**MIRAMICHI VALLEY HIGH SCHOOL**



**MIRAMICHI, NB**

**TELEPHONE: 627-4083**

**MINI-BROCHURE GUIDE**

**FOR COURSE SELECTION**

**2012-2013**

# GUIDANCE

**J. McFarlane**

**P. Landry**

# Types of Courses

There are two types of courses; Compulsory and Elective. Compulsory courses are required for graduation. Elective courses are available to support your interests and future career plans.

# Course Levels

All course names include a three-digit number. The first two digits indicate the grade; the third digit indicates the level at which the course is offered. Level 1 – enriched university preparation; Level 2 – regular university, community college and private training institution preparation; Level 3 – non-technical community college, private training and business college preparation; Level 0 – not offered at another level and will vary in level of difficulty. Some qualify for university entrance and others do not.

# Distance Education

A number of courses are offered through Distance Education (DE) and may be available to meet specific circumstances. Distance Education courses are offered on-line via the Internet and require a high degree of self-discipline and commitment to self-directed learning. For further information go to <http://www.gnb.ca/0000/as/dl-e.asp> or see your Guidance Counsellor.

# Honours

Honours averages for ranking for university are based on Grade 11 courses and first semester Grade 12 courses (to include English 12 or English 11 if English 12 is in the second semester, Modern History 11, Functions & Relations 111/112, and 5 academic credits). Ranking is done only for averages over 80%.

# Award of Academic Excellence

This requires a student to have an average of 85% on the 10 credits they have taken in a single academic year. If a student is taking a level 1 or an AP course and achieves a mark of 75% or higher, one percent will be added to their average to a maximum of 3 percent. Grade 12 recipients of the Award of Academic Excellence will be identified at graduation. Recipients of the award in grades 9-11 will be recognized at a ceremony at the beginning of the next academic year.

# Immersion Programs

Students who are registering for the French Immersion Program must complete French Immersion Language Arts 11 and 12, History 11 and may select other Immersion courses as they are available.

# FIT

The Focus on Information Technology (FIT) program was developed in 2001 by the Information and Communications Technology Council (ICTC). FIT is a Canada wide program for Grades 11 and 12 students. It is designed to prepare students for a world that runs on computers. The FIT program provides high school graduates with technology and business/entrepreneurial skills and with essential workplace skills and IT related work experience.

The FIT program focuses on developing:

* Employability/essential skills
* Business/entrepreneurship aptitude
* PC maintenance skills
* Technical proficiency

Students will complete the **FIT Basic** or **FIT Plus** program, depending on the courses they choose complete.

The **FIT Basic** program can be completed with one of three possible designations: Networking, Media, or Programming.

**FIT Networking**:

Students will take the ***three core courses***:

Business Organization and Management 120

Entrepreneurship 110

Tech Support 110

**FIT Media**:

Students will take the ***three core courses plus***:

Digital Technologies 120

**FIT Programming**:

Students will take the ***three core courses plus***:

Computer Science 110

The **FIT Basic with Experience** program includes completion of the **core courses *and* Work Experience**:

Coop 120 *or* 200 hours of paid work (these hours must be approved by a FIT Supervisor or cooperating teacher).

The **FIT Basic with Certificate** program includes completion of the **core courses *and* Industry Certification**: IT Essentials, CompTIA A+, or Microsoft Office Specialist (MOS)

The **FIT Basic with Certificate and Experience** includes completion of the **core courses, Work Experience (see above), *and* Industry Certification (see above).**

The **FIT Plus** program includes completion of the core courses, Work Experience, Industry Certification and of the following\*\*:

IT Essentials

CCNA

Java

CompTIA Network +

Microsoft Office Specialist (MOS)

\*\**Note: This must be in addition to the course used for Industry Certification*

# Locally Developed Courses

The New Brunswick Department of Education only allows a student to graduate with one Locally Developed course of their 17 credits to graduate.

# Course Changes

Students, with the help of parents, are encouraged to consider carefully their choices when selecting courses. Consideration should be given to the entry requirements of various post-secondary institutions as well as your career interests. To aid in this selection, teachers and guidance counsellors are prepared to help you to choose appropriate courses. Once all students have been scheduled, course changes are difficult to accommodate.

Requests for a course change due to a failure in June will be accommodated, if space allows, and if requested at that time. Requests for a course change due to Summer School results will be accommodated, if space allows, and if requested at the time summer school ends.

Requests for course change initiated once school opens in September must be submitted using a Guidance Request Form. These requests will be considered if supported by academic need, graduation requirements, post-secondary admission requirements and/or career direction providing there is available space in the course(s) requested

# Graduation Requirements

In order to graduate, you must complete the Grade 9-10 program and pass 17 out of 20 credits in Grades 11-12. Five of these credits must be Grade 12 courses. Of the 17 credits, seven are compulsory courses that you must take. The remaining ten are elective credits. The pass mark for all courses is 60%. You must also pass the English Language Proficiency Assessment administered during Grade 9.

# Compulsory Courses

English 11A **(1 credit)**

English 11B **(1 credit)**

Geometry and Applications 111/112 **or** Applications in Mathematics 113 **(1 credit)**

Science **(1 credit)** (see list of options below)

History 11 **(1 credit)**

Fine Arts & Life Role Development **(1 credit)** (see list of options below)

English 12 **(1 credit)**

**Science Options Fine Arts & Life Role Dev. Options**

Physics Career Explorations 110

Biology Cooperative Education 120

Chemistry Entrepreneurship 110

Environmental Science Family Living 120

Physical Geography 110 Graphic Art & Design 110

Automotive Electrical Health & Physical Education 120

Systems 120 Music 112, 122

Outdoor Pursuits 110

 Reading Tutor 120

 Theatre Arts 120

 Visual Arts 110, 120

**TENTATIVE CURRICULUM OFFERINGS**

### ENGLISH

#### English 111 A

This is a course requiring above average ability, and achievement in English. The course deals with poetry, prose and drama with an emphasis on the writing process and oral communication. A compulsory examination is written in this course.

#### English 111 B

This course is a continuation English 111 A. It is a course requiring above average ability, and achievement in English. The course deals with poetry, prose and drama with an emphasis on the writing process and oral communication. A compulsory examination is written in this course.

#### English 121

This is a course requiring above average ability and achievement in English. The course deals with poetry, prose and drama with an emphasis on the writing process and oral communication. A compulsory examination is written in this course.

#### English 112 A

This is an academically orientated program concentrating on the novel and short stories. A compulsory examination is written in this course.

#### English 112 B

This course is a continuation of English 112 A. It is an academically orientated program concentrating on drama, the formal essay, and poetry. A compulsory examination is written in this course.

#### English 122

This is an academically orientated program concentrating on literature and writing skills. A compulsory examination is written in this course.

#### English 113 A

This is a general English program emphasizing reading development and basic writing skills. A compulsory examination is written in this course.

#### English 113 B

This course is a continuation of English 113 A. It is a general English program emphasizing reading development and basic writing skills. A compulsory examination is written in this course.

#### English 123

This is a general English program emphasizing reading development and basic writing skills. A compulsory examination is written in this course.

#### Writing 110

This is a course in developing writing skills through practice and workshop techniques with other students. It is designed for both the creative writers and for those who demonstrate a definite proficiency in the writing process. Much time is spent writing in class and focusing on using peer editors to encourage and guide “works in progress”.

#### Theatre Arts 120

This is an elective course that deals with the major aspects of theatre performance including acting, stage craft, play management and theatre history. Students are required to perform in public and must be prepared to memorize. \*Fine Arts/Life Role Development Option

#### Journalism 120

This course is designed for students to develop communicative skills, to learn the principles of journalistic expression and the practice of both. Journalism is a creative process involving such skills as interviewing, journalistic writing, and photography. Students learn to identify or generate story ideas, to gather information pertinent to the stories and to write and edit their stories. Part of this program is the preparation of the school newspaper. This includes meeting deadlines and producing a viable product.

#### Reading Tutor 120

This course presents a unique opportunity for grade 12 English students who are well organized, independent and committed. Under the guidance of the instructor, tutors work on a one to one basis with students who are seeking to raise their reading level/improve their writing skills (may be teaching English to students from other cultures). Tutors learn basic reading theory and teaching techniques, and are assigned one student to work with for the term. Tutors must commit to being present each and every day and to preparing daily tutoring activities because the student depends on the tutor. This is a chance to make a positive contribution to our school, to acquire leadership skills, and to experience a real-life teaching situation. This course is especially recommended for those planning careers in education, guidance, or the social services.

#### Debate 120

This course is designed to help students develop their logical thinking skills through debate. Students will be exposed to the three forms of debate and practice debating in each of these forms. Students will be required to research opposing sides of arguments, as well as perform impromptu debates on a variety of topics. Much oral work and research are expected. \*Locally Developed Course.

#### Canadian Literature 120

Students in this course encounter the characters, ideas, values and experiences that contribute to Canada's unique and global nature. The organizing center 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 Humour; Canadian Drama; Canadian Poetry; The Canadian Short Story; The Canadian Essay.

#### Media Studies 120

This is a course that 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.

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.

#### Broadcast Journalism 120

Broadcast Journalism 120 is an enriched course open to selected students from the high schools in School District 16. This is a two-credit course available to students who are recommended by their English teachers. These students should be mature, independent learners with excellent communication skills who may be interested in a career in journalism.

Students will gain hands-on experience in writing, editing and producing news stories for an on-line newsletter and also for radio and television broadcast. Students will serve as reporters for the various schools and learning centers in District 16. They will be free to visit their assigned schools (with parental consent) to get information for a weekly newsletter, radio show and television production.

\*Locally Developed Course.

### SOCIAL STUDIES

#### Native Studies 120

This course is designed to promote understanding of the Micmaq and Maliseet perspectives on life in the Maritime Provinces. Using the text Maritime Native Studies, students will learn about language and culture, religion and spirituality, ancient times, arts and crafts, the land and the Micmacs of the Miramichi region. . This course offers a good look at the culture and lifestyle of the original Canadians. This course is open to all interested students. This is a university recognized credit.

#### Modern History 112

This is a compulsory course for academically orientated students dealing with the historical development of modem Europe since Napoleon and the French Revolution.

#### Modern History 113

This is a compulsory general history course dealing with events of the twentieth century.

#### Canadian History 122

This is an academic course of Canadian studies concentrating on the development of Canada since Confederation. This is a university recognized credit.

#### World Issues 120

This is an academic course that is sometimes accepted for university entrance. This course explores the idea that the world has become a global community with major obstacles to overcome. Students will compare the rich northern nations with the poor southern countries; study environmental problems; explore the Population "explosion"'; examine earth's depleting resources; plus look at current social and political issues.

#### Law 120

This is an academic course that is sometimes accepted for university entrance. It is taught as a university preparatory course. This course is designed to help students become more aware and appreciative of the law and how it applies to them. Students are expected to read and study related legal materials.

#### Political Science 120

This 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 the Canadian system). This is a university recognized credit.

#### Economics 120

This course 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. This is a university recognized credit.

#### Physical Geography 110

This course provides a general introduction and includes such topics as: The Earth in Space, Measuring the Earth’s Size and Shape, the Biosphere, Earthquakes and Volcanoes, World Population Pattern, Protection of the Earth’s Environment and several units in meteorology. The course is particularly recommended to students planning to pursue university or college programs in forestry, geology, civil engineering, urban or rural planning or any field related to the mining industry.

#### Canadian Geography 120

This course is designed to provide an examination of the basic patterns of Canadian Geography, both physical and cultural. Students are encouraged to look for these patterns and relationships in order to develop an understanding of geographical concepts - like that of a region. This is a university accepted course.

### MUSIC

#### Music 112

This course involves increased demands on ability of a major instrument, history and theory. NOTE: Participation in Concert Band and/or Jazz Ensembles is an element of this course. \*Fine Arts/Life Role Development Option

#### Music 120

This is a preparation course for university level music: performance, history and composition. There is a Band element also. Course selection is subject to approval. This is a university preparatory class. \*Fine Arts/Life Role Development Option

#### Elementary Music Methods 120

This is a “selective elective” course that teaches students the skills of planning, preparing, leading and evaluating music lessons to elementary children combined with a work placement at an elementary school.

Enrolment is limited to 18 and preference will be given to Grade 12 students. Students will be considered for this course by application and audition. \*Locally Developed Course.

### ART

#### Art 110

This course is designed to improve student skills and knowledge in a variety of areas: drawing, painting, color theory, sculpture, art history, sketchbooks. \*Fine Arts/Life Role Development Option

#### Art 120

This course is designed for motivated art students and those considering attending art school in the future. Studio projects will demand technical excellence and originality. Students will keep a sketch book and notebook and are required to supply some of their own materials. Art 110 is a prerequisite for Art 120. \*Fine Arts/Life Role Development Option

#### Graphic Art And Design 110

This course is designed to provide students with a basic understanding of design and layout which will foster confidence in their own abilities. Throughout the course students will be asked to take other individual ideas and requirements and make them visual and appealing using an assortment of hardware and software programs such as Adobe Photoshop, Adobe Illustrator and other photo manipulation tools to achieve desired effects with graphic images. Good attendance is extremely important in this course.

Students will work both independently and within groups to develop various graphic projects starting with fundamental progressing on through advanced procedures.

Areas of study will include:

 The History of Graphic Arts

 Elements of Visual Perception

 Principles of Visual Perception

 Composing the Image Optically

 Creating a Permanent Record

A basic understanding of file management would be an asset but not a necessity, as well as a willingness for the student to explore their creative side is beneficial. Students considering a career in a graphic arts related area would benefit greatly from this course.

An interest/ability in art and drawing is an asset.

\*\*Fine Arts/Life Role Development Option

#### Visual Arts Portfolio 120

This is an independent study in visual arts for students who wish to pursue studies in art or design. Students MUST have successfully completed Visual Arts 110 and 120 before beginning this course. Students will be placed in a classroom with an art 110 or 120 group where they will work independently on projects which they have designed with their teacher. The end product of this course will be a portfolio of the student’s work.

### MATHEMATICS

#### Geometry And Applications In Mathematics 111/112

This course (or *Applications in Mathematics 113*) 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, permutations and combinations and binomial expansions and distributions); and circle geometry (both Euclidean and analytical). This course is designed for post-secondary bound students.

#### Functions And Relations 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, modeling 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 (modeling with and analyzing exponential and logarithmic functions, transformations, properties of exponents and logarithms, and exponential and logarithmic equations). This course is intended to prepare students for post-secondary studies.

#### Applications In Math 113

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.

#### Patterns And Relations 113

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, modeling using technology, and applying the general quadratic formula); and exponential growth (exploring, describing and graphing exponential relationships to solve problems, modeling using technology, applying rules for exponents, and solving problems involving compound interest and annuities).

#### Trigonometry And 3-Space 121/122

This elective course will generally be taken by students in grade 12 planning to pursue post-secondary studies at the College or University level. Students will study the algebra of 3-space (modeling 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, an introduction to radian measure, and proving identities). This course is required for all Science, Business and Engineering programs at the post-secondary level. Most institutions will require a minimum of 65% in this course to gain acceptance to their programs.

#### Advanced Mathematics With An Introduction To Calculus 120

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 notations, 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). This is an advanced level course that requires students to have a firm understanding of mathematical processes and ideas. This will be an essential course for students planning to enter Science, Business, or Engineering programs at the post-secondary level.

#### Differential And Integral Calculus 120

***Prerequisite: Math 120/121 Advanced Math with Calculus AND students have completed or are* *registered in Math 122/121 Trigonometry and 3-Space.***

This course will extend students knowledge in the area of Calculus by studying the following topics: limits, derivatives, curve sketching, and integration. This course is recommended for students (entering university Math/Science based fields of study) who want to be more prepared for the first year calculus courses. \*Locally Developed Course.

#### Stats Concepts 120

This elective course follows Geometry and Applications in Mathematics 112, and may be taken by students in grade 11 or 12.  Students will study the science of conducting studies to collect, organize, summarize, analyze, and draw conclusions from data.  The course will follow a similar layout to a first year university course and it is designed to help all students that will be required to take a university stats course for their degree.  It would be great for nursing, business, psych, engineering, sciences, etc.

\*Locally Developed Course

**Financial and Workplace Mathematics**

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into the majority of trades and for direct entry into the work force. Topics include geometry, financial mathematics, number, algebra, measurement, statistics and probability.

**Foundations of Mathematics**

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of theoretical calculus. Topics include proportional reasoning, logical reasoning, geometry, relations and functions, financial mathematics, statistics, and probability.

**Pre-calculus**

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus. Topics include algebra and number, trigonometry, relations and functions, function toolkit, limits and derivatives.

### SCIENCE

#### Biology 113

This is an introductory general interest course covering such topics as the cell, nutrition, animal tissues circulation, respiration, excretion, the nervous system, behavior, functional disorders, health, reproduction, immunity, genetics, drugs and alcohol.

#### Biology 112

This is an introductory course based on four units of study. The principle emphasis is on energy, water, equilibrium and systems. The units of study are: 1. Biodiversity; 2. Energy Flows and Cellular Matter; 3. Energy and Matter Exchange by Human and Other Organisms; 4. Energy and Matter Exchange in Ecosystems; 5. Animal Kingdom; 6. Digestion, Circulation, Blood and Immunity and Respiration.

#### Biology 111

This course is designed for students who have a strong science background and are interested in pursuing a post-secondary education related to Biology. Subject material will be presented by lecture and students should have good organizational skills. Laboratory experiments require the ability to think critically and to solve problems using reason.

#### Biology 122

This is a continuation of Biology 112. It is based on four units of study. The principal emphasis is on exchange, diversity, equilibrium, systems and models. The units of study are: 1. Systems Regulating Change in Human and Other Organisms; 2. Reproduction and Development; 3. Chromosomes, Genes and DNA; 4. Change in Populations, Communities and Species; 5. Protein Synthesis. (Biology 112 would be an asset and is recommended but is not a prerequisite.)

#### Biology 121

This course is designed for students who have a strong science background and are interested in pursuing a post-secondary education related to Biology. Subject material will be presented by lecture and is technical in nature requiring strong problem-solving skills. Laboratory experiments require critical thinking, sound reasoning and commitment to completion and success.

#### Environmental Science 122

This course is designed for the student who plans a post -secondary career in a scientific, technological, or society related field. It emphasizes process skills in problem solving and in developing community skills using individual or group activities. Report writing, discussing and analyzing current environmental issues and developing good research skills are an integral part of this course.

#### Environmental Science 123

This course is designed for the student who wishes to learn about the environment but who may not do further studies in this field after high school. It is designed to leave the student with an awareness that the world is finite and that we must care for our planet. Basic concepts of ecology, with reference to applications around us, will be developed. Through varied activities, the student's awareness for the scientific and technological world that influences their society will be enhanced.

#### Chemistry 111

This is the first of a two-semester sequential course recommended for students who plan to pursue science/engineering courses at the university level. Students choosing this course have a genuine interest in science as well as an above average ability in mathematics. Students will be expected to engage in individual projects and research.

#### Chemistry 112

This is the first of a two-semester sequential course designed for students who plan to pursue nursing, medicine, science or engineering courses at the university level or similar technical programs at community college. Proficiency in science and mathematics is required. Level two mathematics is highly recommended.

#### Chemistry 122

This is the second of a two-semester sequential course recommended for students planning to pursue nursing, medicine, science or engineering courses at the university level or similar technical programs at community college. Prerequisite: Chemistry 112.

#### Chemistry 121

This is the second of a two-semester sequential course recommended for students who may be pursuing science or engineering at the university level. Students choosing this course have a genuine interest and a better that average ability in science and mathematics. The teaching method emphasizes laboratory experiences and teacher demonstrations. Students will be expected to engage in individual projects and research.

#### Physics 111 – offered 2nd semester only

This is a course designed for students who may be pursuing science/engineering courses at the university level. Students choosing this course should have a genuine interest in science and be taking enriched (level 1) mathematics. Students planning on writing the Advancement Placement exam must take this course.

Students choosing this course do not have to write the Advanced Placement Physics exam in grade 12.

#### Physics 121– offered 1st semester

This course is recommended for students who may be pursuing science/engineering courses at the university level. Prerequisite: Physics 111 or high honours in Physics 112. Students planning on writing the Advanced Placement exam must take this course and Science 122.

#### Physics 112

This is the first of a two-semester sequential course designed for students planning to pursue science/ engineering courses at the university level or who plan to enroll in a technical program at community college. Proficiency in science and mathematics is required. Level two mathematics is highly recommended.

#### Physics 122

This is the second of a two-semester sequential course recommended for students planning to pursue science/engineering at the university level or who plan to enroll in a technical program at community college. Prerequisite: Physics 112.

#### Science 122 – offered 2nd semester only

This is a one-semester course designed for students who plan to pursue science/engineering courses at the university level. Prerequisites for this course are the Chemistry and Physics courses outlined below. The course deals with the following topics:

1. Optics
2. Magnetism

 3. Fluid Mechanics

 4. Thermal Physics

 5. `Nuclear Physics

 6. Redox Reactions

 7. Electrochemical Cells

 8. Electrolytic Cells

Students planning on writing the Advanced Placement Exam in Physics must take Science 122.

#### Ocean Sciences 120

This is a comprehensive course that focuses on the scientific study of the biological, physical, and environmental aspects of marine science. Students are challenged to assess real world issues concerning marine conservation, protection, and support.

\*Locally Developed Course

### LANGUAGES

#### French 112/122

This is a two year sequential program for students with previous knowledge of French as a second language. It is designed to bring the student to a level of communicative efficiency useful in daily life in a French environment.

#### French Immersion Language Arts 110/120

This is a required course for French Immersion students where the development of the four language skills will be treated under vocabulary and oral expression/comprehension, literature, grammar, written expression and culture. This is required to graduate from the French Immersion program.

#### French Immersion Modern History 110

This is a French Immersion course for students taking Modern History. This is required to graduate from Immersion program.

#### French Immersion World Issues 120

This course 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 future of the global community is also examined. Accent will be placed on a project/research based approach in French. Pre-requisite French Immersion History 110 or equivalent.

###  HEALTH AND PHYSICAL EDUCATION

#### Physical Education 110

This course is for students wishing to increase their knowledge and understanding of physical fitness, principles of training and skill components of physical activity. Students will be required to obtain a basic skill set in selected activities. These objectives will be accomplished mainly through basketball and physical fitness in Semester 1 and volleyball, badminton and personal fitness in Semester 2. This course requires excellent participation and attendance in the 9/10 Physical Education programs as a pre-requisite.

\*Locally Developed Course

#### Advanced Training Principles 110 (Fitness)

Health and physical education 110 is a course which develops and improves ones physical fitness level.  The course is designed for students to learn about training and the importance of physical fitness for life.  Daily training will include;  daily running, circuits, weight training, various fitness tests etc.

\*Locally Developed Course

#### Health And Leadership In Physical Education 120

This course is intended for students who wish to develop Leadership Skills in Community Programs for managing, teaching coaching and officiating. It involves selecting a volunteer Project in the community, on your own time (journal must be kept) and the course requires (one month) in the pool doing Water Safety and First –Aid Skills.

This course is based on team work. If you have the desire to work in a group setting towards helping others then this course is for you. This course requires excellent participation and attendance in the 9/10 Physical Education programs as a pre-requisite. \*Fine Arts/Life Role Development Option

#### Outdoor Pursuits 110

This course is a “selective-elective” with 9/10 physical education as a pre-requisite. The course will develop personal outdoor recreation skills based on environment ethics. Students must satisfy a requirement to complete a series of out-trips that may be day-trips, overnight 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

#### Business Organization and Management 120

The course is designed to provide the student with skills in leadership, critical thinking and problem solving. Students will develop communication and collaboration skills while working on project based learning assignments. Through this course students will develop 21st century skills which will help students to become creative innovators who will be able to quickly adapt to an ever changing business environment. While students are engaged in their learning they will develop digital literacy skills. Main topics o be covered include Personal Finance, Ethics, Business Environment, Management, and Human Resources.

#### Computer Science 110

 This course is essentially an introduction to the computer language Visual Basic. It focuses on developing the knowledge, skills and attitudes to solve real world problems via computer programming. Specifically this course focuses on problem solving, technological competence and communication. This course will prepare the student to make an educated decision with respect to career opportunities at the post-secondary level.

#### Computer Science 120

This course will teach programming using the computer language Java in a Windows environment. This course may help students planning on taking Computer Science / Engineering at University or Community College. Computer Science 110 is highly recommended.

#### Career Explorations 110

This is a two credit experiential course that offers a sequence of activities aimed at furthering the career exploration and career skill development of youth in Grades 11-12. Through a combination of in-school course work and out-of-school workplace learning experiences, students will explore personal characteristics, learn about and consider various career options and learn about the world of work. Students will develop essential skills, identify potential learning and career pathways and develop a self-directed school-career transition plan. Students will be considered for this course by application and/or recommendation. \*Fine Arts/Life Role Development Option

#### Cooperative Education 120

This course is open to all Grade 12 students who wish to acquire on the job experiences in an area in which they plan to further their education. Students have to apply in advance for this course, have acceptable grades, show maturity and have good attendance. Students will be considered for this course by application and interview. (This is a two-credit course.)

\*Fine Arts/Life Role Development Option

#### Multimedia Design 120

The course consists of hands-on computer instruction in writing, storyboards, video production, editing, designing, and printing, using programs like Adobe Premier and MGI Video Wave. Students will follow the course through the history of Multimedia Design, looking at the different formats including MPEG, AVI., and MOV to name a few. Study will include capturing and editing digital video as well as editing and adding sound.

Students will also study Webpage design including animation gifts and graphics including JPG. and GIF . In addition, other software packages like Adobe Photoshop, Adobe Illustrator, and Fruityloops will be examined. The course will conclude with a final multimedia project of the students own design. \*Locally Developed Course.

#### Computer Aided Design 110

This course is designed to assist students in understanding the relevance and importance of Computer Assisted Drafting and Design as it related to industry today. Students will use the widely popular AutoCAD program where skills in creating 2D drawings will be the focus. Students will be expected to become familiar with the various procedures required to complete technical drawings that include Isometric Drawings that allow for the creation of 3D drawings and Orthographic Projection Drawings that are used to illustrate floor plans, wall sections and elevation drawings. It will be important that students understand X, Y coordinates as well as Polar Co-ordinates. This course will be worthwhile to students considering the Civil Technology Program at NBCC or other related programs, as well as Bachelor of Science in Engineering or related courseware.

#### Drafting – Computer Aided Graphics 120

Students selecting this course are strongly encouraged to first complete Computer Aided Design 110. This course is designed as a continuation of the material previously covered in the 110 course. Further exploration of 2D principles will be visited, in addition to a number 3D modeling procedures. This course will progress to include X, Y and Z Co-ordinates and rendering. As aptitude for 3D space will be needed and/or developed. Students considering 3D Games or Animation at the NBCC might strongly consider this course. (Prerequisite: Computer Aided Design)

#### Entrepreneurship 110

This is course in the study of the skills involved in owning and operating a small business. Students will be required to work in small groups to plan and operate a business venture. \*Fine Arts/Life Role Development Option

### INDUSTRIAL

**These courses are open to all students. Marks are based on attitude, work habits, attendance, major tests and project work and in some cases, exams. Female students are welcome to take these courses**.

#### Internal Combustion Engines 110

This is a course designed to introduce the basics 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.

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#### Power train and Chassis 110

This is a course designed to introduce the basics in the service and maintenance of the automobile chassis and power train.

#### Automotive Electrical Systems 120

This is a course designed to introduce the student to the theory of operation and basic service of the automotive electrical systems. The students will study the function of electrical system components and practice basic service procedures. Suggested Pre-requisite: Internal Combustion Engines 110. This course meets the Science requirement for graduation.

#### Tune up And Emissions 120

This is a course designed to provide students with a practical approach to diagnosing, servicing and repairing of automotive fuel and emission systems and to performing engine tune-ups. Suggested Pre-requisite: Internal Combustion Engines 110 and Automotive Electrical Systems.

#### 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.

#### Framing and Sheathing 110

This course combines classroom instruction with hands-on activities to develop the skills and knowledge associated with the framing in or shell construction of a typical single family dwelling. Lab safety as well as hand tools and equipment safety will be emphasized. There is a final exam in this course but exemptions do apply.

#### Mill And Cabinet 120

This is a course designed to introduce students (through classroom instruction and hands-on activities) to the materials and processes involved in the manufacturing and installation of cabinets and interior finish components found in a typical house. Lab safety as well as hand tools and equipment safety will be emphasized. There is a final exam in this course but exemptions do apply. (Suggested pre-requisite: Framing & Sheathing 110)

#### 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.

#### Metals Fabrication 110

This is a practical course involving both classroom and lab activities. The methods of fabricating and fastening components will be explored as will gas and electric welding, oxy-acetylene cutting, brazing and soldering through the completion of compulsory projects. Lab safety as well as hands on tools and equipment safety will be emphasized. There is a final exam in this course but exemptions do apply.

#### Metals Processing 110

This is an introductory course involving classroom instruction and hands-on activities relating to industrial practices in the metals industry. Includes bench work, basic machine work, lathe operation, drill press and other machines. Lab safety as well as hands on tools and equipment safety will be emphasized. There is a final exam in this course but exemptions do apply.

### FAMILY STUDIES

#### Culinary Technology 110

This 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 practice those skills through enterprise activities in the student operated Culinary Café.

#### Culinary Technology 120

This is a more advanced course in food preparation and technology.

#### Early Childhood Services 110

This course helps students prepare for a career in teaching and/or in child care. Students work in a group setting where they will be involved in planning curriculum, preparing lessons, organizing schedules required in the operation of a playschool for preschoolers. The student will learn practical skills for guiding children as they establish rules and handle daily activities. This is an independent course where self motivation/direction is required. Attendance is critical.

#### Early Childhood Services 120

This is a more advanced course on child and daycare services.

#### Family Living 120

This course is designed to introduce students to the full scope of family living by providing them the opportunity to explore and critically examine topics which affect them as individuals, family members and parents of tomorrow. \*Fine Arts/Life Role Development Option

#### Housing And Design 120

This course is designed to interest the student in the Canadian housing industry, interior design, construction and real estate.

#### Child Studies 120

This course is an in depth study of children from conception to school age (6). Learning about children and their development can improve your understanding both of children and yourself. It can also help you think about your future in relation to parenthood and career choices.

#### Fashion Technology 110

This course focuses on the present day fashion, textile and apparel industry.  Students will acquire introductory sewing skills, advanced sewing skills and use of current sewing machine technology.  Creativity and individual style can be developed and experienced through a variety of sewing projects of the student’s choice.   Students will explore the textile industry through the art and science of fabric design.  Entrepreneurship will be fostered through the development of a student directed business providing a variety of sewing skills.  Mending, repairs, alterations, and hemming are some of the skills that will be provided and mastered.  This is a practical course providing all students with the opportunity to develop sewing skills regardless of skill level.

#### Fashion Design 120

This course provides students with the opportunity to acquire introductory sewing skills or equally expand and develop advance sewing skills if desired.  Fashion illustration and the fashion design process will occur through the application of the elements and principles of design.  These elements and principles will be applied to fashion design, merchandising and marketing, fashion photography and fashion show production.  Additional units may involve a detailed focus on Fashion Photography, Merchandising, Extreme Fashion Design, Fashion Show Production and Optional Advanced Sewing Skills.  This is a practical course open to all skill levels.

#### Hospitality And Tourism 110

In this course students will be introduced to the Hospitality and Tourism Industry, particularly in the Atlantic tourism region. They will learn the workplace skills, knowledge, attitudes and marketing strategies for this industry, as well as safety skills. Various career paths for this industry will be explored.

#### Nutrition For Healthy Eating 120

This is a university level course. This course is excellent for those concerned with personal wellness or for students who wish to pursue a career in Science and Nutrition, Nursing, Dietetics or the Social Sciences.

Nutrition for Healthy Eating 120 is designed to help students understand information to help make them healthy choices. They will become aware of strategies that contribute to overall wellness and strategies needed to maintain a balance between eating habits and physical activity. The roles of nutrients in the body-digestion, absorption, transportation of nutrients and metabolism are explained. Chronic conditions, lifestyles and food technologies will be discussed. Students will be encouraged to use reliable information to examine their eating habits and lifestyle choices.

#### Human Services 110

This course will focus on the skills needed to prepare you to work with the elderly and the handicapped, whether they are institutionalized or being cared for in their own home. The overall aim of Human Services is to increase your awareness of the importance of human service work and to prepare you for the future employment and/or post-secondary education. You will learn practical skills needed to work with and care for special needs students through participation in activities with students in our school.