

WMCI

Course Description Handbook



2023-2024

William Morton Collegiate Institute

Course Description Handbook

Level 10 (Grade 9)

Compulsory Credits

Transitional Mathematics 15F (.5 credit)

Transitional math offers students the basic mathematical and study skill that they will need to be successful in their high school careers. Students will need to demonstrate the following behaviors; persistence, managing impulsivity, listening and understanding, flexibility in thinking, and effective questioning. Transitional Math will revisit and strengthen skills developed in previous math courses as well as introduce some new skills and techniques to aid in problem solving. Topics include; rational numbers, integers, geometry, and financial mathematics.

Mathematics 10F (1 credit)

Grade 9 Mathematics is a foundational course to prepare students for multiple pathways in Grades 10 to 12. The learning outcomes are divided into four strands: *Numbers; Patterns and Relations; Shape and Space; Statistics and Probability*. Within these strands are units of study including Square Roots and Surface Area, Powers and Exponent Laws, Rational Numbers, Linear Relations, Polynomials, Linear Equations, Similarity and Transformations, Circle Geometry, and Probability and Statistics. Students require an inexpensive geometry set and a scientific calculator. Students will, however, be encouraged to use mental math for a majority of the coursework.

****There is a midterm and final assessment in this course****

English Language Arts 10F (1 credit)

The course is focused on providing students with the opportunity to develop specific strategies and skills to increase their ability, knowledge, and learning in the language arts. This is a foundational course designed for students to experience and produce 50% *pragmatic* material (created for the purpose of providing information/opinion) and 50% *aesthetic* material (created for literary enjoyment).

- a) Pragmatic material includes such forms as essays, editorials, news articles, documentaries, and reports.
 - b) Aesthetic material includes such forms as novels, poems, short stories, films, drama, artwork, and photographs.
- Each sequence of study (thematically-based) allows for the active use of the six language arts strands – speaking, listening, reading, writing, viewing, and representing.

****There is a final assessment in this course.****

Physical Education/Health 10F (1 credit)

Physical Education 10F is an introduction to senior physical education courses. Team sports, introduction to individual sports, fitness training and improvement, and rules and history are covered. The main focus is on participation and the importance of physical activity as part of a healthy lifestyle.

Health 10F makes up one half of the Physical Education 10F credit. The focus of the Grade 9 health course is on the prevention of health problems by promoting physical, social, emotional and intellectual well-being. Units of study include physical well-being, social-emotional well-being, nutrition, safety, community health, and family life.

Canada in the Contemporary World 10F (1 credit)

Students focus on the opportunities and challenges at the core of Canada's contemporary plurality. They begin with an overview of Canada today, including its demographics, geography, and political organization. They examine the evolving stories of interaction among the people of Canada, and the influence of the land on the development of Canada. They explore the historical and contemporary complexities of citizenship and identity, considering the challenges and opportunities that emerge when groups with differing identities and perspectives interact with one another. Contemporary Canadian questions and issues are examined within the global context. Students are given opportunities to explore how they may become involved in Canadian issues. Through this inquiry, they are enabled to become informed decision makers actively involved in their local, national, and global communities.

Science 10F (1 credit)

Essentially a continuation of the Grade 7 and 8 (Junior High) Pan Canadian Science Curriculum, Science 10F concentrates on four main clusters of study:

1. *Atoms and Elements* are the background focus of Chemistry in preparation for learning chemical properties, symbols, and formulas.
2. In the *Astronomy* portion, students will explore the universe using observational techniques and inquiring into space issues and technology.
3. *Electricity* offers an understanding of electrostatics and current electricity.
4. The *Biology* section outlines reproduction in organisms from the simplest single celled organisms to the complexities of human reproduction and genetics.

Reading is Thinking 10S (1 credit)

The RIT course assists students with making connections to reading in three main ways to develop skills needed for effective metacognition (self-thinking while learning):

- 1.) **Thinking About Self:** developing identities as confident, engaged, and motivated readers;
- 2.) **Thinking About Text:** developing the characteristics and practices of proficient readers before, during, and after reading across the curricula (content area and pleasure reading)
- 3.) **Thinking About the World:** developing critical reading/literacy skills in order to demonstrate deeper understanding of a variety of text in order to express and substantiate personal positions as well as solve problems, make decisions, resolve conflicts, and take action in their world.

Students will demonstrate their abilities to choose, and effectively use, a variety of reading strategies to improve their learning. These will include word study, personal reflections and journaling, metacognitive strategies, vocabulary, and pre-, during, and post-reading strategies.

Keyboarding 25S (.5 credit) / Print 25S (.5 credit)

This introductory course deals with developing keyboarding and word processing skills, and provides students with the skills and knowledge to plan and create documents for personal and business communications. With the widespread use of computer technology in many industries, this course serves a wide variety of student interests. Proper technique combined with speed and accuracy, as well as professional communication, are essential skills in today's technologically based world.

Level 10 (Grade 9) **Optional Credits**

****Students can enroll in other grade level optional credits provided prerequisites are met. Please refer to Level 20/30/40 course descriptions throughout this handbook****

Industrial Arts: Metalwork Technology 10G (1 credit)

This course is designed to introduce students to metallurgy, welding, and basic manufacturing. Students will also be working with precision measuring tools throughout the course. Welding areas that will be covered are Stick (smaw), Mig (gmaw), and Flux core (fcaw). Students learn to operate various machines and their components as part of this course. There is also an individual project that will be designed and fabricated by students.

****Maximum student capacity per class of 16****

Industrial Arts: Power Mechanics Technology 10G (1 credit)

Students taking this course will study a variety of engine systems such as: fuel, ignition, lubrication and cooling. Once the systems have been studied, small motors will be disassembled, studied, reconditioned and assembled. There may also be time for students to trouble shoot other motors as well. Upon completion of the course, students should have a good foundation of motor fundamentals.

****Maximum student capacity per class of 16****

Band 10S (1 credit) *(Previous band exposure is recommended but not mandatory)*

The Grade 9 Band program consists of a performance oriented concert band. Students will continue to improve the skills learned in Junior Band on their individual instruments through rehearsals and at-home practice. Different styles and eras of music will be learned and played. This course includes a theory (written notation) portion as well as a Music History section. Students should have a minimum of 2 years of playing experience and show an ability to read music notation.

Choir 15G (.5 credit) *(Previous choir exposure is recommended but not mandatory)*

The Grade 9 Choir program is performance oriented. Students will continue to develop and improve their singing skills learned in elementary choir. Different genres of music will be learned and sung. Along with singing various repertoire, this course also includes ear training and sight singing. Students should have a minimum of 2 years of singing experience and show an ability to follow music notation. Lunch practices may be required to fulfill the .5 credit allotment.

Drama 15G (.5 credit)

There are 4 main focus points in this course. Students will develop understanding of and facility with dramatic forms and elements. Secondly, students collaboratively and individually generate, develop, and communicate ideas in creating and performing drama for a variety of purposes and audiences. Students connect drama to contexts of time, place, and community, and develop understanding of how drama reflects and influences culture and identity. Finally, students will analyze, reflect on, and construct meaning in response to their own and others' dramatic work. Lunch practices may be required to fulfill the .5 credit allotment.

Business Innovations 10S (1 credit)

An introductory course that allows students to sample the various strands within the applied commerce education program. The 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.

Level 20 (Grade 10)

Compulsory Credits

Essential Mathematics 20S (1 credit) *(Prerequisite: Mathematics 10F)*

Grade 10 Essential Mathematics is intended for students whose post-secondary planning does not include a focus on mathematics and science related fields. The main areas of study include Problem Solving, Personal Finance (gross pay, deductions, income formulae), Measurement (metric and imperial conversions), 2-D Geometry (perimeter, area, volume), Trigonometry (Pythagorean theorem, sin, cos, tan), Consumer Decisions (pricing, currency exchange, sales), Transformations (coordinate geometry translations, rotations, reflections, and dilations), and Angle Construction (bisecting, parallel, perpendicular, pairings, and transversals). Students require an inexpensive geometry set and scientific calculator.

Intro to Applied and Pre-Calculus Mathematics 20S (1 credit) *(Prerequisite: Mathematics 10F)*

Grade 10 Introduction to Applied and Pre-Calculus Mathematics is intended for students considering post-secondary studies that require a math pre-requisite. The learning outcomes are divided into three strands: Measurement; Algebra and Number; Relations and Functions. Within these strands are units of study including Metric and Imperial Surface Area and Volumes, Trigonometry, Factors and Products of Polynomials, Roots and Powers, Graphing Relations and Functions, Linear Functions, and Systems of Linear Equations.

****A scientific calculator is required OR **APP on personal device.**

English Language Arts 20F (1 credit) *(Prerequisite: English Language Arts 10F)*

The course is focused on providing students with the opportunity to develop specific strategies and skills to increase their ability, knowledge, and learning in the language arts. This is a Foundation course designed for students to experience and produce 50% pragmatic material (created for the purpose of providing information/opinion) and 50% aesthetic material (created for literary enjoyment). Pragmatic material includes such forms as essays, editorials, news articles, documentaries, and reports. Aesthetic material includes such forms as novels, poems, short stories, films, drama, artwork, and photographs. Each sequence of study (thematically-based) allows for the active use of the six language arts strands – speaking, listening, reading, writing, viewing, and representing.

Physical Education/Health 20F (1 credit) *(Prerequisite: Physical Education/Health 10F)*

Physical Education 20F builds upon the foundation developed in Physical Education 10F. More advanced movement patterns in team sports, as well as advanced skill development in individual sports, are emphasized. Students should also be able to show a marked improvement in personal fitness levels throughout the year, and to understand the principles responsible. Again, the main focus is on the importance of participation for a healthy lifestyle.

Health at the 20F level makes up one half of the Physical Education 20F credit. An important goal of this course is to help the students take responsibility for their actions and their health. To achieve this, the students are involved in many group activities and discussions on topics of interest to them. Units of study include Contributing to Community, Responsibility to Self and Others, Responsible Sexual Behaviour (with emphasis on abstinence), Mental Health (especially body image), Transitions (Family life stages) and Technology Safety (CyberSafety).

Geographic Issues of the 21st Century 20F (1 credit) *(Prerequisite: Social Studies 10F)*

In *Geographic Issues of the 21st Century*, students focus on a variety of issues and challenges of the contemporary world. They explore the nature of geography and develop skills related to geographical thinking. Students use the methods and tools of geography to examine issues and problems and to propose solutions. They study concepts related to ownership and development of natural resources, production and distribution of food, development of industry and trade, and increasing urbanization. Students consider these issues in the context of Canada, North America, and the world. Through their study, students become aware of the importance of the environment, stewardship, and sustainable development, as well as the social, political, and economic implications of their personal choices.

The major areas of study in this course are: Geographic Literacy, Natural resources, Industry & Trade, and Urban Places.

****There is a final exam in this course.****

Science 20F (1 credit) (Prerequisite: Science 10F)

This course offers students an insight into four major areas of science including biology, chemistry, physics, and weather dynamics. These four areas will prepare the student for future science related courses. Understanding the balance of nature, chemical reactions, speed and acceleration, and global weather patterns are a few of the topics that will be covered in this course.

****There is a final exam in this course.****

Reading is Thinking 25S (.5 credit) (Prerequisite: RIT10S is recommended but not mandatory)

The RIT course assists students with making connections to reading in three main ways to develop skills needed for effective metacognition (self-thinking while learning):

- 1.) **Thinking About Self:** developing identities as confident, engaged, and motivated readers;
- 2.) **Thinking About Text:** developing the characteristics and practices of proficient readers before, during, and after reading across the curricula (content area and pleasure reading)
- 3.) **Thinking About the World:** developing critical reading/literacy skills in order to demonstrate deeper understanding of a variety of text in order to express and substantiate personal positions as well as solve problems, make decisions, resolve conflicts, and take action in their world.

Students will demonstrate their abilities to choose, and effectively use, a variety of reading strategies to improve their learning. These will include word study, personal reflections and journaling, metacognitive strategies, vocabulary, and pre-, during, and post-reading strategies.

Strategic Reading, Writing, Learning 11G (.5 credit) (Prerequisite: Print Comm 25s is recommended but not mandatory)

The Strategic Reading, Writing, Learning course reinforces the reading strategies in RIT, but the main focus is on the writing fundamentals at the high school level including sentence structure, punctuation, capitalization, verb-tense agreement, paragraph structure, self-editing and proofreading. Then, students will explore the essay writing process from the pre-writing stage to the revision stage before moving to the phases of the research process. The goal is that students will be able to plan, develop, draft, and revise a research paper with parenthetical citations and Works Cited page in MLA format.

Level 20 (Grade 10)

Optional Credits

Students can enroll in other grade level optional credits provided prerequisites are met. Please refer to Level 10/30/40 course descriptions throughout this handbook

Industrial Arts: Metalwork Technology 20G (1 credit) (Prerequisite: 15G Power Mechanics Technology is recommended but not mandatory)

This course is divided into three main areas of study with hands-on application. The three main areas are welding, CNC design/operation and manufacturing. The welding aspect is a continuation of the 10F course offered with students beginning different positions of welding. The CNC section introduces design and operation of the machine/program and basics of programming pieces to be cut for manufacturing. In the manufacturing area of the course students are allowed to use their talents and problem-solving skills to design and build projects.

****Maximum student capacity per class of 16 ****

Band 20S (1 credit) (Prerequisite: Band 10S)

The Grade 10 Band program is a continuation of Band 10S. Students will continue to improve their skill and technique on their chosen instrument through rehearsals and at-home practice. A variety of musical styles will be played. This course includes a theory (written notation) portion as well as a Music History section.

Choir 25S (.5 credit) (Prerequisite: Choir 15S)

The Grade 10 Choir program is a continuation of Choir 15S. Students will continue to develop and improve the singing skills learned in earlier Choir classes. Different genres of music will be learned and sung. Along with singing various repertoire, this course also includes ear training and sight singing. Lunch practices may be required to fulfill the .5 credit allotment.

Visual Arts 20G (1 credit) (*Prerequisite: Art 10G or an interview with teacher and art samples*)

This course is about ideas, expression, the tools artists use and the process they go through in order to create their art. Vital to a student's learning is their preliminary work, the process that leads to and solidifies a student's artistic decisions. Producing their own works of art, students will experiment with a variety of art materials and techniques. Students will also be required to explain the artistic process in detail through interviews, self-evaluative forms, reflection and journaling. Students will be required to complete several projects through the course of the year as well as keeping an up to date art portfolio (a collection of carefully labeled student artwork) and journal that details student learning.

****Maximum student capacity per class of 20; \$25.00 fee for starter supply kit and general usage. Additional fees may be required depending on usage and possible project ideas mentioned in class.**

French 20G (1 credit) (*Prerequisite: French 10G*)

The purpose of the core French curriculum is to encourage the learning of French as a means of communication and to make it an integral part of the student's overall education. The Basic French program stresses that French is not only the subject matter, but also the language of instruction. The program encourages a multidimensional approach consisting of four components: **experience / communication, culture, language, and general language education**. The program has moved away from the traditional approach of simply memorizing grammatical rules and structures to learning the language by communicating and participating in the most authentic experiences possible. The core French program teaches *standard French*, the socially sanctioned variety of French that the majority of francophone people use in formal communication, both oral and written.

Digital Pictures 25S (.5 credit)/ Digital Film 35S (.5 credit) (*Prerequisite: None*)

Digital Pictures will provide students with the skills and knowledge to convey a message through an original digital image. Students will capture images with digital cameras and learn to define the purpose and audience for an image. Students will learn how to manipulate digital images using paint tools, editing tools, layering, flattening, changing properties and applying filters and effects. These images will be formatted to the best graphic file required including resolution and compression. Students will display these images and critique their work using technical and aesthetic criteria in order to improve their image for themselves and their audience.

Digital Film will 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 begin by defining a purpose and an audience and create a storyboard schedule. Students will have to demonstrate 3-point lighting to convey mood, and evaluate the effect of camera settings on image quality. Camera position, angle and movement will be discovered to capture images with both cameras and microphones. The transfer of images and sound to computers will allow the editing of video and sound clips using a software program.

Foods and Nutrition 20G (1 credit)

This course 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. A further focus will be to bring together multiple recipes prepared at the same time. Practical cooking of breakfast, lunch and dinner options will be covered. Gluten-free options are available for most recipes.

****\$20.00 kitchen fee for food consumption**

Entrepreneurship 20S (1 credit)

Entrepreneurship focuses on developing the foundational skills and ideas needed to plan and develop business. Many students are involved in their communities and beginning to recognize the various needs and wants. This course will begin by evaluating innovation, invention, and innovative ideas. Students will learn the process of planning, marketing and implementing a venture.

Computer Science 20S (1 credit) (*Prerequisite: Keyboarding25S/Print 25S are recommended*)

The emphasis in this course is on students learning to solve problems, accomplish tasks, and express creativity, both individually and collaboratively. Students will learn programming techniques and the syntax of one or more programming languages. More importantly, students will learn to adapt to changes in programming languages and learn new languages as they are developed. Computer science courses enable students to explore and develop skills in solving problems and prepare them for further studies at college or university.

Level 30 (Grade 11)

Compulsory Credits

Essential Math 30S (1 credit) *(Prerequisite: Essential Math 20S)*

Grade 11 Essential Math is intended for students whose post-secondary planning does not include a focus on mathematics and science related fields. The course attempts to use the working world of business as its examples. The usefulness of this course will extend past the walls of the school and be used in the student's day-to-day life. The materials that will be covered in the class throughout the year are: Interest and credit, 3D Geometry, statistics, money management, relations and patterns, trigonometry and design modeling. Students require an inexpensive geometry set and scientific calculator.

Applied Mathematics 30S (1 credit) *(Prerequisite: Intro to Applied & PreCalculus Math 20S)*

Applied Mathematics 30S prepares students for the increased use of technology in society. Every effort is made to ensure the relevance of this course through the use of practical, applied PROBLEM SOLVING techniques. In the Applied Mathematics curriculum, students gain and maintain essential skills in topic areas that are important in everyday life as well as in business and industry.

Topics include: Systems of Linear Equations, Linear Programming, Non-Linear Functions, Personal Finance, Budgets and Investments, Geometry, Data Management and Precision Measurement.

A graphing calculator is MANDATORY for this course. Students must have their OWN calculator available for use in each class. ****A graphing calculator is required (TI-83 or higher) OR **APP on personal device.**

Pre-Calculus Mathematics 30S (1 credit) *(Prerequisite: Intro to Applied & Pre-Calculus Math 20S)*

Pre-Calculus Math is a "pure" math course and is meant primarily for students who plan on taking Calculus (and related disciplines) when in post-secondary education. Pre-Calculus 30S build upon the previous foundations of abstract and theoretical situations considered in the Intro to Applied & Pre-Calculus 20S course.

Reasoning and logical thinking are required for a complete understanding of this course. This course develops good thinking and learning skills through the application of basic ideas to a variety of problems. Due to the challenging and demanding nature of Pre-Calculus 30S, students are expected to work hard and think for themselves.

Topics include: Quadratic Functions, Algebra, Functions, Trigonometry, Analytic Geometry, Consumer Math, Geometry, Logic & Proof. ****A scientific calculator is required OR **APP on personal device.**

English Language Arts: Transactional Focus 30S (1 credit) *(Prerequisite: English Language Arts 20F)*

The course is focused on providing students with the opportunity to develop specific strategies and skills to increase their ability, knowledge, and learning in the language arts. This is a specialized course designed for students to experience and produce 70% pragmatic material (created for the purpose of providing information/opinion) and 30% aesthetic material (created for literary enjoyment). Pragmatic material includes such forms as essays, editorials, news articles, documentaries, and reports. Aesthetic material includes such forms as novels, poems, short stories, films, drama, artwork, and photographs. Each sequence of study (thematically-based) allows for the active use of the six language arts strands – speaking, listening, reading, writing, viewing, and representing.

English Language Arts: Literary Focus 30S (1 credit) *(Prerequisite: English Language Arts 20F)*

The course is focused on providing students with the opportunity to develop specific strategies and skills to increase their ability, knowledge, and learning in the language arts. This is a specialized course designed for students to experience and produce 30% pragmatic material (created for the purpose of providing information/opinion) and 70% aesthetic material (created for literary enjoyment). Pragmatic material includes such forms as essays, editorials, news articles, documentaries, and reports. Aesthetic material includes such forms as novels, poems, short stories, films, drama, artwork, and photographs. Each sequence of study (thematically-based) allows for the active use of the six language arts strands – speaking, listening, reading, writing, viewing, and representing.

Physical Education/Health 30F (1 credit) *(Prerequisite: Physical Education/Health 20F)*

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 component of the course content. Students will be required to develop and implement the remaining course in a personal physical activity plan as part of the physical activity practicum. Students will be introduced to safety and risk management planning to minimize the associated risks of the activities they have chosen. As well, specific sports training in Volleyball, Basketball, Hockey, Badminton and other sports will be pursued, including coaching strategies, training techniques, skill techniques, etc.

History of Canada 30F (1 credit)

History of Canada 30F has been designed to help us in the examination of the historical development of Canada, with a focus on the social and political history. A further intent is to examine the way in which Canada's history has developed and is developing within an international context. Some of the topics explored are First Peoples history and contemporary issues, New France, British North America, government and politics, western expansion, and Canada's role in the world

****There is a final exam in this course.****

Career Development Life/Work Transitioning 40S

Students focus on building career knowledge and skills, while preparing for life and career transitions. Students focus on building a solid foundation to grow and change throughout their lives. Students build their knowledge, skills, and qualities to establish a career foundation, explore specific post-graduation options (including a post-graduate plan of short and long-term goals, refine their knowledge and skills while exploring ways to improve and market their employability attributes, explore career information and the world of work, including labour market information, workplace safety and health, and employer and employee responsibilities and may be exposed to meaningful integrated career-related placement(s) and career mentors.

Level 30

Optional Credits

****Students can enroll in other grade level optional credits provided prerequisites are met. Please refer to Level 10/30/40 course descriptions throughout this handbook****

Industrial Arts: Metalwork Technology 30G (1 credit) *(Prerequisite: Metalwork Technology 20G)*

This course is designed for students who are considering a career in the field of metalworking. It is a project based course that will build upon skills learned in previous courses and problem solving skills. Project work is based on design, manufacturing, welding, and machining/Cnc. Project design is a major focus. If you enjoy creating, designing, and seeing your ideas come together, this course may be just for you.

****Maximum student capacity per class of 16****

Band 30S (1 credit) *(Prerequisite: Band 20S)*

The Grade 11 Band program is a continuation of Band 10S/20S. Students will continue to improve their skill and technique on their chosen instrument through rehearsals and at-home practice. A variety of musical styles will be played. This course includes a theory (written notation) portion as well as a Music History section.

Choir 35S (.5 credit) *(Prerequisite: Choir 25S)*

The Grade 11 Choir program is a continuation of Choir 15S/25S. Students will continue to develop and improve their singing skills. Different genres of music will be sung. Along with singing various repertoire, this course also includes ear training and sight singing. Lunch practices may be required to fulfill the .5 credit time allotment.

Accounting 30S (1 credit) *(Prerequisite: None)*

Accounting 30S may be taken as a Senior III Math credit towards graduation, but students must have other Math credits as well for University/College entry. Students will be introduced to the accounting cycle for both sole proprietorships and partnerships including double-entry accounting, and preparation of fiscal statements. Other topics include banking, petty cash, and payroll. Once students are comfortable with written work, the Simply Accounting software package is introduced for computer-based accounting. After completing this course, students have the option of continuing on with a more in depth look at accounting in the Accounting 40S course.

****Students are required to purchase a workbook for this course at an approximate cost of \$20.00.**

Computer Science 30S (1 credit) *(Prerequisite: Computer Science 20S)*

The emphasis in this course is on students learning to solve problems, accomplish tasks, and express creativity, both individually and collaboratively. Students will learn programming techniques and the syntax of one or more programming languages. More importantly, students will learn to adapt to changes in programming languages and learn new languages as they are developed. Computer science courses enable students to explore and develop skills in solving problems and prepare them for further studies at college or university.

Biology 30S (1 credit) *(Prerequisite: Science 20F)*

Biology 30S is an elective course at the Grade 11 level. This course studies the development of the human biological systems, including the cardiovascular system, the respiratory system, the muscular system, as well as many others. Biology 30S also contains laboratory assignments including dissections of several key organs. Actually dissecting the organs is not required, as long as the student observes and assists.

Physics 30S (1 credit) *(Prerequisite: Science 20F ; Intro to Applied & Pre-Calculus Math 20S recommended)*

This course includes an introductory survey of the nature of Physics, measurement of physical quantities, and the use of vectors. Areas of study also include the analysis of motion, the causes of motion (dynamics), and electricity, magnetism and basic wave phenomena. Strong math abilities and problem-solving skills are necessary.

Chemistry 30S (1 credit) *(Prerequisite: Science 20F; Pre-Calc 20S or Applied Math 20S recommended)*

This first course in chemistry assumes a basic understanding of atomic structure and the Periodic Table from Science 10F and 20F as well as some familiarity with chemical formulae and nomenclature. Topics include the periodic table, atomic structure, chemical reaction and chemical bonding, organic chemistry, and basic gas and solution chemistry.

This course is needed for most post high school science programs such as X-ray/lab technician, nursing, medicine, wildlife management or veterinary studies, as well as being needed or desirable for agriculture, human ecology, medical/dental assistant training, etc. Good arithmetic skills are an asset but not critical.

Agriculture 30S (1 credit)

This course is designed to give the student an idea of the important role agriculture plays in the community, province, on the national scene, and around the world. The aim of the course is to make students aware of the main issues in agriculture and to ask key questions about those issues. Students will see the relevance of agriculture in politics, economics, and social systems. Students will gain an appreciation of some of the ethical and environmental choices the industry faces in production, marketing, and research.

Level 40 (Grade 12)

Compulsory Credits

Essential Mathematics 40S (1 credit) (Prerequisite: Essential Math 30S)

This course gives students an understanding of how mathematical concepts affect our daily life, business, industry, and government. Units covered include vehicle finance, home finance, business finance, statistics, precision measurement, career life, geometry and trigonometry, and probability. Students will develop the ability to make reasoned decisions and to support those decisions mathematically. This course, like Essential 30S, is intended for students whose post-secondary planning does not include a focus on mathematics and science related fields.

****There is a final Provincial exam in this course.****

Applied Mathematics 40S (1 credit) (Prerequisite: Applied Mathematics 30S)

Applied Mathematics 40S prepares students for the increased use of technology in society. Every effort is made to ensure the relevance of this course through the use of practical, applied PROBLEM SOLVING techniques. In the Applied Mathematics curriculum, students gain and maintain essential skills in topic areas that are important in everyday life as well as in business and industry.

Topics include: Design & Measurement, Matrix Modelling, Vectors, Applications of Periodic Functions, Probability, Personal Finance, Sequences, and Variability & Statistical Analysis.

A graphing calculator is MANDATORY for this course. Students must have their OWN calculator available for use in each class. ****A graphing calculator is required (TI-83 or higher) OR **APP on personal device.**

****There is a final Provincial exam in this course.****

Pre-Calculus Mathematics 40S (1 credit) (Prerequisite: Pre-Calculus Mathematics 30S)

Pre-Calculus Math is a "pure" math course and is meant primarily for students who plan on taking Calculus (and related disciplines) when in post-secondary education. Pre-Calculus 40S builds upon the previous foundations of abstract and theoretical situations considered in prior Pre-Calculus courses.

Reasoning and logical thinking are required for a complete understanding of this course. This course develops good thinking and learning skills through the application of basic ideas to a variety of problems. Due to the challenging and demanding nature of Pre-Calculus 40S, students are expected to work hard and think for themselves.

Topics include: Circular Functions, Exponents & Logarithms, Transformations, Trigonometric Identities, and Permutations Combinations & Binomial Theorem. ****A scientific calculator is required OR **APP on personal device.**

****There is a final Provincial exam in this course.****

English Language Arts: Transactional Focus 40S (1 credit) (Prerequisite: ELA 30S: Transactional or Literary)

This course enables students to become competent and confident users of all six language arts through opportunities to listen, speak, read, write, view and represent in a variety of combinations through a wide range of relevant texts (materials). In the transactional focus students develop and refine a range of knowledge, skills and strategies to help them function effectively in their post high school lives. This course emphasizes the practical uses of language: language that informs, directs, persuades, analyzes, argues, and explains. Assignments include essays, letters, reports, editorials, reviews, questionnaires, and interviews.

****There is a final Provincial exam in this course.****

English Language Arts: Literary Focus 40S (1 credit) (Prerequisite: ELA: Literary 30S)

This course enables students to become competent and confident users of all six language arts through opportunities to listen, speak, read, write, view, and represent in a variety of combinations and through a wide range of relevant texts including short stories, novels, poetry, songs, drama, and film study.

Learning outcomes involve the knowledge, skills, strategies, and attitudes students demonstrate emphasizing expressive purposes and texts. Texts read and produced are approximately 70 percent expressive and 30 percent practical in purpose.

****There is a final Provincial exam in this course.****

Physical Education/Health 40F (1 credit) *(Prerequisite: Physical Education/Health 30F)*

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. The focus of this content will be on health and personal planning. These topics will make up the core component of the course content. Students will be required to develop and implement a personal physical activity plan as part of a physical activity practicum. Students will be introduced to risk management planning to minimize the associated risks of the activities they have chosen. As well, specific sports training in Volleyball, Basketball, Hockey, Badminton and other sports will be pursued, including coaching strategies, training techniques, skill techniques, etc.

Level 40 (Grade 12)

Optional Credits

****Students can enroll in other grade level optional credits provided prerequisites are met. Please refer to Level 10/20/30 course descriptions throughout this handbook****

Industrial Arts: Metalwork Technology 40S (1 credit)

(Prerequisites: 20G Metalwork Technology and 30G Metalwork Technology)

This course is designed for students seriously exploring various careers in the metalworking industry. It is a project/problem-solving based course that will develop and build many skills. Students will gain skills in aluminum welding, TIG welding and out of position welding on various machines. Many skills gained during Grades 10 and 11 will be further enhanced and students create projects using all parts and machines in the shop.

****Maximum student capacity per class of 16.**

Applied Technology 40S: Advanced Metalwork (1 credit) *(Prerequisite: Metalwork Technology 40)*

This course is intended for students that are seriously considering a career in the metals industry or looking towards post-secondary schooling to obtain level standing. The major aspect of this course is welding. The emphasis in welding will be on application of various rods, currents, systems and welding positions. The welding of various metals may also be covered. Project work will be on an individual basis.

****Maximum student capacity per class of 16; **\$25.00 shop fee for materials used**

Band 40S (1 credit) *(Prerequisite: Band 30S)*

The Grade 12 Band program is a continuation of Band 10S/20S/30S. Students will continue to improve their skills and technique on their chosen instrument through rehearsals and at-home practice. A variety of musical styles will be played. This course includes a theory (written notation) portion as well as a Music History section.

Choir 45S (.5 credit) *(Prerequisite: Choir 35S)*

The Grade 12 Choir program is a continuation of Choir 15S/25S/35S. Students will continue to develop and improve their singing skills. Different genres of music will be sung. Along with singing various repertoire, this course also includes ear training and sight singing. Lunch practices may be required to fulfill the .5 credit time allotment.

Visual Arts 40S (1 credit) *(Prerequisite: Art 20G or 30S or an interview with teacher and art samples)*

This course is about ideas, expression, the tools artists use and the process they go through in order to create their art. Vital to a student's learning is their preliminary work, the process that leads to and solidifies a student's artistic decisions. Producing their own works of art, students will experiment with a variety of art materials and techniques. Students will continue to study the fundamentals of design in more depth than in previous years. Drawing and painting continue to be the core area of emphasis although students will be able to explore other art forms on an individual basis. Students will also be required to explain the artistic process in detail through interviews, self-evaluative forms, reflection, and journaling. Students will be required to complete several projects throughout the course of the year as well as keeping an up to date **art portfolio** (a collection of carefully labeled student artwork) and journal that details student learning.

****Maximum student capacity per class of 20; \$30.00 fee for starter supply kit and general usage. Additional fees may be required depending on usage and possible project ideas mentioned in class.**

French 40S (1 credit) *(Prerequisite: French 30S)*

The Grade 11 French program continues to build on the language skills developed in the previous years of basic French. The purpose of the Core French curriculum is to encourage the learning of French as a means of communication and to make it an integral part of the student's overall education. The Basic French program stresses that French is not only the subject matter, but also the language of instruction. The program encourages a multidimensional approach consisting of four components: **experience / communication, culture, language, and general language education**. The program has moved away from the traditional approach of simply memorizing grammatical rules and structures to learning the language by communicating and participating in the most authentic experiences possible. The core French program teaches *standard French*, the socially sanctioned variety of French that the majority of francophone people use in formal communication, both oral and written.

Family Studies 40S (1 credit) *(Prerequisite: None)*

Family Studies emphasizes the transition from adolescence to adulthood with the ability to examine and practice skills that help develop healthy interpersonal relationships. The skills and knowledge will provide the opportunity for students to make informed and responsible life management choices now and in the future. Career pathways in family studies include social science and humanities areas such as early childhood education, child and adolescent development, teaching/education, public policy and law, aging, financial planning, social work, counselling, psychology, public health, advocacy and non-profit work, and family life and parenting.

Accounting 40S (1 credit) *(Prerequisite: Accounting 30S)*

Accounting 40S is a continuation of the basic principles introduced in Accounting 30S, but expands into departmentalized and corporate accounting. It may be counted as a Grade 12 math credit towards graduation, but students must have other Math credits as well for University/College entry. The course focuses on uncollectible accounts, depreciation, notes payable and receivable, shareholders equity, inventory and budget planning and income tax preparation. Students will have the opportunity to practice initially in their workbooks, but will be introduced to computer-based accounting software.

Students are required to purchase a workbook at an approximate cost of \$22.00.

This is a recommended course for entry into any business-related courses at University or College.

Biology 40S (1 credit) *(Prerequisite: Biology 30S is recommended but not required.)*

The course studies biodiversity, investigating genetics, microbiology, plant diversity, animal diversity and ecology. In addition to course work and research, Biology 40S also has a laboratory component that includes comparative physiology and dissection. It should be noted that actually dissecting is not required, as long as the student observes and assists. Upon completing the course, students will be prepared to study biology at the University level.

Physics 40S (1 credit)

(Prerequisite: Physics 30S; Pre-Calculus Math 30S or Applied Math 30S highly recommended)

Physics 40S continues the investigation of relationships in the graphical, numerical, symbolic and physical conceptual modes with increased emphasis on the mathematical aspects of the relationships between scientific variables. Topics include circular motion, forces at oblique angles, inversely related quantities. Further examination of accelerated motion, graphical analysis of motion and electromagnetism, and waves are included.

Chemistry 40S (1 credit)

(Prerequisite: Chemistry 30S; Pre-Calculus 30S or Applied Math 30S recommended)

This course includes further studies of the Periodic Table, kinetics, equilibrium in acids, bases, solutions and heterogeneous systems as well as electrochemistry. Chemistry 40S is widely useful in post-high school chemistry and biology based careers, and is a usual pre-requisite for any further study in chemistry or biochemistry fields.

Law 40S *(Prerequisite: None)*

The *Grade 12 Canadian Law* curriculum presents students with the major components of Canadian law, beginning with the foundations of law, followed by the Canadian Charter of Rights and Freedoms, criminal law, civil law and family law. The course also gives students the opportunity to explore a topic of their choice through inquiry of one of the following options: international law, human rights law, youth and the law, labour law, and environmental law.

Cinema as a Witness to Modern History 40S (1 credit) *(Prerequisite: None)*

This course considers cinema as a source of information – or misinformation – about the past, and as a springboard for critical reflection about diverse interpretations of history. Students will study films from various genres and periods. Each film, including documentary and dramatic selections from Canadian, American, and international cinema, is viewed and analyzed as a product of its historical period and as an interpretive representation of the past.

Global Issues: Citizenship & Sustainability 40S (1 credit) *(Prerequisite: None)*

Students conduct inquiry into the social, political, environmental, and economic impact of contemporary and emerging global issues. Through their inquiry, students focus on questions of quality of life locally, nationally, and globally. This course is based on the principles of active democratic citizenship, ecological literacy, critical media literacy, and ethical decision-making, and consolidates learning across the disciplines to empower students as agents of change for a sustainable and equitable future. As a mandatory component of the course, students plan and implement a community-based action-research project.

Western Civilization 40S *(Prerequisite: History 30S)*

This curriculum is designed to help students understand that Canadian society and other Western societies evolved and were shaped by complex movements and events. The course includes the following six units – An Introduction to Western Civilization, Pre-Modern Western Civilization, The Renaissance, Reformation and Absolutism versus Representative Government, The Age of Reason, and the Political, Agricultural, and Industrial Revolutions, Major Movements and Events of the Nineteenth Century and The Twentieth Century.

The Western Civilization curriculum is organized around the following six major concepts: religion, ideology, humanism, individualism, secularism, and skepticism.

Current Topics in First Nations, Métis, and Inuit Studies 40S (1 credit)

This course supports the empowerment of students through the exploration of the histories, traditions, cultures, worldviews, and contemporary issues of Indigenous peoples in Canada and worldwide. Students gain knowledge and develop the values, as well as the critical thinking, communication, analytical, and inquiry skills, that will enable them to better understand past and present realities of Indigenous peoples. Additionally, exploration of topics such as self-determination, self-government, and language and cultural reclamation allows students to understand and work towards the post-colonial future envisioned by Indigenous peoples.

Foods & Nutrition 40S (1 credit) *(Prerequisite: Foods & Nutrition 20G or 30S)*

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. This course will provide the opportunity for students to apply food preparation skills in a practical setting. Areas of practical preparation are breakfast and dairy options, as well as patisserie and baking. Gluten-free options are available depending on the recipe.

****\$30.00 kitchen fee**

Psychology 40S

Psychology is the scientific study of behaviour and mental processes. It uses the scientific method to discover ways of understanding the complexities of human thought and behaviour, as well as differences among people.

Studying psychology give students lifelong skills such as dealing with issues proactively, solving problems, learning, and nurturing healthy relationships. It helps students understand themselves, and deal with issues in their own lives such as inner conflict, relationships with parents and peers, and intimacy. It also helps students understand societal problems like drug dependency, aggression and discrimination.

OTHER WAYS TO EARN CREDITS.....

CADETS: Earn up to 2 credits. These credits can not be used towards the 30 required credits towards graduation.

PRIVATE MUSIC OPTION: See <http://www.edu.gov.mb.ca/k12/cur/arts/music/pmo.html>

CHALLENGE FOR CREDIT: See http://www.edu.gov.mb.ca/k12/policy/gradreq/choice_attacha.pdf

VOLUNTEER CREDITS: Students can earn .5 credit at both the 30 & 40 level. 55 hours/.5 credit

CULTURAL EXPLORATION STUDENT-INITIATED PROJECT: See

http://www.edu.gov.mb.ca/k12/policy/sics_sips.html#comservice

DISTANCE LEARNING: See http://www.edu.gov.mb.ca/k12/docs/policy/online_learning

POST-SECONDARY AND HIGH SCHOOL DUAL CREDITS: You may take post-secondary courses while in high school. http://www.edu.gov.mb.ca/k12/policy/gradreq/dc_guide_10.pdf

SPECIAL LANGUAGE CREDIT OPTION: See <http://www.edu.gov.mb.ca/k12/docs/policy/lancredits>

CREDIT FOR EMPLOYMENT: Contact Mrs. Smith

TEACHER MEDITATED OPTION: Contact Mrs. Smith