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SUSSEX REGIONAL HIGH SCHOOL

COURSE SELECTION HANDBOOK 2009-2010



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GRADUATION REQUIREMENTS FOR A NEW BRUNSWICK HIGH SCHOOL DIPLOMA

Graduation Requirements for a New Brunswick High School Diploma

Students must:

- Meet the requirements of the grade 9/10 program.
- Achieve 17 of 20 credits including compulsory courses.
- Pass five courses at the grade 12 level.
- Pass the computer literacy requirement. (Met by 9/10 Broadbase Technology.)
- Pass a reading and writing requirement by passing 3 of the 4 sections of the grade 9 English Language Proficiency Assessment (or Reassessment) in grades 10, 11 or 12.
- Pass courses at the 0, 1, 2, or 3 levels with a maximum of two modified* courses.

OR

- Meet the requirements of a Special Education Plan.
- * The term modified will apply to a credit where the content and concepts of a course have been significantly simplified to allow for student success.

HIGH SCHOOL GRADUATION REQUIREMENTS COMPULSORY COURSES

Students must achieve seventeen credits including seven credits from the following list of compulsory subjects:

- English 111, 112, 113 (one of) (2 credit course)
- English 121, 122, 123 (one of) (1 credit course)
- Geometry and Application in Mathematics 111/112 OR
Applications in Mathematics 113
- Science (one course) from any Physics, Biology, Chemistry, Environmental Science and Automotive Electrical Systems 120, Physical Geography 110, Introduction to Electronics 110, Agri-Science 120.
- Modern History 112, 113 (one of)
- One from Fine Arts/Life Role Development cluster (see below)

TOTAL – SEVEN COMPULSORY COURSES

Fine Arts/Life Role Development

Courses that are included in this cluster must contribute in a meaningful way to either of the development of artistic/aesthetic expression and understanding or to the development of interpersonal skills and human relationships.

Fine Arts

Visual Arts 110/120
Music 110 or 122
Theatre Arts 120
Graphic Art and Design 110

Life Role Development

Family Living 120
Co-op Education 120
Outdoor Pursuits 110
Health and Phys. Ed. 120
Entrepreneurship 110
Reading Tutor 120

COURSE LEVELS

- LEVEL 0** Not assigned as level 1,2, or 3. (Some “0” levels meet the requirements for post-secondary entrance – others do not.)
- LEVEL 1** Enriched courses designed for students with an exceptional talent and interest in the subject. In determining university ranking, students in Level 1 courses will be ranked higher.
- LEVEL 2** Designed for students with good study skills and average to above-average ability and interest in the subject area.
- LEVEL 3** Designed for students who are interested in the basic, practical aspects of the subject. Students who achieve success in Level 3 courses may be eligible to apply to some programs at post-secondary institutions.

IMPORTANT: *A sufficient number of requests will be required for a course to be offered (especially Level 1 and elective courses).*

TERMS:

Compulsory -

Required; needed in order to graduate

Prerequisite -

A course a student must pass before enrolling in a more advanced course. For example, Internal Combustion Engines 110 must be passed prior to taking Automotive Electrical Systems 120.

Preparation for University Entrance

Students who wish to apply to university following high school graduation should take great care in choosing high school courses for grades 11 & 12. This applies particularly to the 121, 122 and 120 courses because it is important for students to ensure that their subject choices are acceptable as entrance credits at the universities of their choice. Students must also ensure that they complete a sufficient number of these entrance credits. It is imperative to check with the universities of your choice but a general guideline would be a minimum of 5 such credits for Maritime Universities. It is an excellent idea to have at least one more credit than the minimum number required. Minimum admission averages can range anywhere from 65% to 85%.

The chart below is intended to give students and their parents some idea of which high school credits (subjects) are useful in satisfying entrance requirements to university programs. Keep in mind these are only suggestions. University admission requirements may vary among institutions.

	Liberal Arts Social Work (e.g., B.A.)	Pure and Applied Science (e.g. BSc./ Engineering)	Commerce, Business Administration	Fine Arts
<u>Required</u>	English 122/1 Math 112/1 Or French 122 1 Social Sci.	English 122/1 Trig 3-Space 12 Adv. Math/Calculus Chemistry 122/1 Physics 122/1	English 122/1 Trig 3-Space 12 Adv. Math/Calculus	English 122/1 Art 120 Music 122
<u>Recommended Electives</u>	Can. History 122/1 French 122 Political Sci 120 World Issues 120 Law 120 A 12-level Science	Economics 120 Biology 122 Co-op 120 Envi. Sci 122 Political Science 120	Calculus 120 Economics 120 Political Science 120 Law 120 French 122 Can. History 122	Can. History 122 French 122/1 Theatre Arts 120 A 12-level Science

The above chart is intended for use as a guide only. **Students must refer to individual university (and college calendars) for precise entrance requirements.** They may also consult with a guidance counselor.

Preparation for Community College and/or Private College

Students who wish to apply to college following graduation should take care in choosing their courses. **Admission requirements often differ significantly from program to program and institution to institution.** Some programs may require certain High School courses, a portfolio, a personal interview, and/or other additional qualifications.

FRENCH IMMERSION REQUIREMENTS

French Immersion Students will be eligible for a French Immersion Certificate upon Graduation by completing the following courses:

Grade 9 - Successful completion of Grade 9 French Immersion courses offered

Grade 10 - Successful completion of Grade 10 French Immersion courses offered

Grade 11 - French Immersion Language Arts 110
French Immersion Modern History 110

Grade 12 – French Immersion Language Arts 120
French Immersion World Issues 120

COURSE DESCRIPTIONS

Languages Compulsory Courses

English 111

Value: 2 Credits

Prerequisite: English 10, recommendation of Year 10 Teacher.

English 111 is a course designed for students whose aptitudes and interests in language and literature are above average. This course will provide an enriched variety of experiences with language and texts to challenge and refine students' competencies. Greater range and depth of the content plus more independent and interdependent experiences will accommodate students' interests and talents. Skills in the appreciation of literature are further developed. Students will continue to develop and maintain skills in paragraphing, sentence combining, vocabulary building, reading and formal essay writing. The completion of four pieces of process writing based on Write Traits (pre-writing, rough copy, editing, good copy) and its marking rubric is mandatory. Two of these pieces using the proper MLA format must be formal essays; one must be a research paper. There will be at least two oral presentations. These are minimum requirements and do not represent the number of writing assignments expected of students at this grade level.

Students will take this course over a full school year, and thus receive 2 credits.

English 112

Value: 2 credits

Prerequisite: English 10 (Required mark of 70% or recommendation of teacher)

Students will continue to develop and maintain skills in paragraphing, vocabulary building, sentence combining, reading and formal essay writing. The completion of four pieces of process writing (pre-writing, rough copy, editing, good copy) based on Write Traits and its marking rubric is mandatory. Two of these pieces using the proper MLA format must be formal essays, one must be a research paper. There will be at least two oral presentations. These are minimum requirements and do not represent the number of writing assignments expected of students at this grade level. Skills in appreciation of literature are developed, with a view to preparing for the 122 program. **Students will take this course over a full school year, and thus receive two credits.**

English 113

Value: 2 credits

Prerequisite: English 10

Students will continue to develop and maintain skills in paragraphing, vocabulary building, sentence combining, reading, speaking and essay writing. The completion of three pieces of process writing based on Write Traits (pre-writing, rough copy, editing, good copy) and its marking rubric is mandatory. There will be at least two oral presentations. Group and individual projects based on class work become an increasingly important part of the program. The study of a novel as well as short fiction and non-fiction will be integral in the course. **Students will take this course over a full school year, and thus receive two credits.**

English 121

Value: 1 credit

Prerequisite: English 111/112, recommendation of Year 11 teacher.

English 121 is a course designed for students whose aptitudes and interests in language and literature are above average. This course will provide an enriched variety of experiences with language and texts to challenge and refine students' competencies. Skills in the appreciation of literature are further developed; forms will range from Shakespeare to modern Canadian Literature. Greater range and depth of the content plus more independent and interdependent experiences will accommodate students' interests and talents. Students will continue to develop and maintain skills in paragraphing, vocabulary building, sentence combining, reading and formal essay writing. The completion of four pieces of process writing based on Write Traits (pre-writing, rough copy, editing, good copy) and its marking rubric is mandatory. Two of these pieces using the proper MLA format must be formal essays; one must be a research paper. There will be at least two oral presentations. These are minimum requirements and do not represent the

number of writing assignments expected of students at this grade level. **Students will take this course over a semester, and thus receive one credit.**

English 122

Prerequisite: English 112 or 111

Students will continue to develop and maintain skills in paragraphing, vocabulary building, sentence combining, reading and formal essay writing. The completion of four pieces of process writing (pre-writing, rough copy, editing, good copy) based on Write Traits and its marking rubric is mandatory. Two of these pieces using the proper MLA format must be formal essays; one must be a research paper. There will be at least two oral presentations. These are minimum requirements and do not represent the number of writing assignments expected of students at this grade level. Skills in the appreciation of literature are developed, with focus on Shakespeare, a modern play and/or novel, a literary period, novel study and poetry. **Students will take this course over a semester, and thus receive one credit.**

English 123

Prerequisite: English 112 or English 113

Students will continue to develop and maintain skills in paragraphing, sentence combining, vocabulary building, reading, speaking and essay writing. The completion of three pieces of process writing based on Write Traits (pre-writing, rough copy, editing, good copy) and its marking rubric is mandatory. There will be at least two oral presentations. Group and individual projects based on class work become an increasingly important part of the program. The study of a novel as well as the study of short fiction, non-fiction and media will be integral in the course. **Students will take this course over a semester and thus receive one credit.**

OTHER LANGUAGE ELECTIVES

Writing 110

The study of writing increases students' analytical, critical and interpersonal skills, and nurtures an appreciation for the various form of writing. It develops communication skills and intellectual discipline and prepares students for creative and critical thinking. The learning modules are:

1. The introduction to Writing Module (mandatory)
2. Writing Modules in: Narrative, Descriptive, Expository (explaining, reporting and persuading) and;
3. A teacher-designed module.

A workshop approach is used which allows students to progress at their own rate with tasks that are meaningful to them with emphasis on applying knowledge to their writing.

Media Studies 120

The goal of the Media Studies 120 course is to offer an introduction to the evolution and impact of mass media on the individual and society. The course will emphasize the content, processes and technical elements of media production. This is primarily a project-based course, so the student must be prepared to submit work in accordance with predetermined deadlines. Completion of all assignments promptly and satisfactorily is necessary for success in this course. There is a final exam valued at thirty percent of the student's grade.

French 112/French 122

Prerequisite: Recommended mark of 70% French 10 for French 112.

The French Second 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. French 112 and 122 are not appropriate for students with a background in French Immersion. Students must be ready to speak French daily. French 122 – There will be an interview at the end of the course.

French Immersion Language Arts 110

Prerequisite: French Immersion Language Arts 10

This course is designed to assure the maintenance and progression of the language skills of the Grade 10 Early and Late Immersion students. Students taking this course will be asked to write book reports and essays and study new structures and grammar rules. The grade 11 student will be encouraged

not only to speak French but to speak French correctly. Once, during the year, the students will have to prepare a speech and give it to the class. Students will also read and respond to novels. It will also cover the study of French Canadian novel “Les Filles de Caleb” on video (episode 1 to 10).

French Immersion Language Arts 120

Prerequisite: French Immersion Language Arts 110

This course pursues the same objectives as the 10 and 110 programs. The 120 program will continue to develop the students' vocabulary and writing skills by having them write essays, letters and narratives, as well as other forms of writing and participate in numerous oral activities. It will also cover the study of the French Canadian novel, “*Les Filles de Caleb*” and “*Blanche*” on video. It is hoped that the 120 course will fine-tune the language skills acquired during the previous years of the Immersion program. A provincial assessment of French language proficiency is completed during this course.

MATHEMATICS **COMPULSORY COURSES**

Geometry and Applications in Mathematics 111/112

Prerequisite: Math 10 – Mark of 70% or higher for Math 112. Recommendation of Grade 10 Math teacher for Level I.

This course (or Applications in Mathematics 113) is compulsory for high school graduation, and follows *Mathematics 10*. Students will study statistics (analysing and applying sampling techniques, sampling variability, and confidence intervals); probability (applications involving the fundamental counting principle, area models, factorials, permutations and combinations, and binomial expansions and distributions); and circle geometry (both Euclidean and analytical); as well as pursuing an independent study.

Applications in Mathematics 113

Prerequisite: Math 10. Recommendation of 65% in Math 113A to take Math 113B

This course (or Geometry and Applications in Mathematics 111/112) is compulsory for high school graduation, and follows *Mathematics 10*. Students will study statistics (analyzing and applying sampling techniques, sampling variability, and confidence intervals); probability (applications involving the fundamental counting principle, area models, factorials, and simple permutations and combinations); and decision making in consumer situations, as well as pursuing an independent study.

Mathematics Elective Courses

Functions and Relations 111/112

Prerequisite: Geometry and Applications in Mathematics 111/112.

This elective course follows *Geometry and Applications in Mathematics 111/112*, and may be taken by students in grade 11 or 12. Students will study applications of trigonometry (particularly the Sine and Cosine Laws); quadratics (exploring sequences, modelling with and analyzing quadratic functions, transformations, finite differences, and developing and applying the general quadratic formula); rate of change (including average versus instantaneous rate of change in quadratic situations); and exponential growth (modelling with and analyzing exponential and logarithmic functions, transformations, properties of exponents and logarithms, and exponential and logarithmic equations). **Needed for university entrance**

Patterns and Relations 113

Prerequisite: Applications in Mathematics 113. Recommendation of 65% in Math 113A to take Math 113B.

This elective course follows *Applications in Mathematics 113*, and may be taken by students in grade 11 or 12. Students will study applications of trigonometry (particularly the Sine and Cosine Laws); patterns (exploring and differentiating among patterns and sequences, including arithmetic, power, geometric and Fibonacci); quadratics (exploring, describing and graphing quadratic relationships to solve problems, modelling using technology, and applying the general quadratic formula); and exponential growth (exploring, describing and graphing exponential relationships to solve problems, modelling using technology, applying rules for exponents, and solving problems involving compound interest and annuities).

Trigonometry and 3-Space 121/122**Prerequisite: Functions and Relations 111/112. Math 111 to take 121.**

This elective course will be taken by students in grade 12. Students will study the algebra of 3-space (modelling and sketching points, lines and planes in 3-space, solving systems of equations both algebraically and using matrices, and developing an understanding of matrix characteristics such as identities, inverses and determinants); trigonometric functions (characteristics, transformations, reciprocals, inverses, and applications); and trigonometric equations and identities (solving equations and related problems, and proving identities). Students will work with both degree and radian measure.

Advanced Mathematics with an Introduction to Calculus 120**Prerequisite: Trigonometry and 3-Space 121/122**

This elective course is designed to follow *Functions and Relations 111/112 and Trigonometry and 3-Space 121/122*. Students will study sequences and series (finite and infinite, convergent and divergent, sigma notation, concept of a limit, and mathematical induction); advanced topics with functions (combinations and compositions, polynomial, rational, irrational, and absolute value functions, and solving equations and inequalities); elements of differential calculus (rate of change, slope of a tangent to a curve, limits, derivatives from first principles, and power rule); and complex numbers (rectangular and polar forms and graphs, operations, and De Moivre's theorem). Students should have a good working knowledge of different types of factoring in Grade 10 & 11 Math.

Differential & Integral Calculus 120**Prerequisite: Trigonometry and 3 Space 121/122 and Advanced Math 120 (A minimum grade of 75% is recommended in these two courses)**

This exciting and challenging course is designed for highly motivated academically minded students who have a strong background in mathematics that plan to further their education in a science / technology related field. The main areas of emphasis in this course are: Archimedes Method, Limits, Derivatives, and Indefinite & Definite Integrals.

SOCIAL SCIENCE **COMPULSORY COURSES**

Modern History 112**Prerequisite: Ancient & Medieval History 10**

Modern History 112 is a course for students who intend to go to college or university after high school graduation. Units of study include The End of Traditional European Society, the French Revolution, the Rise of Napoleon, the Industrial Revolution, World War I, the 1920's and 1930's, World War II and the Holocaust, and the Cold War. Assessment includes tests, essays, response papers, projects and presentations.

Modern History 113**Prerequisite: Ancient & Medieval History 10**

Modern History 113 is a course designed for students who do not intend to go to university, but may wish to attend some colleges. The major topic areas covered in this course are The Growth of Industrialization, World War I, Life in the 1920's and 30's, the rise of Communism and Nazism, World War II and the Cold War. A special unit on the Holocaust is offered with the units on Nazism and World War II.

French Immersion Modern History 110**Prerequisite: French Immersion Ancient & Medieval History 10**

The course content is the same as the English language Modern History course. However, the objectives are somewhat different. The French Immersion Modern History teacher is not only preoccupied with the knowledge of the course content but also with the development of the students' language skills. The course will cover topics such as the Great Discoveries, the

Scientific Revolution, the Age of Enlightenment, the French Revolution, Industrialism, the World Wars and the Cold War. The students will also learn about personalities who helped shape our world: Christopher Columbus, Louis XIV, Napoleon, Karl Marx, Bismarck, Hitler, Lenin and many others. Immersion students are strongly encouraged to study Modern History in French in order to continue developing language skills. There is also a mark of 10% for participation in French.

OTHER SOCIAL SCIENCES ELECTIVES

Canadian History 121

Prerequisite: Modern History 111/112

Canadian History 121 provides students, planning on attending university, with opportunities to develop skills needed for success in any university program. Materials from Canadian history are used to develop skills in areas of critical thinking, research, organization, questions, analysis, creating and proving hypotheses, essay writing and seminar presentation.

Canadian History 122

Prerequisite: Modern History 111/112

Canadian History 122 is designed to provide opportunities for students to study, discuss and write about the major events in modern Canadian history. Areas of study include pre and post-Confederation Canada; westward expansion, the Canadian identity, immigration, our role in the Boer War and both world wars, and our role in the Cold War. Assessment includes tests, projects, essays and presentations.

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 how they relate with human structures and systems. It investigates current issues that are important to Canadians, including environmental concerns. Geographic understandings and skills are integrated throughout the course.

World Issues 120 and French Immersion World Issues 120

Note: This course is offered in both French and English:

Prerequisite: Modern History 112

(Prerequisite for FI World Issues is FI Language Arts 110 and FI Modern History 110.)

The general aim of the World Issues 120 program for New Brunswick is to provide an understanding of the issues and events that have occurred (post World War II) and continue to shape the modern world. The course covers current political, economic, social and environmental concerns which are global in nature and require global solutions.

Political Science 120

The main emphasis of this program will be the Canadian political system. Also included will be a study of the American government in comparison to the Canadian. The second part of the course will deal with the "isms" of the 19th and 20th centuries. Particular emphasis will be placed on Communism and Nazism and their developments in Russia and Germany respectively. When elections are called, special attention will be given to the study of political issues, parties and candidates. Most years, this class will take a trip to the Provincial Legislature in Fredericton.

Law 120

This course covers all aspects of law—a brief history of our system, Criminal law, the law of torts, wills, and the Youth Criminal Justice Act. This course should be of interest to all students as we are all aware of the maxim "Ignorance of the law is no excuse."

Entrepreneurship 110 (May be used as a Life Role Development Compulsory)

This course is open to any year 11 or 12 student. An entrepreneurship studies program is designed to nurture the business and innovative spirit in students. Students produce a product or service in a marketplace setting; loans are available to students, repayable on market day with profits remaining with students. Among the aims of the program are:

1. assess the student's interest in aptitude for entrepreneurship activities.
2. develop entrepreneurial skills and attitudes.
3. understand the role of the entrepreneur.

4. examine a wide range of entrepreneurship career options.

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. Some of the topics covered include business organization, supply, demand, and the market, money and the banks, international trade, the stock market, and performance of the Canadian economy. This course will be of special interest to those considering a career in Business or Commerce.

SCIENCES

Biology, Physics and Chemistry courses offer level 1 credits. Four independent projects must be completed to achieve the level 1 credit. More information is available from the specific teacher. If you are interested in obtaining a Level 1 credit in a Grade 11/12 science, register for the Level 2 course and indicate to your subject teacher your interest when you begin the course.

Biology 112

(A mark of 70% or greater in Grade 10 Science is recommended.)

This is an introductory course in Biology. Reading level is equivalent to a level 2 English course. Course topics will be supplemented by laboratory work. Topics to be covered include: the Cell, Microscope, Mitosis, Introduction to Genetics, Classification, Viruses and Bacteria, Protists, Fungi, Plants and Animals. Students will do an earthworm dissection.

Biology 111

(A mark of 85 % or greater in Grade 10 Science is recommended.)

This enriched course includes the same topics as Biology 112 but requires students to increase their depth of understanding and increase their investigative skills rather than just increasing their factual knowledge. This course is intended for students with a special interest in Biology and a commitment to independent work.

Biology 113

(A mark of 60% or greater in Grade 10 Science is recommended)

Prerequisite: Completion of grade 10 Science. The reading requirement in this course is equivalent to a level 3 English course.

This is an introductory course in the study of life. Topics covered include: Life Characteristics, The Microscope, The Structure and Function of the Cell, Cell Division, Genetics, Human Sexual Reproduction, Taxonomy, Viruses, & the 6 Kingdoms of Living Things (Eubacteria, Archaeobacteria, Protista, Fungi, Plantae, & Animalia).

Biology 122

Prerequisite: Biology 112, and Chemistry 112 recommended

This course is open to eleventh and twelfth year students. It is strongly recommended that the students enrolled in Biology 122 have successfully completed Biology 112 and Chemistry 112, to have a strong foundation for a better understanding of the Biochemistry and Molecular approach to this course.

The course topics include: Biochemistry, Organic Compounds, Protein Synthesis, DNA, Photosynthesis, Cellular Respiration, Human Anatomy and Physiology. Laboratory work supplements regular classroom activities, concluding with an extensive dissection of the Fetal Pig.

Biology 121

Prerequisite: Biology 111/112 (Chemistry 112 is recommended)

This enriched course includes the same topics as Biology 122 but requires students to increase their depth of understanding and increase their investigative skills rather than just increasing their factual knowledge. This course is intended for students with an interest in pursuing Biology at the post secondary level.

Chemistry 112

(Recommend a mark of 70% or greater in Grade 10 Science.)

This course is designed to give a working knowledge of chemistry by relating various properties of matter to the basic structure of matter. Students will study such topics as the handling of numbers and calculations in science, the factor-label method of problem-solving, basic vocabulary terms, the mole concept, atomic structure, periodic properties of the elements, chemical bonding, and proper procedures in the laboratory.

Chemistry 122

Prerequisite: Chemistry 112 with a recommendation that students have a mark of 70% or higher

Chemistry 122 builds on and is a continuation of Chemistry 112. Topics to be discussed include: chemical bonding, organic chemistry, energy changes, equilibrium, and acid-base chemistry.

Physics 112

Prerequisite: Completion of Grade 10 Math and Grade 10 Science with a recommendation that students have a mark of 70% or above.

Physics is the study of matter and energy and their relationship. Physics 112 is an introductory course that looks at motion, forces, energy, work, power and wave motion. It is expected the students should have a good working understanding of math topics and skills introduced in grade 10 math.

Physics 122

Prerequisite: Physics 112 with a recommendation that students have a mark of 70% or above and completion of Math 111/112 – Geometry and Applications

Physics is a continuation of Physics 112. Topics covered are electrostatics, current electricity, application of forces in two dimensions, momentum, rotational motion, projectile motion and simple harmonic motion. A strong understanding of Math 11 especially trigonometry, algebra and quadratics is required. Physics is a required course for most post-secondary courses in science.

Environmental Science 122

Prerequisite: Completion of Grade 10 Science with a recommendation that students have a mark of 70% or above

A one-credit program for Grade 11 and Grade 12 students wishing to pursue a post-secondary education and wanting to understand environmental issues. The course provides a challenge and encourages an interest in and good attitudes towards "Spaceship Earth". Students will explore the basic concepts that keep the world alive and apply to issues that focus on the environment. The last portion of the course will deal with various environmental problems/topics such as: Tropical Rainforests, Nuclear Energy, Greenhouse Effect and The Ozone Layer. Students will be assigned required projects in this course.

Environmental Science 123

A one-credit program for Grade 11 and Grade 12 students not necessarily wishing to pursue a post-secondary education but wanting to understand environmental issues. The course provides a challenge and encourages an interest in and good attitudes towards "Spaceship Earth". Students will explore the basic concepts that keep the world alive and apply to issues that focus on the environment. The last portion of the course will deal with various environmental problems/topics such as: Rainforests, Nuclear Energy, Greenhouse Effect, and the Ozone Layer. Students will be assigned required projects in this course.

Agri-Science 120

Agri-Science 120 gives the student an appreciation of how and where food is produced. Soils, Beef, Dairy, Swine, Sheep, Farm Safety and Forages are the major units covered. There are several field trips planned throughout the year. Also, each student will have a project to do that is on an aspect of agriculture that is not covered during the year.

Physical Geography 110

The course is a combination of social/physical sciences. The main emphasis of Physical Sciences. Geography is the study of the planet earth and the processes, forces, systems and components that exist with it. Topics that are covered include Earth and space, map and atlas work, climate, atmosphere, meteorology, geology and earth's composition.

TECHNOLOGY

NOTE: Technology courses that are marked (*) may be selected as a science credit.

<i>BUSINESS TECHNOLOGY</i>

Introduction to Accounting 120

Introduction to Accounting 120 is a programme which introduces basic accounting principles used in service and merchandising businesses. Case studies and interpretation of financial data are course components. This is an excellent programme for students who plan to enter business or business-related programmes on the university or community college level, as well as, for anyone who may wish to manage, own or operate a business.

Information Technology 120

Information Technology 120 focuses on 3 major learning modules: Windows, Internet Search Techniques and the Microsoft Office Suite (MS Word, MS Excel, MS PowerPoint, and MS Access). Each of the modules will provide the student with a good understanding and introduction to the overall operations of a computer system and to some of the available software applications and functions of the workplace computing environment. This course is designed for career and personal use.

Office Administration 120

This course brings together the skills and knowledge obtained in other business education courses. Topics include office careers, human relations, communications, records management, office organization and systems, business forms preparation, job application procedures, telephone techniques, and postal services.

Advanced Keyboarding 110

This course is designed for those students who wish to build on the grade nine keyboarding program. Stress will be placed on developing greater keyboarding skills, formatting business related documents and improving editing skills.

<i>HOME ECONOMICS TECHNOLOGY</i>

Culinary Technology 110

The Culinary Technology course is an entry level hands-on food service training course. Culinary skill sets include; industry organization, standards, safety and sanitation, use of tools and equipment, and food preparation. Students will study the theory of each skill and then be encouraged to practice those skills through enterprise activities. Food Preparation areas of study may include Quick Breads, Cakes and Cookies, Vegetables, Salads, Soups, Sandwiches and Pasta.

Culinary Technology 120

Prerequisite: Culinary Technology 110

Culinary Technology 120 is a continuation of Culinary Technology 110. The grade 12 skill set include a review of skills learned in grade 11, plus: job searching skills, large equipment, food borne illnesses, and food preparation skills. Students are encouraged to learn through enterprise activities. Culinary Technology 110 must be completed before Culinary Technology 120. Students will continue

to study the theory of each skill and then be encouraged to practice each skill through enterprise activities.

Nutrition for Healthy Living 120

Through research, the science of Nutrition continues to expand. It is important to understand information provided and to make smart, healthy decisions. This course is designed to make students aware of preventative strategies to contribute to overall wellness, make healthy food choices and maintain a balance between eating habits and physical activity. Current issues relating to chronic diseases, lifestyles and food technologies will also be discussed. Students will be encouraged to use reliable information to examine their eating habits and lifestyle choices. This is an excellent course for those concerned with personal wellness, or for students who wish to pursue a career in science and nutrition or health related fields: Units include:

- a) Health and Wellness
- b) Nutrients and their functions, digestions, absorption and metabolism
- c) Health trends and issues
- d) Consumer issues
- e) Post-secondary education and careers relating to nutrition

Early Childhood Services 110

The overall aim of this course is to help students realize and appreciate the role parents and caregivers play in a child's development. Students will gain a greater understanding of how children develop emotionally, socially, intellectually and physically through the first five years of life. Through playschools planned and operated by students, students will participate in playschools for children ages 3-5 with additional observation of infants and toddlers. If you are interested in working with children as a career or becoming an informed parent, this is a course for you. Post-secondary employment opportunities will be researched as well.

Fashion Design 120

This course presents a study of the significance of clothing and textiles to individuals in our society. It looks at the exciting world of fashion from various viewpoints - past, present and future. Fashion sketching, designing, and using the serger and sewing machine form the practical part of the course. Fashion Design 120 would be of interest to students who plan to undertake studies related to the world of fashion, and students who wish to expand their knowledge of the fashion industry. Students are required to provide the necessary materials to complete a sewing project.

Child Studies 120

Child Studies 120 is an exploration of child development theories. It examines research in areas related to child well-being. The focus of the course provides a variety of ways to relate to children and some insight into the responsibilities and challenges of parenting.

This course is a "study of the most significant resource that we possess, children". Child Studies 120 is designed for students who plan to undertake further studies in a related field and for students who wish to expand their knowledge of the development of children.

Human Services 110

The overall aim of Human Services is to increase students' awareness of the importance of human service work and to prepare them for future employment and/or post secondary education. Due to the increasing elderly population and the trend towards "*at home care*" versus "*institution care*", there is a need for trained human service workers. The course will focus on the skills to prepare people to work with the elderly and the handicapped. It will include community activities.

Family Living 120 (May be used as Life Role Development Course)

Family Living focuses on the development of resourcefulness to assist students in viewing the family from various perspectives and to make informed decisions about solutions of existing and emerging problems occurring in daily life. The curriculum is designed to use such mental processes as analytical thinking, problem-solving, communicating and decision-making in a variety of human-centered experiences. Unit titles are Adolescents, Independent Adult Roles, Couple Relationships, Parenthood, and Senior Challenges.

Hospitality and Tourism 110

The Hospitality/Tourism industry is identified in Canada and particularly New Brunswick, as 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, 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 & Interior Design 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 housing and interior design.

INDUSTRIAL/VOCATIONAL TECHNOLOGY

Blueprint Reading and Sketching 110

The aims of this course are to: 1) develop students' skill in making freehand sketches and simple instrument drawings; and 2) develop student's ability to visualize and interpret blueprints related to the various trades. Students should be able to make freehand sketches using straight lines, arcs, notes, and dimensions at the conclusion of this course. They will be able to interpret symbols related to various trade areas, such as architectural, mechanical and electrical. Blueprint Reading and Sketching 110 is of particular value to students majoring in any industrial occupational area.

Computer-Aided Design (CAD) 110

An introductory course open to 11th and 12th year students who would like to know how house plans and mechanical parts are drawn. This course deals with technical drawing. No artistic skill is required; however, art skills can be improved! In-depth use of **Auto CAD LT** is a feature of this course. This course is recommended to all students, but especially to students wishing to further their education in architecture, engineering, interior design or graphic communications related careers. The Auto-Cad computer program is the standard for design and engineering.

Drafting - Computer Aided Graphics 120

This is an architectural drawing course designing your own home (drawing house floor plans and what a house looks like from the outside, elevations). Emphasis is placed on skills and techniques involved with generating computer drawings. As well as spending considerable time at the computer stations, students will be involved in developing their planning, sketching, instrument drawing and organizational skills. Course content includes, plot plans, floor and basement plans, elevations (views of the house) and wall sections.

Students who seek employment in the drafting industry or who plan to study post-secondary technology/engineering or architecture will benefit from this course.

***Introduction to Electronics 110(may be used as a Science credit)**

This course deals with basic electronic components. Through "hands-on" activities you learn to identify and determine their effect (purpose). You do this by constructing from the very basic electronic circuits to more complex circuits (Power Supplies and basic circuits). Computer simulation will be used to assist in the design and testing of your circuits. This course is valuable to students interested in the electrical occupational areas, to students planning to continue their education at a Technical or Engineering level, as well as those interested in Electronics Technology, Computer Science and Automotive Electronics. This fulfills the requirement of one science credit.

Internal Combustion Engines 110

A course designed to develop proficiency in the repair, overhaul, service and testing of the internal combustion engine. The theory of operation of the engine and its components is emphasized along with the development of manipulative skills and work habits. The students will be working on full size car engines along with the necessary equipment and tools for testing and repair. **(This is a prerequisite for Grade 12 Automotive courses Auto Electrical Tune Up and Emissions.)**

Power Train and Chassis 110

The course is designed to develop proficiency in the service and maintenance of the automobile chassis and power train. Emphasis is placed on function, repair, and replacement of components which include spring and shock assemblies, brakes, steering, wheel bearings, tires, transmissions, differentials and drive lines. The student will have the opportunity to work on automobiles with tools and equipment presently used in the trade.

Automotive Explorations 120

This is strictly an introductory course for the student not interested in taking or having taken any other automotive course. Recognizing that an automobile is generally the second highest priced purchase in one's life, this course is designed to meet the needs of students who have particular interests in the maintenance of the automobile. The course will consist of basic operation procedures on electrical components, lubrication, tires, exhaust systems, cooling systems and other basic care of the automobile.

***Automotive Electrical Systems 120 (may be used as a Science credit)**

Prerequisite: Internal Combustion Engines 110

This course is designed to introduce the student to the theory and operation of the basic service of the automotive electrical systems. The student will study the basic function of electrical system components and practice basic service procedures.

Tune-up and Emissions 120

Prerequisite or Co-requisite: Automotive Electrical Systems 120

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

Electrical Wiring 110

This course introduces residential wiring methods. Theory and skills are developed through wiring practices in house wiring (residential circuits) with attention given to the Canadian Electrical Code. Some wiring projects include wiring houses, garages, etc.. This course will be valuable to students pursuing careers in the electrical occupational area. Although there is no prerequisite or corequisite, Introduction to Electronics 110 is recommended.

Electrical Wiring 120

Prerequisite: Electrical wiring 110

This course is an extension of 110 Electrical Wiring. Topics of remodelling wiring, residential wiring, service entrances, raceway wiring, and electrical heating systems will be presented with the major emphasis being placed on the "Hands on" techniques. Some wiring projects may include wiring houses and (or) garages, etc.. This course will appeal to students with an interest in the occupational field.

Milling and Cabinet Work 120

A laboratory course which emphasizes the construction of custom mill items and cabinets found in the typical home. Students practice estimating and planning of projects as well as the maintenance of hand and machine tools. **There will be a small shop fee.**

Framing and Sheathing 110

The course is designed to develop knowledge and skills required in the construction of framed buildings. The methods, materials and skills used in framework from the foundation to the roof, including trusses, are covered.

Residential Finish and Insulation 120

A course designed to acquaint the student with the knowledge and skills necessary to complete the interior and exterior of a building. Insulation, wall and ceiling cladding and the installation of interior doors and trim are covered through "hands on" experience. Exterior wall cladding, window and door frames as well as cornice trim and roof coverings are included.

FINE ARTS/LIFE ROLE DEVELOPMENT CLUSTER

Visual Arts 110

Prerequisite: Art 10

The Art 110 course begins with a basic drawing unit followed by projects exploring different media such as painting, sculpture, and print making. Artists who have made a significant contribution to the history of art will be presented. Evaluation will be based on all assigned art projects, a sketchbook, a final autobiographical self-portrait project, and a written exam. **Students will be expected to supply basic art materials.**

Visual Arts 120

Prerequisite: Visual Arts 110

Visual Arts 120 is intended for more serious art students who have successfully completed Visual Arts 110. Drawing, painting, sculpture, pottery, and printmaking will be studied as well as art history and art appreciation. A percentage of the final evaluation will be based on an independent studio unit as well as a written exam. **Students will be expected to supply basic art materials and a sketchbook.**

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 value. The development of visual communication skills is assisted by technology.

Music 112/113

Prerequisite: Music 9

This is a general appreciation course. Emphasis will be placed on the development of practical skills in piano or guitar. This is an activity based course so students must be mature enough to meet the high level of independence and responsibility required of them. Students will be exposed to a variety of classical styles through theory and history exercises.

Music 122

Prerequisite: Music 112

This course is designed for the advanced and serious study of music for those planning to continue in music after graduation. Students will work independently on topics such as Canadian Music History, Music Criticism, Music Industry/Careers and Composition. There is also a practical component to the course.

Theatre Arts 120

Prerequisite or Corequisite: English 122 or English 123

The course is based on stage performance which includes acting, stage movement and character interpretation. Practical and hands-on activities lead to at least three stage performances. The overall goals of the course are to strengthen self-confidence, create an awareness of others, and understand the spirit of co-operation. The final exam, worth 30% of the mark, will be a monologue.

Cooperative Education 120

Value: 2 credits

Prerequisite: None (Student must take course during graduation year.)

This course provides experiential work-based education that extends the learning process into the workplace. It is a course that integrates classroom theory with employability and career skill development thereby furthering the career exploration process of youth. After completing the pre-employment course component, students are placed in work where they are provided with challenging tasks and responsibilities and learn by doing. Students spend the equivalent of two periods (2 credits) normally on a daily basis, at the workplace. The course is based upon a collaborative partnership between the school and business/industry and involves the participation of students, teachers, employers and student supervisors.

SPECIFIC STUDENT RESPONSIBILITIES FOR CO-OP EDUCATION INCLUDE:

1. Regular attendance and punctuality at school and the training station (approximately 2 hr/day).
2. Appropriate dress and behavior on the job.
3. Keeping a daily log record of hours worked and Journal
4. Satisfactory progress in learning at the training station as outlined by the specific training profile.
 - a. Explore a tentative career choice
 - b. Develop self-confidence and skills that will allow you to work effectively in the workplace
 - c. Develop greater awareness of the needs of business, industry and community services
 - d. Facilitate the transition from school to work
 - e. Become involved in an exciting, innovative way to earn school credits

Entrance to the course will be by means of an application and interview process.

Reading Tutor 120

Reading Tutor 120 pairs senior students 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 coordinate the program, 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 organizational planning and problem solving skills. **Registrations for this course will be screened.**

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. **A \$75.00 fee will be charged for this course upon acceptance for the school year 2009-2010.**

Health and Physical Education 120

Prerequisite: Students must be Grade 12.

This course is an elective one for students with special interest in physical activities and healthful living, combined with a desire to develop leadership skills which will enable them to translate their interests into dynamic personal involvement in the community. Students are required to apply for admission to the course, and applications are screened by a committee representing the Physical Education staff, the Guidance staff and the Administration of the school.

This course consists of units in management of athletic events, teaching, coaching, officiating, sports in contemporary society and selected health topics.

As a member of the PE 120 Leadership Class, each student must achieve a minimum number of 20 leadership hours. These hours place the students in a responsible role throughout the community, helping them better understand the need for leaders and their individual potential as leaders.

Challenge for Credit

Challenge for Credit is an opportunity to recognize prior learning and to acknowledge this through the granting of a credit.

This course is available to:

Any Student in grade 11 or 12 enrolled in a New Brunswick high school who, outside school have met all the learning, process, interpersonal, participation objectives or outcomes/requirements of a course.

This course is available in:

Any prescribed course in the New Brunswick public school system in grades 11 and 12.

Application

Student applies in writing to **Mr. McKiel within two weeks of the beginning of a course**. The application will include clear evidence of appropriate prior outside learning congruent with the outcomes of an identified New Brunswick course and **should be supported by at least one pedagogical professional**. The school principal in conjunction with the guidance department and one teacher and in consultation with a student and his/her parents(s) will advise on the validity of the application.

Independent Study Credit

Independent study credits are intended to:

- provide increased opportunity for individualization of programming recognize and provide credit to students who initiate and assist in the development of courses tailor to their needs, abilities, and interests
- provide opportunities for greater flexibility in the high school program

Independent Study may include:

- a prescribed course in the province of New Brunswick
- a topic or theme that extends the curriculum of a prescribed course.
- Topic or theme chosen by the student including work that combines a number of disciplines.

A student may earn one independent study credit in either grade 11 or 12. Permission for a student to pursue an independent study credit is granted at the discretion of the school within the Department of Education guidelines.

On-Line Courses

The Department of Education now offers a number of courses on-line. Students wishing to take these courses are required to work independently under the supervision of a school mentor. Students must go through an application process.

Courses available:

- Spanish 110
- Computer Science 110
- Computer Science 120
- Information Technology 110
- Digital Technology 120
- Environmental Science 121

Distance Ed Website: <http://ltt.nbed.nb.ca/dl.asp>

Students may go to the website and take a readiness quiz to see if they are suitable candidates for Distance Ed.