# MIRAMICHI VALLEY HIGH SCHOOL



MIRAMICHI, NB

**TELEPHONE: 627-4083** 

MINI-BROCHURE GUIDE FOR COURSE SELECTION

2019-2020

# **GUIDANCE**

M. O'Donnell- Students Last Names A-L

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## **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. Courses in French Immersion are available as well.

## 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 85% 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.

## FRENCH IMMERSION PROGRAMS

To graduate as a French Immersion (FI) student recognized by the province of New Brunswick, students must take a required number of FI designated courses. Specifically, 50% of the course load in grade 9 and 10 must be FI designated. They must also take a minimum of 5 courses with an FI designation in grades 11 and 12.

Students who participate in the French Immersion program and complete French Immersion Language Arts (FILA) 11, FI Modern History 11, FILA 12 and FI World Issues 120 will receive a French Immersion Completion Certificate upon graduation.

## **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 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 11 ( 2 Credits)
Math 11 (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)
4 Grade 12 Level courses
6 other courses at any level

## **SCIENCE OPTIONS**

Physics Human Physiology Chemistry Environmental Science Physical Geography 110 Automotive Electrical Systems 120

## FINE ART & LIFE ROLE OPTIONS

Cooperative Education 120
Entrepreneurship 110
Individual and Family Dynamics 120
Nutrition for Healthy Living 120
Graphic Art & Design 110
PE Leadership 120
Music 112, 120
Outdoor Education 110
Health & Wellness PE 110
Reading Tutor 120
Theatre Arts 120
Visual Arts 110, 120

## **ENGLISH**

## **ENGLISH 112**

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

# **ENGLISH 113**

This is a general English program emphasizing reading development and basic writing skills. 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 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".

# **DRAMATIC ARTS 110**

Dramatic Arts 110 is a performance-based course designed to encourage students to develop their dramatic skills through exposure to a variety of challenges and opportunities that require creative and higher-order thinking skills. In this course, students will be required to work individually, independently, in small groups, and in larger ensembles. Projects and research activities are encouraged to be activity-based experiential learning. Students will be exposed to a wide range of dramatic conventions and styles for the purpose of creating, analyzing, conducting research, and performing. Students may be required to work outside of the classroom (including individual/ensemble practice and studio rehearsal) as the manifestations of theatre activities are many and varied. Students are also strongly encouraged to experience extracurricular and community-based opportunities.

# THEATRE/DRAMATIC 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. Theatre/Dramatic Arts 120 expands on the skills acquired in Dramatic Arts 110. While students are not required to take Dramatic Arts 110 as a pre-requisite it would be beneficial. In Theatre/Dramatic Arts 120, students will be expected to have more involvement and ownership of their learning and subsequent assessment. \*Fine Arts/Life Role Development Option

# **ADVANCED THEATRE ARTS 120**

This course provides a further opportunity for students to develop their understanding of theatre. The focus will be on the study and interpretation of various genres of theatre and styles of acting as well as the development of good performance skills on stage. This advanced course allows for a more in depth study of key areas of theatre and an opportunity to spend more time on those areas. It provides a more immersive experience for students with a keen interest in theatre or performance of any kind.

\*Locally Developed Course

# 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 design, layout, creative 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.

# **READING TUTOR 120**

Rationale: This course has been established for the purpose of providing assistance in achieving an acceptable standard of literacy for struggling readers and/or enabling speakers of other languages to improve their speaking, listening, reading, and writing skills in English.

Process: Grade 11\12 MVHS tutors are introduced to various techniques to assist struggling readers and students of other languages. Tutors are also immersed in the techniques of teaching. A variety of pertinent topics is explored, including how students learn, how comprehension is enhanced through experience, how learners have different styles, and how to teach and evaluate writing.

## **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.

# GOALS, GROWTH, AND GRIT 120

Goals, Growth, and Grit: Skills for Success 120 will provide students with skills in three main areas - positive and productive mindsets and behaviours, organizational patterns, as well as functional and critical literacy.

Within the broad learning expectations of the course, specific success skills, strategies, and practices will be explored. Students will be supported to apply and transfer these skills, strategies, and practices to other courses and real-life situations. Students will learn how these support postgraduate pursuits.

# **SOCIAL STUDIES**

# **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.

# **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.

# **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.

## **SOCIOLOGY 120**

This course will introduce students to the basic theoretical development and scientific foundation of this discipline. Students will develop the ability to examine social phenomena objectively and increase their understanding of the components and dynamics of social groups as they affect culture. Many interesting topics such as culture, socialization, deviance and social control, religion and social movements will be covered. Each student will be required to prepare and deliver a seminar to the class.

## **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

## MENTAL WELLNESS THROUGH MUSIC 120

This course explores various areas such as song analysis, linking mental wellness to music, principles of music therapy, lyric creation, music development, sound recording, and performance/using music as therapy, and instrument building and video production if time allows. \*Locally Developed Course

## **ART**

#### VISUAL 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

# VISUAL 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.

## **MATHEMATICS**

## FINANCIAL AND WORKPLACE MATHEMATICS 110

This is a compulsory course that meets the graduation requirement of ONE Mathematics course at the grade 11/12 level. This course will develop basic and practical skills that will ensure students develop basic life skills to deal with money, measurement, statistics, and basic number operations.

# FINANCIAL WORKPLACE MATHEMATICS 120

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

#### FOUNDATIONS OF MATHEMATICS 110

This course has the following pre-requisites: Geometry, Measurement & Finance 10 AND Numbers, Relations & Functions 10. This course is designed to ensure that students obtain the necessary foundation to pursue post-secondary programs that may require a Mathematical background. Upon completion, students may continue on to further study mathematics by enrolling in the Pre-Calculus 11 course. Otherwise, students will be able to take either the Workplace/Financial Mathematics 11 or Foundations of Mathematics 12.

## FOUNDATIONS OF MATHEMATICS 120

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

## PRE-CALCULUS 110

The <u>elective</u> course follows *Foundations of Mathematics 11*, and is the first course in the Pre-Calculus pathway that can be selected by students. 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.

## PRE-CALCULUS 12A

This <u>elective</u> course follows *Pre-Calculus 110*, and is the second course in the Pre-Calculus pathway that can be selected by students. This pathway is designed to provide students with mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus.

## PRE-CALCULUS 12B

This <u>elective</u> course follows *Pre-Calculus 12A*, and is the third course in the Pre-Calculus pathway that can be selected by students. This pathway is designed to provide students with mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus.

# CALCULUS 120

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

# **SCIENCE**

## PHYSICAL GEOGRAPHY 110

This course is designed to help students acquire some of the geographer's skills while developing a greater understanding of our home planet and how we interact with it. Topics covered include: The Nature of Physical Geography, Map Interpretation, The Earth in Space, The Structure of the Earth, From Continental Drift to Plate Tectonics, and Shaping the Land. This 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.

# **INTRODUCTION TO ENVIRONMENTAL SCIENCE 120**

The objective of this course is for students to develop the knowledge base and skills for investigating/analyzing environmental issues while communicating their findings to others. The units of study are: 1) An Overview of Environmental Science [Issues and Populations];

2) Sustainable Development [Ecology, Environmental Awareness, Sustainable Ecosystems and Communities]; 3) Investigating Environmental Issues [Themed Project with a research paper, presentation and eco-challenge activities].

# **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 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.)

# **Human Physiology 110**

This course is designed to appeal to a wide range of learners including students for whom this will serve to fulfill their science graduation requirement and students who will take additional science courses. A study of Human Physiology will be relevant to every student, providing them with the tools they will need to make informed choices about their own health and that of others. It will also be relevant to those students who will be going on to careers in the social sciences, kinesiology and health care.

This course focuses on the biology and healthy functions of all of the major human body systems and how wellness can be compromised by struggles with mental and social health, lifestyle choices and disorders.

## **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.

# 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

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. 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

#### **LANGUAGES**

## **POST INTENSIVE FRENCH 110**

Post-Intensive French is a literacy-based, non-immersion program for students choosing to continue to learn French as a second Language. Themes at this level include: mysteries, injustices and the power of photography.

\*Note also that if a student achieves a level of Intermediate at the end of grade 10,

he or she may select to enroll in French immersion courses (including online options) in addition to or in place of Post Intensive French courses in grades 11 and 12.

## **POST INTENSIVE FRENCH 120**

Post-Intensive French is a literacy-based, non-immersion program for students choosing to continue to learn French as a second Language. Themes at this level include: looking to the future, ecological challenges, similarities and differences and careers.

\*Note also that if a student achieves a level of Intermediate at the end of grade 10, he or she may select to enroll in French immersion courses (including online options) in addition to or in place of Post Intensive French courses in grades 11 and 12.

# 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 112

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. Prerequisite French Immersion History 110 or equivalent.

## **INTRODUCTORY MI'KMAW 110**

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

# INTERMEDIATE MI'KMAW 110

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

# HEALTH AND PHYSICAL EDUCATION

# WELLNESS THROUGH PHYSICAL EDUCATION 110 (LIFE ROLE COURSE)

The aim of Wellness through PE 110 is to promote healthy active living for life. The course goal is to explore a variety of activities highlighting non-traditional approaches to fitness and wellness. As a result, the course offers a range of learning experiences for students that encourage healthy active living. This course is intended to allow students the opportunity to be physically active, while further enhancing their decision-making skills towards personal wellness. This course requires excellent participation and attendance in the 9/10 Physical Education programs as a pre-requisite.

# **ADVANCED TRAINING PRINCIPLES 110 (FITNESS 110)**

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.

## PE LEADERSHIP 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/EDUCATION 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 plan, lead and evaluate out-trip experiences from personal and group dynamics perspectives by compiling a journal. Enrollment limited to 18 students per semester and preference is given to grade 12 students. Students must apply. \*Fine Arts/Life Role Development Option

## **ADVANCED OUTDOOR PURSUITS 120**

This is a follow-up to Outdoor Pursuits 110. It builds on the skills learned in the previous course. Enrollment is limited to 18 students per semester and preference is given to grade 12 students. Students must apply. \*Locally Developed Course

# **YOGA 110**

Yoga is a lifestyle. Students will be given the opportunity to learn in a safe environment where they can have fun through movement, social interaction and independence. Through breathing, posture development, body awareness and body/mind integration, students will gain an understanding of health promoting practices and habits. Classroom sessions are designed to educate students about the relationship between nutrition and fitness, the history and philosophy of yoga including values of non-violence, ethics, honesty, and respect in the context of challenging physical activity.

# **BUSINESS DEPARTMENT**

## **Entrepreneurship 110**

In this is course attitudes and aptitudes will be covered to determine if you have the necessary 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.

## 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.

# **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 21<sup>st</sup> 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 to be covered include Ethics, Business Environment, Management, Business Ownership and Human Resources. It is a good course if you are planning on taking Business in post-secondary school.

## **INTRODUCTION TO ACCOUNTING 120**

The focus of this course is to provide the essential understandings, economic framework, consumer skills and attitudes to successfully participate in a society influenced by financial and business decisions. Students will better manage personal finances understand obligations of business owners and make informed decisions concerning life careers and choices. The intention of this course is to encourage students to further their education in a Bachelor of Business Administration or Bachelor of Commerce program. This is a University recognized credit.

## **INFORMATION TECHNOLOGY 120**

The Information Technology 120 curriculum will develop competencies that will prepare the student to work as a business / entrepreneur, systems or information analyst, or architect. A combination of information technology competencies with technical skills to analyze business needs, and problems with proposed solutions that incorporate technology effectively, are the areas which Information Technology 120 contributes to the FIT Program.

This course is designed to function with a range of business software but MVHS will focus on the Microsoft Office package (Word, Excel, PowerPoint and Access).

The Information Technology 120 curriculum consists of the following three units:

- 1) IT Perspective
  - Students will understand key IT function components and how they contribute to enterprise effectiveness. Students will gain perspective throughout the course as they accomplish the required activities.
- 2) ICT Project Management
  - Students will learn about, realize the importance of, and apply project management skills throughout the hands-on unit (Word Processing, Spreadsheet, Database, Presentations)
- 3) Software Applications
  - The majority of this course explores how productivity software is essential in business and industry. Students will learn how to recognize what combination of application software could help businesses and industry accomplish goals.

# **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

# TECHNOLOGY DEPARTMENT

# **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 ideas and requirements and make them visual and appealing using an assortment of software programs, such as Adobe Photoshop, to achieve desired effects with graphic images. Good attendance is extremely important in this course.

Students will 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

Students considering a career in a graphic arts related area would benefit greatly from this course. Creativity and an interest/ability in art and drawing is an asset.

\*\*Fine Arts/Life Role Development Option

## **COMPUTER SCIENCE 110**

This course is essentially an introduction to the computer programming using Visual Basic and possibly other programming languages. 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. Students will have an opportunity to work on special projects involving new technologies including: Sparkfun Electronics, Makey Makey, Arduino Programming, Robotics, 3D Printing, Remote Operated Vehicles, Videography involving GoPro and Oculus Rift Technology.

# **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.

# MAKE (COOP 120 1 CREDIT)

This one credit cooperative education course is designed to apply the 4 C's...Creativity; Critical Thinking & Problem Solving; Collaboration; and Communication. These skills will be beneficial in any workplace and are essential for lifelong learning. The goal of the course is to improve these skills so they can be used in any future endeavors. Students will learn the basics of mechanical, electrical and computer engineering. A focus of the course will be working with electrical circuits and Arduino micro-processing. Students will apply these skills to hands-on activities and design/engineer their own project using these technologies.

## **TECHNICAL SUPPORT 110**

This course is designed to introduce students to basic computer repair and maintenance. They will learn to safely work around computer equipment while learning parts of the computer. A major part of this course will encompass troubleshooting computers and building computers from parts. This course consists of both theory and "hands-on" components. This course would be a good introduction for those students who may wish to become a computer technician.

## **Cybersecurity 120**

This will be a new course offered in the 2019-2020 school year. We are still awaiting a course description.

# **DIGITAL PRODUCTIONS 120**

This course is designed to introduce students to cutting edge technology used in the multimedia industry. Students will use industry standard software which will help prepare them for post-secondary technology schools.

On successfully completing this course, students will be able to:

- Follow Canadian copyright law and related ethical standards in your work.
- > Create effectively designed digital imaging products.
- > Create their own audio products.
- > Create their own video products.
- > Create and edit their own website using the principles of effective web-page design

An interest/ability in digital technology/production is an asset.

## **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.

# **INDUSTRIAL**

## **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.

# **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. <u>Suggested Pre-requisite: Internal Combustion Engines 110</u>. 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. <u>Suggested Pre-requisite: Internal Combustion Engines 110</u> 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. Pre-Requisite: Framing & Sheathing 110

# **HOUSING AND DESIGN 120**

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

## **ELECTRICAL WIRING 110**

Students in this course will study the basic tools, materials and techniques used in residential wiring. Study includes the design and placement of circuits in a model family dwelling, according to the Canadian Electrical Code. The course will be of interest to students interested in exploring careers related to the electrical trade.

# **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.

## **METALS PROCESSING 120**

# **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**

#### INDIVIDUAL AND FAMILY DYNAMICS 120

Students will see the connections made between the course content and their personal development and relationships. This curriculum will help prepare them to have a better understanding of themselves, their family and the world around them. Individual and Family Dynamics 120 touches on aspects of sociology, psychology, economics and anthropology. The knowledge and skills presented in the course will benefit students who may wish to pursue fields of study such as: law enforcement, social services, family law, careers in counseling, psychotherapy and family medicine.

## **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 TECHNOLOGY 120**

## **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

#### **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**

If you have an interest in nursing, social work or education, this course will focus on the skills needed to prepare you to work with the elderly and the handicapped.

The overall aim of Human Services is to increase your awareness of the importance of human service work and to prepare you for 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.

Pathways and Courses

The graphic below summarizes courses offered in three pathways

( = required for graduation)

# **Mathematics K-9**

# Grade 10

- 2 x 90 hr courses; required to pass both
- May be taken in any order or in the same semester

Geometry, Measurement and Finance 10 (1069027)

Number, Relations and Functions 10 (1069527)

#### Grade 11

- 3 x 90 hr courses offered in 3 pathways
- Students are required to pass at least one of "Financial and Workplace Mathematics 11"
   or "Foundations of Mathematics 11".
- Pre-requisite Grade 10 course(s) must be passed before taking Grade 11 courses.

# Financial and Workplace Mathematics 11

Pre-requisite:

Geometry, Measurement and Finance 10

## Foundations of Mathematics 11

Pre-requisites:

Geometry, Measurement and Finance 10

<u>AND</u> Number, Relations and Functions 10

## **Pre-Calculus 11**

Pre-requisite or Co-requisite:

Foundations of Mathematics 11

# Grade 12

- 5 x 90 hr courses offered in 3 pathways
- Pre-requisite Grade 11 or Grade 12 course must be passed before taking Grade 12 courses.

# Financial and Workplace Mathematics 12

<u>Pre-requisite</u>: Financial and Workplace Mathematics 11

# Foundations of Mathematics 12

<u>Pre-requisite</u>: Foundations of Mathematics 11

#### Pre-Calculus 12A

Pre-requisite: Pre-Calculus 11

#### **Pre-Calculus 12B**

Pre-requisite: Pre-Calculus 12A

#### Calculus 12

Pre-requisite: Pre-Calculus 12B

# **SUMMARY**

The Conceptual Framework for Grades 10–12 Mathematics describes the nature of mathematics, the mathematical processes, the pathways and topics, and the role of outcomes and achievement indicators in grades 10–12 mathematics. Activities that take place in the mathematics classroom should be based on a problem-solving approach that incorporates the mathematical processes and leads students to an understanding of the nature of mathematics.