

SOUTHERN VICTORIA HIGH SCHOOL

Perth-Andover, NB
Telephone: 273-4762

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Mini-Brochure Guide
Course Selection Hand Book
2016- 2017

Introduction:

Parents are urged to review the mini-brochure of courses and assist their children in making wise decisions. It should be pointed out that there is no need to take all courses at one particular level. Courses and the total workload should be tailored to the particular needs and abilities. Please be aware that there are requirements for high school graduation and requirements for acceptance into colleges and universities. Students should check the websites for colleges and universities of interest and see which pre-requisite high school courses are needed for acceptance into the specific programs to which the student wants to apply. If there is need for any clarification, please do not hesitate to call the guidance office at 273-4500 during regular school hours. Or email: basil.kazakos@nbed.nb.ca

New Brunswick High School Graduation Requirements:

Students must successfully accumulate 17 credits. The following list constitutes the compulsory subjects:

*English 112, 113 (one of) 2 credit course
English 122, 123 (one of)
112 or
Mathematics 110 (one of) 1 credit course
One Science Course
Modern History 112, 113 or FI Histoire 112 (one of)
One from Fine Arts/Life Role Development
Four (4) courses that are designated at the Grade 12 level
Plus six (6) elective courses at the Grade 11 or 12 level*

In addition to the above courses, in order to receive a high school diploma students must also pass the Grade 9 English Proficiency Test. Students must also pass Geometry, Measurement & Finance 10 and Number, Relations & Functions 10.

Description of Subjects:

ENGLISH

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

ENGLISH 113 and 123 - are intended for students who do not plan to attend university. Most community colleges such as NBCC will accept a credit in English 123 for the majority of their programs. These English courses provide a variety of experiences with language and text to develop students' competencies in speaking, listening, reading, viewing, writing and other ways of representing. English level three courses may differ in terms of pace, scope, emphases and resources from level two, but all students in all levels will work toward achieving the same English outcomes.

High priority is given to student development of reading and viewing comprehension and to effective oral and written/other communication. Students will concentrate on improving strategies for learning from literacy, technical and media text; practical and personal writing is stressed.

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

FRENCH IMMERSION AND FRENCH SECOND LANGUAGE

FRENCH IMMERSION LANGUAGE ARTS 110 and 120 – The French as a Second Language Program uses a multi-dimensional approach to the teaching and learning of a second language.

These courses emphasize the use of the language as an instrument for communication and reflection and a factor in students' personal development. A variety of communication activities that are related to students' experiences have been designed to help them improve their linguistic skills. The study of literature is an integral part of the courses.

FRENCH IMMERSION MODERN HISTORY 110 – see Modern History 112

MATHEMATICS

FINANCIAL AND WORKPLACE MATHEMATICS 110– pathway is designed for entry into many college programs, the majority of trades and for direct entry into the workforce. Topics include financial mathematics, algebra, geometry, measurement, number, statistics and probability.

FOUNDATIONS OF MATHEMATICS 110– as well as fulfilling the graduation requirement, this course will meet admission requirements for post-secondary studies in programs that do not require any Math in their programs. Topics include financial mathematics, geometry, measurement, number, logical reasoning, relations, and functions. It is also the pre-requisite for Foundations of Math 120 and co-requisite for Pre-Calculus 110. It is recommended that you only attempt this course if you have a mark of 75% or higher in Number, Relations and Functions 10.

PRE-CALCULUS 110 – designed for entry into post-secondary programs requiring pre-calculus. Students demonstrate an understanding of absolute value of real numbers, solve problems that involve radicals, radical expressions and radical equations. Students determine equivalent forms, simplify rational expressions and solve problems that involve rational equations. They develop an understanding of angles in standard positions, and solve problems for these angles using the three primary trigonometric ratios. Polynomial expressions are factored and absolute value functions and quadratic functions are analyzed and graphed. Students solve problems that involve quadratic equations and solve algebraically and graphically, problems that involve systems of linear-quadratic equations and solve problems that involve the systems of linear-quadratic and quadratic-quadratic equations in two variables. They also solve problems that involve linear and quadratic inequalities in

two variables, and quadratic inequalities in one variable. This course is a pre-requisite and for Pre-Calculus A 120.

PRE-CALCULUS A 120 – 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 the use these laws and the relation 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. This is a pre-requisite for Pre-Calculus B 120.

PRE-CALCULUS B 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 involves infinity. This is a pre-requisite for Calculus 120.

CALCULUS 120 – This course develops the concepts of average and instantaneous rates of change. Derivatives are determined by applying the definition of a derivative and the derivative rules including the Chain Rule, and are determined for trigonometric functions. Limits and derivatives of exponential and logarithmic functions are found. Calculus techniques are used to sketch graphs of functions and to solve optimization problems. Problems are solved involving inverse trigonometric functions, related rates, and the applications of the integral of a function from a variety of fields. The definite integral and the anti-derivative of a function are determined. This course is recommended for students interested in post-secondary programs in science, engineering and mathematics.

SOCIAL STUDIES

MODERN HISTORY 112 – is a rigorous study of the evolution of the peoples of the west during the nineteenth and twentieth centuries and their widening involvements in global issues. The course describes the rise of nationalist and socialist movements, the international connections growing out of the World Wars and the Cold War era, and the widening global contacts of the contemporary world. Modern History 111 is available on line. This would be an academic enriched program.

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

NATIVE STUDIES 120 – is designed to assist students to develop an appreciation of Maliseet and Micmac cultures and of their many contributions in the development of Canada in general and the Maritimes in particular. The students examine both historical and contemporary contributions. In addition, students are encouraged to recognize and understand the perceptions, need, values, cultures, lifestyles and aspirations that characterize Mailiseet and Micmac founding fathers.

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

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

LAW 120 – is designed to give students knowledge of the law, the courts' changing trends and the major changes the constitution has brought. 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. This course is available on line. FI Law 120 is also available on line.

SCIENCE

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

BIOLOGY 112 – explores the unity and diversity among living things. Students study the cell as the basic unit of life and the diversity of organisms that make up the earth's ecosystems. They also study some of the systems that use multicellular organisms to maintain their equilibrium as they interact with the outside environment. Science 10 will prepare students for this Biology course. . This course is a pre-requisite for Biology 120.

BIOLOGY 113 -- emphasizes human life functions; such as, nutrition, transport, respiration, excretion, and reproduction. Other topics include ecology, cell structure and function, and health and disease. Laboratory work involves the use of the microscope and activities of varying complexity.

BIOLOGY 122 – takes the next step and begins to focus on biology at the molecular level. They study how organisms grow and pass along characteristics to future generations and how that impacts living things at the species and populations level. They also add to what they learned in grade 11 by studying more systems that use multicellular organisms to maintain their equilibrium internally and with their environment.

CHEMISTRY 112 – emphasizes learning chemistry through the scientific method. The experiments are designed so that students make observations and draw conclusions which lead directly to important chemical principles. Chemistry 112 is designed to complement Science 9 and 10. Topics include: matter and energy in chemical change, matter as solutions and gases, quantitative relationships in chemical changes, chemical bonding in matter and some organic chemistry. This is considered an academic enriched program.

CHEMISTRY 122 – emphasizes learning chemistry using the scientific method. The experiments are designed so that students make observations and draw conclusions which lead directly to important chemical principles. Topics include: organic chemistry, thermochemical changes, equilibrium, acids and bases, and electrochemical changes. Chemistry 121 is available on line. This is considered an academic enriched program.

INTRODUCTION TO ENVIRONMENTAL SCIENCE 120 – the objective of this course is to develop the base knowledge and skills for investigating and analyzing environmental issues and communicating the knowledge and analysis to others. Topics include ecological processes, relationship with the environment, sustainable development and proposing solutions to some of the environmental problems

PHYSICS 112 – includes the following topics: wave motion, sound and light, linear motion, forces, momentum, work energy and power. This course is designed to engage students in relating physics concepts to societal contexts and applications. It may be taught from context to concepts or the reverse sequence. A student centered approach to theoretical and practical investigations is the basis of this curriculum. Information from a variety of sources is encouraged. Strong math knowledge and skills are needed for success in this course.

PHYSICS 122 – includes the following topics: electricity and magnetism, atomic and nuclear structure including harnessing nuclear energy, forces, two dimensional motion, impulse and momentum. As with Physics 112, each of these topics is studied in its societal context. Students experience should include internet research, laboratory investigations, multi-sources of information including print, software, video and guest speakers. Emphasis is placed on student-centered activities.

LIFE ROLE AND FINE ART COURSES

OUTDOOR PURSUITS 110 – will develop personal outdoor recreation skills based on environmental ethics. Students must complete a series of out-trips and day-trips, overnight excursions, and extended trips. The course will take advantage of local outdoor access and will include camping, hiking, canoeing, biking, snowshoeing, winter camping, and other outdoor adventure activities. Students must be prepared to plan, lead and evaluate out-trip experiences from personal and group dynamics perspectives. A high degree of individual responsibility and a moderate level of fitness are required for this course. An application will be required for acceptance in this course.

PHYSICAL EDUCATION AND LEADERSHIP 120 – is not intended to be an activity course where varsity athletes hone their skills. Rather, this course seeks to use Physical education and recreational activities as a tool for creating concrete leadership experiences and developing leadership potential.

WELLNESS & PHYSICAL EDUCATION 110: *This course teaches/encourages students to learn about lifelong fitness and nutrition. Sixty percent of this course is physical and forty percent has written content.*

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

VISUAL ARTS 120 – *is designed for students who wish to pursue art related interests or careers. Students work through an introductory review of skills and concepts and choose blocks that lead to advanced work on a particular medium. Students are required to critique in writing aspects of process and product.*

THEATRE ARTS 120 – *deals with the major aspects of theatre performance, including acting and interpretation, stage craft, play management and theatre history. The course offers students and opportunity to deal with both practical and theoretical issues as they relate to drama and theatre arts.*

INDIVIDUAL AND FAMILY DYNAMICS 120 – *The overall aim of this course is to provide students with the necessary knowledge, skills, and abilities to meet the challenges of our dynamic and complex society. The course focuses on the development of resourcefulness to assist students in viewing the family from various perspectives and to make informed decisions about solutions to existing and emerging difficulties occurring in ever day living. The interrelatedness between family life and work life is addressed as well as the need to understand better daily family issues and their impact on both the family and work environments.*

CO-OPERATIVE EDUCATION 120 – *provides experimental work-based education that extends the learning process into the workplace. It is a course that integrates classroom theory with employability and career skill development thereby furthering the career exploration process of youth. Students are placed in work environments where they are provided with challenging tasks and responsibilities and learn by doing. The course is based upon a collaborative partnership between the school and business/industry and involves the participation of students, teachers, employers and student supervisors. Students have to apply for a position within the program as they would have to for any job and must go through the interview process and present their portfolios.*

MUSIC 112 – *consists of three major outcomes that require students to demonstrate achievement in performing music, in the application of theoretical and aural skills and concepts, and , in understanding music in a historical context. The course lists a series of performances indicators that will assist in determining the course level.*

MUSIC 113 – *builds on the skills and concepts acquired in Music 9, offers students an opportunity to develop technical and performance skills on an instrument, theory and aural skills, music literacy, judge a variety of repertoire, to listen and judge music with discrimination.*

COMPUTER

INFORMATION TECHNOLOGY 120 – focuses on the introduction of tools and strategies to engage students in authentic learning patterns and problem solving situations provides a foundation for transforming personal learning and gaining an understanding of open source and proprietary software, and addresses the acceptable internet/copyright rules and conventions used for exchanging information. Learning in this manner enables students to address cross curricular and community orientated real problems rather than just practising software/tools and procedural operations. Students are encouraged to develop new thinking and learning skills while determining effective methods of working and solving problems individually and collaboratively. In addition, students will design and create information products that demonstrate an understanding of ICT concepts and processes, solve problems, share knowledge globally, and experience the social and ethical implications of ICT. Finally, students will demonstrate their knowledge and understanding of the ICT concepts, issues, and processes necessary to create meaningful information data products.

VOCATIONAL COURSES

Home Economics Education:

CULINARY TECHNOLOGY 110 and 120 – is designed to prepare students for employment and/or future education in the food service industry. This technology-driven and skill-orientated program involves not only the “how and why” of food service preparation, but focuses on the development of personal skills and knowledge that can be applied to the food service industry. Laboratory experimentation, food preparation and service are an integral part of the program.

CHILD STUDIES 120 – explores how children develop physically, socially, emotionally and intellectually. Issues are discussed regarding the “quality of life” and human development, “society’s basic unit”, the family plus parenting skills in our complex, consuming and technological society. The importance of the need to provide love, continuity and stability, as well as the basic food, clothing and shelter requirements is addressed. Child Studies 120 includes a variety of human centered experiences from conception through to the development of the school age child.

HOUSING AND DESIGN 120 – studies the history of housing, the developments in technology and the style of living situations, as well as developing interior living spaces for houses and apartments.

NUTRITION FOR HEALTHY LIVING 120 – studies the science of food relation to Canada’s Food Guide and the relationship between food, nutrition and wellness. It emphasizes the decision making process concerning the use of both human and non-human resources required for safety and sanitation, dietary planning, food preparation and the concept of nutritional wellness. Nutrition issues are discussed regarding food on a global and regional level, food trends and lifestyles, eating disorders and new food technologies. Hands on laboratory experiments provide an integral part of this program. This course is available on line.

Industrial Education:

ELECTRICAL WIRING 110 – 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 area or who have a personal interest in electrical wiring.

FRAMING AND SHEATHING 110 – will provide students with skills and knowledge associated with the framing-in or shell construction of typical single family dwellings. Students will participate in construction and planning activities which includes interpretation of the National Building code, blueprint reading, estimation and material layout.

MILL AND CABINET WORK 120 – is a finish woodworking course in which students will develop the necessary skills, knowledge and work habits required to construct cabinets and other miscellaneous mill work typically found in residential dwellings. Students, through a series of projects, will be involved with all aspects of mill work including planning, estimation, operation of woodworking equipment and machines and finish operations. This course will be of benefit to those students interested in entering the construction or woodworking occupations as well as for those with a general interest in woodworking.

POWER TRAIN AND CHASSIS 110: This course is designed to develop skill and knowledge in the service and maintenance of the automobile chassis and power train. Emphasis is placed on the function, repair and replacement of components. Topics include spring and shock assemblies, brakes, steering, wheel bearings, tires, transmissions, differential and drive lines. Students seeking admission to the motor vehicle service industry, as well as those seeking guidance about a career choice, should benefit from this course.

INTERNAL COMBUSTION ENGINES 110 – is a study of the operation of the internal combustion engine including the construction, theory of operation and function of its system. Emphasis is placed on the development of basic skills essential for persons entering the motor vehicle service trades and other allied occupations. This course should be of interest to students interested in entering or learning about the opportunities and requirements of the motor vehicle industry and students with a general interest in mechanics.

AUTOMOTIVE ELECTRICAL SYSTEMS 120 (prerequisite: Internal Combustion Engines 110) This course provides an introduction to the theory and operation of automotive electrical systems. Students will begin with a study of the basic principles of electricity, which includes electron theory, magnetism, and electrical symbols. They will then progress to the study of individual components throughout the vehicle. This course would benefit students considering an occupational area involving the maintenance in the automotive, aircraft and marine industries.

ON-LINE COURSES

Student requirements: Before registering in an E-Learning course, students need to be aware that E-Learning courses have a heavy work load and students must be willing to commit to approximately 10 hours per week outside of class time to complete the work. Students must have:

- ✓ *The ability to work independently*
- ✓ *Grade level reading skills*
- ✓ *Strong study and organizational skills*
- ✓ *Intermediate-level computer skills*
- ✓ *Arrange to have a teacher mentor*

Students must complete all required work within the time frame set by the online course instructor to receive credit for an E-learning course. It is essential that students have a computer at home with internet access in order to catch up on assignments not completed during class time. Time management, prioritizing and organizational skills will be needed to maintain the online pace. A detailed list of courses offered on-line can be seen by visiting: <http://www.gnb.ca/0000/as/dl-e.asp>

A student cannot register for an on-line course. He or she must register with the guidance counselor who will apply on line to register the student. Students wishing to take courses at summer school or correspondence must see the guidance counselor before applying.

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