.</p>	English 10 any level	<p>This course ensures that students have competent standard and written English communication skills and are prepared for post-secondary programs and the workplace. <i>Elective Course</i></p>	Students should appreciate the importance of communication skills in the workforce and in post-secondary programs.
<p>Canadian Literature 120 Various Canadian texts explore characters, ideas, values and experiences that contribute to Canada's unique and global nature.</p>	Students must have completed or be enrolled in English 122	<p>An appropriate course for preparation of post-secondary studies in the humanities. Academic level grade 12 course, accepted by most universities. <i>Elective Course</i></p>	This is intended to be a challenging academic course. This course is a complement to the English 122/121 courses.
<p>English 112 – 2 credit, full year course This course provides experience in speaking and listening, reading and writing and in representing with a focus on significant literary pieces.</p>	English 10 comp. level	<p>Designed for students whose aptitudes and interests in language and literature are above average. <i>Fulfills Grade 11 English Compulsory Requirement</i></p>	English 111 is the intensive version of English 112
<p>English 113 – 2 credit, full year course Focus on developing students' abilities in speaking, listening, reading, viewing and writing. Priority is given to development of reading and writing comprehension and effective oral and written communication.</p>	English 10 selective or teacher recommendation	<i>Fulfills Grade 11 English Compulsory Requirement</i>	Practical and personal writing is stressed.
<p>English 122 Focus on critical response to significant literature. Units include study of Victorian or Romantic poetry, Shakespeare (Hamlet or King Lear), independent novel study, formal paper and research presentation.</p>	English 112	<p>This is an academic level grade 12 course and is accepted by ALL universities. <i>Fulfills Grade 12 English Compulsory Requirement</i></p>	English 12 is required for graduation. Course is one semester English 121 is the intensive version of English 122
<p>English 123 Focus on development of students' skills in speaking, listening, reading, viewing and writing with a concentration on reading comprehension, oral communication and written expression using a variety of formats.</p>	English 113 or teacher recommendation	<p>Acceptable level of English for college level studies for most programs. <i>Fulfills Grade 12 English Compulsory Requirement</i></p>	Practical and personal writing is stressed.
<p>Journalism 120 An intensive look into the writing, publication and critique of news. It is largely project based with a significant focus on the crafting of a variety of types of news stories.</p>	Grade 10 English comp. level	<i>Elective Course</i>	Students make a significant contribution to the publication of the school newspaper.
<p>Reading Tutor 120 Focus is on developing skills to tutor struggling learners in English language and/or math. Topics include reading and writing strategy theory, communication and one-on-one small group.</p>	Minimum average of 75% in English 112/ 122 or teacher recommendation	<p>Students considering careers in education and counselling should consider this course. <i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	Evaluation is based on tutorial presentations. Very good attendance required. Student initiative and leadership are needed.
<p>Writing 110 Course is intended for students who want to improve their writing skills at an academic level.</p>	English 112 Co- prerequisite	<i>Elective Course</i>	This course is a complement to English 112/111 program.

MATH	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Advanced Math with Calculus 120 Calculus is a study of the rate of change of many different quantities: velocity, acceleration, rate of a chemical reaction, growth of the economy, & bacterial growth.</p>	Trigonometry & Three Space 122/121	Direct preparation for university Calculus. Academic level grade 12 course, accepted by most universities. <i>Elective Course</i>	
<p>AP Calculus 120 This is an Advanced Placement course in Differential and Integral Calculus.</p>	Advanced Math with Calculus 120 and permission of the Math Department	This course is a definite asset for success in university Calculus. It has an enriched curriculum <i>Elective Course</i>	This course is taken the second semester of Grade 12.
<p>Applications in Math 113 Main units include probability, consumer math, budgeting project, and statistics.</p>	Math 10 selective or teacher recommendation	<i>Fulfills Grade 11 Math Compulsory Requirement</i>	Strongly recommended that students follow up this course with Practical Applications in Math 120 in grade 12.
<p>Differential & Integral Calculus 120 Differential Calculus: rates of change; Integral Calculus: study area, volume, and their applications to science and business.</p>	Advanced Math with Calculus 120	Definite asset for success in university level Calculus. Academic level grade 12 course, accepted by most universities. <i>Elective Course</i>	Taken second semester of Grade 12.
<p>Functions & Relations 112/111 Standard algebra course includes graphing of functions, solving equations, problem solving, exponents, logarithms (an extension of exponents), trigonometry (sine, cosine, and tangent), and rates of change.</p>	Geometry & Applications 112/111	Functions & Relations is required for some college programs. <i>Elective Course</i>	Usually taken second semester of Grade 11. Many students find this course challenging. Functions & Relations 111 is the intensive version of Functions & Relations 112.
<p>Geometry & Applications 112 Main units include circle geometry, co-ordinate geometry: equation of a line, slope, distance, probability, statistics, and consumer math compulsory budget assignment.</p>	Grade 10 Math Comp. or teacher recommendation	<i>Fulfills Grade 11 Math Compulsory Requirement</i>	Geometry & Applications 111 is the intensive version of Geometry & Applications 112.
<p>Practical Applications in Math 120 Topics include numerical skills, applied algebra, measurement, unit conversions, ratios, percents, trigonometry, geometry, simple and compound interest.</p>	Applications in Math 113 or Geometry & Applications 112	This course is designed for students planning to enter a trade. <i>Elective Course</i>	Investigates practical applications of mathematics in everyday life and the workplace.
<p>Trigonometry & Three Space 122/121 Theoretical trigonometry course includes trigonometry graphs, other units for measuring size of angles, trigonometry equations, various trigonometry formulas called identities. Students also study 3-dimensional of lines and planes.</p>	Functions & Relations 112/111	This Math is used extensively in Calculus courses and in many aspects of Physics. Academic level grade 12 course, accepted by most universities. <i>Elective Course</i>	Trigonometry & Three Space 121 is the intensive version of Trigonometry & Three Space 122.

SOCIAL STUDIES	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Canadian Geography 120</p> <p>Topics include changing cultural and physical landscapes of Canada and how they impact on each other. Units include physical geography, environmental issues, social & cultural identity, economic & political aspects of Canadian life and Canadian-International relations.</p>	Social Studies 10	Academic level grade 12 course, accepted by most universities. <i>Elective Course</i>	
<p>Canadian History 122</p> <p>Focus on Post-Confederation with an emphasis on the 20th century. Themes include English-French relations, First Nations, Regionalism, and Canadian identity. Students who excelled in level 2 History, who enjoy learning about our Canadian past, and who show an aptitude for civics will find success in this course.</p>	Modern History 112	Academic level grade 12 course, accepted by most universities. Students must be prepared to use research and writing skills taught in History 112 and in English courses. <i>Elective Course</i>	Students must be willing and able to work individually or in groups, as well as possessing the essential skills of note taking, citing references and creating appropriate bibliographies. <i>The French Immersion option of this course is offered.</i>
<p>Modern History 112</p> <p>Covers modern western civilization from the French Revolution to the Cold War. Focus on French & Industrial Revolutions, ideas of the 19th century, WW I, rise of totalitarian states, WW 2, the Cold War, United Nations & globalization.</p>	Social Studies 10	<i>Fulfills Grade 11 Modern History Compulsory Requirement</i>	Each student must write a formal research paper using the Moncton High School Essay Format. <i>The French Immersion option of this course is offered.</i>
<p>Modern History 113</p> <p>Topics include basic world geography, Industrialization, life in the 1920s and 30s, WW 1, WW 2, and the Cold War.</p>	Social Studies 10	<i>Fulfills Grade 11 Modern History Compulsory Requirement</i>	
<p>Political Science 120</p> <p>Topics include municipal, provincial and federal political systems in Canada, international political systems, political reform, United Nations, and diplomacy.</p>	Modern History 112	Academic level grade 12 course, accepted by most universities. <i>Elective Course</i>	This course requires a great deal of study, research and day-to-day knowledge of domestic politics. Special projects include analyzing a political document, such as Budget or Throne Speech.
<p>Psychology 120</p> <p>An introduction to the fascinating science of psychology: the mind, behavior, disorders, personalities, attitudes and cognition.</p>	Co-prerequisite English 112 or by permission of teacher	Provides the framework for post-secondary studies in psychology. <i>Elective Course</i>	Academic course with academic expectations.
<p>World Issues 120</p> <p>For thousands of years, the relationship between humans and potential resources seemed to be in relative balance. We have done much to upset this balance through continual development. We, as citizens of the planet and stewards of the land, need to assume responsibility for its future care.</p>	Modern History 112	Academic level grade 12 course, accepted by most universities. <i>Elective Course</i> <i>The French Immersion option of this course is offered.</i>	Students should demonstrate an aptitude for history and the arts, and should have a general understanding of the world around them including current events and global geography.

SCIENCE	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Biology 112</p> <p>This course emphasizes the nature of life. Topics include unity and diversity of living systems, cellular structure, energy systems and animal physiology.</p>	Grade 10 science	<i>Fulfills Science Compulsory Requirement</i>	<p>Instructional methods include lecture, demonstration and labs.</p> <p>Biology 111 is the intensive version of Biology 112.</p>
<p>Biology 113</p> <p>An Introduction to biology through examining body systems, diseases, basic life chemistry, cell structure, and human Biology. Special project includes a final 1000 word essay and lab work and research based projects.</p>	Grade 10 science	<i>Fulfills Science Compulsory Requirement</i>	Attendance is important as labs cannot be done any time and are a required component of the course.
<p>Biology 122</p> <p>Major topics are systems regulating change in human and other organisms, reproduction and development, chromosomes, genes, DNA, change in populations, communities and species.</p>	Biology 112	<p>Academic level grade 12 course, accepted by most universities.</p> <p><i>Elective Course</i></p>	<p>Instructional methods include lecture, demonstration and labs.</p> <p>Biology 121 is the intensive version of Biology 122.</p>
<p>Biology Laboratory Techniques 120</p> <p>This course builds on laboratory experiences. Topics include keeping a lab notebook, advanced microscopy, biological drawings and imaging and techniques of biotechnology.</p>	Biology 122 Co-prerequisite	<p>Designed for those interested in post-secondary studies in the life sciences.</p> <p><i>Elective Course</i></p>	
<p>Chemistry 112</p> <p>This course emphasizes learning chemistry through the scientific method. Topics include laboratory safety and techniques, matter, chemical nomenclature, chemical reactions, solutions and stoichiometry.</p>	Grade 10 science	<i>Fulfills Science Compulsory Requirement</i>	<p>Laboratory experiments allow students to observe and draw conclusions leading directly to important chemical principals.</p> <p>Chemistry 111 is the intensive version of Chemistry 112.</p>
<p>Chemistry 122</p> <p>Major topics include organic chemistry, thermo- chemistry, equilibrium, acids and bases. Students continue to gain skills used for laboratory investigations.</p>	Chemistry 112	<p>Academic level grade 12 course, accepted by most universities.</p> <p><i>Elective Course</i></p>	Chemistry 121 is the intensive version of Chemistry 122.
<p>Environmental Science 122</p> <p>This course introduces scientific concepts needed to understand the natural world and current environmental issues. Topics include terrestrial & aquatic ecosystems, biodiversity, biochemical cycles, land & water resources, population dynamics, energy resources & consumption, pollution and climate change.</p>	Grade 10 science	<p>Academic level grade 12 course, accepted by most universities.</p> <p><i>Fulfills Science Compulsory Requirement</i></p>	This applied interdisciplinary science uses laboratory exercises, environmental surveys and class discussions to reinforce scientific principles.

<p>Environmental Science 123</p> <p>Units include ecosystems and biodiversity, water, atmosphere, climate and air pollution, land usage, energy and waste, population growth and sustainable future.</p>	Grade 10 science	<i>Fulfills Science Compulsory Requirement</i>	Evaluation is based on many projects and activities including at least one field trip
<p>Physical Geography 110</p> <p>This course deals with the origin and structure of the earth, the nature of the geological record and the processes which have formed the common rock-types. Topics include the universe, solar system, rocks and minerals, plate tectonics, mountain building, volcanism, earthquakes, structural geology and mapping.</p>	Grade 10 science	<i>Fulfills Science Compulsory Requirement</i>	Topics associated with human interaction and the earth, examining local to global economic responses, are discussed.
<p>Physics 112</p> <p>Physics 11 explores kinematics, dynamics, work and energy and waves. Labs are generally done in teams. A physics problem solving assignment usually accompanies each chapter. Problems are from external sources and require considerable thought.</p>	Grade 10 science comp. Co-requisite: Geometry and applications 112	Physics is required for many post-secondary programs in health science and engineering technology fields. <i>Fulfills Science Compulsory Requirement</i>	Problem solving is the backbone of physics and demonstrates that one can apply the pieces of knowledge they have acquired. Physics 111 is the intensive version of Physics 112.
<p>Physics 122</p> <p>Physics 12 explores three units: dynamics extension, projectiles / circular motion and universal gravitation and fields Labs are generally done in teams.</p>	Physics 112 Functions & Relations 112/111 Co-requisite: Trigonometry & 3-Space 121/2	Academic level grade 12 course, accepted by most universities. Valuable for students who plan on studying science at the post-secondary level. <i>Elective Course</i>	Problem solving opportunities explored in Physics 111/112 are further investigated. Physics 121 is the intensive version of Physics 122.
<p>Robotics & Automated Technology 120</p> <p>This hands-on course allows students to investigate the basics of robotics. Students will explore the history of robots, switches, sensors, movement, electronic communications and robotic applications.</p>	Grade Math 10 Pre/Co-requisite Computer Science 110 or Electronics 110	The course will be of interest to students who wish to pursue technical trades or engineering. <i>Fulfills Science Compulsory Requirement</i>	Students will be expected to construct simple electronic devices and mechanical devices.



Photo Credit Linda Lockhart

HEALTH & PHYSICAL EDUCATION	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Outdoor Pursuits 110 This course offers students an understanding of outdoor activities, such as canoeing, swimming, orienteering, hiking, and outdoor survival. The classroom setting varies, i.e. football field, aquatic center, local lake and nature park. Activities go as planned – rain, snow or shine.</p>	Health & Physical Education Grade 10 and written consent by that teacher.	<i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i>	<p>Completing all skills, projects, and teaching components is non-negotiable.</p> <p>This course is not for the faint of heart, as students must be flexible in their approach to activity.</p>
<p>Health and Physical Education 110 Students have opportunities to be active while enhancing their decision-making skills towards wellness. Theory units include nutrition, exercise and fat control, understanding of body's response to exercise, heart maintenance, stress, flexibility and planning fitness programs.</p>	Health & Physical Education Grade 10 recommended	<i>Elective Course</i>	<p>Apprenticeship hours in the Moncton High Fitness and Wellness Center are required.</p> <p>Students must be interested in participating in a variety of personal fitness activities.</p>
<p>Health and Physical Education 120 This course develops leadership skills through involvement in physical activities. Themes include management, teaching, coaching, officiating, first aid and organization planning and leadership theory.</p>	Health & Physical Education Grade 12 students only	<i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i>	<p>Students complete an application and are interviewed by the Physical Education teacher.</p> <p>Students must complete 30 hours of out-of-class volunteer time.</p>
FRENCH	Prerequisite	Post-Secondary Considerations	Special Notes
<p>French 112 The emphasis is on having fun while speaking French. Topics include space, hobbies, work, values and environment</p>	French 10	<i>Elective Course</i>	This course is not intended for immersion students.
<p>French 122 Speaking and listening in French is emphasized as well as hands-on dynamic experiences. Units include a novel study, common phrases and useful grammar.</p>	French 110 recommended	<p>Academic level grade 12 course, accepted by most universities.</p> <p><i>Elective Course</i></p>	Students acquire conversational French skills desired by many employers.
<p>French Immersion Language Arts 110 Builds upon language skills developed in middle and early high school French classes. Units include a novel study, speeches and cultural awareness.</p>	FILA 10	<p>Course can be used towards the Moncton High School or School District 2 Certificate of French Immersion.</p> <p><i>Elective Course</i></p>	This course prepares students for the French Oral Proficiency Evaluation.
<p>French Immersion Language Arts 120 Students learn to appreciate French culture through music, poems, stories, movies, etc. Units include a novel study, songs and reading comprehension.</p>	FILA 110 recommended	<p>Academic level grade 12 course, accepted by most universities.</p> <p>Course can be used towards the Moncton High School or School District 2 Certificate of French Immersion.</p> <p><i>Elective Course</i></p>	<p>Students acquire fluent language skills appropriate for post-secondary studies and various workplaces.</p> <p>This course prepares students for the French Oral Proficiency Evaluation.</p>

ARTS & MUSIC	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Art History 120</p> <p>This course reviews the development of Western Art and Architecture from the Gothic period to present day. A focus of the course is art analysis and identification of styles, attention will also be given as to how artists design their works, technical innovations, and how artistic trends develop.</p>	<p>Open to Grade 11 or 12 students</p>	<p>Strongly recommended for students considering Visual Arts 120-Portfolio. Recommended for students who have an interest in or may study History or Visual Arts at the post-secondary level. <i>Elective Course</i></p>	<p>The major project is student directed – students may choose to present a research paper or produce an artwork in a historical artistic media. This course is presented through a series of PowerPoint lectures. Students become better prepared to take notes from lectures.</p>
<p>Graphics and Design 110</p> <p>This course looks at commercial art and develops the skills to understand and create images, signs, symbols, logos, that communicate a message or value. Projects include collage painting, business cards, logo design, CD cover design, illustration, 3-dimensional package design.</p>	<p>Visual Arts 10 or permission from art teacher</p>	<p>Strongly recommended for students considering commercial art, fashion design, advertising, marketing, and fine arts programs. <i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	<p>The projects require both manual and computer development of images (approximately 50/50%). <i>Photoshop</i> is the computer program most often used.</p>
<p>Three Dimensional Studies 120</p> <p>This course provides students with an in-depth study of sculpture, pottery and mixed media techniques by exploring techniques such as of additive, subtractive and assemblage sculpture. Main units include wire sculpture, clay portrait, functional pottery and carving. Art history component examines 20th Century sculpture.</p>	<p>Visual Arts 110</p>	<p>Recommended for students considering architecture or fine arts at the post-secondary level. <i>Elective Course</i></p>	<p>Students increase an awareness of spatial relations in three dimensions Companioned with Visual Arts 120-Portfolio, students produce a well-rounded post-secondary portfolio.</p>
<p>Visual Arts 110</p> <p>The focus is developing technical drawing and painting skills. Portraiture is the basis of all assignments. Main units include sketchbook activities, self portrait drawing and portrait painting. Art history component examines Neoclassical to Post-Impressionist era.</p>	<p>Visual Arts 10 or permission from art teacher</p>	<p>Students complete art projects that can be used for portfolio required for post-secondary visual arts and design programs. <i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	<p>Recommended that students who consider a career in an arts related field take this course in Grade 11. If time permits, black and white 35 mm photography and darkroom techniques are introduced.</p>
<p>Visual Arts 120 / Visual Arts 120-Portfolio</p> <p>Students examine the art making process. The focus is the problem solving processes as students develop artistic works. Open-ended projects challenge the students to think and work independently. Units include material exploration, exemplifying abstract concepts, thematic personal exploration. Art history unit examines icons of western art.</p>	<p>Visual Arts 110 or Graphics and Design 110 with Art teacher permission</p>	<p>The acceptance into most post-secondary visual arts and design programs is determined by portfolio submissions. Students in Visual Arts 120-Portfolio should also select Art History 120. <i>Elective Course</i></p>	<p>The content of these two courses is identical. Visual Arts 120-Portfolio is scheduled first semester; this allows students to prepare well-rounded portfolios for submission to post-secondary visual arts and design programs.</p>
<p>Theatre Arts 120</p> <p>Students develop performance skills. Units include projects like monologues, theatre history, scene work, technical theatre work, movement module, voice module, improvisation and pantomime. There is emphasis on group, partner and solo work in all units.</p>	<p>Open to Grade 11 or 12 students</p>	<p><i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	<p>This course requires active participation from students, major evaluations are in children's theatre project, theatre critique, history of drama unit and monologue workshops.</p>

<p>Music 112</p> <p>This course develops musical performance ability on an instrument, theory skills and exploration of culture and history. Renaissance, Baroque, Classical, Romantic and Modern music styles are analyzed. Theory topics include harmonic structures, major and minor scales and transposition.</p>	<p>Music 10 or permission from music teacher</p>	<p><i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	<p>This course is designed for the serious music student.</p> <p>Note reading and dedication to improving performance fluidity is essential.</p>
<p>Music 122</p> <p>This course assumes an advanced level of musical literacy, good aural skills, a sound theoretical background, knowledge of historical styles and forms and an interest in improving musical knowledge and expertise.</p>	<p>Music 112</p>	<p><i>Elective Course</i></p>	<p>This course is designed for the advanced and serious music student who may wish to pursue music as an avocation or post-secondary studies.</p>
<p>Music 120</p> <p>World of Music is a seminar-based course examining styles and instruments of cultures such as Africa, Asia, America, Europe and Australia. Musical growth through creating and performing musical examples using technology, research and discussion will improve understanding of these cultures.</p>	<p>Music 10 or permission from music teacher</p>	<p><i>Elective Course</i></p>	<p>This course is for students with an interest in other cultures regardless of background in music.</p> <p>Seminar-based indicates that students are expected to give presentations</p>
<p>HOME ECON. & FAMILY STUDIES</p>	<p>Prerequisite</p>	<p>Post-Secondary Considerations</p>	<p>Special Notes</p>
<p>Child Studies 120</p> <p>This course enables students to recognize children as our most significant resource and provide for their optimum growth. This includes learning about pregnancy, child development and child behavior.</p>	<p>Recommended co-prerequisite Early Childhood Services 120</p>	<p>This course would be beneficial in any field involving work with children one-on-one, such as teachers, day care workers, parents, nurses.</p> <p><i>Elective Course</i></p>	<p>Special projects include a large two person presentation where students pretend to teach a kindergarten class for the day.</p>
<p>Culinary Technology 110</p> <p>This course focuses on knowledge and application of the food service industry, employment, safety and sanitation, nutrition, standardization, cooking methods, equipment, workspace and techniques and food preparation.</p>	<p>Open to Grade 11 or 12 students</p>	<p>This course prepares students for employment and/or future education in the food service industry.</p> <p><i>Elective Course</i></p>	<p>In the last twenty years, the number of food service employees and the amount of restaurant food consumed have doubled; there is need for training in this field.</p>
<p>Culinary Technology 120</p> <p>This course focuses on safety and sanitation, food supply, influences on North American cuisine, food for meals (legumes, fruits and vegetables, shell fish, meat cuts), menu management, and additional food preparation skills. Theory includes the planning of quality meals, ordering, pricing, preparation and service.</p>	<p>Culinary Technology 110</p>	<p>Students delve deeper into careers and entrepreneurship opportunities in the food service industry.</p> <p><i>Elective Course</i></p>	<p>Actual hands-on experiences will add to the students' knowledge and employability.</p>
<p>Early Childhood Services 120</p> <p>This course explores historical perspective of children's needs, current issues regarding child care, regulations governing facilities in New Brunswick, theories on child growth and development, observation and communication skills, planning and instructional skills.</p>	<p>Open to Grade 11 or 12 students</p>	<p>Prepares students for employment in the child care sector.</p> <p><i>Elective Course</i></p>	<p>Instructional time includes group and individual research and study, followed by tests and exams. Laboratory time is used to develop and practice plans to work with young children.</p>

<p>Family Living 120</p> <p>The course examines the traditional functions of the family and global and historical perspectives of families. The main units include family life cycle, birth order, social agencies relating to family, family law, marriage, divorce, media influence, parenting, adoption, homelessness, family communication, family violence, moving-out/launching years, and senior years.</p>	<p>Open to Grade 11 or 12 students</p>	<p><i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	<p>The course is discussion-based and designed for students interested in social issues.</p>
<p>Fashion Design 120</p> <p>Students learn the language of fashion designers through examining the history and trends of modern fashion. They complete a portfolio of fashion drawings and wearable pieces. Units include the history of fashion, proportions of the body, visual literacy, advertising, basic stitches, surface decoration and fashion-as-art.</p>	<p>Visual Arts 10 recommended</p>	<p><i>Elective Course</i></p>	<p>Competence in drawing is an asset as the course is taught as an art class.</p>
<p>Hospitality and Tourism 110</p> <p>The main units include eight sectors of the hospitality and tourism industry, history and geography scenic routes, top attractions and events of New Brunswick, impact on marketing strategies and trends in tourism, looking at why people travel, accommodations, transportation, general occupational health and safety.</p>	<p>Open to Grade 11 or 12 students</p>	<p>Prepares students for work in the travel industry <i>Elective Course</i></p>	<p>Project-based course, students are expected to complete projects, activities and presentations. <i>The French Immersion option of this course is offered.</i></p>
<p>Human Services 110</p> <p>This course increases student awareness of the importance of human service work and prepare them for future employment. An overview of careers in the human services industry is discussed. The main two units are 1) elderly and the aging process, and 2) mentally and physically disabled.</p>	<p>Open to Grade 11 or 12 students</p>	<p>An excellent choice for students interested in careers such as nurse's aid, nurse, support worker, orderly, rehabilitation counsellor, occupational therapy. <i>Elective Course</i></p>	<p>Plan, organize, set-up and operate a program suitable for the physically and/or mentally challenged and/or the elderly. Numerous class trips to volunteer at community non-profit organizations.</p>
<p>Nutrition For Healthy Living 120</p> <p>The course explores Canada's Food Guide, food additives, influences on health and wellness, weight management, nutrients & their functions, digestion, absorption, metabolism, genetically modified food, and food safety & handling. Students learn to make healthy food choices and maintain a balance between eating habits and physical activity.</p>	<p>Open to Grade 11 or 12 students</p>	<p>This is an excellent choice for students concerned with personal wellness and who wish to pursue a career in science, with an emphasis in nutrition or other health related fields. <i>Elective Course</i></p>	<p>Students are expected to examine their eating habits and lifestyle choices.</p>

COMPUTER & BUSINESS	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Business, Organization, & Management 120</p> <p>An introductory course in business organization, operation and management. The focus is on understanding of Canadian business operations, including legal forms of ownership, marketing, finance, set up and operation of a small business, personal taxation and credit.</p>	English 11	<p>Valuable for students who plan on studying business at the post-secondary level.</p> <p><i>Elective Course</i></p>	
<p>Career Exploration 110 – 2 credit, one semester course</p> <p>This course combines classroom activities with work experiences. Students begin with four weeks of classes, followed by a five week work placement, then one week of classes, return for five weeks in a work placement and finish the course in the classroom.</p>	Open to Grade 11 or 12 students	<p>Students examine personal interests, values and aptitudes concerning the world of work.</p> <p><i>Elective Course</i></p>	<p>Students complete an application and are interviewed by the Career Exploration teacher before being accepted into the course and matched to work placements in the community.</p>
<p>Computer Aided Design 110</p> <p>This course covers the basic theories of drafting. Students will learn to draft proper drawings on paper and computer and will also become familiar with AutoCAD LT software.</p>	Math 10 and good knowledge of Geometry	<p>This course is of interest to students with career objectives in drafting, architecture, applied technologies, engineering.</p> <p><i>Elective Course</i></p>	
<p>Computer Science 110</p> <p>This is an introduction to programming that uses Visual BASIC.</p>	Math 10 Comp.	<p>Valuable for students who plan on studying computer science at the post-secondary level.</p> <p><i>Elective Course</i></p>	<p>This course is 80% programming and 20% theory. A strong math background is helpful.</p>
<p>Computer Science 120</p> <p>This is an advanced course involving Visual BASIC (procedures, functions, matrices, data bases in greater detail) and C++ classes, command structures and source files using the C++ interface.</p>	Computer Science 110	<p>Valuable for students who plan on studying computer science at the post-secondary level.</p> <p><i>Elective Course</i></p>	
<p>Co-operative Education 120 – 2 or 3 credit, one semester course</p> <p>Students have the opportunity to engage in a work placement in a chosen career interest and are placed at a single worksite for 15 weeks. Students complete weekly journals and timesheets, career and training plan and a research assignment. Students prepare a personal portfolio for job interview purposes.</p>	Grade 12 students only	<p>The pre-placement component includes First Aid and Work Safety certified training, resume writing, interview and employability skills, communication, and decision making in the work place.</p> <p><i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i></p>	<p>Students complete an application and are interviewed by the Coop teacher before being accepted into the course and matched to work a placement.</p> <p><i>The French Immersion option of this course is offered.</i></p>
<p>Economics 120</p> <p>Students develop a basic understanding of the economic system. Units include economics basics, comparative economic systems, business organization, demand, supply and the market, international trade, performance of the Canadian economy, money and banking, public finance, and labour unions.</p>	Grade 12 students only	<p>Academic level grade 12 course, accepted by most universities.</p> <p>Valuable for students who plan on studying business the post-secondary level.</p> <p><i>Elective Course</i></p>	<p>Course helps students understand the flow of money in our society.</p>

<p>Entrepreneurship 110</p> <p>This course provides students with the opportunity to learn about small business start-ups, recognize and assess new business opportunities, determine the appropriate source of start-up capital and form of business</p>	Open to Grade 11 or 12 students	Valuable for students who plan on studying business the post-secondary level. <i>Fulfills Fine Arts/Life Role Development Compulsory Requirement</i>	Students acquire the skills to write a successful business plan.
<p>Information Technology 120</p> <p>This course helps students understand the basic structure of a digital computer system, explore different operating systems, learn basics of Internet, networking, image editing, pod casting, and HTML and JavaScript coding.</p>	Students should already possess basic computer skills.	Valuable for students who plan on studying IT, computer science or engineering at the post-secondary level. <i>Elective Course</i>	
<p>Introduction to Accounting 120</p> <p>Accounting is an information system that records and communicates information about an organization's economic activities. This knowledge contributes to better assessments of opportunities, products, investments, and social and community responsibilities.</p>	Open to Grade 11 or 12 students	Valuable for students who plan on studying business the post-secondary level. <i>Elective Course</i>	Students with accounting knowledge develop skills that are useful in business and everyday life.
<p>Introduction to Office Technology 120</p> <p>Students learn to use and manipulate electronic office software. Skills developed are file handling, word processing, spreadsheets, dissemination of information and data base management.</p>	Open to Grade 11 or 12 students	This course is designed for employment and personal use and post-secondary readiness. This course helps prepare students for Microsoft Office Specialist Certification. <i>Elective Course</i>	<i>Microsoft</i> is the operating system used; specific programs include Word, PowerPoint, Excel, Publisher and Access.
<p>Law 120</p> <p>This course is designed to give students knowledge of Canadian law. Topics include the origins of the Canadian legal system, Canadian Charter of Rights and Freedoms, criminal law, civil and human rights, torts/civil law, and contracts.</p>	English 10	Academic level grade 12 course, accepted by most universities. <i>Elective Course</i>	Case studies, guest speakers, mock trials, debates, visit to court help students develop informed opinions on current legal topics.
<p>Leadership 120</p> <p>The course examines various topics associated with leadership in a productive and meaningful way. Leadership should attempt to accomplish or change something. It is purposeful and intentional.</p>	Grade 12 students only	<i>Elective Course</i>	Students must be able to work independently and fulfill all class requirements in order to receive credit in the course.
<p>Media Productions 120</p> <p>Media Productions focuses on various media such as film, print, animation, photography and sound. This course equips students with basic production skills through hands-on projects.</p>	Basic Computer Skills	Valuable for students who plan a career in industries such as television, film, newspaper, magazine and recording. <i>Elective Course</i>	Students should be aware that projects may require a substantial time commitment.
<p>Media Studies 120</p> <p>This course explores major aspects of mass media in depth. Major units include culture, television, advertising, film, sound & music.</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	Recommended for self-motivated students who well in groups and interested in becoming media literate.
<p>Technical Support 110</p> <p>This course deals with hardware & software configuration, installation, operating systems, & systems issues.</p>	Basic Computer Skills	Valuable for students who plan a career in information technology or networking. <i>Elective Course</i>	Involves hands-on work with computers. This course may involve an online course.

TRADES & INDUSTRIAL ED.	Prerequisite	Post-Secondary Considerations	Special Notes
<p>Aviation Technology 120 Students explore the exciting field of aviation. Units include aviation careers, flight physiology, aircraft systems, flight instruments, aerodynamics, CARS, weight and balance /performance, airspace, airport operations, meteorology, navigation, flight commuters, marshalling.</p>	Open to Grade 11 or 12 students	Field trips, training videos and guest speakers expose students to the opportunities in aviation. <i>Elective Course</i>	Scenario-based lessons encourage students to think critically and creatively when given realistic situations.
<p>Framing and Sheathing 110 This is a project based introduction to the carpentry trade. Students learn about safe use of tools, print reading, wood and wood products and basic framing and sheathing methods.</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	This course is 40% theory and 60% practical work.
<p>Internal Combustion Engines 110 This course examines the theory of operation and construction of internal combustion engines. Students have the opportunity to disassemble and re-assemble a 4-stroke combustion engine.</p>	Open to Grade 11 or 12 students	Emphasis is on developing basic skills needed to work in the motor vehicle service trades. <i>Elective Course</i>	Students are required to read automotive textbook and complete chapter assignments.
<p>Introduction to Applied Technology 110 This is a project based course designed to introduce the various shop classes at MHS. Students learn about safety, measurement and measurement math, hand and power tools and information needed in more specialized vocational courses.</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	This course is approximately 60% theory and 40% practical.
<p>Metals Processing 110 This is a project based introduction to the machining trade. Students learn about the safe use of tools, print reading, basic metallurgy and methods used to shape metal into various products.</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	This course is 40% theory and 60% practical work.
<p>Metals Processing 120 This course builds upon learning experiences in Metal Processing 110.</p>	Metals Processing 110	<i>Elective Course</i>	
<p>Mill and Cabinet Work 120 This is a project based introduction to the cabinetry and mill work trade. Students learn about the safe use of tools, print reading, wood and wood products, joinery techniques used to build furniture and cabinets.</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	This course is 40% theory and 60% practical work.
<p>Residential Finish and Insulation 120 This course examines the work required to finish a family dwelling after being framed in. Topics include insulation, wall cladding, doors, windows, cornice trim and roof covering</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	
<p>Site Layout and Foundation 110 This course introduces methods, tools, equipment, and skills needed to locate a building foundation.</p>	Open to Grade 11 or 12 students	<i>Elective Course</i>	

