

Virden Collegiate
Institute

Course Calendar
2020-2021



LITERACY – EQUALITY - INTEGRITY

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Virден Collegiate 2020-2021 Handbook

Introduction

This booklet provides information about the programs and courses offered at Virден Collegiate Institute. Students in Grade 9 to 12 receive credits for each course they complete successfully. V.C.I. operates on a two-semester system, with the first semester running from September to January, and the second semester running from February to June.

The high school diploma emphasizes common learning in Grade 9 and 10, with Grade 11 and 12 designed to meet individual student needs through a wide array of elective courses. There are foundation, general, specialized, and advanced courses in different subjects.

Guidelines for Parents

Most serious career decisions are made **at home**, by students **and** their parents. Parents can ensure their children make suitable course selections by considering the following:

- Discuss your child's interests;
- Assist your child as he or she chooses courses;
- Try to be realistic about your child's potential and ability. A course/program that is too difficult could result in undue frustration and, unfortunately, an incomplete high school education. A route that is too easy, however, may close career options;
- Keep college and university prerequisites in mind.

Guidelines for Students

- Carefully consider your options;
- Take courses you want and need;
- Consider your interests and aptitudes, and discuss your plans with parents, teachers, the principal, or a guidance counselor;
- Find out about entrance requirements for university and community college programs
- Grade 9 students are encouraged to think about their plan after high school. **Courses you choose for Grade 10 can open or close career options after graduation.**
- **Grade 10, 11 and 12 students are encouraged to check their on-line schedule to see that it is meeting their career needs and to set meetings with the Career/Guidance Counselor to plot out their future direction for further education or the workplace.**

Using this Handbook

Course Letters

Course letters identify each subject as foundation, general, specialized, advanced, modified, or individualized.

Foundation (F): New curriculum replaces previous G designation, i.e. Grade 9 and 10 English, Grade 9 Mathematics, and Grade 9 and 10 Science.

General (G): General education experience for all students.

Specialized (S): Learning experiences and skills leading to post-secondary studies.

Modified (M): The curriculum is modified 50% or more to take into account the capabilities of students with special needs.

Course Numbering

A three-character code makes up the course numbering system. The first and second characters are numerals, and the third is a letter. This designation is for courses approved for credit by Manitoba Education and Training.

First Character:

- 1 – courses developed for Grade 9
- 2 – courses developed for Grade 10
- 3 – courses developed for Grade 11
- 4 – courses developed for Grade 12

Second Character:

- 0 – Manitoba Education, Citizenship and Youth one-credit course.
- 5 – Manitoba Education, Citizenship and Youth half-credit course.
- 1 – school or division developed course (includes SIPSs).
- 2 – university, out-of-province, or out-of-country credit.

Third Character:

- F - Foundation
- G - General
- S - Specialized
- E - EAL
- M - Modified

Illustrative Example, Math 10F: MAT10F			
MAT	1	0	F
Subject Name: Mathematics	Subject Level: Grade 9	Credit Value: One Credit	Course Type: Foundation

Prerequisites

When students plan their courses, prerequisites must be considered. Many courses are based on a foundation of knowledge and skills acquired in other courses. ***Certain courses must be taken in the proper sequence.*** For example, all mathematics, science, technology, and humanities credits are to be taken in the proper order (e. g., English 10F before English 20F). Students are encouraged not to take two or more grade levels of these courses at the same time.

Diploma Choices

Students at Virden Collegiate are offered three different programs – High School Diploma (30+ Credits with 17 Mandatory Credits and 13+ optional credits) and Technology Education Diplomas in either Business Education (30 Credits+ with 17 Mandatory Credits and 13+ optional credits with 8 of these optional credits being Business Technology Credits) or Power Mechanics (30 Credits+ with 17 Mandatory Credits and 13+ optional credits with 8 of these optional credits being Power Mechanics Credits).

NOTE: Students who meet the requirements of both the diplomas receive both a High School and a Technology Education Diploma.

Compulsory Courses = 17			
<u>Grade 9</u>	<u>Grade 10</u>	<u>Grade 11</u>	<u>Grade 12</u>
ELA	ELA	ELA	ELA
Mathematics	Mathematics	Mathematics	Mathematics
Science	Science	History	Phys. Ed / Health
Social Studies	Geography	Phys. Ed / Health	*2 Gr. 12 Electives
Phys. Ed / Health	Phys. Ed / Health	*1 Gr.11 Elective	

Technology Education Diploma

Business Education Diploma

This diploma provides an excellent background in theory and includes courses that help develop skills students will need as they enter the business world.

Power Mechanics Diploma

This diploma provides students with an excellent background, both in practical and theoretical work, for entering the field of mechanics. Students may proceed directly into a career or continue with post-secondary education. Colleges will give advanced standing for the training received at V.C.I. if students complete 8 or more courses and attain 70% or higher on a Final Exam administered by Apprenticeship Manitoba.

Certificates Offered at V. C. I.

Provincial High School Diploma

All students will be required to earn 30 credits to graduate.

Certificates issued by Fort La Bosse School Division are awarded as follows:

- Gold Special Achievement: Students who fulfill the requirements of any program and attain 35 or more credits receive this certificate.

Mature Student Senior Years Graduation

V.C.I. also provides opportunities for adult students to return to V.C.I. to complete their high school education. These students must meet slightly different criteria in order to graduate. For details, please make arrangements to meet with one of our administrators.

University Entrance Requirements

Many students and parents are concerned about university entrance requirements. Students should carefully select courses to meet the general and specific course entrance requirements for faculties. **Because the requirements frequently change, check a current university calendar to ensure wise course selection.**

Community College Entrance Requirements

Community college programs require various prerequisites. Due to the wide range of trades and technologies, students should discuss entrance requirements with the college of their choice. This is best done early in a student's high school career.

Most community college programs require Grade 12 for admission to the program. A few programs require only Grade 10, but most employers will not consider anyone who has not completed the Grade 12 program.

Course Selections

Students registering for the 2020-21 school year need to take note of the following rules prior to making course selections.

1. The handbook outlines the **BASIC REQUIREMENTS** of the regular high school and the technology education programs. Students and parents need to check the requirements carefully and to consult with homeroom teachers, guidance counselors and/or administration to make wise choices.
2. University bound students should check English, Math, and Science entrance requirements. For example, the University of Manitoba requires two Grade 12 English credits plus one Grade 12 Math **or** one Grade 12 English plus Pre-Calculus 40S.
3. **Grade 10 course choices in Mathematics** represent a major milestone in career decisions at high school. This subject splits into different streams with each resulting in significantly different career choices. Students should seek direction from V.C.I. staff **BEFORE** deciding which choices to make.

Mathematics:

After Math 10F, students are faced with two choices at Grade 10:

- Introduction to Applied and Pre-Calculus 20S (MAC20S),
- Essential Mathematics 20S (MES20S).

Note: Students must attain a mark higher than 60% in Grade 9 MAT 10F if they are wanting to take MAC20S. Students who earn a mark below 60% must take MES20S).

Students who attain a mark between 60% and 75% in MAT10F must consult with VCI staff if planning to take MAC20S.

Remember – Students must complete Intro to Applied and Pre-Cal (Grade 10) in order to enter into Applied and/or Pre-Calculus Math at Grade 11.

There are three streams in Grade 11 and 12:

- Applied, Pre-Calculus, Essential Mathematics

Which Math to take?

Universities accept any math stream for general admittance, but specific faculties have much more stringent requirements. Community colleges also have specific entrance requirements, which vary from course to course and college to college.

What should students do?

- Check specific entrance requirements for the careers in which they are interested, **prior to registering in Grade 10 Math.**
- If students are not certain what they will be doing after graduation, they should try to keep as many options open as possible.

Course Options at Virden Collegiate

Arts Education

Visual Art 10S (ART10S)

As a student enrolled in this course you will be exposed to visual awareness experiences. These experiences will help you to develop sensitivity to both the natural and built environments. Art appreciation experiences will encourage you to look at, talk, write and sketch about all kinds of art. Art production experiences will encourage you to experiment with different art materials and processes and to make your own works of art. There will be a cost to cover materials.

Visual Art 20S (ART20S)

This is an introductory course. The elements and principles of art theory are studied through application in assigned studio artwork. An emphasis on drawing is designed to enhance visual perceptual skills. The course also includes art history and art critique. A variety of media are used. Students are expected to display their work in an art show. Class size is limited by space. There will be a cost to cover materials.

Visual Art 30S (ART30S)

The overall goal of the art program is to develop visual art literacy in such a way that young people can express themselves visually and understand visual communication and meaningful artistic expression. Students learn to observe, to appreciate, and to understand art through continued discussion of the elements and the principles of art. The course also includes the history and the critique of art, as well as the use of a variety of media. Students are expected to display their work in an art show. Class size is limited by space. There will be a cost to cover materials.

Visual Art 40S (ART40S)

Prerequisites: Art 20S **or** Art 30S **or** submission of two pieces of the student's original artwork: one in color and one in black and white, at least 8.5 by 11.

Students continue their own personal exploration of art through their own expressive styles. Students are expected to submit proposed art projects plus critiques of their own work. Art history and critiques of other works continue to be part of this course to help students arrive at a personal understanding of the nature and function of art in our society. Students are encouraged to use a variety of art media. Students will display their work in an art show. Class size is limited by space.

There will be a cost to cover materials.

Band (BND10G, BND20G, BND30S, BND40S)

Band classes meet every second day for the entire school year. The Band program covers all types of music from Baroque to Modern 20th Century music. Band skills such as technical, expressive and reading skills are developed and emphasized. Music history, theory and ear training are part of the Band program. The band performs throughout the year. In all band years, the goal is to develop a well-trained and skilled band member. Out-of-class activities include performances at assemblies, concerts, Virden Festival and Optimist Festival (Winnipeg), band tours, and clinics. Enthusiasm and a love of music is required.

Choral (CCH10G, CCH20G, CCH30S, CCH40S)

The VCI choral class is offered every second day year-round. The choral program provides an exciting learning experience for students to develop vocal technique, musicianship, appreciation of many different styles of music, and communication /performance skills through repertoire and performance-based activities. The school year will include performance opportunities outside of the school day. The goal is to develop well-trained and skilled choral musicians. You do not need to know how to read music before joining the choir. All you need is an enthusiasm for singing and a willingness to perform.

Drama 10S (DRA 10S)

Students will participate in theatre games to build ensemble and develop their creativity and improvisational skills. They will learn basic theatre terminology and work to develop dramatic skills through use of body and voice. Students will participate in monologue analysis and performance and do scene work in small and large groups, working towards a final performance.

Drama (DRA20S, DRA30S, DRA40S)

Students will participate in theatre games to build ensemble and develop their own creativity and improvisational skills. Throughout the term, students will review and use theatre terminology, expand their dramatic performance skills, and gain knowledge in characterization through use of body and voice. Students will participate in monologue analysis and performance, dance projects, and scene work in small and large groups, working towards performances at festival and a final showcase.

Career Development

Life/Work Planning (LWP20S)

This course is designed to help students develop the ability to make effective decisions, set goals, make plans and act on plans, evaluate and modify plans to adjust to change. Students will be required to engage in and manage their own life/work building process. They will review the various components of the high school program, reflect on personal experiences and use this knowledge in developing /refining an annual education plan and career portfolio. Students will learn about the changing nature of life/work roles, factors involved in making life/work enhancing decisions, lifelong learning and its contribution to one's life and work. Completion of this course enables students to complete their "Credit for Employment" – (2 possible) and "Career Mentorship" credits – (2 possible) in their future high school years.

Life/Work Building (LWB30S)

This course teaches students to focus on personal management skills, work as a team, locate work information, plan for post-secondary financial aid, understand life/work balance and transition from high school. In addition to the classroom component, students will have approximately 45 hours at a worksite(s) to apply the specific program outcomes of the course during their Career Community Experiences Unit. Completion of this course enables students to complete their "Credit for Employment" – (2 possible) and "Career Mentorship" credits – (2 possible) in their future high school years.

Life/Work Transitioning (LWT40S)

This course gives students opportunities to internalize all the learning outcomes in a classroom setting and then spend up to 80 hours applying and personalizing these outcomes in their Career Community Experience. The Grade 12 program emphasis is on transition from high school to post-secondary training and preparation for employment. Completion of this course enables students to complete their "Credit for Employment" – (2 possible) and "Career Mentorship" credits – (2 possible) in their future high school years.

English Language Arts

English 10F (LAE10F) / Reading is Thinking (RIT 10S)

This program is based around the 5 General Outcomes, which are part of the Foundations for Implementation of the Grade 9 Manitoba Curriculum. The General Outcomes are: exploring thoughts, ideas, feelings, and experiences, comprehending and responding personally and critically to literary and media text, managing ideas and information, enhancing the clarity and artistry of communication, celebrating and building community. *Students will practice and develop skills in reading, writing, listening, speaking, representing, and viewing.*

English 20F (LAE20F)

English 20F is a continuation of the program begun in Grade 9. This course follows the Grade 10 Manitoba curriculum. Students are evaluated on successful work in the five General Outcomes and the 56 specific outcomes. These are achieved through a study of novels, drama, poetry, fiction and non-fiction; and through reading, writing, listening, speaking, representing, and viewing.

English 30S Comprehensive Focus (LAC30S)

This course continues the focus on the same 5 General Outcomes and the expanded 56 specific outcomes as in Grade 9 and Grade 10. This course provides a balanced program of practical and literary texts and skills.

English 30S Literary Focus (LAL30S)

This course continues the focus on the same 5 General Outcomes and the expanded 56 specific outcomes as in Grade 9 and Grade 10. This course focuses 70% on literary and 30% on practical reading and writing. To be successful in this course students should have strong reading and writing skills.

English 40S Comprehensive Focus (LAC40S)

This course continues the focus on the same 5 General Outcomes and the expanded 56 specific outcomes as in Grade 9, Grade 10, and Grade 11. This course provides a balanced program of practical and literary texts and skills. This course is 50% literature and 50% transactional and technical.

STUDENTS WILL WRITE A PROVINCIAL STANDARDS TEST IN THIS COURSE.

English 40S Literary Focus (LAL40S)

This course continues the focus on the same 5 General Outcomes and the expanded 56 specific outcomes as in Grade 9, Grade 10 and Grade 11. This course focuses 70% on literary and 30% on practical reading and writing.

This specialized course is intended for students with post-secondary educational goals.

STUDENTS WILL WRITE A PROVINCIAL STANDARDS TEST IN THIS COURSE.

Language

French: Communication and Culture (FRE10F, 20F, 30S, 40S)

Using a balanced literacy approach, motivated students will acquire language skills to communicate in French as well as appreciating francophone cultures. All language learners will need to listen actively, to use spoken French to the best of their ability, to read and discuss texts, and to write about topics discussed in class or occurring in their lives. Studying French enhances learning of other languages, making one multilingual. The multilingual language learner will see many opportunities for jobs, careers, education, travel and relationships.

Grade 10,11 and 12 students are expected to have a device (eg. Tablet or laptop) so they can access Microsoft One Note as well as other online resources.

Aboriginal Culture Class (RIT 20S, 30S, CES 41G)

Students will be exposed to a variety of cultural experiences connected to Aboriginal Teachings. Students will be expected to participate in hands-on experiences such as beading, crafts, and cooking. Students will also reflect upon aboriginal literature, such as; novels, short stories and poetry connecting them to their own life experiences. This course will be assessed as a pass / fail course, so attendance and participation are essential.

Social Studies



Canada in the Contemporary World 10F (CIC10F)

This is a general study of Canadian topics with focus on identity and culture, regional challenges, Canadian government, Canadian law, Canadian economic system, French-English relations, plus Canada and the world

Geographic Issues of the 21st Century 20F (GIS20F)

A regional study of North America covers all the basic aspects in the relationship between the physical and the human environment. The course develops a fairly good knowledge of the fundamentals of geography. There is some problem-solving, research, map work, and individual and group projects.

History 30F (HIS30F)

This course is a social and political history of Canada. The important political events are studied against the background of the economic and social events in the country, with some stress placed on the lives of “average people”. This course consists of six units which are developed into basic themes such as the peopling of Canada; new societies to 1867; government, federalism and politics; social and economic changes in modern Canada; Western Canada; and Canada’s external relations.

Global Issues (GIS 40S)

This course is designed to explore complex, and often critical, global issues that our world faces. It is an opportunity to study and discuss current events, and our connections to those events. Study and discussion topics include: Media, Consumerism, Environment, Wealth and Power, Indigenous Peoples, Peace and Conflict, Oppression and Genocide, Health and Biotechnology, Gender Politics, Social Justice and Human Rights.

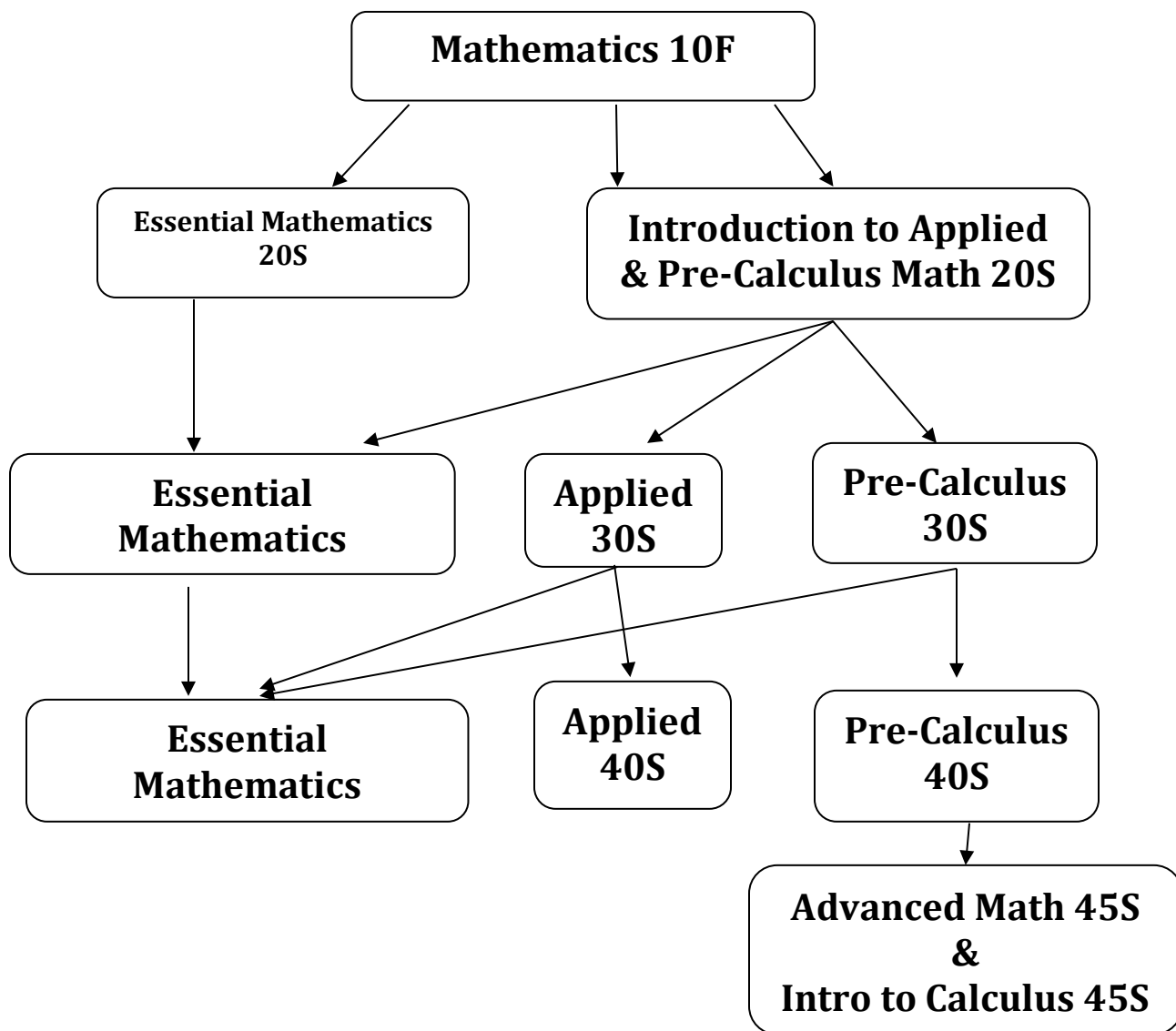
Law 40S (LAW40S)

Develops an understanding of the making of laws, an understanding of the court system in Canada, and an appreciation for the importance of law in our daily lives. Topics include history of law, Canadian Government, criminal law, human rights, contract law, consumer law, family law, and labor law.

Psychology (PSY40S)

This course is intended to introduce students to the exciting field of psychology, to help students gain a better understanding of themselves and others, and to prepare students for postsecondary education in related fields such as social sciences, health related occupations, management, education, etc. This course will cover interesting topics such as the influence of heredity and environment, motivation and emotions, sensation and perception frustration and conflict, personality disorders, learning and thinking and much more. Psychology is fun to learn about because it is all about why we behave, think, and feel the way we do and students will leave this course with a better understanding of themselves and the world around them.

Mathematics



Mathematics 10F (MAT10F)

Focuses on developing mathematical knowledge, skills, and attitudes by utilizing a problem-solving approach. Units include statistics and probability, polynomials, equations, powers and exponents, similarity, similar triangles, and spatial geometry.

Student goals are to value math, to become confident in their math abilities, to become math problem-solvers, and to communicate and reason mathematically.

Essential Mathematics 20S (MES20S)

Grade 10 Essentials math students will develop skills to reason and communicate mathematically, to problem solve and to understand and use mathematics in an everyday world. Grade 10 essentials math emphasizes consumer applications, problem solving, decision making and spatial sense. By developing these skills, students will become numerate and will be prepared to apply math in daily activities at school, at home, and in the community.

Introduction to Applied & Pre-Calculus Mathematics 20S (MAC20S)

Grade 10 Introduction to Applied and Pre-Calculus Mathematics (20S) is intended for students considering post-secondary studies that require a math pre-requisite. This pathway provides students with the mathematical understanding and critical-thinking skills that have been identified for specific post-secondary programs of study. The topics studied form the foundation for topics to be studied in both Grade 11 Applied Mathematics and Grade 11 Pre-calculus Mathematics.

Applied Mathematics 30S (MAP30S)

Grade 11 Applied Mathematics (30S) is intended for students considering post-secondary studies that do not require a study of theoretical calculus. It is context driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us. It builds upon the foundation knowledge and skills from Grade 10 Introduction to Applied and Pre-calculus Mathematics and builds a foundation for Grade 12 Applied Mathematics. The Grade 11 Applied Mathematics course includes the following topics: measurement, geometry, logical reasoning, statistics, and relations and functions. Additionally, students will complete a Mathematics Research Project.

Essential Mathematics 30S (MES30S)

Grade 11 Essential Mathematics (30S) is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. Grade 11 Essential Mathematics is a one-credit course consisting of two half-credits each emphasizing consumer applications, problem solving, decision making, and spatial sense. Grade 11 Essential Mathematics builds on the knowledge and skills of Grade 10 Essential Mathematics and provides a foundation for the topics studied in Grade 12 Essential Mathematics.

Pre-Calculus Math 30S (MPC30S)

Grade 11 Pre-calculus Mathematics (30S) is designed for students who intend to study calculus and related mathematics as part of post-secondary education. It builds on the topics studied in Grade 10 Introduction to Applied and Pre-Calculus Mathematics and provides background knowledge and skills for Grade 12 Pre-calculus Mathematics. Students will explore different topics using free technology available on phones, tablets and computers.

Applied Mathematics 40S (MAP40S)

Grade 12 Applied Mathematics (40S) is intended for students considering post-secondary studies that do not require a study of theoretical calculus. It is context driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us.

The Grade 12 Applied Mathematics course includes the following topics: Financial Mathematics, Logical Reasoning, Probability, Relations and Functions, and Design and Measurement. Additionally, students will complete a Mathematics Research Project.

STUDENTS WILL WRITE A PROVINCIAL EXAMINATION IN THIS COURSE.

Essential Mathematics 40S (MES40S)

Grade 12 essential Mathematics (40S) is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. Topics include vehicle finance, statistics, precision measurement, career life, home finance, geometry and trigonometry, business finance and probability.

STUDENTS WILL WRITE A PROVINCIAL EXAMINATION IN THIS COURSE.

Pre-Calculus Math 40S (MPC40S)

Grade 12 Pre-calculus Mathematics (40S) is designed for students who intend to study calculus and related mathematics as part of post-secondary education. It builds on the topics studied in Grade 11 Pre-calculus Mathematics and provides background knowledge and skills for the study of calculus in post-secondary institutions.

The course comprises a high-level study of theoretical mathematics with an emphasis on problem solving and mental mathematics. The topics include study of transformations of functions, trigonometric functions, exponential functions, logarithmic functions, polynomial functions, radical functions, rational functions, and the binomial theorem.

STUDENTS WILL WRITE A PROVINCIAL EXAMINATION IN THIS COURSE.

Advanced Math 45S / Intro to Calculus 45S (MCA45S / MAD45S)

The prime objective of this course is to introduce the student to areas of mathematics which will be studied in depth in post-secondary programs. Students are introduced to the concepts of limits, derivatives, applications of derivatives and integration. In this course, problem-solving, communication, reasoning, and mental math are some of the themes in each module.

Physical Education

Physical Education 10F/20F (PED10F/20F)

Students are expected to participate in a variety of physical activities including individual/dual/team sports, alternative pursuits, rhythmic/gymnastics, and fitness activities scheduled on an ongoing basis throughout the year. Programming will include learning activities that are representative of different learning environments or settings (eg. Playing fields, parks, trails, arenas, and representative of multi-cultural perspectives).

Guidelines for P.E./Health includes five components:

1. Movement – Students demonstrate competency in selected movement skills and knowledge of movement development.
2. Fitness Management – Students demonstrate the ability to develop and follow a personal fitness plan for lifelong physical activity.
3. Safety – Students demonstrate safe and responsible behavior to manage risk and prevent injuries in physical activity. Students also learn to promote safety in the home, school, community and the environment.
4. Personal and Social Management – Students demonstrate the ability to develop self-understanding, to make health-enhancing decisions, to work co-operatively and fairly with others and to build positive relationships with others.
5. Healthy lifestyles practices – For students to demonstrate the ability to make informed decisions for healthy living related to personal health practices, active living, healthy nutritional practices, substance use and abuse and human sexuality.

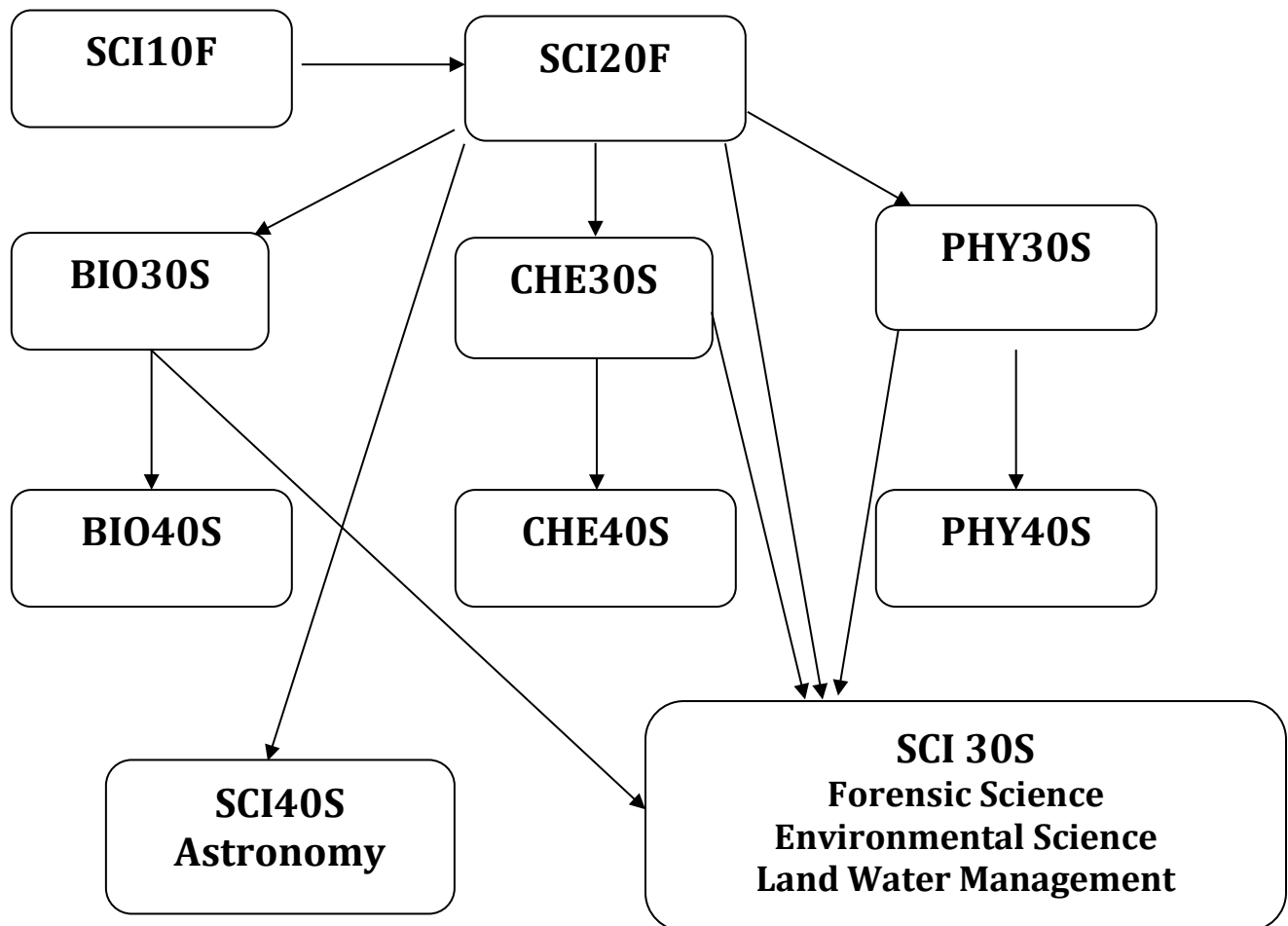
Physical Education 30F (PED30F)

This compulsory full-credit course is designed to help youth take greater ownership of their own physical fitness, to encourage them to seek out activities that interest them, and to engage in active lifestyles into their futures. Students will study topics related to fitness management, mental health, substance use and abuse prevention, and the social impact of sport. The focus of this content will be on health and personal planning. These topics will make up the core IN-class component of the course content. Students will be required to do the entire IN-class component for 100% of the credit. Students will be introduced to safety and risk management planning to minimize the associated risks of the activities they have chosen. Students will be graded for completion of the course with a Complete or Incomplete designation.

Physical Education 40F (PED40F)

This compulsory full-credit course is designed to help youth take greater ownership of their own physical fitness, to encourage them to seek out activities that interest them, and to engage in active lifestyles into their futures. Students will study topics related to fitness management, nutrition, sexual health, social/emotional health, and personal development. These topics will make up the core IN-class component of the course content. Students will be required to do the entire IN-class component for 100% of the credit. Students will be introduced to safety and risk management planning to minimize the associated risks of the activities they have chosen. Students will be graded for completion of the course with a Complete or Incomplete designation.

Science



Science 10F (SCI10F)

Topics include:

- Biology: reproduction – first in simple plants and animals and then primarily on humans.
- Chemistry: atomic theory, elements, compounds and mixtures, the periodic table and chemical families plus ionic and molecular compounds.
- Physics: static electricity, current electricity (series and parallel circuits)
- Astronomy: changing interpretations of the observations of the movements of stars and planets, the solar system, the life story of a star, galaxies and the universe.

Science 20F (SCI20F)

Prerequisite: Science 10F

The course consists of four units: In Motion; Dynamics of Ecosystems; Weather Dynamics; and Chemistry in Action. It is designed for students to continue their studies in physics, chemistry, and biology. Students will be involved in group work, labs and problem solving.

Science 20F is a prerequisite for Biology 30S, Chemistry 30S and Physics 30S.

Science 30S (SCI30S / SC230S / SC330S)

Prerequisite: Science 20F

Science 30S “Current Topics” course provides an integrated approach to studying science. Multidisciplinary topics will be investigated. Emphasis will be made on developing research, critical thinking, and problem-solving skills. As this course will have less emphasis on knowing scientific facts and information, it will be considered as an option course and not as a prerequisite for post-secondary education. The students will have input into the topics covered by the course. Some possible topics include Forensic Science, Stem Cell Research, Sports Science, Wildfires, Biotechnology Today, Technologies of the Future, Transportation in the Future, Living in Space, plus many other options. Assessment strategies will vary, depending on the nature of the unit. Research projects, lab work, and presentation of material will be considered in the evaluation. There will not be any formal tests. Students who are highly motivated, interested in expanding their scientific knowledge in a different way and are capable of working independently for extended periods of time are the best candidates for this course.

Science 40S (SCI40S)

Prerequisite: Science 20F

In Science 40S “Interdisciplinary Topics in Science” students will explore, understand and use essential science concepts in a variety of contexts. (example – Astronomy)

Biology 30S (BIO30S)

Prerequisite: Science 20F

This course builds on what students know and are able to do as a result of studies in Science 10G and Science 20F. It continues to retain a human biology focus. Evaluation is based on quizzes, unit tests, group work, laboratory work, and an examination.

Biology 40S (BIO40S)

Prerequisite: Biology 30S.

This course builds on what students know and are able to do as a result of their studies in Science 20F and Biology 30S. The course has two distinct parts. In Part 1 – Genetics, there are two units: Unit 1 – Understanding Biological Inheritance (genetics, heredity), and Unit 2 – Mechanisms of Biological Inheritance (molecular genetics, genetic engineering, and bioethics). In Part 2 – Biodiversity, there are three units: Unit 3- Evolutionary Theory and Biodiversity, Unit 4 – Organizing Biodiversity (taxonomy, cladistics, and phylogeny), and Unit 5 – Conservation of Biodiversity (threats to biodiversity, population ecology, and conservation strategies). Both Biology 30S and 40S include topics of relevance to students and are prerequisites to further study of Biology.

Chemistry 30S (CHE30S)

Prerequisite: Science 20F and recommend either Intro to Pre-Calculus Math 20S or Applied Math.

Chemistry opens doors to all the sciences including biology-related fields such as medicine, lab technician, and nursing. Students examine the role of chemistry in the past, present, and future; and the major branches of chemistry. Physical properties and changes in matter are studied. Emphasis is placed upon chemical reactions – how, why, and what quantities of chemicals react with each other. Other units include solubility, acids and bases, and organic chemistry.

Chemistry 40S (CHE40S)

Prerequisite: Chemistry 30S.

The course begins with the nature of chemistry – emphasis is placed upon further developing observation, inference, and communication skills in science. Students generate questions about chemical reactions, and design experiments to help answer these questions. Studies of kinetics, chemical equilibrium, acid-base equilibrium, solubility equilibrium and oxidation-reduction reactions make up the remainder of the course.

Physics 30S (PHY30S)

Prerequisite: Science 20F AND recommend Intro to Applied & Pre-Calculus 20S

Topics include:

- Introduction to Physics – Measurement skills, graphics analysis and vectors
- Mechanics – Position and displacement, velocity, acceleration, dynamics, impulse and momentum
- Fields- Gravitational, electric, magnetic and electromagnetic fields
- Waves – Waves in one and two dimensions, sound and light
- Introduction to Modern Physics – Particle and wave models of light, photons, and wave/particle duality

Physics 40S (PHY40S)

Prerequisite: Physics 30S

Topics include:

- Introduction to Physics – Relationships, order of magnitude, and vectors
- Mechanics – Kinematics, dynamics, projectiles, circular motion, work, energy, fields, electric currents, and electromagnetic induction
- Introduction to Modern Physics – Medical Physics/Radiation

Business Technology - Applied Commerce Courses

Note: Eight courses are required from this stream to earn the Business Technology Diploma. Business Technology courses include:

STAND-ALONE COURSE Business Innovations 10S	
FINANCE STRAND	ENTREPRENEURSHIP STRAND
Personal Finance 20S Accounting Essentials 30S Accounting Systems 40S Economic Principles 40S	Entrepreneurship 20S Venture Development 30S* Business Management 40S*
COMMERCE STRAND	TECHNOLOGY, TOPICS & TRENDS STRAND
Creative Promotions 20S Retailing Perspectives 30S Marketing & Digital Commerce 40S	Business Communications 30S Applied Business Technologies 40S* Topics and Trends in Business 40S*

*This course is currently not offered at V.C.I.

Stand-Alone Strand

Business Innovations 10S (BIN 10S)

Business Innovations is an introductory course that allows students to sample the various strands within the applied commerce education program. This course offers students the opportunity to explore commerce-related topics, such as economics, entrepreneurship, business, marketing, technology, and finance. Throughout the course, students will apply the concepts and strategies they learn to a variety of creative business projects or simulations.

Finance Strand

Personal Finance 20S (PFN 20S)

Personal Finance focuses on developing fundamental financial literacy skills, including the value of money, basic economics, budgeting, saving, financial institutions services, and investing. This is especially relevant to high school students, since they are entering the workforce and are considering future purchases that require financial planning, such as buying a car, travelling, or pursuing post-secondary education. Since financial literacy is a life skill, this course is a good option for all students.

Accounting Essentials 30S (ACE 30S)

Accounting Essentials helps students gain an understanding of basic accounting. With an emphasis on accounting for a service business, students will apply their knowledge and skills to complete the stages of the accounting cycle. Accounting Essentials provides the fundamentals of accounting and is a good choice for students who plan to further their finance studies in Accounting Systems. Students interested in pursuing post-secondary studies in any business discipline will benefit considerably by completing this course.

Accounting Systems 40S (ASY40S)

Accounting Systems is an extension of Accounting Essentials. It includes an introduction to financial analysis and corporate accounting. With an emphasis on accounting for a business merchandising business, students will apply their knowledge and skills to complete the stages of the accounting cycle. The skills acquired in this course are not only useful when pursuing a career in business or accounting, but essential for everyday life.

Economic Principles 40S (ECP 40S)

Economic Principles focuses on both microeconomic and macroeconomic principles including systems and structures, supply and demand, market influences, the global market, and decision making related to economic factors. This course is designed for students wanting to learn more about how the economy impacts their personal and business decisions at a local, national, and global level. Students will learn more about their role in the economy and how economic conditions affect short and long term decision making. Since everyone is a participant in our economic system, all students would benefit from taking this course. It is also an excellent course for students interested in pursuing post-secondary studies in the area of business, accounting, or economics.

Entrepreneurship Strand

Entrepreneurship 20S (BEN 20S)

Entrepreneurship focuses on developing the foundations skills and ideas needed to plan and develop a business. This course is relevant to high school students since many are already involved in their communities, and are starting to recognize various needs, and opportunities in their areas. Students begin by evaluating innovation, inventions, and innovative ideas. They learn the process of planning, marketing, and implementing a venture. This course is designed for students interested in business principles related to the ownership and management of a business.

Venture Development 30S

Not currently offered at VCI.

Venture Development builds upon the concepts and ideas studied in Entrepreneurship 20S. Students focus on planning, creating, implementing, evaluating, and growing their own business venture. Venture Development is designed for students interested in starting their own business and in furthering their knowledge of business ownership and management principles.

Business Management 40S (BMA 40S)

Not currently offered at VCI.

Business Management focuses on developing skills in planning, leading, organizing, controlling, and staffing. Students will study various management styles and participate in activities related to human resources, inventory, finance, and project management. This course is designed for students interested in furthering their knowledge of management strategies used in various settings and furthering their knowledge of business ownership.

Commerce Strand

Creative Promotions 20S (CPR 20S)

Creative Promotions helps students develop an understanding of promotional communication from both a theoretical and a practical approach. The course focuses on advertising strategies, direct marketing, personal selling, sales promotions, and public relations. Students will apply these concepts and their creativity to design a variety of promotional and advertising material. Creative Promotions is designed for students who are looking to expand their business knowledge regarding communicating effectively and creatively.

Retailing Perspectives 30S (RTP 30S)

Retailing Perspectives helps students gain an understanding of retailing from both a theoretical and practical approach. This course provides insight on the various types of retail establishments and forms of ownership. It emphasizes the retailing operations of both a physical and online environment. Retailing Perspectives focuses on the financially sustainable strategies retailers use to appeal to consumers. This course is designed for students interested in managing or owning their own retailing establishment. It is, however, relevant to all students, since, as consumers, they experience retailing as part of their daily lives.

Marketing and Digital Commerce (MDC 40S)

Marketing & Digital Commerce helps students develop an understanding of marketing activities from both a theoretical and practical approach. This course focuses on applying marketing concepts, principles, and strategies in making decisions related to product, price, place and promotion. Students will apply these concepts and their own creativity through hands-on applications and the creation a marketing plan. This course is designed for students interested in a variety of business opportunities, as well as those who are looking to further expand their business knowledge. The course is of interest to a wide range to students, since it teaches skills that are fundamental to all consumers.

Technologies, Topics, and Trends Strand

Business Communications 30S (BCO 30S)

Business Communications focuses on communication skills and techniques that are essential in business. Students will develop effective written, verbal, interpersonal, and visual communication skills. They will also learn how to use current technologies to create communications that are clear, concise, and designed for business. Business Communications is designed for students interested in pursuing post-secondary studies in the business field. It is also a desirable course option for future entrepreneurs or any individual who wants to develop effective workplace communication skills.

Applied Business Technologies (ABT 40S)

Not currently offered at V.C.I.

Applied Business Technologies focuses on integrating advanced software features commonly used in business. This course is designed for students interested in learning about collaboration, digital communication, and customization of presentation software to create, edit and manage business documents, using advanced features of word processing, spreadsheet, and database applications. Topics will also include multimedia elements such as creating and manipulating images, graphics, videos, and animations. Applied Business Technologies is designed to improve students' transferable skills, which will increase their success in the business world.

Topics and Trends in Business 40S

Not currently offered at VCI.

Topics and Trends in Business uses an inquiry-based learning model to allow students to explore current and/or emerging topics, trends, and opportunities related to business at a local, national, or global level. Students will design, recommend, and/or implement an action plan based on their inquiry findings. This course is designed to allow students to focus on issues about which they are passionate.

Senior Years Information and Communication Technology

(The following cannot be applied to a Business Diploma)

Digital Pictures 25S (TDP25S)

The purpose of this course is to provide students with the skills and knowledge to convey a message through an original digital image. Students will be responsible for capturing all images for the school yearbook.

Digital Film Making (TDF25S)

The purpose of the course is to provide students with the skills and knowledge to tell stories by combining sound, still images, moving images, text, graphics, and animation into a video product. Students will plan, develop, and produce a video project.

Computer Science (CSC20S)

This course is intended to offer the student the level of programming available to the prospective college student who intends to major in computer science, mathematics, or engineering. Students will begin programming using Scratch. Scratch is web based and utilizes block programming. Students will move onto Processing, which utilizes Java along with a visual design component. Students conclude the year by coding in Beetle Blocks, which is a 3D web-based block language. Beetle Blocks projects can be 3D printed. At the end of the semester, each student will create a final project to demonstrate the skills they have acquired during the year. A strong mathematical background is encouraged but not a prerequisite.

Computer Science (CSC30S)

This course is intended to offer the student the level of programming available to the prospective college student who intends to major in computer science, mathematics, or engineering. Students will program in Java. Students will learn about, outputting strings, variables, if statements, loops, methods and building their own objects. Grade 10 computer science is not required. The course culminates in a final project that gives the students an opportunity to showcase their skills.

Computer Science (CSC40S)

This course is intended to offer the student the level of programming available to the prospective college student who intends to major in computer science, mathematics, or engineering. Students will program in Java. Students will learn about inheritance, arrays and GUI's. If a student completes all three sections of computer science they will have completed most of the topics covered in the majority on first year university computer science. Grade 10 or 11 computer science is not required. The course culminates in a final project that gives the students an opportunity to showcase their skills.

Graphics Technology 20G (GRA20G)

This course appeals to students who like to work with drawings and printing. Images and text are generated through a variety of techniques and software applications. The students work with more advanced forms of photographing; layout and covers; advertising; journalism; and printing, including screen-printing.

Home Economics

Foods and Nutrition 10 (FAN10S)

Grade 9 Food and Nutrition focuses on the fundamentals of kitchen safety, sanitation, kitchen math, reading a recipe, purpose of ingredients in a recipe, correct use of equipment and basic nutrition. The students are given opportunities to apply this knowledge through food preparation in a practical setting with an emphasis on baking.

Foods and Nutrition 20 (FAN20S)

Grade 10 Food and Nutrition focuses on the individual within the family unit and the influence that marketing and media have on family food choices. Students will gain a strong understanding of the categories of nutrients, why our bodies need them, and what foods are consumed for health and well-being. The course provides opportunities for students to further develop food preparation skills in a practical setting. Students have the opportunity to acquire their FOOD SAFE certification.

Foods and Nutrition 30 (FAN30S)

Grade 11 Food and Nutrition focuses on the individual within the community and Canada, including the influence regions have on our food choices and personal practices. Students will be exposed to food and production in Manitoba and examine food availability and food security within Manitoba. Students will analyze the nutritional composition of food and reflect on their own nutritional choices. Practical skills will focus on foods of Canada.

Foods and Nutrition 40G (FAN40S)

Grade 12 Food and Nutrition is a critical examination of the individual as a responsible citizen. This course will explore sustainability and ethical practices within food production and access. Students will examine food security and barriers that exist to achieve food security for all people. Students will investigate solutions to local and global food accessibility. Practical skills will focus on foods from around the world.

Family Studies

Family Studies facilitate the understanding in various areas: human development, relationships and influences, health and wellness, parenting and caregiving as well as citizenship and sustainability. The courses are full credits, which help prepare students for further study in child-care, social sciences, or for improved quality of life for themselves, their family, and the rest of society.

Family Studies 20F (FAS20S)

Students will cover the fundamentals of child development from pre-natal to toddler. It studies the importance of the parental or caregiver role. The class will consider how pregnancy progresses, affects the mother and culminates in labour and delivery. Students are expected to wear a pregnancy vest for a portion of the school day and to care for a baby simulator for 72 hours.

Family Studies 30S (FAS30S)

Deals with the social, emotional, intellectual, and physical growth of the child aged two to six. Factors influencing all aspects of child development are included, such as the “play” of children. “Parenting roles” are also discussed, stressing the importance of character building and behavior through the understanding of values, goals, and responsibilities. The practicum, which occurs towards the end of the semester, will consist of observation and interaction at a daycare, preschool or kindergarten setting.

Family Studies 40S (FAs40S)

The study of human development continues relating to personal development and dealing with one’s self-concept and self-management. Major topics include social development through effective communication and developing effective relationships including marriage and parenting. The importance of the family unit in society focuses on the entire life cycle from birth to old age.

Industrial Arts

Woodworking Technology and Industrial Design 10G (IAW 10G)

This course appeals to students who enjoy working with their hands and building projects. It will provide students with the skills and knowledge required in the shop environment. Students will be required to build planned projects designed to teach them the safe and proper methods of using the tools, equipment, machines and processes found in the woods shop. Topics include safety, measuring and layout tools, hand tools, power tools and finishing.

Woodworking Technology and Industrial Design 20G (IAW 20G)

Prerequisites: Woodworking Technology and Industrial Design 10G

This course is a continuation to perfect and put to use the variety of skills introduced by the 10G program. As well as reviewing the knowledge previously learned, students will also be introduced to new tools, machines and processes. The focus of 20G Woodworking is wood joinery. Topics include safety, measurement, wood joinery, processes and project planning. There is a final project requirement.

Woodworking Technology and Industrial Design 30G (IAW 30G)

Prerequisites: Woodworking Technology and Industrial Design 20G

This course is a continuation to perfect and put to use the variety of skills introduced by the 10G and 20G programs. As well as reviewing the knowledge previously learned, students will be introduced to new processes. Students will be combining the skills and information provided by the program along with their unique ideas and design creativity to construct various projects. The focus of 30 G Woodworking is drawers and doors. Topics include safety, tool and process review, new processes and project planning. There is a final project requirement.

Woodworking Technology and Industrial Design 40G (IAW 40G)

Prerequisites: Woodworking Technology and Industrial Design 20G

This course is a continuation to perfect and put to use the variety of skills introduced by the 10G and 20G programs. As well as reviewing the knowledge previously learned, students will be introduced to new processes. Students will be combining the skills and information provided by the program along with their unique ideas and design creativity to construct various projects. The focus of 30 G Woodworking is drawers and doors. Topics include safety, tool and process review, new processes and project planning. There is a final project requirement.

Power Mechanics

Provides opportunities for skill development in:

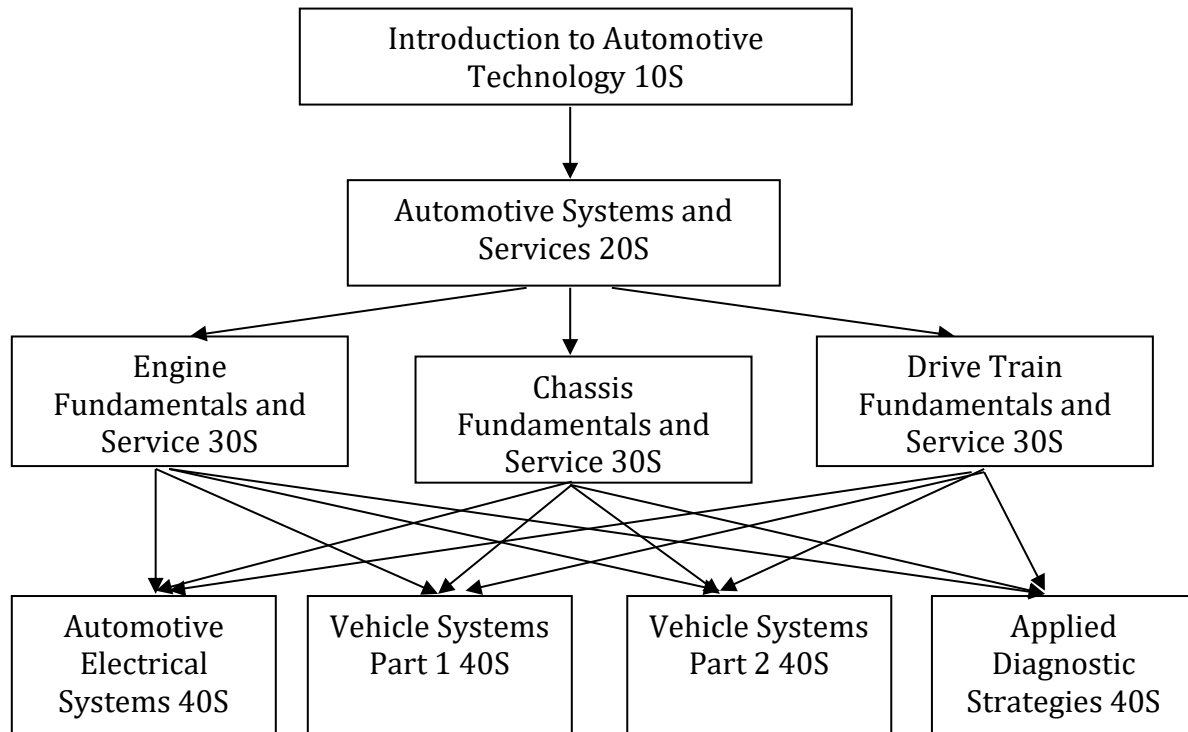
- tool and equipment operation;
- basic and advanced automotive equipment operation;
- basic and advanced automotive practices, diagnosis, and service work;
- heavy duty mechanics;
- shop organization and management.

Industry-level standards promote career success and personal satisfaction.

To receive a Technology Education diploma, students must complete EIGHT power mechanics credits. If students complete eight Power Mechanics courses and have a mark of 70% or higher in each class, they will earn their first year of Apprenticeship course work.

Power mechanics credits emphasize theory and practical skills. Periodic tests monitor achievement in the required sequence of skill development. Generally, 60% of the final mark is assigned for practical work and 40% for theoretical knowledge.

The power mechanics courses are described below.



Introduction to Automotive Technology 10S (IAT 10S)

This is a course intended for students wishing to sample automotive technology. The emphasis is on hands-on activities. Students are introduced to safety, tools and equipment, automotive systems and service procedures. Career opportunities, the apprenticeship program, and the history of mechanics are explored. Students are given time to transfer theory and practical applications in the shop. Students are required to supply appropriate shop clothes.

Automotive Systems & Service 20S (ASS 20S)

A student wanting to develop skills in the automotive service and repair industry must have knowledge of the basic principles related to automotive systems and service. Students learn safety, tools and equipment including Oxy-Acetylene (OAW) welding and cutting, automotive systems and service procedures and are introduced to diagnosis strategies.

Engine Fundamentals and Service 30S (EFS 30S)

A student wanting to develop skills in the automotive service and repair industry must have knowledge of the basic principles of the internal-combustion engine, the inner workings and relations of the engine components and how those relate to vehicle operation. The student will learn the procedures to service, repair and replace engines and their components.

Chassis Fundamentals and Service 30S (CFS 30S)

A student wanting to develop skills in the automotive industry must have knowledge of the basic principles of the vehicle chassis and its brake system. The student will be able to describe, diagnose and repair braking, steering, and suspension systems. The student will develop an understanding of the principles of wheel and steering alignment and be able to apply the principles to diagnose and align steering systems.

Drive Train Fundamentals and Service 30S (DFS 30S)

A student wanting to develop skills in the automotive industry must have knowledge of the basic principles of the vehicle drive train. The student will develop an understanding of the different drive train configurations and their components. The student will be able to diagnose and repair a variety of drive train components.

Automotive Electrical Systems 40S (AES 40S)

A student wanting to develop skills in the automotive industry must have knowledge of the basic principles of automotive electrical systems. The student will understand the principles of electricity and electronics as they relate to automotive systems. The student will be able to diagnose, service, and repair automotive electrical circuits and components.

Vehicle Systems (Part 1) 40S (VS1 40S)

A student wanting to develop skills in the automotive industry must have knowledge of the operation of the automotive electronic and control systems. Students' knowledge in electrical systems will be further enhanced by learning principles of ignition, control, and communications systems. The student will be able to diagnose, service and repair ignition, control, and communications systems.

Vehicle Systems (Part 2) 40S (VS2 40S)

A student wanting to develop skills in the automotive industry must have knowledge of engine management and emissions systems, hybrid vehicle systems, as well as gas metal arc (MIG) welding. The student will understand the principles of fuel supply, metering, and vehicle emissions. The student will be able to use electronic diagnostic interface to diagnose, service, and repair engine management and emission systems.

Applied Diagnostic Strategies 40S (ADS 40s)

A student wanting to expand skills in the automotive industry must be able to apply diagnostic strategies to a variety of vehicle systems and components. The students will demonstrate the ability to diagnose and correct customer concerns and to complete vehicle repairs to accepted industry standards.

High School Apprenticeship Program

The High School Apprenticeship Program (HSAP) allows students the opportunity to start their apprenticeship training while still in high school or completing a high school program. It combines regular high school instruction with paid, part-time, on-the-job apprenticeship training.

The HSAP program provides practical, paid work experience and the opportunity to:

- Get hands-on experience using specialized, technological equipment
- Earn up to eight supplemental academic credits for graduation
- Get paid at least 10 percent more than the minimum wage rate
- Apply their on the job training hours to continued, full-time apprenticeship training following graduation
- Use the experience to get a full-time job

Community Service Student-Initiated Project

CSSIP Students may earn one Community Service credit (in the form of a SIP) within the 30 credits for graduation. These SIPs consisting of volunteer service are not to be registered with the Department. A Community Service SIP course code (8977) is available. Guidelines for this SIP are available at

http://www.edu.gov.mb.ca/k12/policy/gradreq/docs/choice_attachb.pdf.

NOTE: If you require further information or have questions please feel free to contact the school and speak to one of our Student Services staff members:

Mark Keown – Principal (mkeown@flbsd.mb.ca)

Mike Bertram – Vice – Principal (mbertram@flbsd.mb.ca)

Deb Peters – Counselor (dpeters@flbsd.mb.ca)

Michele Cabernel – Resource (mcabernel@flbsd.mb.ca)

Main Office: 204 – 748 - 2205

VIRDEN COLLEGIATE INSTITUTE

“Home of the Golden Bears!”

INTEGRITY LITERACY EQUALITY