



Anglophone East School District
A Better Future ... Through Quality Education



HIGH SCHOOL COURSE SELECTION GUIDE 2020 - 2021



Introduction

Anglophone East School District (ASD-E) serves approximately 16000 students in 38 schools. We are proud of the strong academic and extra-curricular programs offered at all our eight high schools. Students in Anglophone East School District have the opportunity to choose from a wide variety of courses and programs of study that incorporate the six Global Competencies --creativity, critical thinking, communication, character, citizenship, and collaboration, that define what it means to be a deep learner.

Wondering about what courses to choose? This guidebook is intended to assist parents and students make an informed decision regarding high school course selection. It includes graduation requirements, second language proficiency levels, post-secondary university and college program options and admission requirements, course listings and descriptions, as well as a variety of options for students.

Parents and students are encouraged to contact the schools' guidance counselors to address any concerns or questions regarding the course selection process, graduation, and career planning.



New Brunswick High School Graduation Requirements

For Students who started **GRADE TEN** **before** **SEPTEMBER 2020**

- **Minimum 17 credits which include the following 7 compulsory courses:**
 - ✓ English grade 11 (**2 credits**)
 - ✓ English grade 12 (**1 credit**)
 - ✓ Financial and Workplace Mathematics 11 **or** Foundations of Mathematics 11 (**1 credit**)
 - ✓ Modern History grade 11 (**1 credit**)
 - ✓ Science (**1 credit**) from
 - Biology 111/112
 - Chemistry 111/112
 - Human Physiology 110
 - Introduction to Environmental Science 120
 - Physics 111/112
 - Physical Geography 110
 - Robotics and Automated Technology 120
 - Introduction to Electronics 110
 - Micro Electronics 120
 - Automotive Electrical Systems 120
 - ✓ Fine Arts/Life Role Development (**1 credit**) from (updated to include Applied Technology/Skilled Trades Course 110 or 120)
 - Automotive Electrical Systems 120 (note: if used as a science credit, it is **not** permitted in the Fine Arts/Life Role)
 - Career Explorations 110
 - Cooperative Education 120
 - Creative (Fine) Arts 110
 - Culinary Technology 110/120
 - Electrical Wiring 110
 - Dramatic (Theatre) Arts 110/120
 - Entrepreneurship 110
 - Fashion Design 120
 - Fashion Technology 110
 - Framing and Sheathing 110
 - Goals, Growth, and Grit 120 (Replaced Learning Strategies)
 - Graphic Art & Design 110
 - Health Care 110

Housing and Interior Design 120
Individual and Family Dynamics 120
Internal Combustion Engines 110
Introduction to Applied Technology 110
Metals Fabrication 110
Metals Processing 120
Mill and Cabinet Work 120
Music 112/112/122/120
Nutrition for Healthy Living 120
Outdoor Education 110
Physical Education Leadership 120
Power Train and Chassis 110
Reading Tutor 120
Residential Finish 120
Tune-up and Emissions 120
Visual Arts 110/120
Wellness through Physical Education 110

- ❑ **Students must have an English 12 and a minimum of four other credits at the grade 12 level.**
- ❑ **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).**
- ❑ **Success on the English Language Proficiency Assessment (ELPA) is required.**
Students must acquire a literacy credential by achieving acceptable or better on the ELPA in grade 9. Students who are unsuccessful have the opportunity to rewrite in their grade 11 and 12 year. Candidates are provided further support in grade 10.
- ❑ **Students must successfully complete either the Post Intensive French (PIF) or French Immersion Language Arts (FILA) course at the grade 10 level.**
- ❑ **Students must complete the two grade 10 Mathematics courses.**
- ❑ **Students may take up to 2 Challenge for Credit Courses and 1 Independent Study for graduation purposes. Only 2 Locally Developed Courses are eligible to be considered in the 17 required to graduate, but these courses may not replace a compulsory course.**

For Students who started **GRADE TEN** in or after **SEPTEMBER 2020**

- **Minimum 18 credits which include the following 8 compulsory courses:**
 - ✓ English grade 11 (**2 credits**)
 - ✓ English grade 12 (**1 credit**)
 - ✓ Numbers, Relations, and Functions 10 AND one of Foundations of Mathematics 11 OR Financial and Workplace Mathematics 11 OR Financial and Workplace Mathematics 11 AND Financial and Workplace Mathematics 12 (**2 credits**)
 - ✓ Modern History grade 11 (**1 credit**)
 - ✓ Science (**1 credit**) from
 - Biology 111/112
 - Chemistry 111/112
 - Human Physiology 110
 - Introduction to Environmental Science 120
 - Physics 111/112
 - Physical Geography 110
 - Robotics and Automated Technology 120
 - Introduction to Electronics 110
 - Micro Electronics 120
 - Automotive Electrical Systems 120
 - ✓ Fine Arts/Life Role Development (**1 credit**) from (updated to include Applied Technology/Skilled Trades Course 110 or 120)
 - Automotive Electrical Systems 120 (note: if used as a science credit, it is **not** permitted in the Fine Arts/Life Role)
 - Career Explorations 110
 - Cooperative Education 120
 - Creative (Fine) Arts 110
 - Culinary Technology 110/120
 - Electrical Wiring 110
 - Dramatic (Theatre) Arts 110/120
 - Entrepreneurship 110
 - Fashion Design 120
 - Fashion Technology 110
 - Framing and Sheathing 110
 - Goals, Growth, and Grit 120 (Replaced Learning Strategies)
 - Graphic Art & Design 110
 - Health Care 110
 - Housing and Interior Design 120
 - Individual and Family Dynamics 120

Internal Combustion Engines 110
Introduction to Applied Technology 110
Metals Fabrication 110
Metals Processing 120
Mill and Cabinet Work 120
Music 112/112/122/120
Nutrition for Healthy Living 120
Outdoor Education 110
Physical Education Leadership 120
Power Train and Chassis 110
Reading Tutor 120
Residential Finish 120
Tune-up and Emissions 120
Visual Arts 110/120
Wellness through Physical Education 110

- ❑ **Students must have an English 12 and a minimum of four other credits at the grade 12 level.**
- ❑ **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).**
- ❑ **Success on the English Language Proficiency Assessment (ELPA) is required.**
Students must acquire a literacy credential by achieving acceptable or better on the ELPA in grade 9. Students who are unsuccessful have the opportunity to rewrite in their grade 11 and 12 year. Candidates are provided further support in grade 10.
- ❑ **Students must successfully complete either the Post Intensive French (PIF) or French Immersion Language Arts (FILA) course at the grade 10 level.**
- ❑ **Students may take up to 2 Challenge for Credit Courses and 1 Independent Study for graduation purposes. Only 2 Locally Developed Courses are eligible to be considered in the 17 required to graduate, but these courses may not replace a compulsory course.**



Certificate of Second Language Proficiency

The Grade 12 French Oral Proficiency Interview is mandatory for all Grade 12 Post Intensive French students registered in at least one French course, as well as all Grade 12 French Immersion students registered in at least a total of 5 courses while in Grades 11 and 12. The assessment fee is waived for these students. Although it is mandatory for these students only, other Grade 12 Anglophone students registered in a French second language course may participate in the oral proficiency interview in order to obtain their French oral proficiency certificate. Students who are not in Grade 12, not enrolled in a French second language course or course offered in French, or francophone students, do not participate in the oral proficiency interviews. The fee is \$60 for other students who wish to be assessed. The certificate states that the student has achieved a level of proficiency as defined by the EECD. Students demonstrate mastery of spoken French in a face-to-face situation with a trained language interviewer.

The interview assesses pronunciation, grammatical accuracy, vocabulary, fluency, and listening comprehension. It produces a single, overall language proficiency score based on a scale from “Not Ratable” to “Superior”. Some levels may have a plus which indicates that proficiency is higher than the level shown, but not high enough to warrant the next level.

Language Proficiency Levels:

- Novice:** Student is able to satisfy immediate needs using rehearsed phrases. No real autonomy of expression, flexibility or spontaneity. Can ask questions or make statements with reasonable accuracy **only** with memorized phrases or formulae. Vocabulary is limited to areas of immediate needs. Attempts at creating speech are usually unsuccessful.
- Basic:** Some creation with language is evident. Student is able to satisfy minimum courtesy requirements and maintain very simple face-to-face interaction with native speakers used to dealing with second language learners. Almost every utterance contains fractured syntax and grammatical errors. Vocabulary is adequate to express most elementary needs.
- Basic Plus:** Student is able to initiate and maintain predictable face-to-face conversations and satisfy limited social demands. Shows spontaneity in language production, but fluency is very uneven. Range and control of the language is limited.
- Intermediate:** Student is able to satisfy routine social demands and limited work requirements; handles most social situations with confidence but not with facility. These include introductions and casual conversations about current events, as well as work, family and autobiographical information, can give directions from one place to another. Has a speaking vocabulary sufficient to respond simply with some circumlocutions; accent, though often quite faulty, is intelligible; can usually handle elementary constructions quite accurately but does not have thorough or confident control of grammar. In complex situations, language usage generally disturbs the native speaker.
- Intermediate Plus:** Student is able to satisfy most work requirements and show considerable ability to communicate on concrete topics relating to particular interests and special fields of competence; often shows remarkable fluency and ease of speech, yet under tension or pressure language may break down; generally strong in either grammar or vocabulary but not both; normally controls general vocabulary with very little groping for every day words; participates in most formal and all informal conversations on practical, social and professional topics, although comprehension may be faulty at times.
- Advanced:** Able to speak the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social and professional

topics. Knowledge of vocabulary is broad enough that the speaker rarely has to grope for a word; accent may be obvious. Control of grammar good; errors virtually never interfere with understanding and rarely disturb the native speaker. Comprehension is quite complete.

Advanced Plus: Able to speak the language with sufficient structural and lexical accuracy that participation in conversations in all areas poses no problem. Accent is still faulty, and the speaker occasionally exhibits hesitancy, which indicates some uncertainty in vocabulary or structure.

Superior: Able to use the language fluently and accurately on all levels normally pertinent to professional and participate in any conversation within the range of personal and professional experience with a high degree of fluency and precision of vocabulary. Accent is good, but the speaker would rarely be taken for a French first language speakers.



Independent Study

FEBRUARY 2020 UPDATE

In place of students applying for an Independent Study course, the new courses, Personal Interest Course 1 and 2, may provide much of the same freedom and structure students seek from an independent Study. These courses are created and monitored at the school level. The content and scope of the course should be a collaborative effort between the student, school staff, and/or community experts. See the course description for more details.

RATIONALE

Independent study courses are intended to encourage students to take more responsibility for their learning and to acknowledge this through the granting of a credit.

GUIDELINES

Available to:

- Any student who has successfully completed the Year 9 and Year 10 programs and who can arrange regular supervision of a project with a teacher.

- Only one independent study may be taken.

PROCESS

Student:

- Selects a topic or subject of particular interest to them that will enrich their learning experience.

- Develops a short rationale and an outline of their intended work.

- Presents the above to a teacher knowledgeable in the chosen area or topic.

- The teacher and student agree on:
 - the nature and extent of the study
 - how knowledge and research are to be demonstrated
 - an assessment and evaluation plan
 - the frequency of their meetings
 - their roles and responsibilities

- The teacher assigns a mark that will be recorded on the student transcript.

Note: The application form for an Independent Study must be completed no later than the second week in the semester in which the intended study is to be taken.



Distance Education

A growing number of courses are being made available on-line to New Brunswick students. See your school Guidance Counsellor for more information. To see examples of on-line learning opportunities, check out the 2018-19 schedule:

Semester 1	Semester 2
Biology 112	Biology 112
Biology 122	Biology 122
Business Organization and Management 120	Business Organization and Management 120
	Calculus 120
Canadian Geography 120	
	Canadian History 122
Chemistry 112	Chemistry 112
Chemistry 122	Chemistry 122
Computer Science 110	Computer Science 110
Computer Science 120	Computer Science 120
Digital Production 120	Digital Production 120
English 112A	English 112A
English 112B	English 112B
English 122	English 122
Financial and Workplace Math 110	Financial and Workplace Math 110
Fine Arts 110	Fine Arts 110
Foundations of Math 110	Foundations of Math 110
Foundations of Math 120	Foundations of Math 120
FSL Hospitality and Tourism 110	FSL Hospitality and Tourism 110
	FSL Intro to Environmental Science 120
	FSL Law 120
FSL Writing 110	FSL Writing 110
FSL Cooperative Education 120 (Hybrid)	FSL Cooperative Education 120 (Hybrid)
Hospitality and Tourism 110	Hospitality and Tourism 110
Information Technology 120	Information Technology 120
Intermediate Mi'kmaw 110	Intermediate Mi'kmaw 110
	Intermediate Wolastoqey 110
Intro to Accounting 120	Intro to Accounting 120
	Intro to Environmental Science 120
Introductory Mi'kmaw 110	Introductory Mi'kmaw 110
	Introductory Wolastoqey 110
	Law 120
Media Studies 120	Media Studies 120
Modern History 111 / 112	Modern History 112 / 113
Nutrition for Healthy Living 120	Nutrition for Healthy Living 120
Physical Geography 110	Physical Geography 110
Physics 112	Physics 112
Physics 122	Physics 122
Post-Intensive French 110	Post-Intensive French 110
Post-Intensive French 120	Post-Intensive French 120
Political Science 120	
Pre-Calculus 110	
Spanish 110	Spanish 110
	Spanish 120
World Issues 120	
Writing 110	Writing 110



Experiential Learning Opportunities

IDEA Center Moncton

Housed at NBCC Moncton and staffed by an ASD-East teacher, the IDEA Center offers students an immersive experienced based opportunity to earn high school credits.

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

Any eligible ASD-East high school student can take credit courses at the idea center. Courses run in either morning or afternoon blocks where students earn two credits at a time. Students can earn credits in Business Organization and Management, Coop, Economics, Entrepreneurship, Leadership, Marketing, Personal Interest, or Tourism. Students must be able to provide their own transportation to NBCC daily.

For more information connect with your guidance councilor or with the teacher, Gerard Reinders - Gerard.Reinders@nbed.nb.ca .

Sustainability Center Tantramar

Similar to the IDEA Center Moncton, the center in Tantramar will experience high levels of engagement as they work, independently and in teams, to research problems in their communities, develop social ventures and launch new initiatives. The focus of this center will be on sustainable solutions to community-based needs and will leverage the supports in the broader Tantramar community. This option is open to only students attending Tantramar High School. Courses offered will vary based on student interest and consultation with the guidance counselor and administration. For more information please follow up with the guidance counselor, administration or the teacher, Stuart Murray - Stuart.Murray@nbed.nb.ca.



Challenge for Credit

RATIONALE

Challenge for Credit is an opportunity to recognize prior learning and to acknowledge this through the granting of one or more credits. The opportunity to challenge is consistent with the view of schooling that promotes and validates learning that takes place in a variety of circumstances including outside of the school.

PROCESS

Available to:

- Any student currently enrolled in a New Brunswick high school.
- Students who, outside school, have met all the learning, process, interpersonal, participation objectives or outcomes/requirements of a course.

Available in:

- Any grade 11 and 12 prescribed course in the New Brunswick public school system. Pilot and local option courses are not eligible for challenge. Prescribed courses are listed on the following website: <https://portal.nbed.nb.ca/sites/CourseManagement/Pages/CourseManagement.aspx>
- Any number of courses but limited to two challenge credits for graduation purposes

Application:

- Student applies in writing (with parent's signature) *to the principal* prior to or within two weeks of the beginning of a semester/year.
- Includes clear evidence of appropriate prior learning congruent with the outcomes/requirements of an identified New Brunswick course and should be supported by at least one pedagogical professional.
- The school principal in conjunction with the guidance counselor and one teacher and in consultation with the student and his/her parent(s)/guardian(s) will advise on the validity of the application.
- If for any reason a school is not able to offer a challenge opportunity, a student may request the challenge be taken in another school within ASD-E. This arrangement is subject to the same guidelines and conditions that apply to a challenge in the student's home school.
- Assessment and Reporting:
- A panel of three people knowledgeable in the area of the challenge determines the most appropriate way to proceed. The panel should be made up of three New Brunswick educators although it is possible one may yield their position to a person from outside of the school who is knowledgeable in the subject area being challenged. The panel determines a time-line and the nature and extent of assessment requirements to be communicated in writing to the student.
- On completion of the assessment process, an evaluation is made and recorded in the method used in the school, e.g. letter grade, percentage mark, descriptive performance indicator. Provincial examination results need to be included where appropriate. Students who do not pass the challenge are not allowed a second attempt at the same course.
- French:
- Students who were enrolled in a French Immersion Program or had previously been registered in the francophone sector are not eligible to challenge for Post- Intensive French courses or French Immersion Language Arts courses at grades 11 and 12, unless they have been in Post-Intensive French from grades 6 to 10.



Pathways for University

Students planning to apply to a university upon high school graduation should carefully select courses for grades 11 and 12. This applies particularly to the 121/ 122 or 120 courses. It is important for students to confirm that particular subjects are accepted as entrance credits at their chosen universities.

Students must also make certain they complete a sufficient number of these entrance credits. It is imperative to check with selected universities. A general guideline is a minimum of five such credits for Maritime universities and a minimum of six for Ontario universities. It is an excellent idea to have at least one more acceptable credit than the required minimum.

The following chart is intended to give students and parents **examples** of which high school subjects satisfy admission requirements to selected university programs. **These are only suggestions.** University admission requirements will vary among institutions. Always refer to the university website or calendar or consult your high school guidance counselor.

Degree	Required Courses
Arts (BA)	English 121/2
Science (BSc)	English 121/2, Pre-Calculus A120/B120, Two out of Biology 12, Physics 12, Chemistry 12 (UNB requires Chemistry 12 and one other provincially approved grade 12 Science course)
Commerce (B. Com) Business Admin (BBA)	English 12, Foundations of Mathematics 120 or Pre-Calculus A120
Engineering (BEng)	English 121/122, Pre-Calculus A120/B120, Chemistry 12, Physics 12
Nursing (BN)	English 121/122, (UNB, for example, requires Pre-Calculus 110 or Foundations of Mathematics 120, Chemistry 12, Biology 12)
Computer Science (BCSc)	English 121/2, Pre-Calculus A120/B120, (UNB requires Chemistry 12 or Physics 12)
Fine Arts (BFA)	English 121/2, (Art portfolio or music audition is usually required.)

Canadian universities typically accept these electives:

Calculus 120
Pre-Calculus A120/B120
Foundations of Mathematics 120
Biology 121/122
Canadian Geography 120
Canadian History 120
Canadian Literature 120
FI Canadian History 120
Chemistry 121/2
Economics 120
French 122
FI Language Arts
120 Physics

Please consult the selected university when considering the following electives:

Business Org. & Man. 120	Coop Ed 120
Computer Science 120	Enviro Science 122
120 FI World Issues	PE Leadership 120
120 Int. to Accounting 120	Journalism 120
Law 120	Media Studies



Pathways for Community/Private College

Students planning to apply to a college upon high school graduation should also take care in choosing their high school courses. Admission requirements often differ significantly from program to program and institution to institution. Particular programs may require certain high school courses, a portfolio, a personal interview, or other additional qualifications. It is important for students to confirm that specific subjects are accepted as admission requirements at their chosen colleges.

New Brunswick Community College programs are delivered at specific campuses in Moncton, Saint John, Fredericton, Woodstock, Bathurst, Edmundston, and Miramichi. Refer to the NBCC website for the exact location of the program in which you are interested.

Public Colleges - Offer a wide selection of many programs in many campus locations. Regional institutions include *New Brunswick Community College* (7 campuses), *Nova Scotia Community College* (14 campuses), *Holland College* (8 campuses across PEI), and *New Brunswick College of Craft & Design* (Fredericton). Public colleges receive funding from the government therefore have lower tuition fees.

Private Colleges - Sometimes called *Career* or *Vocational* colleges, feature a huge variety of programs that often focus on one or two employment sectors. Examples of Moncton area colleges include *Oulton*, *Eastern*, *BayTech*, *Jon Raymond*, *Majestany*, *McKenzie*, *Medes*, *Medavie HealthEd*, and *Moncton Flight College*. Fees tend to be higher because tuition must cover all operating expenses; these are private businesses and do not receiving funding from the government.

University Transfer or Articulation Agreements or 2 + 2 Programs are formalized agreements between universities and colleges that allow students to combine the college and university studies and graduate with a bachelor's degree.

Not certain what you'd like to do after high school?

Cooperative Education 120 allows students to earn credits (2 or 3), while gaining valuable job experience and career exposure, taken in grade 12. Apply second semester of grade 11.

Always check with college websites to confirm specific program requirements!

It's important to research programs that may offer similar training but have different admission requirements.

How to Apply:

Public Colleges

- Application form
- Fee (\$25 - 60)
- Transcript

Private Colleges

Interested students are often encouraged to make an appointment with an admissions representative to determine if the program is right for you.

Admission Requirements

Many college programs accept a high school diploma (e.g. completion of the required 17 credits) while others require specific courses.

Some examples:

- Practical Nurse: Science(s)
- Business: Math(s)
- Technology: Math(s) and Science(s)

Either English level 2 or 3 is acceptable for many college programs.

The following chart is intended to give students and parents **examples** of which high school courses and diplomas satisfy admission requirements to selected college programs. For more precise admission information you are encouraged to contact the college directly or refer to the college calendar or website. Also consult your high school guidance counselor.

College	Program	Admission Requirements
New Brunswick Community College (NBCC)	Accounting Technician, Automotive Service Technician, Bricklaying, Early Childhood Education, Education Assistant, Electrical, Hospitality and Tourism Operations, Human Services, Machinist, Office Administration, Police Foundations, Refrigeration and Air Conditioning Technician, Sheet Metal Fabrication	HS Diploma, Adult HS Diploma, or GED Diploma of HS Equivalency English 122 or 123 Financial and Workplace Mathematics 110 or Foundations of Mathematics 110
New Brunswick Community College (NBCC)	Business Administration, Business Administration: Sales and Marketing, Business Administration: Accounting, Business Administration: Investment Management, Business Administration: Marketing, Civil Technician, Electronic Game-3D Graphics, Welding Engineering Technology,	HS Diploma, Adult HS Diploma, or GED Diploma of HS Equivalency English 122 or 123 Foundations of Mathematics 110
New Brunswick Community College (NBCC)	Health Information Management, Medical Laboratory Assistant, Pharmacy Technician, Process Control Technical	HS Diploma, Adult HS Diploma, or GED Diploma of HS Equivalency English 122 or 123 Foundations of Mathematics 110 2 Sciences from Biology 112 or 122, Chemistry 112 or 122, Physics 112 or 122

College	Program	Admission Requirements
New Brunswick Community College (NBCC)	Chemical Technology (Co-op), Civil Engineering Technology (Building Systems, Architectural, Construction Management, Highway and Municipal), Civil Engineering: Structural, Electrical Engineering Technology (Generation and Distribution, Alternate Energy Systems, Electronics Design and Embedded Systems), Communication Systems (Co-op), Electronics Engineering Technology (Industrial, Telecommunications), Energy Systems Technology (Sustainable Energy), Environmental Technology, Industrial Control Technology (Co-op), Mechanical Drafting and Design, Mechanical Engineering Technology (Co-op), Power Engineering Technology (Co-op)	HS Diploma, or Adult HS Diploma, or GED Diploma of HS Equivalency English 122 or 123 Pre-Calculus 110 2 Sciences from Biology 112 or 122, Chemistry 112 or 122, Physics 112 or 122
New Brunswick Community College (NBCC)	Practical Nurse	HS Diploma, or Adult HS Diploma or GED Diploma of HS Equivalency English 122 or 123 Financial and Workplace Mathematics 110 or Foundations of Mathematics 110 1 Science from Biology 112 or 122, Chemistry 112 or 122, Physics 112 or 122
Nova Scotia Community College (NSCC)	Aircraft Maintenance Engineer, Architectural Engineering Technician, Civil Engineering Technician, Electrical Engineering Technology, Health Information Management, Mechanical Engineering Technology, Medical Laboratory Technology (minimum grade of 70%), Pharmacy Technology, Practical Nursing	For all programs that state admission requirements for Academic Grade 12 Math, Foundations of Mathematics 120 is required.
NB College of Craft and Design	All programs	It is recommended that students take either Financial and Workplace Mathematics 120 or Foundations of Mathematics 120 for admission.
Maritime College of Forest Technology	All programs	It is recommended that students take Foundations of Mathematics 120 for admission.
Nova Scotia Agriculture College (NSAC)	Bachelor of Science (Agriculture), and Pre-Veterinary Medicine, Engineering, Bachelor of Technology in Applied Science, Diploma in Veterinary Technology	Students will need to successfully complete both Pre-Calculus A120 and B120 (or achieve 70% or greater in Foundations of Mathematics 120) for admission to these programs.



Tentative Course Credit List – Dependent on Local Availability

DE: Distance Education (on-line learning opportunity)

LDC: Locally Developed Course (where offered)

FI: French Immersion (where offered)

IDEA: Courses available through the IDEA Center (<https://www.ideacentremoncton.ca/>)

LANGUAGES

English Language Arts (ELA) and English as an Additional Language (EAL)

Canadian Literature 120

Children's Literature 120 LDC

Creative Representations LDC

EAL Essentials 110

EAL Connections 120

EAL Expressions 120

English as an Additional Language Complementary

English as an Additional Language Essentials

English 110 (FI)

English 111/112 A/B, 113, DE: 112 A/B

English 120 (FI)

English 121/122/123, DE: 122

AP English Lit 120

Goals, Growth and Grit 120

Journalism 120

Media Studies 120 (E and FI), DE (English)

Reading Tutor 120

Writing 110 (E and FI), DE (English and FI)

First Nations

Intermediate Mi'kmaq 110, DE only (English)

Intermediate Wolastoqey 110, DE only (English)

Introductory Mi'kmaq 110, DE only (English)

Introductory Wolastoqey 110, DE only (English)

French

AP French 120

French 112

French 122

Post Intensive French 110/120, DE: English

Writing 110, DE

Spanish

Spanish 110/120, DE

Mandarin

Mandarin 120 LDC

MATHEMATICS

Calculus 120, DE (English)

Financial and Workplace Mathematics 110/120 (English and FI) DE: 110

Foundations of Mathematics 110 (E and FI), DE (English)

Foundations of Mathematics 120 DE (English)

Pre-Calculus 110 (E and FI), DE (English and FI)

Pre-Calculus A 120, DE: (English and FI)

Pre-Calculus B 120, DE: (English and FI)

Trades Math 120

SCIENCES

Advanced Environmental Science 120

AP Biology 120

AP Chemistry

Biology 110 (FI)

Biology 111/112 (E and FI), DE: 112 (English)

Biology 121/122 (E and FI), DE: 122 (English)

Chemistry 111/112, DE: 112 (English)

Chemistry 121/122, DE: 122 (English)

EcoCultural Approaches to Environmental Science 120, DE Only: English

Human Physiology 110

Introduction to Environmental Science 120 (E and FI), DE: English and FI

Lab Techniques for the Life Sciences 120 LDC

Pathology 120 LDC

Physical Geography 110 (English and FI)

Physics 110 DE

Physics 111/112, DE: 112 (English)

Physics 121/122, DE: 122 (English)

Physics 120 DE (English)

Science 122

PHYSICAL EDUCATION/HEALTH

Advanced Training Principles LDC

Empowering Our Youth LDC

Leadership through Physical Education 120 (English and FI)

Outdoor Education Advanced 120 LDC

Physical Education Leadership 120

Nutrition for Healthy Living 120, DE (English)

Sport Theory LDC

Wellness Through Physical Education 110 (English and FI)

Yoga 110 LDC

SOCIAL SCIENCES

American History 120 LDC
AP Psychology 120
Canadian Geography 120, DE (English and FI)
Canadian History 120 (FI)
Canadian History 122, DE (English and FI)
Child Studies 120
Citizenship 120 LDC
EcoCultural Approaches to Environmental Science 120, DE Only: English
Economics 120, IDEA
Family Relations 120 (FI)
Film Studies 120 LDC
Human Services 110
Indigenous/Native Studies 120
Individual and Family Dynamics 120 (E and FI)
Law 120, DE (English and FI)
Local Issues LDC
Modern History 110 (FI)
Modern History 111/112/113, DE: 111/112 (English)
Native Studies 120
Philosophy 120 LDC
Physical Geography 110, DE (English)
Political Science 120, DE (English)
Psychology 120 LDC
Sociology 120
STEAM 120 LDC
World Issues 120 (E and FI), DE: English

FINE ARTS

3D Studies 110 LDC
3D Studies 120 LDC
Advanced Theatre Arts 120 LDC
Art History 120 LDC
Dramatic Arts 110
Dramatic Arts 120
Fashion Design 120
Fashion Tech 110
Fine Arts 110, DE: English
Graphic Art and Design 110 (E and FI)
History of Rock and Roll LDC
Housing and Interior Design 120
Music 111/112/113/120/122
Theatre Arts 110 LDC
Visual Arts 110
Visual Arts 120

SKILLED TRADES AND TECHNOLOGY EDUCATION

Automotive Electrical Systems 120
Construction Tech 110 LDC
Fashion Technology 110
Fashion Design 120
Culinary Technology 110 (E and FI)
Culinary Technology 120 (E and FI)
Electrical Wiring 110
Framing and Sheathing 110
Internal Combustion Engines 110
Introduction to Applied Technology 110
Layout Foundations and Concrete 110 LDC
Metals Fabrication 110
Metals Processing 110/20
Metals Processing 120
Mill and Cabinet Work 120
Power Train and Chassis 110
Residential Finish 120
Tune-up and Emissions 120

BUSINESS AND WORK READY

Accounting 120, IDEA
Business Organization and Management 120, DE (English), IDEA
Career Exploration 110
Cooperative Education 120 (E and FI), DE (English and FI), IDEA
Early Childhood Services 110
Early Childhood Services 120 LDC
Entrepreneurship 110 (English and FI), IDEA
Marketing 120 LDC, IDEA
Office Administration 120
Tourism 110 (English and FI), DE (English), IDEA

TRANSITION

ESAP Courses (Essential Skills Achievement Pathway)
Leadership 120 LDC, IDEA
Orient/Mobility 120
Skills for Success 110 LDC
Transitions 120 LDC
Transitions to Post Secondary Life 120 LDC

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Advanced Computer Science 120 LDC
Computer Aided Design 110
Computer Assisted Manufacturing 110
Computer Science 110, DE (English)

Computer Science 120, DE (English)
Cybersecurity and Technical Support 110
Cybersecurity 120
Digital Production 120, DE (English)
Drafting/Computer Aided Graphics 120
Information Technology 120 (English and FI), DE (English)
Introduction to Electronics 110
Microelectronics 120
Robotics and Automated Processing 120
Technical Support 110
Three-Dimensional Studies 120 LDC

PERSONAL INTEREST

Personal Interest 1, IDEA
Personal Interest 2, IDEA



Course Descriptions

Please note that not all available course descriptions are provided. See your school Guidance Counsellor for more information.

ADVANCED ENVIRONMENTAL SCIENCE 120 (prerequisite: completion of one of Human Science 110, Biology 111-112, Chemistry 111-112, Physical Geography 110 or Introduction to Environmental Science 120)

This course has been developed as a second course for those students interested in pursuing a career and further studies in Environmental Science or related disciplines such as Environmental Law, Environmental Health, or Conservation. Environmental science is interdisciplinary, drawing on understandings from biology, chemistry, and the earth sciences, as well as the social sciences. The course begins with a development of understanding of the Earth as a dynamic set of interacting abiotic and biotic systems, driven primarily by the energy of the sun and gravity. Students will explore systems of the hydrosphere, lithosphere, atmosphere and biosphere, each of which performs critical roles that together, support and sustain life on the planet. With this broad understanding, students will then come back to a study of the environment and the ways in which people have caused chemical changes to air, soil and water, disrupted ecosystem conservation and balance, affected energy flow and matter cycling, and depleted water and other natural resources. Students will work independently or with a partner to complete a project on an issue of particular personal concern. This will develop and demonstrate their science inquiry skills: researching the issue and critically analyzing research methods, data collection, and conclusions which have been made; designing and carrying out an original research project related to the issue; researching the effectiveness of current solutions; and exploring possible new solutions.

AUTOMOTIVE ELECTRICAL SYSTEMS 120 (prerequisite: Internal Combustion Engines 110)

This course provides an introduction to the theory and operation of automotive electrical systems. Students will begin with a study of the basic principles of electricity, which includes electron theory, magnetism, and electrical symbols. They will then progress to the study of individual components throughout the vehicle. This course would benefit students considering an occupational area involving the maintenance in the automotive, aircraft and marine industries.

BIOLOGY 111

Biology 111 offers the same content as Biology 112. Topics will be covered to a greater depth. Teaching methods will combine lectures, independent library research and student seminars, supplemented by laboratory activities and field trips. Students choosing this course should have a genuine interest in science and a better than average achievement in science and mathematics. This course offers a preparation for Biology 121/2.

BIOLOGY 112

Biology 112 emphasizes the nature of life. Lecture and demonstration methods are used together with a laboratory program. Science 9/10 will prepare students for this Biology course. Topics include: biodiversity, cellular matter and energy flow, energy and matter exchange by humans and other organisms, and energy and matter exchange in ecosystems. This course offers a preparation for Biology 121/2.

BIOLOGY 121 (prerequisite: Biology 111/2, FI Biology 112)

This course offers the same content as Biology 122, however, it includes a greater emphasis on scientific research, advanced topics and more fieldwork. This course provides a superior level of preparation for further studies in biology at the university level.

BIOLOGY 122 (prerequisite: Biology 111/2, FI Biology 112)

Biology 122 is a challenging one-semester course. Previous Chemistry courses are not required but would provide good preparation for this course. Laboratory and/or demonstration periods are an integral part of this course. Major topics covered are: systems regulating change in human and other organisms, reproduction and development, chromosomes, genes, DNA; and change in populations, communities and species.

BUSINESS ORGANIZATION and MANAGEMENT 120

This is an introductory course in business organization, operation and management designed for those students intending to pursue further study in Business Administration or Economics at a post-secondary institution. The understanding of business operations as practiced in Canada is a major objective of the course including legal forms of ownership, marketing, finance, set up and operation of a small business, and labor/management relations.

CALCULUS 120

This is the last course offered in the Pre-Calculus Pathway and follows Pre-Calculus B 120. This course develops the concepts of average and instantaneous rates of change. Derivatives are determined by applying the definition of a derivative and the derivative rules including the Chain Rule, and are determined for trigonometric functions. Limits and derivatives of exponential and logarithmic functions are found. Calculus techniques are used to sketch graphs of functions and to solve optimization problems. Problems are solved involving inverse trigonometric functions, related rates, and the application of the integral of a function from a variety of fields. The definite integral and the anti-derivative of a function are determined. This course is recommended for students interested in post-secondary programs in science, engineering and mathematics, though it may not be a required entrance requirement. Students should check entrance requirements for the specific program and institution in which they are interested. Pre-Calculus A120 and Pre-Calculus B120 are pre-requisites for this course.

CANADIAN GEOGRAPHY 120

Canadian Geography 120 is a study of the ever-changing cultural and physical landscapes of Canada and how they impact on each other. It examines physical systems and inter-relates these with man-made structures and systems. It involves environmental issues which are currently pertinent to the lives of Canadians. Geographic understandings and skills are integrated throughout the course.

CANADIAN HISTORY 122

Canadian History 122 is a study of Post-Confederation with an emphasis on the 20th Century. The curriculum is organized by outcomes in four units: MacDonal Era: Expansion and Consolidation; 1867-1896, Canada's Century Begins: 1896- 1920, New Challenges and New Ideas: 1920-1945, Canada and the Global Community; 1945 - Present. There is an emphasis on a selection of themes including English-French relations, First Nations, Continentalism, Regionalism, Canadian Identity and social themes. The roots of these themes should be woven into the Post-Confederation study. Modern History 111/2 or Canadian History 120 or FI Modern History 112 is a prerequisite for Canadian History 122.

CANADIAN LITERATURE 120

This is an advanced English course. Students in this course encounter the characters, ideas, values and experiences that contribute to Canada's unique and global nature. The foundation of the course is a series of seven units, four of which are compulsory: Canadian Identity; Historical and Literary Highlights; The Canadian Novel; Publication of a Class Literary Magazine. The remaining three may be chosen from the following: Literature from the Atlantic Provinces; New Brunswick Literature; Canadian Native Literature; Women in Canadian Literature; Canadian Humor; Canadian Drama; Canadian Poetry; The Canadian Short Story; The Canadian Essay. An alternative curriculum developed with NB representation at the Atlantic Canada table, is based on another flexible modular structure consisting of Atlantic Canada Identity; Cultural/Regional Perspectives; Focused Study; Canadian Voices

CAREER EXPLORATION 110

This course is designed to encourage students to examine personal interests, values and aptitudes prior to engaging in a workplace readiness school-based curriculum component. The emphasis focuses on exploration and students are provided with the opportunity to be placed in a work setting that reflects their interests and qualifications upon completion of the pre-employment module.

CHEMISTRY 111

Chemistry 111 is recommended for students who may be pursuing science or engineering at the university level. Students choosing this course should have a genuine interest and a better than average ability in science and mathematics. The teaching method emphasizes laboratory experiences, teacher demonstrations and videos. Students will be expected to engage in individual projects and research. Topics covered will be the same as those for Chemistry 112, but the depth of coverage will be greater.

CHEMISTRY 112

Chemistry 112 emphasizes learning chemistry through the scientific method. The experiments are designed so that students make observations and draw conclusions which lead directly to important chemical principles. Students will be expected to draw on the knowledge and skills gained in Science 10. Topics include: matter and energy in chemical change, matter as solutions and gases, quantitative relationships in chemical changes, chemical bonding in matter and some organic chemistry.

CHEMISTRY 121 (prerequisite: Chemistry 111/2)

Chemistry 121 is recommended for students who may be pursuing science or engineering at the university level. Students choosing this course have a genuine interest and a better than average ability in science and mathematics. Learning is achieved through laboratory experiences, teacher demonstrations and videos. Students will be expected to engage in individual projects and research. Topics included are the same as those for Chemistry 122, but the depth of the coverage will be greater.

CHEMISTRY 122 (prerequisite: Chemistry 111/2)

Chemistry 122 emphasizes learning chemistry using the scientific method. The experiments are designed so that students make observations and draw conclusions, which lead directly to important chemical principles. Topics include: organic chemistry, thermo-chemical changes, equilibrium, acids and bases, and electrochemical changes.

CHILD STUDIES 120

This course is a study of "the most significant resource that we possess – children". Child Studies 120 explores how children develop physically, socially, emotionally, and intellectually. Issues are discussed regarding the "quality of life" and human development, "society's basic unit", the family plus parenting skills in our complex, consuming, and technological society. The importance of the need to provide love, continuity and stability, as well as the basic food, clothing, and shelter requirements is addressed. Child Studies 120 includes a variety of human centered experiences from conception through to the development of the school age child. Thus, ongoing observations and experiences with children is an essential part of this program.

COMPUTER AIDED DESIGN 110

Primarily, this is an architectural drafting course with emphasis placed on the skills and techniques involved with Computer Aided Drafting. As well as spending considerable time on task at CAD stations, students will be involved with developing their planning, sketching, instrument drawing, and work organizational skills. Course content includes plot plans, floor plans, elevations and wall sections. Also included are an electrical and survey drawing unit. Students who seek employment in the drafting industry or who plan to study in post-secondary technology/engineering will benefit from this course.

COMPUTER ASSISTED MANUFACTURING 110

This course explores the computerized machine control aspect of modern manufacturing methods. This growing technology (CAM) is applied by industries, such as the aerospace, automotive, plastics, and textile industry, to enable production quality and speed required maintaining a competitive edge.

COMPUTER SCIENCE 110

This course is essentially a study of computer languages. Structured computer programming languages are used to design and implement programs that will solve problems on a computer. The acquired skills will provide a foundation for further studies in computer science or related fields.

COMPUTER SCIENCE 120 (prerequisite: Computer Science 110)

In this course, methods of data handling are integrated with systems analysis and design. Advanced concepts and procedures are presented to provide a more comprehensive understanding of microcomputer usage and applications. The course will include a study of high-level languages, the use of electronic spreadsheets, data base applications and other appropriate computer software. It is a desirable course for students intending to follow a computer science or data analysis program at a post-secondary institution.

COOPERATIVE EDUCATION 120 (Students must successfully complete an interview to qualify for this two- or three-credit course.)

This course provides a "hands-on" experiential work-based education that extends the learning process beyond the school into the workplace. It is a course that integrates classroom theory with practical experience and learning in the working world. Students are placed in workstations where they are provided with challenging tasks and responsibilities and they learn by doing. Students spend the equivalent of two or three periods (2 or 3 credits) normally on a daily basis, at the workplace. The course is based on a partnership between the school and business/industry, and involves the participation of students, teachers, employers and employee supervisors.

Two new Coop options exist starting in February of 2020. *Early Childhood Education Coop* will have completed the requirements to work in a licensed early learning and childcare centre and will receive dual credits in Early Childhood 120 and Coop 120 (1 or 2 Coop credits based on enrollment). *Long-Term Care Coop* will be eligible to be employed in a long-term care facility and will receive dual credits in Health Care 110 and Coop 120 (2 credits).

CULINARY TECHNOLOGY 110/120

The Culinary Technology Program is designed to prepare students for employment and/or future education in the food service industry. This technology-driven and skill-oriented program involves not only the "how and why" of food service preparation, but focuses on the development of personal skills and knowledge that can be applied to the food service industry. Laboratory experimentation, food preparation and service are an integral part of the program. It gives students life-long learning skills that may be transferable to future training and/or food services employment. Culinary Technology 110 is a prerequisite for Culinary Technology 120.

DIGITAL PRODUCTION 120

This is a performance-based course that focuses on the applied use of digital media and explores the appropriate legal and ethical dealings. It is intended to develop digital literacy through a skills-based approach, challenging in terms of its requirements but flexible enough to accommodate students with a wide range of interests and abilities.

DRAFTING - COMPUTER AIDED GRAPHICS 120 (prerequisite: Computer Aided Design 110)

This course is designed to give students a solid base of knowledge and skill in the drafting area. Through various activities, including sketching, and computer assisted drawing (CAD), students gain the skills necessary to both visualize and present ideas graphically. The Universal nature of this form of graphic communication makes this course of interest and benefit to a wide range of students beyond those pursuing a career specifically in the drafting industry or technology/engineering areas.

DRAMATIC (THEATRE) ARTS 110

Dramatic Arts 110 is an introductory course designed for any student interested in developing skills related to creativity, performance, and production. This course is highly participatory and requires consistent attendance to facilitate the development of collaborative projects and student engagement in new experiences.

DRAMATIC (THEATRE) ARTS 120

Dramatic Arts 120 is a course that assumes an enhanced level of theatrical experience. Successful completion of Dramatic Arts 110 is highly encouraged, but not required. In collaboration with their teacher and peers, students are encouraged to direct their learning and decide how to demonstrate the acquisition of skills. Students will collect evidence of learning and expand upon the skills acquired in Dramatic Arts 110.

EARLY CHILDHOOD SERVICES 110

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

ECOCULTURAL APPROACHES TO ENVIRONMENTAL SCIENCE 120

A virtual course that will be offered starting in February 2020 in partnership with Mount Allison University (MAU). High school students enrolled in SCIE1991 will have the opportunity, based on their success, to earn dual credit for Advanced Environmental Science 120 and SCIE1991 from MAU. Students must be in Grade 11 or 12 and meet the pre-requisite for Advanced ESc120 (one of: Intro ESc120, Bio 112 or Chem 112). High Schools, wishing to enroll students in SCIE1991 may contact Pamela Fowler (pamela.fowler@nbed.nb.ca) for more information. This dual-credit option can be offered to students enrolled in the face to face Advanced Environmental Science 120 with their teacher's permission and supervision.

ECONOMICS 120

Economics 120 provides a basic understanding of our economic system and how it works. The role of Canada's major economic institutions and how they interact is examined. It is designed to develop an understanding of the concepts and techniques needed in making economic decisions and to develop an awareness of the major economic problems and issues of the day.

ENGLISH 111–121

English 111–121 are courses designed for students whose aptitudes and interests in language/literature are above average. These courses will provide an enriched variety of experiences with language and texts to challenge and refine students' competencies. A greater range and depth than English 112–122, plus more independent and small group experiences will accommodate students' interests and talents.

ENGLISH 112–122

English 112–122 are courses appropriate for students intending to pursue studies at a post-secondary institution. Each of the English courses will provide a wide variety of experiences in speaking and listening, reading and viewing, writing and other ways of representing. English 112 will focus on information and media literacy, encouraging students' expansion and control of their own use of language. Significant literary pieces from the past plus those of contemporary and personal interest should be among the print and visual texts students encounter. English 122 will concentrate on critical and personal response to Canadian and world literature.

ENGLISH 113–123

English 113–123 are courses intended for students who do not plan to attend academic post-secondary institutions. These English courses provide a variety of experiences with language and texts to develop students' competencies in speaking, listening, reading, viewing, writing, and other ways of representing. English level 3 courses may differ in terms of pace, scope, emphasis and resources from level 2, but all students in all levels will work toward achieving the same English outcomes. High priority is given to student development of reading and viewing comprehension and to effective oral and written and other communication. Students will concentrate on improving strategies for learning from literary, technical and media texts; practical and personal writing is stressed.

ENTREPRENEURSHIP 110

Entrepreneurship education provides learning with experiences that accelerate the need for students to accept greater responsibility to acquire knowledge, skills, and attitudes that will contribute to their future success. The entrepreneurial process, as outlined in this course, encourages a strong connection between theory and action. This course promotes experiential learning, and recognizes the importance of nurturing an entrepreneurial spirit for personal and group success in and beyond the context of entrepreneurship.

FASHION DESIGN 120

Fashion Design 120 will provide opportunities for each student to develop an understanding of the World of Fashion and the fundamentals of the fashion design process. The evaluation of fashion and its' relationship to societal change in the past, present and future, as well as the role of the fashion industry and its relationship to the Canadian economy will be addressed. Fashion illustration and creativity through a textile media will be practiced. Sketching, computer aided drafting; surging and sewing are all elements of this course. Fashion Design 120 is designed for students who plan to undertake studies related to the world of fashion and students who wish to expand their knowledge of the fashion industry.

FASHION TECHNOLOGY 110

This course is designed to introduce and prepare students for possible careers in the fashion industry. It deals with the history of the Textile Apparel industry, characteristics and construction of fabrics, careers available and the skills required, plus basic construction and product assembly with the use of technology.

FASHION TECHNOLOGY 120

This course is designed to provide an educational program that bridges student's goals with industry needs. This is accomplished by providing essential theoretical education with a focus on developing skills related to communication, promotion and entrepreneurial opportunities, as well as expanding on the skills previously developed in Fashion Technology 110. Fashion Technology 110 is a prerequisite for Fashion Technology 120.

FINANCIAL AND WORKPLACE MATHEMATICS 110

This course is the first of two courses designed for entry into many trades and technical programs, and for direct entry into the work force. Concepts of right triangles, trigonometry, and angles of elevation and depression are applied to contextual problems. Scale models and drawings of 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.

FINANCIAL AND WORKPLACE MATHEMATICS 120

This is the second 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. Students explore the limitations of measuring instruments, and solve problems using sine and cosine laws and the properties of triangles, quadrilateral, and regular polygons as they relate to construction, industrial, commercial and artistic applications. Transformations of 2-D and 3-D shapes are identified, drawn with and without technology, and used to create, analyze and describe designs and to solve contextual problems. The viability of small business options are explored including expenses, feasibility, and factors that could impact on profitability. Linear relations are studied, including patterns and trends, graphing, creating tables of values, writing equations, interpolating and extrapolating, and solving problems. Students gain an understanding of mean, weighted and trimmed mean, median and mode, and explore the impact of outliers. They also compare percent and percentile, and explore probability. Opportunity is given to research and present an historical event or an area of interest that involves mathematics. Financial and Workplace Mathematics 110 or Foundations of Mathematics 110 can serve as a pre-requisite for this course. Financial and Workplace Mathematics 120 completes the Financial and Workplace pathway.

FINE ARTS 110

This course offers an overview appreciation of all the arts and is often a possible Creative Arts cluster choice for a student who is not interested in doing significant music or art production.

FI BIOLOGY 112

See course description for Biology 112.

FI CANADIAN HISTORY 122

See course description for Canadian History 122. Modern History 111/112, FI Modern History 112 is a prerequisite for FI Canadian History 122

FI INTRODUCTION TO ENVIRONMENTAL SCIENCE 120

See course description for Introduction to Environmental Science 120

FI LANGUAGE ARTS 110, 120

The French Immersion Language Program uses a multi-dimensional approach to the teaching and learning of a second language. These courses emphasize the use of the language as an instrument for communication and reflection and a factor in students' personal development. A variety of communication activities related to students' experiences have been designed to help them improve their linguistic skills. The study of literature is an integral part of the courses. FI Language Arts 110 is a prerequisite for FI Language Arts 120.

FI MODERN HISTORY 112

See course description for History 112

FI RELATIONS FAMILIALES 120

See course description for Individual and Family Dynamics 120

FI TOURISM 110

See course description for Tourism 110

FI WORLD ISSUES 120

See course description for World Issues 120

FOUNDATIONS 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 course is a pre-requisite for Foundations of Mathematics 120 or Financial and Workplace 120. It is also a pre-requisite or co-requisite for Pre-Calculus 110.

FOUNDATIONS OF MATHEMATICS 120

This is the second of two courses in the Foundations of Mathematics pathway designed for entry into post-secondary academic programs not requiring pre-calculus. In statistics, students are introduced to normal curves, and learn to interpret statistical data, using confidence intervals, confidence levels, and margins of error. To develop logical reasoning students analyze puzzles and games, and solve problems that involve application of set theory and conditional statements. The validity of odds and probability statements are assessed and problems are solved that involve probability of two events, the fundamental counting principle, permutations, and combinations. The binomial theorem is used to expand powers of a binomial. Data is represented using polynomial functions, exponential and logarithmic functions and sinusoidal functions to solve problems. The pre-requisite for this course is Foundations of Mathematics 110. This course completes the Foundations of Mathematics pathway.

FRAMING AND SHEATHING 110

This course will provide students with skills and knowledge associated with the framing-in or shell construction of typical single-family dwellings. Students will participate in construction and planning activities, which include interpretation of the National Building Code, blueprint reading, estimating and material layout.

GOALS, GROWTH, AND GRIT 120

Goals, Growth, and Grit: Skills for Success 120 will provide students with skills in three main areas - positive and productive mindsets and behaviors, 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.

GRAPHIC ART AND DESIGN 110

Graphic design is the creative planning and presentation of visual communication to attract attention or communicate effectively. The course promotes the skills and knowledge that are necessary to understand and develop images, signs, symbols, logos, etc. that communicate a message or value. The development of visual communication skills is assisted by technology.

Health Care 110

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

HOSPITALITY AND TOURISM 110

The Hospitality and Tourism industry is a rapidly growing industry. This course will provide students with lifelong learning skills that are transferable to future learning and/or the hospitality and tourism industry. The student will acquire career information, skill development and the talents for employment. This course relies on resource-based learning, practical experiences, and access to resource people and information that will help the individual in his/her career choice. Topics include the four main sectors of the tourism industry, influences on the tourism industry, personal and interpersonal skills regarding career opportunities available, travel industry and marketing strategies.

HOUSING AND INTERIOR DESIGNS 120

Housing and Interior Design 120 is designed to show the relationship between different types of housing and the housing needs of individuals, families and communities. The influences of cultural, psychological and aesthetic aspects of housing are examined. The value of creativity and individuality in a living environment is an important element of the course. Course topics span factors including housing in various cultures, historical and modern trends in housing and lifestyles needs, financial and legal costs and requirements, basic floor plans and arrangements, plus the principles and elements of design. This course would be of interest to students interested in the field of architectural design, drafting or Home Economics.

HUMAN PHYSIOLOGY 110

Human Physiology 110 is designed to appeal to a wide range of learners including students for whom this will serve to fulfill their science graduation requirement and students who will take additional science courses. A study of Human Physiology will be relevant to every student, providing them with the tools they will need to make informed choices about their own health and that of others. It will also be relevant to those students who will be going on to careers in the social sciences, health care and medicine. This course focuses on the biology and healthy functioning of all of the major human body systems and how wellness can be compromised by struggles with mental and social health, lifestyle choices and disease.

HUMAN SERVICES 110

The overall aim of Human Services is to increase students' awareness of the importance of human service work. Inclusive communities and an aging population are creating many opportunities in the human service field. This course will develop work-related competencies and explore post-secondary learning, innovations and careers in the human service industry.

INDIVIDUAL AND FAMILY DYNAMICS 120

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

INFORMATION TECHNOLOGY 120

This course prepares students for the electronic office by teaching the manipulation of applications software. Data base management, spreadsheets, file handling, printer manipulation, word processing, electronic accounting, and electronic storage and dissemination of information are included.

INTERMEDIATE MI'KMAW 110

This is an intermediate level language course with an emphasis on conversational skills. Students will learn and practice language through conversations, games and written assignments. By the end of this course, students will have a general understanding of the nature and function of the Mi'kmaw language that will enable them to communicate using the language. Students will also develop an understanding and appreciation of the Mi'kmaw language as an expression of a distinctive culture.

INTERMEDIATE WOLASTOQEY 110

This is an intermediate level language course with an emphasis on conversational skills. Students will learn and practice language through conversations, games and written assignments. By the end of this course, students will have a general understanding of the nature and function of the Wolastoquey language that will enable them to communicate using the language. Students will also develop an understanding and appreciation of the Wolastoquey language as an expression of a distinctive culture.

INTERNAL COMBUSTION ENGINES 110

This course is a study of the operation of the internal combustion engine including the construction, theory of operation and function of its systems. Students disassemble and assemble engines, checking, servicing and repairing components and systems. Emphasis is placed on the development of basic skills essential for persons entering the motor vehicle service trades and other allied occupations. This course should be of interest to students interested in entering or learning about the opportunities and requirements of the motor vehicle service industry and students with a general interest in mechanics.

INTRODUCTORY MI'KMAW 110

This is a beginner's level language course with an emphasis on conversational skills. Students will learn and practice language through conversations, games and written assignments. By the end of this course, students will have a general understanding of the nature and function of the Mi'kmaw language that will enable them to communicate using the language. Students will also develop an understanding and appreciation of the Mi'kmaw language as an expression of a distinctive culture.

INTRODUCTORY WOLASTOQEY LATUWEWAKON 110

This is a beginner's level language course with an emphasis on conversational skills. Students will learn and practice language through conversations, games and written assignments. By the end of this course, students will have a general understanding of the nature and function of the Wolastoquey language that will enable them to communicate using the language. Students will also develop an understanding and appreciation of the Wolastoquey language as an expression of a distinctive culture.

INTRODUCTORY ELECTRONICS 110

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

INTRODUCTION TO ACCOUNTING 120

This course is ideally suited for students who wish to pursue business studies at post-secondary institutions. It introduces the student to accounting procedures, concepts, and applications. Course topics include nature of business, accountancy as a career, bookkeeping procedures, accounting cycle and theory, subsidiary ledgers, accounting and inventory control systems, payroll, adjustments, accruals, partnerships, corporations, statement analysis, and electronic accounting through recommended software packages.

INTRODUCTION TO APPLIED TECHNOLOGY 110

Students will complete a series of projects from the areas of Woodworking, Motor Mechanics, Plumbing, Drywall Repair, Electrical, Manufacturing and Construction. All projects will be done in groups except for woodworking. There will be a series of tests, a mid-term and an exam. Evaluation will consist of 70% hands on and 30% tests and exams.

INTRODUCTION TO ENVIRONMENTAL SCIENCE 120

The objective of this introductory course is for students to develop the knowledge base and skills for investigating and analyzing environmental issues and for communicating their knowledge and analysis to others. Students will investigate population growth and resource limitations, ecology of natural systems, historical and current approaches to the environment from various worldviews, and sustainability of natural environments. They will explore the interconnectedness of natural ecosystems and human dependence and impact on these systems. They will recognize the importance of considering environmental, social, cultural and economic aspects of an issue to find solutions. Students will complete a research project on a current issue and present their findings, and will further explore this and other environmental issues through various methods of inquiry.

JOURNALISM 120

Journalism 120 provides students with intensive practice in writing and editing. Students learn to identify or generate story ideas, to gather pertinent information and to write and edit their stories with a view to publication. The activities accompanying preparation for publication engage students in creative skills such as writing, design, layout and photography, and in practical skills such as budgeting, meeting deadlines and working with others. Examining examples of journalistic style is an element of the course but writing for publication is the focus.

LAW 120

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

MEDIA PRODUCTION 120

This course will focus on the development of skills in film production. Skills that students acquire in this course should act as a gateway to other post-secondary pursuits, such as enrollment in recording, film or multimedia school, a career in broadcast journalism, independent film and video production, community television, advertising, public relations or feature film production.

MEDIA STUDIES 120

Media Studies 120 offers an introduction to the evolution and impact of mass media on the individual and society. The television/video unit is compulsory, accompanied by a choice of three additional units on advertising, film, print and electronic journalism, photography, drama, radio/sound communication, as local circumstances permit. The primary purpose of the course is to have students learn through experiment and exploration; the course is practical, and activity based. Students enrolled in Media Studies 120 must be mature enough to meet the high level of independence, reliability and responsibility required of them.

METALS PROCESSING 110

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

METALS PROCESSING 120 (prerequisite: Metals Processing 110)

This course allows students to continue to explore the processes used in the manufacture of metal products.

MICRO-ELECTRONICS 120 (prerequisite: Introductory Electronics 110)

Students taking this course will recognize digital electronics as an integral part of computers and calculators and part of most other electronic equipment in use today. Knowledge of electronics is developed by wiring and testing circuits as well as computer simulation of circuits. This course should be of interest to students with a career objective in an electrical occupational area, those planning to continue their education at the technical or engineering level, as well as those with a personal interest in electronics or computers.

MILL AND CABINET WORK 120

This is a finish woodworking course in which students will develop the necessary skills, knowledge and work habits required to construct cabinets and other miscellaneous mill work typically found in residential dwellings. Students, through a series of projects, will be involved with all aspects of mill work including planning, estimating, operation of woodworking equipment and machines and finish operations. This course will be of benefit to those students interested in entering the construction or woodworking occupations as well as for those with a general interest in woodworking.

MODERN HISTORY 111

Modern History 111 is an enriched, in-depth thematic study of Modern European History, examining the following revolutions: the Liberal Revolutions of 1848, the French Revolution, the Industrial Revolution, the Communist Revolution, and the National Socialist Revolution.

MODERN HISTORY 112

Modern History 112 is a rigorous study of the evolution of the peoples of the west during the nineteenth and twentieth century and their widening involvements in global issues. The course describes the rise of nationalist and socialist movements, the international connections growing out of the World Wars and the Cold War era, and the widening global contacts of the contemporary world.

MODERN HISTORY 113

Modern History 113 is designed to provide an understanding of the main events of the twentieth century, as well as some familiarity with basic skills used to interpret historical accounts. A survey approach is given to the following topics: Basic World Geography, Industrialization, Life in the 1920's and 30's, World War I, World War II, and the Cold War.

MUSIC 112 (prerequisite: Music 10)

The course consists of three major outcomes that require students to demonstrate achievement in performing music, in the application of theoretical and aural skills and concepts, and in understanding music in a historical context. The course lists a series of performance indicators that will assist in determining the course level.

MUSIC 122 (prerequisite: Music 112)

The Music 122 course is designed for the advanced and serious student of music who wishes to pursue the subject as an avocation or who may be interested in further studies at the post-secondary level. The 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 upon and expanding their areas of musical knowledge and expertise. Students may enter Music 122 by passing Music 112, or have private study equivalent to grade 6 practical and grade 2 theory by the Royal Conservatory of Music or equivalent.

MUSIC 120

This course has been designed to encourage research, presentations, discussions and musical learning in and about a variety of different world music. The outcomes and activities of the course focus on the need for students to: demonstrate an understanding of the importance of music to a wide variety of peoples and cultures; demonstrate musical growth through creating and performing musical examples in a variety of styles; using available resources including current technology; demonstrate research and presentation skills related to music and culture; demonstrate an understanding of music and its relationship to other art forms and influences.

NATIVE STUDIES 120

This course covers topics such as Treaties, Residential Schools, New Brunswick First Nation Communities, Legislation and Policy Impacting First Nations, Post-Colonization: De-mythologizing Popular Culture; Reconciliation: National Inquiries in Canada; The UN Declaration of Indigenous Rights: Calls for Action; First Nations and Global Conflicts. There will be one project per term- one will focus on Contemporary Issues- the other on a First Nations Soldier Biography.

NBCC SKILLED TRADES AND WORK-READY MATH 12

This course is intended to strengthen in-context mathematics skills and instill confidence before entering a post-secondary skilled trades program or workplace. Students will become proficient with accuracy and precision, work with measurement tools, and use both Imperial and S.I. units. This course is available as an NBCC credit, if students successfully complete the NBCC Math Foundations 1208 assessment.

NETWORKING 110

Topics include: how a network works, IP Addresses, Routers, Network Configuration, Network Standards, LANS, WANS, Online Course work. This course can be used as the first step to a professional qualification of CCNA.

NUTRITION FOR HEALTHY LIVING 120

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

OUTDOOR PURSUITS 110

The course will develop personal outdoor recreation skills based on environmental ethics. Students must satisfy a requirement to complete a series of out-trips that may be day-trips, overnight excursions or extended trips. The course will take advantage of local outdoor access and could include camping, hiking, canoeing and other outdoor adventure activities. Students must be prepared to plan, lead and evaluate out-trip experiences from personal and group dynamics perspectives. Physical Education 9/10 is a prerequisite for Outdoor Pursuits 110.

PERSONAL INTEREST 1 AND 2

These courses promote learner agency and support personalized learning. They are designated to provide students with the time, opportunity, and resources to develop and pursue individual interests. The programming for these courses will be designed by the student with the support of their teachers and/or other mentors in the school or community (local/global). Examples include: a Capstone Project (local or community action), an in depth study in a specific problem, the study of and support to the Calls to Action in the Truth and Reconciliation Recommendations, development of a relevant skill set or methodology such as project management, time to pursue a life skill such as financial literacy or an additional language, or to perfect a particular gift or talent that increase personal well-being. Assessment for the completion of this course will be outlined as part of the course design and will be based on the "I" statements for the global competencies. The second section of this course may be an extension to or deepening of the learning in the first course, or it may be an entirely different course. Resources for this course will be accessed through the school, the community or through grants and accessing these resources will be part of the learning process.

POST INTENSIVE FRENCH 112, 122

The Post Intensive French Language program offers a multi-dimensional approach to the teaching and learning of a second language. These courses cover the language skills necessary for effective communication in French in daily situations. They are designed for students who wish to broaden their communicative ability in the second language. Post Intensive French 112 and 122 are not appropriate for students with a background in French Immersion. Post Intensive French 112 is a prerequisite for Post Intensive French 122.

PRE-CALCULUS 110

This course, followed by later courses in Pre-Calculus and Calculus, is designed for entry into post-secondary programs requiring Pre-Calculus. Students demonstrate an understanding of absolute value of real numbers, and solve problems that involve radicals, radical expressions, radical equations. Students determine equivalent forms, simplify rational expressions, and solve problems that involve rational equations. They develop an understanding of angles in standard position (0° to 360°) 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 A120.

PRE-CALCULUS 120A

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

PRE-CALCULUS 120B

This course follows or is concurrent with Pre-Calculus 120A and precedes Calculus 120. Students analyze arithmetic and geometric sequences and series to solve problems. They learn to factor polynomials of degree greater than 2, and to graph and analyze polynomial functions. They also graph and analyze radical, reciprocal and rational functions. These functions along with those studied in previous math courses are used to build a function tool kit. Problems are solved using the fundamental counting principle, permutations, combinations and the binomial theorem. Students explore and analyze limits as x approaches a certain value and left and right-hand limits using correct notation. The continuity of a function and limits which involve infinity are also investigated. Pre-Calculus 120A is a pre-requisite for this course. Pre-Calculus 120B is a pre-requisite for Calculus 120.

PHYSICAL EDUCATION LEADERSHIP 120 (only for qualified students)

Physical Education Leadership 120 is an elective course for qualified students. This course develops leadership skills through involvement in physical activities. The class is subject to a limited enrollment. This course requires a minimum commitment of 30 volunteer hours in the area of leadership. Themes include management, teaching, coaching, officiating, first aid, and organizational planning and leadership theory

PHYSICAL GEOGRAPHY 110

Physical Geography 110 is the study of the physical features of the earth and their effects on mankind. It examines the interaction among all components of the environment and emphasizes the relationship between the land and humanity. It examines climatology and meteorology and their impact on people. It is designed to develop an understanding of the basic principles of the geographic method, which will enhance transferable skills.

PHYSICS 111

Physics 111 utilizes the discovery approach. Students who choose this course must have a genuine interest in science and a better than average achievement in both science and mathematics. The student employs the scientific method in gathering experimental data. Students will be expected to design, and conduct experiments to deepen their learning. Topics covered will be the same as those in Physics 112, but the depth of coverage will be greater.

PHYSICS 112

Physics 112 includes the following topics: wave motion, sound and light, one dimensional motion and forces, momentum, and mechanical energy. This course is designed to engage students in relating physics concepts to societal contexts and applications. It may be taught from context to concept or the reverse sequence. A student-centered approach to theoretical and practical investigations is the basis of this curriculum. Information from a variety of sources is encouraged.

PHYSICS 121 (prerequisite: Physics 111/2)

Physics 121 utilizes the discovery approach. Students who choose this course must have a genuine interest in science and a better than average achievement in both science and mathematics. The student employs the scientific method in gathering experimental data. Students will be expected to design, and conduct experiments to deepen their learning. Topics covered will be the same as Physics 122, but the depth of coverage will be greater.

PHYSICS 122 (prerequisite: Physics 111/2)

Physics 122 includes the following topics: two-dimensional motion and forces, momentum, circular motion, universal gravitation, and electricity. As with Physics 112, each of these topics is studied in its societal context. Student experiences should include library research, laboratory investigations, and multi-sources of information including print, software, video and guest speakers. Emphasis is placed on student-centered activities.

POLITICAL SCIENCE 120

Political Science 120 is an introductory political science course designed to develop an understanding of various political ideologies and systems, as well as the ability to assess the merits of each and to make comparisons, particularly with respect to Canadian systems.

POWER TRAIN AND CHASSIS 110

This course is designed to develop skill and knowledge in the service and maintenance of the automobile chassis and power train. Emphasis is placed on the function, repair and replacement of components. Topics include spring and shock assemblies, brakes, steering, wheel bearings, tires, transmissions, differential and drive lines. Students seeking admission to the motor vehicle service industry, as well as those seeking guidance about a career choice, should benefit from this course.

READING TUTOR 120 (only for qualified students)

Reading Tutor 120 pairs senior student tutors with younger struggling readers. The tutors receive a course credit while the readers receive assistance meeting the outcomes for English Language Arts. The teachers of this course co-ordinate the program and provide the tutor training; oversee the activities of the partners and offer guidance and support to both the tutors and the readers. The tutors select the reading materials and plan and implement the daily activities for their readers. Readers who take the course improve their reading and writing skills and often increase their motivation and interest in school while the tutors acquire valuable reading/writing tutoring skills and develop useful interpersonal, organizational, planning and problem-solving skills.

RESIDENTIAL FINISH 120

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

ROBOTICS AND AUTOMATED TECHNOLOGY 120

This course explores the fields of robotics and automation. Through the use of experimentation labs, students will learn and apply various automation concepts such as logic programming and the integration of technologies including pneumatic, electrical, mechanical, and computer. Students will develop valuable technology skills in the areas of design, technical writing and communication, and systematic approaches to problem solving and troubleshooting. Students in this course will construct simulations and models of robot and automation processes using industrial types of equipment and computer simulation software. The knowledge and skills developed in this course would be an asset to any student who will at some point become involved in processing or manufacturing whether at the entrepreneurial, administration, engineer, technologist, or technician level.

SCIENCE 122

This course will include the study of magnetism, electromagnetism, force fields and their application, atomic and nuclear structure, redox reactions, and electrochemistry. The course is designed for students preparing for studies in post-secondary science.

Prerequisite for Science 120 is Chemistry 121/2, Physics 111/2, or Physics 121/2

SOCIOLOGY 120

Sociology 120 gives students a concrete examination of Canadian society from a sociological perspective. Students will be better able to understand the society in which they live with regards to human relationships, how individuals act, react and interact within social contexts, as well as compare other societies.

SPANISH 110

Spanish 110 is a beginner's guide to the Spanish language. Students learn the basic elements of the language and Hispanic culture through an interactive tutorial. They have opportunities to practice and expand on this knowledge through live, online group sessions. The themes of this course have been selected with the interests of the young adult learner in mind. A term project is completed with the help of a virtual partner. Please note that there is a Spanish 120 course available for those who have already taken Spanish 110. Please see your Guidance Counselor if you wish to be considered for this course.

SPANISH 120

Spanish 120 will require students to improve their knowledge and ability level in the language. This will be accomplished by engaging students in the exploration of the Hispanic culture through the areas of travel, fashion and music. Over the course of the term, students will be required to engage in various online group sessions and be expected to complete projects with a virtual partner.

TECH SUPPORT 110

This course deals with the topics of hardware and software configuration, and systems issues. Although there is no specific prerequisite, students registering in this course should already have some background in computers. Course content includes operating systems, hardware configuration, and installation.

THREE-DIMENSIONAL STUDIES 120 (prerequisite Visual Arts 110)

This course is an extension to the experience gained in visual Arts 110. Using the human form as a foundation, the course explores various techniques of additive, subtractive, and assemblage sculpture. While developing technical skills the students will work with a variety of materials such as clay, wood, plaster, and stone. The aim of the course is to provide students with an in-depth study of sculpture, pottery, and mixed media techniques. In addition to the application of sculptural techniques and processes, students will study the recent history (20th Century) of three-dimensional form.

TUNE-UP AND EMISSIONS 120 (prerequisite: Internal Combustion Engines 110)

This course is designed to provide students with a practical approach to diagnosing, servicing, and repairing of automobile fuel and emission systems and to performing engine tune-ups.

VISUAL ARTS 110 (prerequisite: Art 10)

Visual Arts 110 builds on the experience and knowledge gained in Visual Arts 9/10. The studio work remains in the areas of drawing, painting, printmaking and 3-dimensional work and stresses personal expression and the development of individual imagery and there are further requirements in art criticism and art history.

VISUAL ARTS 120 (prerequisite: Visual Arts 110)

Visual Arts 120 is designed for students who wish to pursue art related courses or careers. Students work through a review of skills and concepts and choose blocks that lead to advanced work on a particular medium. Students are required to critique, in writing, aspects of process and product.

VISUAL ARTS PORTFOLIO 120 (prerequisite: Visual Arts 110)

This course follows the guidelines of Visual Arts 120 and provides the opportunity for completing a portfolio for students who are planning post-secondary studies in this area. Students cannot take this course and Visual Arts 120. This course will only be available to students who have prior approval.

WELLNESS THROUGH PHYSICAL EDUCATION 110

The goal of Wellness through Physical Education 110 is to promote healthy active living for life. The course is intended to encourage a broad-based exploration of a variety of activities, highlighting non-traditional approaches to fitness and wellness (e.g. yoga, hiking, personal training, etc.). The course offers a range of learning experiences for students that encourage healthy active living but are not sport specific. Students will personalize their learning by researching, self-assessing and determining personal preferences for engaging in lifelong physical activity. Students will apply knowledge of fitness and wellness concepts to the creation of a personal healthy active living plan. The curriculum includes a practical activity-based segment (approximately 60%) as well as a classroom component (approximately 40%). Students must have completed Grade 9/10 Physical Education and Health.

WORLD ISSUES 120

World Issues 120 examines various issues that are global in nature and that require a global solution. The concept of the global village is studied, as is the relationship between nations as players in the global community. Various issues are examined to acknowledge the fact that events in any part of the World have a reverberating effect. The

WRITING 110

Writing 110 is intended to encourage students to practice and experiment with the language in written form. The course offers students opportunities to reinforce and enrich their writing skills through processes where exploring, drafting, revising, editing, sharing and reflecting are encouraged. Students will enter the course with varying skill level; participation in class and individual growth in writing will be considerations in evaluation.



Anglophone East School District High Schools

Bernice MacNaughton High School

Principal: Martin Daigle
School Phone: 506.856.3469
Fax: 506.856.3406

Caledonia Regional High School

Principal: Donna Godfrey
School Phone: 506.734.3710
Fax: 506.734.3707

Harrison Trimble High School

Principal: Tami Van Wart
School Phone: 506.856.3417
Fax: 506.856.3480

JMA Armstrong High School

Principal: Tammy Constantine
School Phone: 506.372.3210
Fax: 506.372.3219

Moncton High School

Principal: Mike Belong
School Phone: 506.856.3439
Fax: 506.856.3481

Petitcodiac Regional High School

Principal: Stephanie Prosser
School Phone: 506.756.3104
Fax: 506.756.3110

Riverview High School

Principal: Jason Reath
School Phone: 506.856.3470
Fax: 506.856.3313

Tantramar Regional High School

Principal: Susan Lafford
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Anglophone East School District High School Subject Coordinators

**Coop Education/Virtual Coop,
Distance Education, Local Options, Independent Studies**
Chris Ryan
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**French Second Language
& Fine Arts**
Charlene Vienneau
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ICT, BBTE, and Skilled Trades, Physical Education
Ken Menchions
Phone: 506.856.3623

Literacy
Jason Burns
Phone: 506.869.6077

STEM (Science, Technology, Engineering, and Math)
Bryan Ouellette
Phone: 506.856.3618

Social Science & First Nation
Tracy Landry
Phone: 506.856.2202

**Education Support Teacher-English as an Additional
Language (EAL):**
Kathy Arsenault
Phone: 506.878.7542



Anglophone East School District High School Education Support Services (ESS) Coordinators

**Bernice MacNaughton High School
Family of Schools**
Chantal Frenette
Phone: 506.856-2485

**Calendonia Regional High School/
JMA Armstrong/
Petitcodiac Regional High School
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