

## **Arts Education**

### **Music 112**

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

### **Music 122**

*Prerequisite: Students taking this course must have had success in Music 112. (Teacher recommendation required)*

*As in Music 112, this course places emphasis on practical and academic aspects of music. It is an excellent choice for musicians who have a solid theory background as it extends musicianship into other topics such as Canadian music history, computers in music, composition, ear training and performance. This course is designed to be fairly student directed. Independent research and study will be expected*

### **Visual Arts 110**

*This course offers students a deeper understanding of the elements and principles of drawing, painting, and sculpture. Emphasis is on studio work. Group discussions and written work with an art historical focus are regular features.*

### **Visual Arts 120**

*This course is divided into four units. Within this structure, students choose activities from both assigned and independent projects. Group discussions and written work focusing on contemporary art are an integral part of this course. Students are expected to participate in a public exhibit during the semester. As well as being a course of general interest, Visual Arts 120 offers those seriously interested in continuing their education in Art the opportunity to prepare a substantial portfolio to submit to an art college.*

## **Business Education**

### **Accounting 110**

*This course introduces students to basic accounting principles and practices used in all types of business with an emphasis on service businesses. It includes the method of recording business transaction, journals, ledgers, the preparation and interpretation of financial statements, the closing entry process, and payroll entries.*

### **Business Management 120**

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

### **Computer Education 110**

*The objectives of this course are to introduce students to the world of computers and their impact on society, computer science concepts, and fundamental problem solving skills. Course emphasis is on structured programming using the QBASIC programming language and problem solving skills. Students will acquire the skills needed to write computer programs and solve computer-related problems. Students may have the opportunity to become acquainted with the computer language Visual Basic.*

### **Co-operative Education 120**

*This course provides experimental work-based education that extends the learning process into the workplace. Integrating classroom theory with employability and career skills furthers the career exploration process of youth. After completing the pre-employment course component, students are placed in work where they are provided with challenging tasks and responsibilities and learn by doing.*

*Students earn the equivalent of two periods (2 credits), normally on a daily basis at the workplace.*

*This course is based on a collaborative partnership between the school and business/industry and involves the participation of students, teachers, employers and student supervisors.*

## **Business Education (continued)**

### **Entrepreneurship 110**

*Entrepreneurship 110 is designed to help the student learn about the skills, abilities, and personal characteristics that are needed to become a successful entrepreneur, as well as develop individual aptitudes, attitudes, and interests. The students will practice the techniques involved in accurately assessing opportunities, generating ideas, selecting and evaluating ideas, and preparing carefully drawn up plans for putting these into actions. Entrepreneurship 110 emphasizes the development of concepts rather than specific business skills. The course makes extensive use of case studies, and where possible, business simulations.*

## **English Department**

### **English 112**

*Prerequisite: Students enrolling in this course should have a mark of 70 % in their Grade 10 English Course.*

*English 112 is the regular college preparatory course. It is made up of two components: Literature and Writing. In the Literature unit, the students will study a novel, poetry, and a Shakespearean play. The writing section will concentrate on sentence and paragraph writing skills, development of essay writing skills and strategies, the précis, the paraphrase, and the business letter.*

*This course is a prerequisite for: English 122 English 123*

## **English Department (continued)**

### **English 113**

*Prerequisite: Grade 10 English*

*English 113 is intended for students who are planning to enter the workforce after graduation or to take certain courses at community college. An emphasis is placed on the development of basic reading and writing skills. The course contains two main components: Literature and Writing. In the Literature unit, the students will study the short story, the novel, poetry, and drama. The Writing unit will have continued*

## **English Department (continued)**

*emphasis on developing good sentence and paragraph writing skills, the long composition or report, writing summaries, spelling, punctuation, and syntax. This course is a prerequisite for: English 123*

### **English 122**

*Prerequisite: Students taking English 122 must have passed English 112. English 122 is the regular college preparatory course. Although there is continued emphasis placed on good writing skills, particularly those related to essay writing, the English 122 course is basically a Literature course. The course is made up of three units: the novel; a study of the poetry from Eighteenth Century and restoration period, the Romantic period, or the Victorian period; the Shakespearean play.*

### **English 123**

*Prerequisite: Students taking this course must have passed English 112 or English 113. English 123 is intended for those students who plan to enter the workforce after graduation or take certain courses at community college. English 123 has two main components: Literature and Writing. The Literature section will concentrate on the short story, the novel, poetry, drama: a modern play and a Shakespearean play, and media: film. The Writing unit will have continued emphasis on sentence and paragraph writing skills, essay-writing skills, spelling, punctuation, and syntax.*

### **Literacy 110**

*(Will be selected for those who are unsuccessful on the English Language Proficiency Assessment - ELPA)*

*All students who have yet to meet the provincial standard for both portions (reading and writing) of the English Language Proficiency Assessment are required to take this course. Students who passed the reading portion but missed the writing portion of the assessment are advised to take this course as well.*

*In a concentrated and focused approach, we incorporate best practice reading/writing workshop strategies in Literacy 110 to address student deficiencies in these areas. The instructional week is divided between these workshops such that by semester's end*

## **English Department (continued)**

### **Literacy 110 (continued)**

*approximately 40% of class time will be focused on reading development and 60% of class time on writing development.*

*Writing portfolios and reader-response journals are a significant part of the course work. Students will have access to a growing library of fiction and non-fiction geared to their interests and their reading ability.*

### **Media Studies 120**

*The main purpose of this course is to have students learn through experiment and exploration. The course is practical and activity based. Students in Media studies must have enough maturity to meet the high level of independence, reliability and responsibility required of them. The television/video unit is compulsory and is accompanied by a choice of three (3) additional units on advertising, film, print and electronic journalism, photography, drama, radio/sound communications as local circumstance permits.*

### **Theatre Arts 120**

*Theatre Arts 120 covers a study of the history of theatre, set design, lighting, costuming, improvisation, and acting. Time is divided between the classroom and the stage. The course culminates with staging of a production.*

## **French Second Language Programs**

### **French Immersion Language Arts 110**

*Prerequisite: Successful completion of French Immersion Language Arts 100.*

*This course is a continuation of the immersion program. The course consists of seven components: vocabulary, oral expression, literature, grammar, composition, role-playing, and culture.*

*This course is to be taken with French Immersion Modern History 110.*

*This course is a prerequisite for: French Immersion Language Arts 120 Media Studies 120.*

## **French Second Language Programs (continued)**

### **French Immersion Language Arts 120**

*Prerequisite: Successful completion of French Immersion Language Arts 110. This is the final course in the immersion program. It follows the same structure as French Immersion Language Arts 110, continuing to emphasize the four language skills. This course is to be taken with: French Immersion Media Studies 120. During this semester the Department of Education will conduct interviews to determine the students' language proficiency level. A Certificate will be given to students stating their language level. This may be included in their portfolios and or resumé*

### **French Immersion Media Studies 120**

*Prerequisite: Successful completion of French Immersion Language Arts 110. This course is designed for students enrolled in Grade 11 and 12 who wish to improve their oral and written skills in French. It offers an introduction to the evolution and impact of mass media on society. Students learn by experimentation and exploration, as this is a practical, activity-based course. Flexibility will be utilized to select content, resources and approaches. Local facilities will dictate choice of units to be studied.*

### **French 112**

*Prerequisite: Successful completion of French 102. This course is a continuation of and follows the general pattern of the French 102 course. This course is a **prerequisite for: French 122***

### **French 122**

*Prerequisite: Successful completion of French 112. This is the final year of the regular academic program. Emphasis is placed on oral and aural aspects of the language. During this semester the Department of Education will conduct interviews to determine the students' language proficiency level. A Certificate will be given to students stating their language level. This may be included in their portfolios and/or resumé.*

## **Health/Physical Education Department**

### **Physical Education and Leadership 120**

Selected Grade 12 Students Only. *This course is an elective one for students with a desire to develop leadership skills, which will enable them to translate their interests into dynamic personal involvement in the community.*

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

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

### **Outdoor Pursuits 110**

*Prerequisite: 9/10 Physical Education*

*This course will develop personal outdoor recreation skills based on environmental ethics. Students must satisfy a requirement to complete a series of out-trips that may be day-trips, overnight excursions or extended trips. It will also take advantage of local outdoor access and could include camping, hiking, canoeing and other outdoor adventure activities. Students must be prepared to plan, lead, evaluate out-trip*

## **Health/Physical Education Department (continued)**

### **Outdoor Pursuits (continued)**

*experiences from personal and group dynamics perspectives. Students are required to apply for admission to this course and must receive teacher's recommendation. A \$25.00 fee will be charged for this course. If you are not accepted the money will be returned.*

## **Health/Physical Education Department (continued)**

### **Wellness & Physical Education 110**

*The goal of the Wellness & Physical Education 110 curriculum is to promote healthy active living for life. Students will experience a variety of wellness activities and are expected to create and implement a personal healthy active living plan. The course is intended to allow a broad-based exploration of various dimensions of wellness and encourage a healthy, balanced lifestyle.*

## **Skilled Trades and Technology**

### **Child Studies 120**

*Child Studies 120 explores how children develop physically, socially, emotionally, and intellectually. Issues discussed include “quality of life” and human development, “society’s basic unit”, the family plus parenting skills in our complex world today. This course also shows the importance of the need to provide love, continuity and stability as well as basic food clothing and shelter requirements. Ongoing observations and experiences with children is an essential part of this program.*

### **Culinary Technology 110**

*This course is designed to give students life-long learning skills that may be transferable to future training and/or food service employment, at an advanced level. This technology driven and skill orientated program focuses not only on the “how and why” of food preparation but focuses on developing personal skills and knowledge that can be applied to the food service industry. Experimentation, food preparation and services are an integral part of this program.*

## **Skilled Trades and Technology (continued)**

### **Individual & Family Dynamics 120**

*This is a practical day-to-day living course that studies human behavior, personality development and human relationships. Personal relationships from adolescence to adulthood are studied including dating, courtship, marriage, separation and divorce. Decisions relating to the quality of life of individuals and families are the main focus of this course. Topics to be studied include consumer issues, personal finance, housing, careers and parenting.*

### **Nutrition for Healthy Living 120**

*This course studies the science of food according to Canada's Food Guide and the relationship between food, nutrition and wellness. Emphasis is placed on the decision making process concerning the use of both human and non-human resources required for safety, sanitation, dietary planning, food preparation and nutritional wellness. Issues discussed include nutrition on a global and regional level, food trends and life styles, eating disorders and new food technology. Hands on experiments are an integral part of the program as well.*

### **Sociology 120**

#### **Prerequisite: Modern History 112**

*This course is designed to increase awareness of how humans develop as social beings and how societies evolve and change over time. Students will also study cultural origins and existing social patterns. Areas of study will include the social problems presently confronting Canadian society such as crime, race, ethnic relations, urbanization, and poverty. Students will be required to present reports and to prepare presentations that deal with these topics and that demonstrate an ability to analyze issues that are related to each.*

## **Mathematics Department**

### **Please note:**

*Students are required to take only one semester of grade 11 Math to graduate. It should be noted that, for any students intending to pursue post-secondary studies at university or community college, it is recommended that both Semesters of Grade 11 Math be taken.*

### ***Financial & Workplace Mathematics***

*This pathway is designed for students who plan to directly enter the workforce or take post-secondary courses that require applied mathematical skills.*

#### **Financial and Workplace Mathematics 110**

*Length: 1 semester*

***Prerequisite:*** *Geometry, Measurement and Finance 10.*

*Topics: personal budgets, investment portfolios, renting and buying, slope and rate of change, scale, statistics.*

*Required for programs such as: Early childhood education, Firefighting, Drafting, Welding, Plumbing, Carpentry, Cosmetology, Bachelor of Arts and Fine Arts.*

#### **Financial and Workplace Mathematics 120**

*Length: 1 Semester*

***Prerequisite:*** *Financial and Workplace Mathematics 110*

*Topics: measurements and instruments, sine and cosine laws, transformations, business (sales, profits, loss), linear relations, statistics, percentiles, probability, analysis of puzzles and games.*

*Required for such courses as: Culinary Arts, Graphic Design*

## **Mathematics Department (continued)**

### ***Foundations of Mathematics***

*This pathway is designed for students who plan to take post-secondary courses that do not require calculus.*

### **Foundations of Mathematics 110**

***Prerequisite:*** *Number, Relations, and Functions 10 AND Geometry, Measurement and Finance 10.*

*Topics: analysis of puzzles and games, properties of angles and triangles, cosine and sine laws, linear inequalities, quadratic functions, rates, relationship among scale factors, renting and buying, investment portfolios (rate of return).*

*Required for programs such as: College: medical laboratory technology, business administration, practical nursing. Bachelor Degrees in Arts and Fine Arts.*

### **Foundations of Mathematics 120**

*Length: 1 semester*

***Prerequisites:*** *Foundations of Mathematics 110*

*Topics: Statistics (standard deviation, confidence intervals), logical reasoning, set theory, probability (permutations and combinations), binomial theorem, polynomial functions, exponential and logarithmic functions, sinusoidal functions.*

*Required for programs such as: College: engineering technology, computer technician, pharmacy technology. Bachelor Degrees in: Nursing, Business Administration, Economics, Kinesiology, Psychology.*

*This pathway is designed for students who plan to take post-secondary courses that require calculus.*

## **Mathematics Department (continued)**

### **Foundations of Mathematics 120 (continued)**

*Students are required to take one math credit beyond Grade 10, either Financial and Workplace Mathematics 110 or Foundations of Mathematics 110. We recommend that students pursuing post-secondary studies enroll in the second Grade 11 Math credit which is called Pre-Calculus 110*

### **Pre-Calculus 110**

*Length: 1 semester*

*Prerequisite: Foundations of Mathematics 110*

*Topics: absolute value functions, radical expressions and equations, trigonometric ratios, polynomial factoring, linear inequalities, quadratic functions and inequalities.*

*Required for such programs as: College engineering and environmental technology and other programs that require more theoretical mathematics.*

### **Pre-Calculus A 120**

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

## **Mathematics Department (continued)**

### ***Pre-Calculus B 120***

*This course follows Pre-Calculus A 120 and precedes Calculus 120). Students analyze arithmetic and geometric sequences and series to solve problems. They learn to factor polynomials of degree greater than 2, and to graph and analyze polynomial functions. They also graph and analyze radical, reciprocal and rational functions, building a function toolkit. Students are introduced to the concept of limits and determine the limit of a function at a point both graphically and analytically. They explore and analyze left and right hand limits as  $x$  approaches a certain value using correct notation, analyze the continuity of a function and explore limits which involve infinity.*

## **Science Department**

### **Biology 112**

***Prerequisite:*** Successful Completion of Grade 10 Science and Geometry, Measurement & Finance 10

*This is a laboratory oriented course that emphasizes the knowledge, skill, and STSE (Science, Technology, Society and the Environment) connections among the following topics; structure of cells; classification of living things; flow of matter and energy in organisms and the biosphere; photosynthesis and respiration; digestive, respiratory, excretory and circulatory systems; blood and immunity. Laboratory work is an important component of this program.*

### **Biology 122**

*Prerequisite:* Biology 112

*Requisite:* Foundations of Mathematics 110

*This course is a continuation of Biology 112. Biology 122 is a senior level college preparatory course. It is recommended that students taking this course have a strong science background. Additional science courses, especially Chemistry 112, would be helpful.*

## Science Department (continued)

### Biology 122 (continued)

*Biology 122 is a laboratory-oriented course that emphasizes knowledge, skills and STSE connections among the following topics: biomolecules; nervous and hormonal control systems; human reproductive system; heredity and the molecular basis of inheritance by DNA; genetics. Laboratory work is an important component of this program.*

### Chemistry 112

*Prerequisite: Grade 10 Science*

*This course is a college or university preparatory program used as an entrance requirement for science related university courses, some technical school courses, and nursing. It is the first year of a two-year high school program. **Chemistry 112 is a prerequisite for Chemistry 122**. The concepts to be learned include matter and energy in chemical change, matter as solutions and gases, quantitative relationships in chemical change and chemical bonding in matter. The accompanying laboratory program is aimed at familiarization with simple laboratory apparatus and techniques, as well as safely working in a laboratory.*

***This course is a prerequisite for: Chemistry 122** (A minimum mark of 65 in this course is suggested as preparation for Chemistry 122.)*

*This course should be of special interest to students enrolling in: Biology 120.*

### Chemistry 122

*Prerequisites: Grade 10 Science and Chemistry 112.*

*The second year course includes these concepts to be learned: The diversity of matter, organic chemistry, thermochemical change, equilibrium, acids and bases in chemical change, and electrochemical change. The laboratory program continues with the same objectives as Chemistry 112 and expands upon safe use of various chemicals and equipment. Students should determine if the program they plan to follow after high school has a chemistry requirement. A minimum mark of 65% in Chemistry 112 is suggested as preparation for Chemistry 122.*

## **Science Department (continued)**

### **Introduction to Environmental Science 122**

*This is a general course designed for students in grade 11 or grade 12 who wish to become more familiar with their environment but are not going to university for science. Emphasis is placed on participation in classroom discussions. Concepts to be learned include: what is the environment, attitudes to the environment, physical environment, ecosystems, nutrient cycles, human populations, and other current environmental problems.*

### **Physics 112**

*Prerequisite: Grade 10 Science*

*Any student who has not successfully completed Grade 10 Mathematics and Science should not attempt this course.*

*The two-year physics program is a prerequisite for most science and technology programs beyond high school. The concepts to be learned include the study of measurement, waves and sound, light, static, and current electricity. Laboratory work is an integral part of this course.*

*This course is a prerequisite for: Physics 122*

### **Physics 122**

*Prerequisites: Physics 112, Geometry & Applications 112, Functions & Relations 112*

*To ensure success in Physics 122, students should have achieved more than a marginal mark in Physics 112.*

*The concepts to be learned include the study of motion, forces, and energy. An extensive laboratory program is an integral part of this course.*

## **Social Sciences Department**

### **Canadian History 122**

*Prerequisite: Modern History 112 or French Immersion Modern History 112.*

*This course involves the history of Canada from 1900 to modern day Canada. The course is covered by a topical approach, such as settlement of the West, Canada matures as a nation, Canada at war, FLQ, and Foreign Policy, etc. Topics will be covered through lectures, readings, and films.*

### **F.I. Canadian History 122**

*Prerequisite: French Immersion Modern History 112.*

*This course involves the history of Canada from 1900 to modern day Canada. The course is covered by a topical approach, such as settlement of the West, Canada matures as a nation, Canada at war, FLQ, and Foreign Policy, etc. Topics will be covered through lectures, readings, and films.*

### **French Immersion Modern History 112**

*Prerequisite: French Immersion Social Studies 10*

*This is a Modern History course, which covers the main political, economical, social, and intellectual developments since 1789. Major topics covered include: the French Revolution, the unification of Germany and Italy, World War I (causes, events, and results), Totalitarianism (its development and consequences), the Holocaust, the Cold War, and post war developments in the third world.*

*This course is a prerequisite for: F.I. Canadian History 122*

*This course is to be taken with: French Immersion Language Arts 110*

### **Law 120**

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

## **Social Sciences Department (continued)**

### **Modern History 112**

Prerequisite: Ancient and Medieval History 100.

*This is a Modern History course, which covers the main political, economical, social, and intellectual developments since 1789. Major topics covered include: the French Revolution, the unification of Germany and Italy, World War I (causes, events, and results), Totalitarianism (its development and consequences), the Holocaust, the Cold War, and post war developments in the third world.*

*This course is a prerequisite for: Canadian History 122*

### **Modern History 113**

Prerequisite: Social Studies 10. (Note: This course is for students who will probably not go to university. Students who have had difficulty in Social Studies should take this course.)

*This is a twentieth century history course that surveys the following topics: World Wars, the Holocaust, Europe since 1945, Russia-USSR, USA, Cold War, and East Asia.*

### **Sociology 120**

Prerequisite: **Modern History 112**

*This course is designed to increase awareness of how humans develop as social beings and how societies evolve and change over time. Students will also study cultural origins and existing social patterns. Areas of study will include the social problems presently confronting Canadian society such as crime, race, ethnic relations, urbanization, and poverty. Students will be required to present reports and to prepare presentations that deal with these topics and that demonstrate an ability to analyze issues that are related to each.*

### **World Issues 120**

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

## **Technical/Vocational Department**

### **Drafting/Computer Aided Graphics 120**

*Primarily, this is an architectural drafting course with emphasis placed on the skills and techniques involved with Computer Aided Drafting. As well as spending considerable time on task at CAD stations, students will be involved with developing their planning, sketching, instrument drawing, and work organizational skills. Course content includes plot plans, floor plans, elevations, and wall sections. Also included is an electrical and survey drawing unit.*

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

### **Electrical Wiring 110**

*This is a residential wiring course with an emphasis on the lighting and power circuits normally found in a single-family dwelling. Students will progress from a study of the basic equipment, supplies and techniques used in residential wiring to the design and placement of the total electrical circuit requirements of a single family dwelling as prescribed by the Canadian Electrical Code.*

*This course will be of value and interest to those with a career objective in the electrical technology/electrical trade areas or who have a personal interest in electrical wiring.*

### **Engine Electrical Systems 120**

*Prerequisite: Internal Combustion Engines 110.*

*NOTE: This course may be selected as a student's science credit.*

*This course introduces the student to the theory and operation of basic electrical systems. It covers electron theory, electric circuits, circuit protection, switching devices, and magnetism. These are related to the operation and service of batteries, starting motors, alternators, and ignition systems.*

*This course is a prerequisite for: Tune Up and Trade Practice 120*

## **Technical/Vocational Department (continued)**

### **Framing and Sheathing 110**

*The curriculum is designed to provide for the acquisition of knowledge and the development of skills and work habits essential in the construction of wood frame buildings. The methods, materials, and skills used in light frame construction are covered, including layout and cutting of common rafters and trussed rafters. The course should appeal to students interested in entering the construction industry or for those exploring options for a future career choice.*

### **Hospitality and Tourism 110**

*The course, in this rapidly growing industry, will provide students with life-long learning skills that are transferable to future learning and/or the hospitality and tourism industry. Students will acquire career information, skill development and the talents for employment. This course relies on resource based, practical learning experience providing access to resource people and information that will aid in their career choices. Skills that could be acquired are the eight main sectors of the tourism industry, influences on the industry, personal and interpersonal skills regarding career opportunities, travel industry and marketing strategies.*

### **Intro to Applied Technology 110**

*Applied Technology 110 is designed to provide students with the opportunity to explore a broad range of technology applications in a multi-activity learning environment. Working cooperatively in pairs, students will complete between seven and eight units of study in a technology related area. Students will think critically and logically to evaluate situations, solve problems and make decisions relative to the area that is being studied.*

## **Technical/Vocational Department (continued)**

### **Information Technology 120**

*The goal of Information Technology 120 is to develop more advanced computer skills and knowledge in of the Information, Communication and Technology (ICT) sector. It introduces tools and strategies to engage students in authentic learning and problem solving situations. The course is designed to work with both proprietary (e.g. Microsoft Office) and open source software (e.g. Google Docs, Open Office) to address cross-curricular and community based challenges, rather than just practicing software, tools and procedural operations.*

### **Internal Combustion Engines 110**

*This course provides for the study of the operation of the internal combustion engine including the construction, theory of operation, and function of its systems. Students disassemble and assemble engines, checking, measuring, servicing, and repairing*

### **Internal Combustion Engines 110 (continued)**

*components and systems. Emphasis is placed on the development of basic skills essential for persons entering the motor vehicle service trades and other allied occupations, including engineering. This course should be of interest to students interested in entering or learning about the opportunities and requirements of the motor vehicle service industry and students with a general interest in mechanical principles. This course is a prerequisite for: Engine Electrical Systems 120 Power Train and Chassis 120 Tune Up and Trade Practice 120.*

### **Introductory Electronics 110**

*NOTE: This course may be selected as a student's Science credit.*

*This course allows the student to explore electron behaviour in simple and complex circuits and to investigate its behaviour in direct current devices under laboratory conditions. This course will also explore electronics, introducing basic electronic components such as diode transistors, integrated circuits, inductors, and capacitors,*

## **Technical/Vocational Department (continued)**

### **Introductory Electronics 110 (continued)**

*along with basic electronic circuitry. All labs are simulated on computer and built on proto boards. Introductory electronics will be of interest to students with a career objective in the electrical occupational area as well as those who plan to continue their education at the technical or engineering level. UNB Engineering recognizes this course.*

### **Metal Fabrication 110**

*These welding courses are concerned with the process used in industry to cut, form, and fasten metal. Emphasis is placed on the development of basic skills needed to use electric arc and oxyacetylene welding and cutting processes including the preparation of material for welding. Machines and processes used to layout, cut and form sheet metal are also included. This course should appeal to students interested in entering occupations in metalworking, mechanical service, and maintenance resource industries.*

### **Metals Processing 110**

*This course is a study of machine shop processes used in the manufacture of metal products. Proper operating instruction will be given on a variety of machine tools common to the machine shop trade. Students will apply theory as well as develop practical skills through the production of practical projects. Instructional time will be divided between classroom theory and practical labs. This course will benefit and appeal to a variety of students, such as those interested in pursuing a career in the metals processing areas, those considering a future education in mechanical engineering or drafting technology areas, and those who would like to explore this area for personal interest or career guidance reasons.*

### **Mill and Cabinet Work 120**

*This course is designed to provide for the acquisition of knowledge and the development of skills and work habits requires constructing cabinets and built-ins found in a typical residence. Emphasis is placed on using and maintaining woodworking tools and machines. Students practice planning projects and doing cost and material estimates.*

## **Technical/Vocational Department (continued)**

*The course should appeal to students interested in entering construction and woodworking occupations or with a general interest in woodworking and for those exploring options for a future career choice.*

*There will be a small shop fee for this course*

### **Power Train and Chassis 110**

*Prerequisite: Internal Combustion Engines 110.*

*This course is designed to introduce students to the service and maintenance of the automobile chassis and power train. Emphasis is placed on the function, repair, and replacement of components. Topics include suspension assemblies, brakes, steering, wheel bearings, tires, transmissions, differential and drive lines. Students seeking admission to the motor vehicle service industry as well as those with a general interest in mechanical principle should benefit from this course.*

### **Residential Finish and Insulation 120**

*This course examines the work required to finish a family dwelling once it is framed-in. Topics which are covered include: insulation, wall cladding, doors, windows, cornice*

### **Residential Finish and Insulation 120 (continued)**

*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.*

### **Tune Up and Trade Practice 120**

*Prerequisite: Engine Electrical Systems 120*

*This culminating course is designed to refine students' skills and knowledge necessary for performing engine tune up as well as for the diagnosis of electrical system related problems. A major emphasis is placed on the retrieval of data and interpretation of Collected data. A full range of automotive electrical systems is covered, including lighting, instruments, and power accessories.*