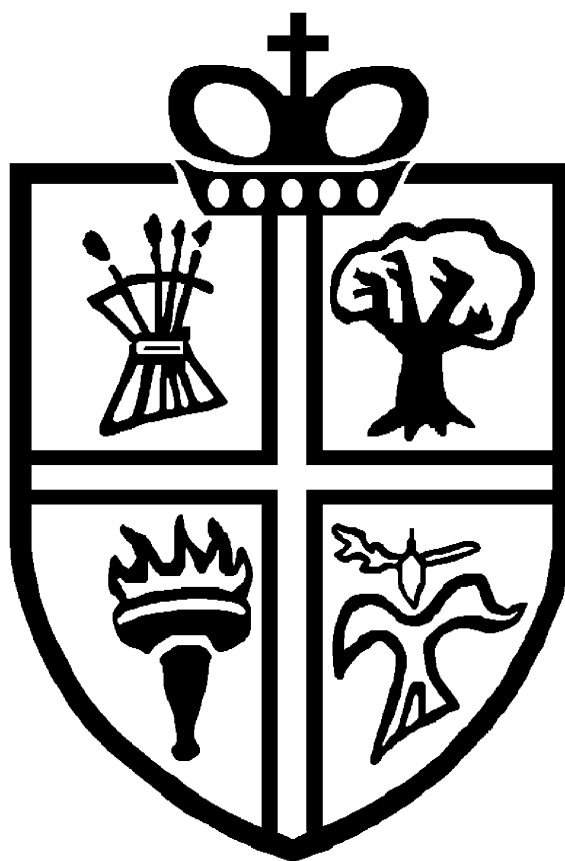


# MILLER COMPREHENSIVE CATHOLIC HIGH SCHOOL

Established 1966



**Course Description Booklet**

[www.rcsd.ca/miller](http://www.rcsd.ca/miller)

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## ACADEMIC PATHWAYS

### ADVANCED PLACEMENT (Fee Applicable)

The Advanced Placement (AP) Program, sponsored by the College Board, provides the means for secondary schools to provide university-level studies during secondary school. Students in Grades 11 and 12 may enroll in one or more 30 level AP courses if they meet the basic entry criteria. The AP Program provides college-level courses to the schools, coordinates the evaluation of the examinations, and sends the results of those examinations to the university of the students' choice. Participating universities, in turn, grant either credit or placement, or both, to students who have performed at a required level on the AP examination(s). AP courses currently being offered at Miller High School are AP English Literature and Composition, AP Calculus AB, AP Psychology, AP Computer Science A (through Regina Catholic Schools Learning Online) and our French Immersion students have the opportunity to prepare for and take the French Language and Culture AP exam.

### LEARNING RESOURCE PROGRAM

Miller Comprehensive Catholic High School offers a Learning Resource Program for those students needing extra support to successfully complete curricular outcomes. The Learning Resource Teacher may provide in class support or individual and small group support. Students in grade 9 through 12 may access the Learning Resource Program. Students have the option of receiving support from the learning resource teacher through a daily scheduled tutorial period (scheduling one of their class periods as daily tutorial) or a less frequently scheduled tutorial period (students meet in tutorial a few times a week for assistance).

### MODIFIED COURSES

Miller Comprehensive Catholic High School offers modified courses. Modified courses follow many of the unit topics of their regular course counterparts; however, curricular outcomes have been modified to meet the needs of the learner. Students enrolled in modified courses do graduate with a grade 12 standing. However, it is important to note that modified courses may limit post secondary educational opportunities.

### ALTERNATIVE COURSES

Miller Comprehensive Catholic High School offers an Alternative Education Program. This special education program allows students to continue to develop academic skills and important life skills. Courses in this special education program are locally developed. After formal educational assessments and referrals are completed, students may be enrolled in alternative education courses. Students who complete the Alternative Education program receive an Alternative Grade 12 Education standing.

### ENGLISH AS AN ADDITIONAL LANGUAGE - SUPPORT

Miller Comprehensive Catholic High School offers support for students whose first language is not English. Academic and vocational assistance for English Language Learners (ELLs) is provided and may be required based upon the individual needs of the students. A student's academic success is dependent on the acquisition of appropriate levels of English language proficiency. High school students who are new to the English language can benefit from explicit, targeted instruction in EAL. Targeted instruction focusing on ELLs' needs will help students to improve English language proficiency, which will positively impact academic success in all subject areas.

For complete descriptions of the Credit and Non-credit EAL course offerings, please see the English As An Additional Language Course Description section of this booklet.

### FRENCH IMMERSION

Miller is proud to offer official language learning! Fiers d'offrir un enseignement dans les deux langues officielles! Research findings have consistently shown that French Immersion is the most effective method for teaching French to Anglophones where functional bilingualism is the desired goal. In our Immersion program, the pupil "lives" all or a significant part of the total school experience in the second language. Our pupils learn in French rather than about French. French Immersion students are taught all or a large part of the regular curriculum in French using French textbooks. All assignments, written and oral, are completed in French and the language of instruction is French. Continuing French Immersion (secondary French Immersion) refers to the

continuation of a French Immersion program at the high school level. Its objective is to ensure that competence in French keeps pace with the student's intellectual and general maturity. To learn more about RCSD and French Immersion, [see the link here](#).

## COURSE DESCRIPTIONS

### CATHOLIC STUDIES

#### CATHOLIC STUDIES/ ÉTUDES CATHOLIQUES:

The aim of Catholic Studies is for students to understand, value, and engage in their faith so that they may hear an invitation, or deepen their commitment, to live as followers of Jesus Christ. Throughout all grades, students investigate, apply and reflect on various aspects of these actions that call upon the Church to:

- i. Proclaim Jesus Christ
- ii. Worship Christ through the sacraments
- iii. Form a communion of people
- iv. Give witness, and
- v. Serve.

#### CATHOLIC STUDIES 9 / ÉTUDES CATHOLIQUES 9:

The Catholic Studies 9 curriculum focuses in part on the importance of community in supporting and deepening one's faith. Students examine how the Catholic Church helps guide us in our ongoing faith journey.

#### CATHOLIC STUDIES 10/ ÉTUDES CATHOLIQUES 10:

**\*Prerequisite\*** – *Catholic Studies 9 or Études Catholiques 9*

The Catholic Studies 10 curriculum focuses in part on the role and importance of evangelization. Students examine what it means to be called to evangelize and consider how and why the Church evangelizes.

#### CATHOLIC STUDIES 20/ ÉTUDES CATHOLIQUES 20

**\*Prerequisite\*** – *Catholic Studies 10*

*The Catholic Studies 20 curriculum focuses in part on the role and importance of Catholic identity. Students examine what it means to live as a disciple of Christ and how this affects the way that one lives one's life.*

#### CATHOLIC STUDIES 30/ ÉTUDES CATHOLIQUES 30

**\*Prerequisite\*** – *Catholic Studies 20*

The Catholic Studies 30 curriculum focuses in part on the importance of being both a spiritual and religious person. Students examine how they are called by God to freely choose a life of service for others that will help transform society and the world.

## ENGLISH LANGUAGE ARTS

All English Language Arts (ELA) options with an \* are Advanced courses that are recommended for students considering 30-level AP courses for ELA

### ENGLISH LANGUAGE ARTS A9 and B9 / A9\* and B9\* / ELA A9/B9 Modified Outcomes

The ELA A9 and B9 courses utilize an integrated literature and language approach focusing on the strands of reading, writing, listening, speaking, viewing, and representing. A variety of genre arranged thematically in the forms of fiction and non-fiction – short stories, novels, modern plays, essays, poetry, and multi-media – are explored to achieve the outcomes under the three course goals: Comprehending and Responding, Composing and Creating, and Assessing and Reflecting. In the ELA B9 course, a Shakespearean play is also studied.

The **ELA A9 and ELA B9 Modified Outcomes** courses follow the same themes/units outlined above with modifications to foster student success.

### ENGLISH LANGUAGE ARTS A10 / A10\* / A11

**\*Prerequisite\*** – ELA 09

The ELA A10 provides meaningful contexts that address “big ideas” and questions for deeper understanding. There is a strong focus on language and an understanding of how it works as students learn using powerful cognitive and communication strategies. A variety of genre arranged thematically in the forms of fiction and non-fiction – short stories, novels, modern plays, essays, poetry, and multi-media – are explored to achieve the outcomes under the following categories: Comprehending and Responding, Composing and Creating, and Assessing and Reflecting. The two themes covered are *The Challenges of Life* and *The Mysteries of Life*.

The modified **ELA A11** course follows the same themes as the ELA A10 course with modifications to foster student success.

### ENGLISH LANGUAGE ARTS B10 / B10\* / B11

**\*Prerequisite\*** – ELA 09

The ELA B10 provides meaningful contexts that address “big ideas” and questions for deeper understanding. There is a strong focus on language and an understanding of how it works as students learn using powerful cognitive and communication strategies. A variety of genre arranged thematically in the forms of fiction and non-fiction – short stories, novels, modern plays (including the work of William Shakespeare), essays, poetry, and multi-media – are explored to achieve the outcomes under the following categories: Comprehending and Responding, Composing and Creating, and Assessing and Reflecting. The two themes covered are: *Equity and Ethics* and *The World Around and Within Us*.

The **ELA B10\* and ELA A10\*** acts as a scaffold in preparing students for the AP English Course at Grade 12. Enriched units of study, as well as more challenging selections and opportunities are provided. Students enrolling into this program must note the following:

- The ultimate goal of Advanced ELA is to achieve a college level credit. The courses aim to continue an enriched understanding of reading and writing with intensive analysis and synthesis of literature.
- This Advanced ELA course is geared towards students who are preferably already reading and writing above grade level.
- Pre-determined summer reading will be required and distributed in June to be graded.

The modified **ELA B11** course follows the same themes/issues as the ELA B10 course with modifications to foster student success.

### ENGLISH LANGUAGE ARTS 20 / 20\* / 21

**\*Prerequisite\*** – ELA A10 and ELA B10

This course is organized around themes that are of interest to adolescents and focuses on self and society. A variety of genre arranged thematically in the forms of fiction and non-fiction – short stories, novels, modern plays, essays, poetry, and multi-media – are explored to achieve the outcomes under the following categories: Comprehending and Responding, Composing and Creating, and Assessing and Reflecting.

The course **ELA 20\*** acts as a scaffold in preparing students for the AP English Course at Grade 12. Enriched units of study, as well as more challenging selections and opportunities for independent study are provided. Students enrolling into this program, must note the following:

- The ultimate goal of Advanced ELA is to achieve a college level credit. The courses aim to continue an enriched understanding of reading and writing with intensive analysis and synthesis of literature.
- This Advance ELA course is geared towards students who are preferably already reading and writing above grade level.
- Pre-determined summer reading will be required and distributed in June to be graded.

The modified **ELA 21** course follows the same themes as the ELA 20 course with modifications to foster student success. English 20 \*online\* option

### CREATIVE WRITING 20

In Creative Writing 20, students will explore the craft and art of creative writing as they investigate internal and external sources of inspiration and information. Students will refine their creative writing skills as they compose poems, short fiction texts, creative nonfiction texts and short scripts for a variety of purposes and audiences.

### MEDIA STUDIES 20 (Fee Applicable)

In Media Studies 20, students will explore both the historical and evolving role of mass media in society. Areas of focus include media literacy, social media, marketing and advertising. Students will create media and develop the knowledge, skills and dispositions to critically analyze how, why and by whom media texts are produced.

### ENGLISH LANGUAGE ARTS A30 / A31

**\*Prerequisite\*** – ELA 20/ELA 21

This course utilizes Canadian Literature to explore the issues that influence Canadian culture and identity. The students practice their language skills including comprehending and responding, composing, and creating, assessing and reflecting within the context of a variety of literary genres.

The modified **ELA A31** course follows the same themes as the ELA A30 course with modifications to foster student success.

### ENGLISH LANGUAGE ARTS B30 / B31

**\*Prerequisite\*** – ELA 20/ELA 21

This course focuses on World Literature. The students practice their language skills including comprehending and responding, composing, and creating, assessing, and reflecting. Themes are explored through a variety of literary genres including a Shakespearean play.

The modified **ELA B31** course follows the same themes as the ELA B30 course with modifications to foster student success.

ELAA30 and ELAB30 \*online\* option

### ENGLISH LANGUAGE ARTS A30 AND B30 ADVANCED PLACEMENT (Fee Applicable)

**\*Prerequisite\*** – ELA 20

The English Literature and Composition course is offered through the College Board and is taught in combination with the Saskatchewan ELA A30 and ELA B30 curriculum. The board AP exam will be written in May and the outcome will be independent of the marks derived from ELA A30 and B30 courses. As well, students enrolling into this program, must note the following:

- The ultimate goal of Advanced ELA is to achieve a college level credit. The courses aim to continue an enriched understanding of reading and writing with intensive analysis and synthesis of literature.
- This Advanced ELA course is geared towards students who are preferably already reading and writing above grade level.
- Pre-determined summer reading will be required and distributed in June to be graded.

## ENGLISH AS AN ADDITIONAL LANGUAGE

### RCSD AND ENGLISH AS AN ADDITIONAL LANGUAGE (EAL)

Miller's EAL Program is supported with EAL teachers to help students develop their English language skills. Our students attend school in our neighborhoods and students learn in a regular, supportive classroom so they can learn English and curriculum at the same time. In addition to language teaching, programming for EAL students includes a cultural component. Culture and language are intertwined, and knowledge of the culture associated with a language helps the learner gain a deeper understanding of the language and language usage. It also assists newcomers to Canada and Saskatchewan in making a smooth transition to their new country, culture, and language, which includes learning about schools in Saskatchewan, holiday themes, outings in the community (such as the Natural History Museum), and so on. To learn more about EAL at the High School level, [see the link here](#).

English levels within each language skill determine a student's Canadian Language Benchmark (CLB), Common European Framework of Reference (CEFR), and their Locally Developed Language Proficiency Levels as stated in the Saskatchewan curriculum. These are used to determine which class options are the best for the student's placement.

### Working Chart of Levels/Courses

Global CFR Level	Class Options
A1.1	EAL A10L Level 1 and 2 EAL B10L Level 1 and 2
A1.2	EAL A10L Level 1 and 2 EAL B10L Level 1 and 2 EAL A20L
A2.1	EAL B10L Level 1 and 2 EAL A20L
A2.2	EAL A20L EAL B20L EAL EAP A20
B1.1	EAL B20L EAL SK 20L EAL EAP A20 EAL EAP B20L
B1.2	EAL B20L EAL SK 20L EAL EAP A20 EAL EAP B20L
B2.1	No Support Required

Note: Student may or may not be placed in any or all of the courses listed at their global level depending on their needs in specific areas of their language development in reading, writing, listening and/or speaking.

### Non-Credit Courses offered:

#### EAL 9 WF – WRITING FUNDAMENTALS

Through a variety of paragraphs styles of writing, students learn the proper paragraph format, using the writing process and MLA format. Grammar applicable to the specific paragraph is studied in depth. Students incorporate listening, speaking, reading, writing, viewing and representing in each paragraph assignment.

#### EAL 9 RAV-READING AND ACADEMIC VOCABULARY

Students complete grammar exercises including learning about each part of speech. Through readings and topics students acquire academic vocabulary as well as, learn and put into practice a variety of reading skills. Students incorporate listening, speaking, reading, writing, viewing and representing throughout the readings and extensions of learning.

### Credit Courses offered:



### EAL A10L: LEVELS 1 AND 2

Module 1: Orientation to School in Canada

Module 2: Community

Module 3: Health and Wellness

Module 4: Cross-Cultural Connections

### EAL EAP A20L

This course helps learners develop and apply academic language within meaningful cross-curricular contexts.

Broad Areas of Learning; Lifelong Learners, Sense of Self, Community and Place, Engaged Citizens

Cross-curricular Competencies; Developing Thinking, Identity, Interdependence, Literacies and Social Responsibility

### EAL EAP B20L

This course helps learners to develop and apply academic language within meaningful cross-curricular contexts through global issues that impact the world. In this course students will research topic of personal interest, make connections with their own worldview and present information to their classmates.

Broad Areas of Learning; Lifelong Learners, Sense of Self, Community and Place, Engaged Citizens

Cross-curricular Competencies; Developing Thinking, Identity, Interdependence, Literacies and Social Responsibility

## CORE FRENCH AND FRANÇAIS

### FRENCH 9

This course is designed to allow students to learn the French language by means of themes that focus on student experiences. Much of the instruction is in French, and students participate in individual, pair and group activities to provide them with many opportunities to communicate orally in French. Students will develop listening, reading, comprehension and grammatical skills as they progress through the given thematic units.

### FRANÇAIS 9

This course is designed for students who have chosen to pursue their education in the French Immersion program setting. The emphasis will be put on reading and writing abilities and on oral communication, which are all essential to the acquisition of a second language.

Unit 1: The Novel

Unit 2: Short Stories

Unit 3: Communication

Unit 4: Grammar (this unit is integrated throughout the other three)

### FRANÇAIS 10

**\*Prerequisite\*** - Français 9

This course will include an experiential dimension emphasizing communication and allowing the student to approach various themes and interesting subjects in order to encourage an authentic usage of the French language. There is also an analytical dimension allowing the student to correctly integrate the necessary knowledge of the language in comprehension and in production.

Unit 1: Journalism

Unit 2: Short stories

Unit 3: Songs and poetry

Unit 4: Grammar (this unit is integrated throughout the other three)

### FRANÇAIS 20

**\*Prerequisite\*** - Français 10

This course will include an experiential dimension emphasizing communication and allowing the student to approach various themes and interesting subjects in order to encourage an authentic usage of the French language. There is also an analytical dimension allowing the student to correctly integrate the necessary knowledge of the language in comprehension and in production.

Unit 1: Photo-novel and comic strips

Unit 2: Reporting and the electronic press

Unit 3: The Novel

Unit 4: Grammar (this unit is integrated throughout the other three)

### FRANÇAIS 30

**\*Prerequisite\*** - Français 20

This course will include an experiential dimension emphasizing communication and allowing the student to approach various themes and interesting subjects in order to encourage an authentic usage of the French language. There is also an analytical dimension allowing the student to correctly integrate the necessary knowledge of the language in comprehension and in production.

Unit 1: Theatre and a play

Unit 2: The novel

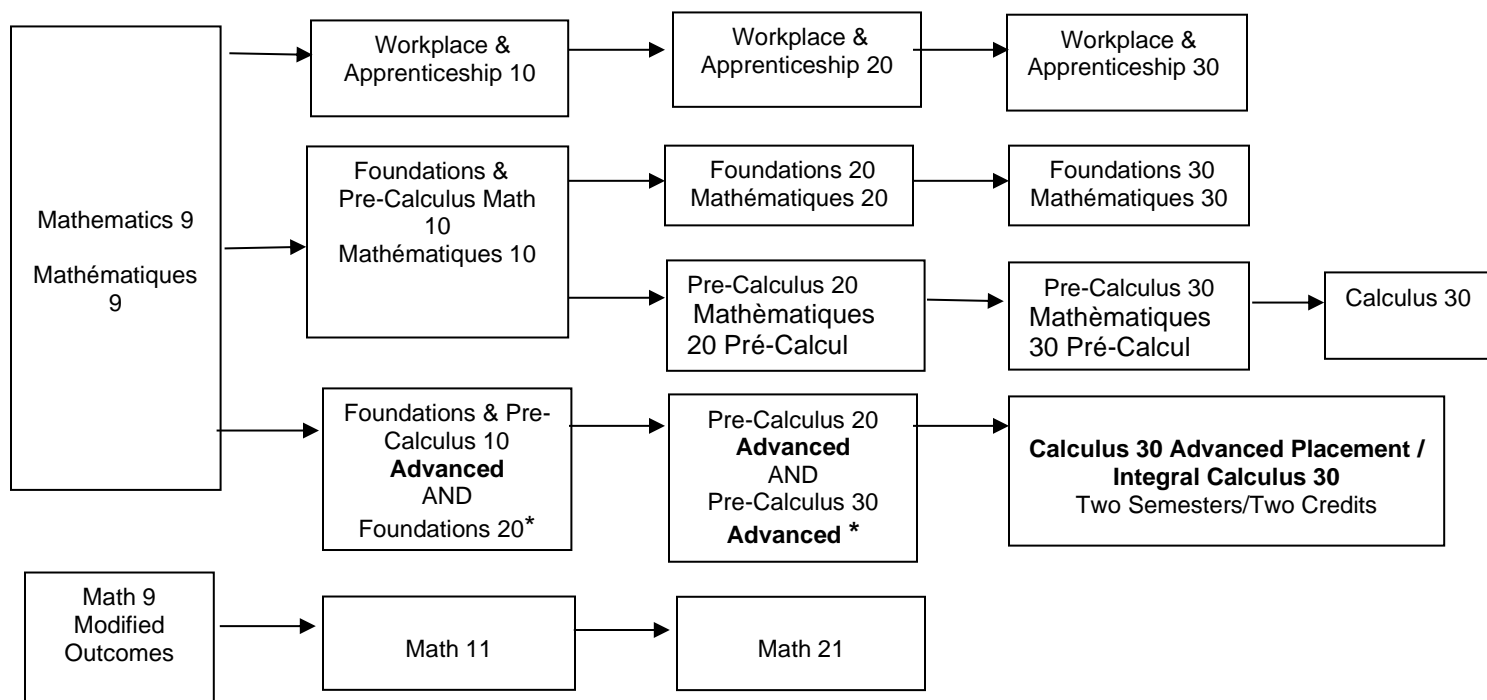
Unit 3: Advertising

Unit 4: Poetry and songs

Unit 5: Grammar (this unit is integrated throughout the other three)

# MATHEMATICS

\* Any Grade 10 students who are considering AP Calculus for Grade 12 should take Foundations & Pre-Calculus 10 Advanced and Foundations 20 in their Grade 10 year, and Pre-Calculus 20 Advanced and Pre-Calculus 30 Advanced in their Grade 11 year.



Graduation requirements for mathematics will be any 20-level course, however many post secondary programs often demand higher level mathematics courses or calculus.

## Workplace & Apprenticeship Pathway

- Content in this pathway was chosen to meet the needs of students intending to pursue careers based on post-secondary education at Sask Polytech, or non-math oriented faculties at university.
- Students who require basic “real-life” mathematics would be well suited for this pathway. Careers as an elementary school or high school PAA teacher, social work, care assistant, graphic communications, hotel & restaurant administration, law enforcement, office work, paramedics, pharmacy technician or many of the trades. .
- 30% - 40% of all Grade 12 graduates are entering fields for which the mathematics in this pathway is appropriate.

## Foundations of Mathematics Pathway

- Content in this pathway was chosen to meet the needs of students intending to pursue careers in areas that typically require university, but are not math intensive (e.g., the humanities, fine arts, social sciences and nursing)
- 40% - 60% of all Grade 12 graduates are entering fields for which the mathematics in this pathway is appropriate.

## Pre-Calculus Pathway

- Content in this pathway was chosen to meet the needs of students interested in pursuing careers in science-related or math-related areas.
- 10% - 20% of all Grade 12 graduates are entering fields for which the mathematics in this pathway is appropriate.

### MATHEMATICS 9 / MATHÉMATIQUES 9 / MATH 9 Modified Outcomes

Grade 9 Mathematics extends material covered in elementary school, introduces new concepts and provides a foundation for future high school math courses. The units of study in math include integers, rational numbers, polynomials, circles and prisms, linear relations/equations/inequality, and statistics and probability.

The Math 9 Modified Outcomes Course follows the same units of study as the Grade 9 course with modifications to foster student success.

Math 9 Course Recovery *\*online\** option (Semester One) (Administrator Permission Required)

### FOUNDATIONS & PRE-CALCULUS MATHEMATICS / MATHÉMATIQUES 10

**\*Prerequisite\*** – *Mathematics/Mathématiques 9*

This course is the pre-requisite for both the Foundations Math and the Pre-Calculus at the Grade 11 level. It introduces and focuses on the following concepts: factoring, rational and irrational numbers, laws of exponents, operations with polynomials, trigonometry, relations and functions, slope, linear relations, graphing, linear systems the metric system and imperial measurements.

### FOUNDATIONS & PRE-CALCULUS 10 Advanced

**\*Prerequisite\*** – *Mathematics 9*

This course is the first step on the advanced mathematics path and should be selected by students who are planning to pursue AP Calculus in their Grade 12 year. All of the Pre-Calculus units of study are covered; however topics are studied in greater depth. Students who select this course are those who were highly successful in their Grade 9 Mathematics courses.

### WORKPLACE AND APPRENTICESHIP 10

**\*Prerequisite\*** – *Mathematics 9*

This course is the pre-requisite for Workplace and Apprenticeship 20. It focuses on both the metric and imperial systems of measurement. Concepts include area of 2-D shapes and 3-D objects, games involving spatial reasoning, the Pythagorean Theorem, polygons, and an introduction to trigonometry ratios (sine, cosine and tangent), angles, pricing and currency exchange, and income.

### MATHEMATICS 11

Mathematics 11 is a modified course with a major emphasis on consumer math. This course focuses on the skills and knowledge necessary for and applicable to everyday situations.

### FOUNDATIONS OF MATH 20 / MATHÉMATIQUES 20 FONDEMENTS

**\*Prerequisite\*** – *Foundations & Pre-Calculus 10 / Mathématiques 10*

This course is a pre-requisite for Foundations of Math 30. It introduces and/or focuses on the following concepts: inductive/deductive reasoning, proportional reasoning, angles and triangles, sine and cosine laws, data analysis, linear inequalities and basic quadratic functions. As well, students research and present an historical mathematical event or area of interest.

### PRE-CALCULUS 20 / MATHÉMATIQUES 20 PRÉ-CALCUL

**\*Prerequisite\*** – *Foundations & Pre-Calculus 10 / Mathématiques 10*

This course is a pre-requisite for Pre-calculus Math 30. It introduces and/or focuses on the following concepts: absolute value, radical numbers, rational expressions and equations, the primary trig ratios, sine and cosine laws, factoring of polynomial expressions, quadratic functions, quadratic equations, inequalities, arithmetic and geometric sequences and series, and reciprocal functions. Students in this course should be planning to take Calculus in Grade 12.

Pre-Calculus 20

### PRE-CALCULUS 20 Advanced

**\*Prerequisite\*** – *Foundations & Pre-Calculus 10 Advanced Recommended*

This course makes up the second step on the Advanced Mathematics path that leads to AP Calculus at Grade 12. All units of study from Pre-Calculus 20 are covered; however, topics are studied in greater depth.

## WORKPLACE & APPRENTICESHIP 20

**\*Prerequisite\*** – *Workplace & Apprenticeship 10*

This course is a pre-requisite for Workplace & Apprenticeship 30. It asks students to deepen their understanding of topics introduced in Grade 10, including surface area, volume, capacity, formulas, right triangles, 3D objects, and mathematical games involving numerical reasoning.

As well, it introduces the topics such as analysis, personal budgeting and compound interest.

## MATHEMATICS 21

**\*Prerequisite\*** – *Mathematics 10/11*

Mathematics 21 is a modified course that will further develop skills needed in everyday life. This course covers topics such as area, volume, ratio, and rates. Also included are areas such as basic banking, loans, income tax, ration/proportion, and graphing.

## FOUNDATIONS OF MATH 30 / MATHÉMATIQUES 30 FONDEMENTS (Fee May Be Applicable)

**\*Prerequisite\*** – *Foundations 20/ Mathématiques 20 Fondements*

This course continues the learning begun in Foundations 20 and includes the following topics: inductive and deductive reasoning; financial decision making; set theory and its applications; odds/probability; permutations and combinations; and lastly, logarithmic, exponential, sinusoidal and basic polynomial functions. As well, students have the opportunity to research and present a current event or area of interest using data collection and analysis. This course is intended for students considering post-secondary education routes that do not require Calculus.

## PRE-CALCULUS 30/ MATHÉMATIQUES 30 PRÉ-CALCUL

**\*Prerequisite\*** – *Pre-Calculus 20 Mathématiques 20 Pré-Calcul*

This course focuses on the following concepts: angles; rational and radical functions; operations on and transformations of functions; trigonometric ratios, equations, functions and identities; the unit circle; logarithms; advanced polynomial functions; relations and their inverses; and finally, combinatorics (permutations, combinations and the binomial theorem). As the pre-requisite for Calculus, this course is intended for students heading to university to study engineering, and other academic programs requiring Calculus.

## PRE-CALCULUS 30 Advanced

**\*Prerequisite\*** – *Pre-Calculus 20 Advanced Recommended*

This is the final step in preparation for AP Calculus at Grade 12. All Pre-Calculus units of study are covered however topics are studied in greater depth and with a focus on the advanced problem solving skills required for AP Calculus.

## WORKPLACE AND APPRENTICESHIP 30 (Fee Applicable)

**\*Prerequisite\*** – *Workplace & Apprenticeship 20*

This course continues the focus of its two pre-requisites on very “real world” math, including mathematics required for, but not limited to the trades. Real world applications include how to buy a vehicle, and how to set up a small business. Math concepts include transformations of 2-D shapes and 3-D objects; puzzles and games involving spatial reasoning; sine and cosine laws; limitations of measuring instruments; triangles, quadrilaterals and regular polygons; linear relations; data analysis; percentiles and probability. This course is intended for students who want to pursue non-math oriented post-secondary programs at Saskatchewan Polytechnic or at the University of Regina.

## CALCULUS 30

**\*Prerequisite\*** – *Pre-Calculus 30*

This course is designed as an introduction to Calculus and deals with limits; slope of the tangent line; derivatives, and their application to motion, related rates, and maximum and minimum problems; and area and integration, if time permits. Calculus 30 is intended for the student who is academically strong in the field of mathematics.

## AP CALCULUS 30 /INTEGRAL CALCULUS 30 (2 credits, 2 semesters)(Fee Applicable)

**\*Prerequisite\*** – *Pre-Calculus 30 Advanced Recommended*

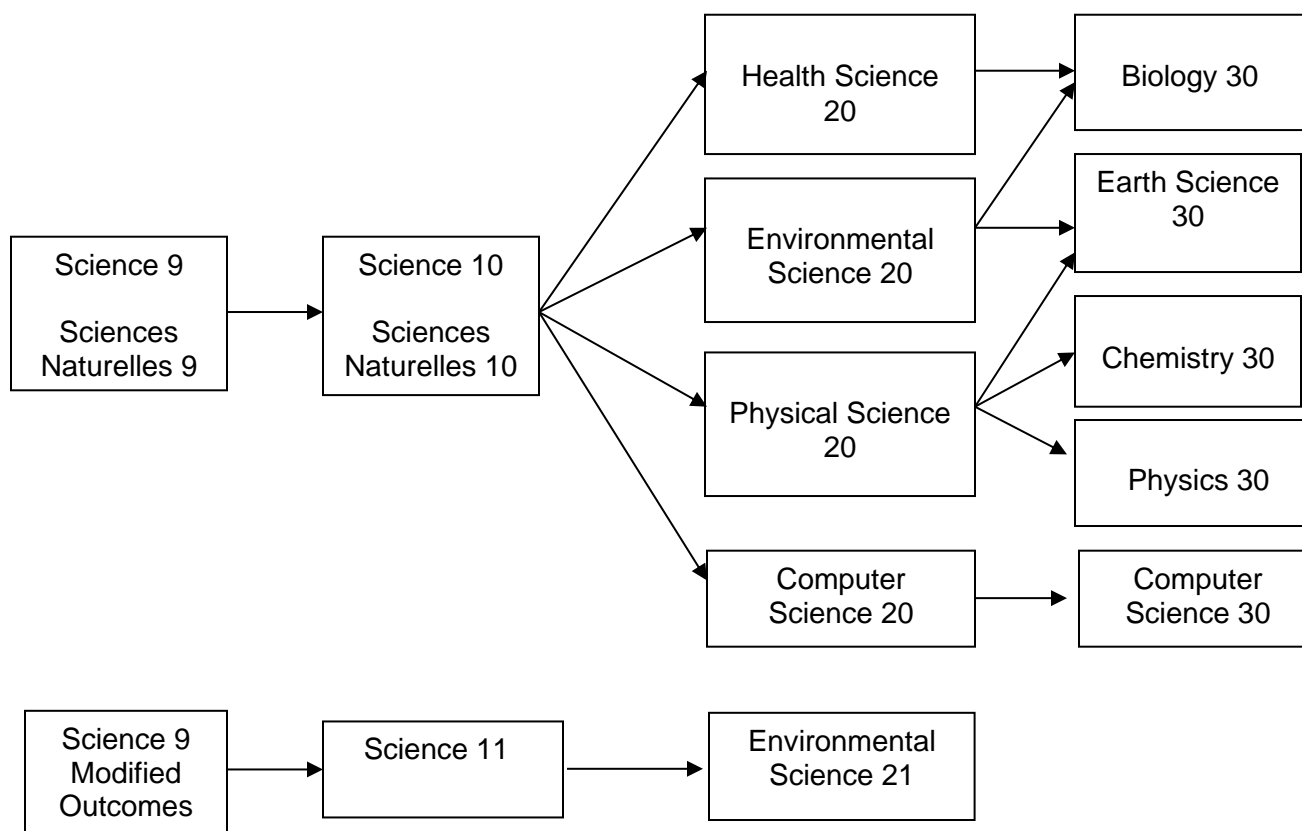
Advanced Placement Calculus is a challenging university-level course. It will be offered to students who take a combination of Advanced Placement (AP) Calculus 30 and Integral Calculus 30. Advanced Placement students have the

opportunity to write the 3.5 hour internationally recognized AP Calculus exam in early May. Students who achieve a sufficiently high standing on this external exam can earn credit at most North American universities. Students must register in the combined course noted above in their Grade 12 year. AP Calculus will provide students with the course content of both courses listed below over the two semesters.

**AP Calculus 30** is designed to provide students with the mathematical understanding and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus. Topics include: algebraic, transcendental, and piecewise functions, rational expressions, inequalities including absolute value, limits, differentiation, and integration.

**Integral Calculus 30** is designed to challenge motivated and mathematically able students and to prepare them for the rigors of post-secondary mathematics. Students will explore more advanced calculus topics than are studied in Calculus 30 and will thereby consolidate and strengthen their algebraic and calculus understandings and skills. Topics include: approximation methods; advanced derivatives; integration properties; techniques and applications; basic theorems of calculus; differential equations; and relative growth rates.

## SCIENCE



### SCIENCE 9 / 9 Modified Outcomes / SCIENCES NATURELLES 9

This course serves as an introduction to Science 10 and, after that, to specialized high school sciences. The units of study for science nine include Atoms and Elements, Characteristics of Electricity, Cellular and Human Reproduction, and Exploring our Universe. The inquiry-oriented nature of this class enables students to explore ideas on these four topics while deepening their understanding of the nature and processes of science.

The **Science 9 Modified Outcomes Course** follows the same units as the Science 9 course with modifications to foster student success.

### SCIENCE 10 / 11 / SCIENCES NATURELLES 10

**\*Prerequisite\*** – Science 9 / Sciences Naturelles 9

The Grade 10 program provides students with the introductory knowledge and skills needed for Biology, Chemistry and Physics. Topics include ecology, chemical compounds, balancing formula equations, speed, acceleration and weather dynamics. There is some laboratory work which will aid in the development and understanding of the theory presented.

The modified **Science 11 course** follows the same units as the Science 10 course with modifications to foster student success.

### COMPUTER SCIENCE 20 (Fee Applicable)

**\*Prerequisite\*** – Science 10/ Sciences Naturelles 10

*Math 10 Recommended*

Computer Science 20 is an introduction to problem-solving using the Python programming language. Students will investigate the use of data types, control structures, functions, common coding techniques and one-dimensional arrays to solve a range of problems. Additionally, students will explore the technologies that underlie the Internet, the evolution of computing machinery and computer security practices and privacy implications.

## ENVIRONMENTAL SCIENCE 20

**\*Prerequisite\*** – *Science 10/ Sciences Naturelles 10*

Students will learn how to examine local and global environmental issues such as climate change, water, soil, and air quality, urbanization, bio resource management, waste handling and disposal, land-use planning, and the impacts of agriculture and industry on the environment from scientific and Indigenous knowledge perspectives. Students will examine the role of environmental policies and ethics on decision making and will investigate environmental science related careers. Student directed studies will lead to the development of environmental action plans.

## ENVIRONMENTAL SCIENCE 21

**\*Prerequisite\*** – *Science 11*

Environmental Science 21 explores the scientific study of the environment and focuses on the health and sustainability of terrestrial and aquatic ecosystems. In this course, students focus on the concepts of climate change, water, soil and air quality, urbanization, resource management and the impacts of agriculture and industry on the environment. The modified course follows the same themes/units as Environmental Science 20 with adaptations to the content of the curriculum.

## HEALTH SCIENCES 20

**\*Prerequisite\*** – *Science 10/ Sciences Naturelles 10*

This course will challenge students to look at the health science field from holistic and analytic perspectives to provide a basis for making sound personal health choices. Students will examine the range of philosophies that guide health care and consider ethical decision within those contexts. Understanding the basic anatomy and physiology of the human body will provide a context for studying the normal and abnormal functioning of various body systems, including the role of nutrition and metabolism. Lastly, students will examine diagnostic tools and procedures and how they are used to inform treatment. Students will also investigate the range of health science careers and post-secondary programs available in Saskatchewan.

## PHYSICAL SCIENCE 20

**\*Prerequisite\*** – *Science 10/ Sciences Naturelles 10*

This course combines chemistry and physics in an integrated manner to investigate concepts related to heating and cooling, the foundations of chemistry, including the mole and quantitative analysis of molecules and chemical reactions, and the characteristics and properties of waves. An overarching theme is the study of the enterprise of public and private science as it occurs in agriculture, industry, and universities to help students better understand various physical science related career paths. Student inquiry will guide independent investigations of physical science phenomena.

## BIOLOGY 30

**\*Prerequisite\*** – *Health Science 20 or Environmental Science 20*

The major themes of this course are to examine the significance of evolution as a key unifying theme in biology and to explore what life is and how it changes over time. Students will examine the organization of life in all kingdoms through the study of biomolecules, cellular processes, and organism function. In genetics and biotechnology, students will explore inheritance, and how information is stored, transmitted, and expressed at chromosomal and molecular levels. Student inquiry will guide independent investigations of biology-related phenomena.

## CHEMISTRY 30

**\*Prerequisite\*** – *Physical Science 20*

A major focus of the course is the study of the role of chemical properties and bonds in determining what makes materials suitable for use in specific applications. Students will actively investigate the nature of equilibrium in chemical reactions. In electrochemistry, students explore oxidation-reduction reactions and the impact of electrochemistry on society and the environment. Other topics include organic compounds and acid-base chemistry. Student inquiry will guide independent investigations of chemistry-related phenomena.

## COMPUTER SCIENCE 30 (Fee Applicable)

**\*Prerequisite\*** – *Computer Science 20*

By using Java, Computer Science 30 builds on programming and computational thinking concepts introduced in Computer Science 20. Students will investigate data structures, sorting algorithms, effective coding practices and collaborative programming practices. Students will create programs that utilize external files and libraries. A major focus of this course is the capstone coding project, in which students demonstrate proficiency in object-oriented programming.



### AP COMPUTER SCIENCE A

**\*Prerequisite\*** - *Computer Science 20*

Computer Science A emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development and is meant to be the equivalent of a first-semester college-level course in Computer Science. It also includes the study of data structures, design, and abstraction. The goal of the course is to impart valuable problem-solving skills; for the most part, this is supported by constructs within the programming language itself. Student use these skills to write real solutions to problems.

The additional material needed to prepare for the Advanced Placement Computer Science A exam written in May is provided through Regina Catholic Learning online learning. All students wishing to write the AP Computer Science Exam must register in and complete the AP Computer Science Prep Course. See your AP Coordinator for details.

### EARTH SCIENCE 30

**\*Prerequisite\*** - *Physical Science 20 or Environmental Science 20*

Students will examine our planet's geological origins and the geological timescale as a foundation to guide decision making with regard to the use of its mineral and energy resources, the maintenance and remediation of the environment, and response to geological hazards. Hands-on field experiences will enable students to develop visual-spatial reasoning skills and an understanding of the role of Geographic Information Systems. Students will also explore the historical and contemporary significance of Earth Science and related careers.

### PHYSICS 30

**\*Prerequisite\*** – *Physical Science 20*

This course enables students to investigate concepts related to modern physics such as quantum mechanics, relativity, and nuclear physics. Students will use Newtonian mechanics to analyze various types of motion and the forces that cause motion. Using the conservation laws of momentum and energy, students will analyze and predict the results of interactions between objects. Lastly, students will explore gravitational, electric, and magnetic fields and their interactions. Student inquiry will guide independent investigations of physics-related phenomena.

## SOCIAL SCIENCES

### SOCIAL STUDIES 9 / 9 Modified Outcomes/ SCIENCES SOCIALES (SCIENCE HUMANIE) 9

Social 9 is a comprehensive introduction to social science concepts. The course focuses on understanding and measuring time, human evolution, and early civilizations.

The Social Studies 9 Modified Course follows the same units as the Social Studies 9 course with modifications to foster student success.

### HISTORY 10 / HISTOIRE 10

This course is designed to provide students with a basic understanding of industrialized, democratic societies. Historical content is used to show students how many of the social organizations, which developed during the late 18<sup>th</sup> and 19<sup>th</sup> centuries, have shaped modern decision-making processes. Major topics of study include the French Revolution, the Industrial Revolution, the Rise of Nationalism, Imperialism and World War I. A key focus of this course is the development of those skills necessary for students to become critical and creative thinkers and independent learners.

### NATIVE STUDIES 10

Native Studies 10 examines the culture of the First Nation People with an emphasis placed on the people of Central Canada. This course explores the traditional First Nations perspective, introduces students to contemporary terminology and provides students with a general history of aboriginal people.

### SOCIAL STUDIES 11

The goal of this course is to help students understand the basic organizations of industrialized and democratic societies. Students are introduced to the way democracies organize themselves to make and carry out decisions for society. They are also introduced to the problem of scarcity and economic decision making. Students will examine the ideologies of conservatism, liberalism and socialism, and their role in the political process. Students will examine the concept of international trade and how it affects the economic well-being of Canadians. In the final unit students will study the concepts of balance of power and collective security.

### HISTORY 20 / HISTOIRE 20

Students will study major world issues that have shaped the 20<sup>th</sup> century and continue to influence the 21<sup>st</sup> century. There are four major themes in this course: international cooperation and confrontation, global interaction during the interwar years and World War II, the rise and interaction of the super powers, and contemporary global interactions. There is a focus on the development of research and dialectical thinking skills in this course.

### NATIVE STUDIES 20

This course focuses on self-government and self-determination, the effects of development, social justice and social justice issues and how they all relate to Canadian Aboriginal people. This course helps students realize that issues facing Canadian Aboriginal peoples are similar to issues that face all Canadians.

### NATIVE STUDIES 30: CANADIAN STUDIES

**\*Prerequisite\*** – *Native Studies 10 or History/Histoire 10 or Social Studies 11*

Native Studies 30 examines contemporary issues relevant to Canadian Aboriginal people. This course provides students with political, legal, and Aboriginal perspectives on issues such as Aboriginal Rights, Land Claims, Treaty and Treaty Rights.

### SOCIAL STUDIES 30/31: CANADIAN STUDIES /SCIENCES SOCIALES 30

**\*Prerequisite\*** – *History / Histoire 10, Native Studies 10 or Social Studies 11*

This course deals with contemporary issues facing Canadians. The emphasis in this course is to develop students' abilities to think and reason dialectically in their consideration of issues, and their approach to solving problems. Individual units concentrate on the themes of Change, Economic Development, Acculturation, Governance, and Globalization. In each unit the historical experience of Canadians is viewed from a modern perspective in an attempt to understand who we are, and why we react the way we do to the current issues and problems which confront us as citizens of Canada and the world.

The modified Social Studies 31 course follows the same units presented in the Social Studies 30 course with modifications to foster student success.

### LAW 30 (Fee Applicable)

Law 30 is designed to prepare students to become active, informed and productive citizens who know and understand their legal rights and responsibilities. Students will learn about the rule of law and learn that the law reflects, and is shaped by, society's values and attitudes regarding social and human relationships. Students will study the abstract nature of law as well as its applications to current Canadian and global legal issues.

### PSYCHOLOGY 20

Psychology 20 studies human behaviour in a variety of social situations. Students will learn about themselves as individuals and as people who are part of a larger social context such as families, friends and citizens of a country in a global community.

### PSYCHOLOGY 30

Psychology 30 is the study of human development across the time spans of human life. Students will learn about how humans grow in areas of physical, intellectual, emotional, social and spiritual development as they move from conception to death.

### PSYCHOLOGY 30 ADVANCED PLACEMENT (Fee Applicable)

***\*Prerequisite\**** – *Students wishing to take Psychology 30AP need to enrol in Psychology 20 in semester one.*

Psychology 30 AP introduces students to the systematic and scientific study of the behaviour and mental processes of human beings and other animals. Students will learn psychological theories, methods and principles associated with the major sub fields of psychology. This is an advanced course that requires a fair degree of independent study by the student. This course allows students to complete studies in high school, which they may later use as an equivalent to an introductory university course in psychology depending on the mark achieved by the student on the AP exam and on the entrance requirements of specific universities.



## PHYSICAL EDUCATION

### PHYSICAL EDUCATION 9

The Grade 9 physical education program introduces students to movement activities to support lifelong active living in the context of self, family, and community (Active Living). Physical education will enhance the student's quality of movement by understanding, developing, and transferring movement concepts, skills, tactics, and strategies to a wide variety of movement activities (Skillful Movement). Students will also learn to balance self through safe and respectful personal, social, cultural, and environmental interactions in a wide variety of movement activities (Relationships). Units of study may include, but are not limited to Body Composition, Skill Related Fitness and Games, Tactics and Strategies.

### WELLNESS 10

Wellness 10 is a program that integrates physical education and a healthy lifestyle. The goals for Wellness 10 are to develop the understanding, skills and confidences necessary to take action to improve health, make informed decisions based on health-related knowledge, enjoy and engage in healthy levels of participation in movement activities to support lifelong active living in the context of self, family and community. Wellness will enhance quality of movement by understanding, developing and transferring movement concepts, skills, tactics and strategies to a wide variety of movement activities and balance self through safe and respectful personal, social, cultural and environmental interactions in a wide variety of movement activities.

### PHYSICAL EDUCATION 20 (Fee Applicable)

*\*A fee is charged due to transportation and out of school facility use.*

**Active for Life:** This course recognizes that physical activity and sport play a critical role in promoting the wellness of all individuals and nurtures the health of our communities. This course will promote student participation in a class environment, separate from students at the highly competitive end of the spectrum. Course content and delivery are structured to engage students who are interested in active living, leadership, and non-traditional forms of physical activity. Areas of study include, but are not limited to: Service learning, fitness, body management, complex skills, physical activity in multiple environments, games, tactics, and strategies, nutrition, skeletal and muscular systems, and personal mental health. Students will have opportunities to examine First Nations and Metis worldviews regarding learning through physical activities. Students will also develop leadership skills through connections and experiences with associate schools and community groups. Students will complete the course having developed a positive attitude towards physical activity and the desire and appreciation to be *Active for Life*.

**Sport Performance:** This course presents a unique opportunity for student athletes who are ready to compete and excel at the highest level possible. Student athletes will have the opportunity to train and improve their fitness, which will directly affect their chosen sport. This occurs during the school day as part of a partnership with Level 10 Fitness. Students will work to develop a strength and conditioning program targeted to improve their specific skills and performance. These student athletes need to commit to high volume, high intensity, and competitive training throughout the semester. Areas of study include but are not limited to: Service learning, fitness, body management, complex skills, physical activity in multiple environments, games, tactics, and strategies, nutrition, skeletal and muscular systems, and personal mental health. Students will have opportunities to examine First Nations and Metis worldviews regarding learning through physical activities.

### PHYSICAL EDUCATION 30 (Fee Applicable)

*\*A fee is charged due to transportation and out of school facility use.*

**Active for Life:** This course recognizes that physical activity and sport play a critical role in promoting the wellness of all individuals and nurtures the health of our communities. This course will promote student participation in a class environment, separate from students at the highly competitive end of the spectrum. Course content and delivery are structured to engage students who are interested in active living, leadership, and non-traditional forms of physical activity. Areas of study include, but are not limited to - leadership through service learning, lifelong fitness, body management, movement in multiple environments, complex skills, tactics and strategies, nutrition, physiology and biomechanics, and exercise psychology. Students will have opportunities to examine First Nations and Metis worldviews regarding learning

through physical activities. Students will also develop leadership skills through connections and experiences with associate schools and community groups. Students will complete the course having developed a positive attitude towards physical activity and the desire and appreciation to be *Active for Life*.

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### SPORTS MEDICINE 20 (Fee Applicable)

This is a locally developed elective designed to introduce students to sports medicine related careers, the fundamentals of body systems with a focus on the musculoskeletal system, nutrition and training, and the basics of sports medicine. Students will gain basic knowledge of the prevention, recognition, treatment, and rehabilitation of common sport related injuries. They will learn supportive wrapping and taping techniques and proper injury treatment protocol.

## FINE ARTS

### ARTS EDUCATION 9

This course has three separate components: Drama, Music and Visual Arts. Students will spend approximately six weeks in each of the classes to gain an appreciation for all aspects of arts education. The student's grade will be determined by averaging the marks of all three strands.

#### **Drama**

The creative/ productive, cultural/historical and critical/responsive components are interwoven into the drama course to ensure that students become aware of the connections between their world, and the drama of others. Students will be encouraged to discuss and respond to these connections, and to make individual and collective contributions at each stage of work given.

#### **Music**

The goal of this course is to give students an opportunity to learn about, understand, and experience music in a classroom setting. Students are encouraged to develop their own unique abilities and make connections through guided exploration and structured activities. Student evaluation is based upon their understanding, effort, and personal growth.

#### **Visual Arts**

In visual Arts, students will develop an understanding of ways that ideas can be transformed into visual form. They will determine and explore appropriate media and forms of visual expressions; extend their visual art vocabulary; recognize the influence of environmental, historical and social factors on visual art. As well, they will increase their awareness of contemporary issues surrounding visual art; extend their knowledge of the relationships between various cultures and visual art; and evaluate the influence of visual art in their daily lives, the mass media and popular culture. An emphasis is placed on their projects.

### VISUAL ART 10 / 20 / 30 (Fee Applicable)

In these courses students experience visual art as an artist and audience. As artists, they will learn skills and techniques by utilizing a variety of media (mixed media, coloured pencils, acrylic paint, chalk pastels, oil pastels, collage, and pencil/graphite) to explore their own ideas, experiences, feelings, cultural identities, observations, and imaginations. As an audience, they are introduced to several artists, their work and their place in the world.

### BAND 9 (Fee Applicable)

The preparation and performance of a variety of different styles of music will allow each student to learn musical concepts, improve their musical literacy, and develop and advance technical skills on his/her instrument. Students will learn to understand and appreciate a variety of musical genres, demonstrate a commitment to their own musical education and growth, develop and maintain a positive, group-oriented attitude and experience success through group, ensemble and/or solo performances. Students will be involved in several performances including public and school-related concerts, clinics, festivals and a student-funded tour in or outside the province. Band 9 is an early bird class.

A fine arts credit is invaluable when applying for secondary education and scholarships as it shows advancement in the areas of creativity, sensitivity, critical thinking and an appreciation for beauty.

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### INSTRUMENTAL JAZZ 9/ 10/ 20/ 30 (Fee Applicable) \*No Prerequisite\* Audition Required

Instrumental Jazz are auditioned ensembles that rehearse once per week. This course is an extension of the Band Program and therefore students must be registered in Band as well. The class focuses on jazz repertoire, improvisation, and jazz pedagogy. Students are expected to practice the repertoire on their own between rehearsals. Through the use of listening, improvising, and jazz pedagogy, students will gain a better understanding of the jazz language. The libraries of

## A Proud Tradition

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Count Basie, Stan Kenton, Sammy Nestico, and Pat Metheny will be the foundations for the class. Students will gain a wider knowledge base if they listen to the masters that came before them.

### CHORAL 9 (Fee Applicable) *Early Bird Class*

The preparation and performance of a variety of different styles of music will allow each choral student to improve their musical literacy and develop an exemplary vocal tone. Students will learn to understand and appreciate a variety of musical genres, demonstrate a commitment to their own musical education and growth, develop and maintain a positive, group-orientated attitude and experience success through group and/or solo performances. Students will be involved in various performances including public and school-related concerts, clinics, festivals and a student-funded tour in or outside the province.

### CHORAL 10/ 20/ 30 (Fee Applicable) *Early Bird Class*

The preparation and performance of a variety of different styles of music will allow each choral student to improve their musical literacy and develop an exemplary vocal tone. Students will learn to understand and appreciate a variety of musical genres, demonstrate a commitment to their own musical education and growth, develop and maintain a positive, group-orientated attitude and experience success through group and/or solo performances. Students will be involved in various performances including public and school-related concerts, clinics, festivals and a student-funded tour in or outside the province. A fine art credit is invaluable when applying for post secondary education and scholarships as it shows advancement in the areas of creativity, sensitivity, critical thinking and an appreciation for beauty.

### VOCAL JAZZ 9 /10 /20 /30 (Fee Applicable)

Vocal Jazz is a credit class at Grades 10, 11 and 12. It is an extension of the existing Choral program and focuses on the elements of jazz repertoire. The four general outcomes are musicianship, listening, improvisation and technology within the vocal jazz context. Students must be taking choir concurrently or have at least two years of choral experience. Involvement is at the discretion of the director following the audition process. A fine art credit is invaluable when applying for post secondary education and scholarships as it shows advancement in the areas of creativity, sensitivity and critical thinking.

### DRAMA 10

Drama 10 concentrates on introductory movement, tableaux, and improvisation, which will facilitate basic acting techniques. Emphasis is placed on character development, blocking, timing, and staging. There are five areas of study include: Movement, Tableaux, Characterization, Improvisation and Scene Work.

### DRAMA 20

Drama 20 focuses on improvisation, play study, and character development with a greater emphasis on character analysis. Students will study acting skills with a focus on vocalization. Emphasis will also be on theatre study including theatre history and script analysis. The five areas of study include: Improvisation, Movement, Speech, Characterization and Theatre Study (Play Analysis).

### DRAMA 30

Drama 30 concentrates on the production and historical aspects of drama. Lighting, make-up, stage settings and sound are covered. The students will progress from performing short scenes to creating a drama collective or producing a play. The four areas of study in Drama 30 include: Improvisation, Characterization, Theatre Study-History, and Play Production/Collective.

### MUSIC 10/20/30 (Fee Applicable)

Music 10, 20 and 30 are an extension of the music component of the grade 9 Arts-Ed Program. In these classes, students will focus on expanding their music skills and literacy in three specific areas:

**Practical:** Students will choose one instrument to play for the semester. This class is primarily self-directed, and students must be mature enough to work independently and practice on their own. Students, in cooperation with the teacher, will set goals and work on a contract basis.

**Theoretical:** Students will learn the language of music including music notation, terms, elementary harmony and composition. Students will complete this portion of the course on computer and will therefore be directly responsible for their own success.

**Analytical:** Projects may include research and critical response to music and music related topics.



## A Proud Tradition

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A fine arts credit is invaluable when applying for secondary education and scholarships as it shows advancement in the areas of creativity, sensitivity, critical thinking and an appreciation for beauty.

Please note however, that students must be mature enough to work independently and practice on their own to be successful in this busy environment.

## **PRACTICAL AND APPLIED ARTS**

### **The Saskatchewan Youth Apprenticeship Program**

Miller students taking Practical and Applied Arts (PAA) courses will have the opportunity to complete the Youth Apprenticeship Program (YAP). The Saskatchewan Youth Apprenticeship Program is comprised of three levels of four challenges each that must be completed during Grade 10, 11 and 12.

Level One focuses on awareness of the apprenticeship process. Level Two focuses on researching career pathways and Level Three students may have the opportunity to job shadow, visit job sites and attend career fairs.

The program benefits are as follows:

- Getting a head start on career planning
- Recording achievements for career portfolios
- Youth that complete the SYA program and register as an apprentice in a designated trade within three years receives:
  1. Waiver of registration fee
  2. Waiver of first level of technical training tuition
  3. 100 hours of trade time credit per PAA course completed
  4. Youth Apprenticeship \$1000 Scholarship Opportunity

We are proud to provide this unique, valuable opportunity and experience for all of our students who choose to take PAA courses.

### **PAA SURVEY 9: APPLIED TECHNOLOGY**

This course emphasizes a 'hands-on' approach to learning. The students are guided through a variety of exercises utilizing techniques, equipment and materials in three different technical areas. The skills acquired will be of additional use to students who continue on to the pure courses such as Construction, Mechanics and Welding 10, 20 and 30.

The three modules covered are:

- Module One: Woods 9- Students learn the safe and proper use of hand tools and a limited selection of power tools. Students demonstrate their skills by building a small wood project.
- Module Two: Welding 9- Students learn the safe use of the Arc and Mig Welders. Basic welds are practiced to attain a reasonable degree of skill to complete a take home project.
- Module Three: Mechanics 9 – Students take apart and re-assemble a four stroke engine, learning the basics of engine operation and maintenance, as well as the safe use of tools and equipment

### **PAA SURVEY 9: COMPUTER TECHNOLOGY**

This course provides students with an opportunity to explore both Photography and Communication Media. Students will have a brief introduction to Photography and Graphic Arts design through the use of technology. They will have an overview of the Communication Media field that offers exciting and innovative ways to communicate through video, audio, and multimedia productions.

### **PAA SURVEY 9: DESIGN TECHNOLOGY**

In this course students will complete three six-week rotations in the areas of foods, cosmetology and interior design. Students are introduced to topics that are covered in depth in Commercial Cooking and Advanced Baking courses, Cosmetology 10, 20 and 30 as well as in Interior Design 30.

## **BUSINESS EDUCATION**

### **ACCOUNTING 10 (Fee Applicable)**

Accounting 10 introduces students to different types of businesses, generally accepted accounting principles and accounting careers. Students will learn the entire accounting cycle for a service business organized as a proprietorship. Students will understand the ethical and moral responsibilities of an employee in the accounting field and will be able to apply basic accounting concepts and financial management skills to personal use situation whether for self, school, outside agencies or business. Themes covered include: Introduction to Accounting and Career Opportunities, Accounting Cycle for a Service Business and Banking and Cash Control.

### ACCOUNTING 20 (Fee Applicable)

**\*Recommended\*** – *Accounting 10*

Accounting 20 will introduce the students to a merchandising business organized as a partnership. Topics such as inventory, mark-up discounts, returns, receivables and payables are studied. Special journals are introduced. A unit on taxation will teach students how to prepare a basic personal income tax return. Students considering post-secondary education in Administration or Commerce will definitely benefit from taking high-school accounting.

Themes covered include: Accounting Cycle of a Merchandising Business, Basic Personal Income Tax and Payro

### ACCOUNTING 30 (Fee Applicable)

**\*Recommended\*** – *Accounting 20*

Accounting 30 will introduce the concept of managerial accounting in contrast to financial accounting. Management functions such as planning, organizing, directing, budgeting, financial statement analysis and decision-making are studied. A unit on asset analysis will introduce the concepts of bad debts, depreciation and inventory evaluation. The organization and structure of corporations and partnerships are studied. This will include definitions, legal concepts, basic journal entries and financial statement reporting. Students considering post-secondary education in Administration or Commerce will definitely benefit from taking high-school accounting. Themes covered include: Management Accounting and Financial Statement Analysis, Asset Analysis, Corporations and Partnerships.

### ENTREPRENEURSHIP 30 (Fee Applicable)

Are you a self- motivated person? Do you have the stamina to work 18-hour days? Do you have a unique product or service you would like to market? Entrepreneurship 30 is a course designed to provide students with the skills and knowledge needed to plan and implement their own venture. Students learn how research, plan, market, and acquire financial assistance required to start a business. Students get the opportunity to learn about entrepreneurs who have or have not been successful in owning and operating a small business. Projects for this class will require work to be completed outside of class time. As a participant in this course, you will be part of a group venture project that will help you to develop life-long skills.

### FINANCIAL LITERACY 10/ LITTERATIE FINANCIERE 10

Commencing in 2024-2025, Financial Literacy 10 is a graduation requirement for all grade ten students. This course is currently being developed by the Ministry of Education and will be a combination of career education and financial literacy. It will be developed in both English and French.

### FINANCIAL LITERACY 20

With the increasing debt loads of consumers and the rising number of personal bankruptcies, the need for financial management skills has become essential. Financial Literacy 20 provides students with a broad base of knowledge and skills related to personal finance management. Students will develop an awareness and understanding of personal economic decision making that will help them become informed consumers. Through personal and work experiences, students will develop work habits, attitudes and problem-solving skills that will have long lasting benefits. Key areas explored in this course are: Decision Making, Goal Setting, Lifestyle, and Careers, Banking Services and Transactions, Income and Payment , Savings, Investing and Interest, Budgeting, Credit and Credit Cards, Renting, Leasing and Buying and Consumer Protection.

## COMMERCIAL COOKING

Learning culinary and baking arts is an opportunity for creativity and self-expression and an avenue for potential employment within the food service industry. Commercial Cooking 10, 20, 30 provides students with hands-on experiences in the food service industry. Great cookery requires taste, creativity and the development of culinary techniques. Commercial Cooking is an opportunity for students to understand and apply these food and culinary principles and skills. Through this course, students can explore taste, creativity and decision-making in a commercial cooking environment.

### COMMERCIAL COOKING 10 (Fee Applicable)

**\*Prerequisite\*** – None

This course combines theory and 'hands on' experiences when preparing foods on a larger scale. Learning how to use commercial food equipment and tools is necessary to assure safety on the job. Learning how to handle food safely and prevent food poisoning is equally as important. Students also have the opportunity to obtain a Food Handler's Certificate. Students will prepare soups, arrange salads, assemble sandwiches, and bake muffins, cookies and quick breads. Some careers in foods may include: a chef, dietician, working in test kitchens 'testing' recipes or becoming an entrepreneur.

### COMMERCIAL COOKING 20 (Fee Applicable)

**\*Recommended\*** – Commercial Cooking 10

From the basic knowledge and skills learned at the Commercial Cooking 10 level, a minimum of 70% of the time is spent in the commercial kitchen setting. Students will make white and brown stock; prepare sauces such as Hollandaise for Eggs Benedict, make fruit and custard pies and bake and ice different types of cakes. Creating apple birds, fancy mushroom caps and carrot flowers are not only fun to do but add eye appeal to any meal. Breakfast preparation for large groups is an addition to this course. The students make eggs over easy, crisp bacon, and fluffy pancakes for the staff and student body. After cleaning the grill, deep fryers and freezers, the students can enjoy their free breakfast.

### COMMERCIAL COOKING 30 (Fee Applicable)

**\*Recommended\*** – Commercial Cooking 20

Students can learn to become a gourmet cook and caterer. In this 30 level course, students will cook Chicken Cordon Bleu, Roast Beef with Yorkshire pudding, and fabulous dishes such as Sushi and Fajitas from other countries. Desserts could include Crème Caramel, Chocolate Mousse or a French Silk pie. Students will also learn cake decorating techniques, how to make bread, croissants, cinnamon buns and pastas from scratch. Entertaining with food includes learning how to make a special meal with all the trimmings. After completing this course, students can challenge the apprenticeship exam in food services, which is equivalent to the first year in cooking school. Food careers, other than food services, include a food technologist, food scientist, dietician, a corporate chef, and 'recipe testing' kitchen personnel.

### ADVANCED BAKING 30 L (Fee Applicable)

**\*Recommended\*** - Commercial Cooking 20 or 30

Advanced Baking 30 provides students with an opportunity to focus on this specific area of the culinary arts. They will learn about the daily tasks and responsibilities of a Professional Pastry Chef. Students will become familiar with French baking terminology and learn variations on restaurant desserts and artistic decorative skills. This includes classic and contemporary presentations of both sweet and savory petites fours, Bavarian creams and mousses, caramel and nougatine, chocolate work - both hand tempering and dipping, sugar work decorations and advanced cake decorating. Students are required to complete a final project for this class.

## CONSTRUCTION AND CARPENTRY

### CONSTRUCTION & CARPENTRY 10/ 20/ 30 (Fee Applicable)

Construction and Carpentry classes are designed to create an appreciation of the industry and to develop entry-level skills within the construction trade. There are many hands on opportunities to develop skills for personal use and/or make a smooth transition from school to the workplace. Students learn by experience and by completing wood projects that they can keep.

#### **Construction 10**

Construction 10 covers: safety, wood theory, hand and portable power tools, fasteners and adhesives, introduction to cabinet making as well as careers in construction.

#### **Construction 20**

**\*Recommended\*** - Construction 10

Construction 20 covers: workshop and construction site safety, advanced portable and stationary power tools, framing and building layout.

### **Construction 30**

**\*Recommended\*** - Construction 20

Construction 30 covers: a review of safety, intermediate and advance wood theory, advanced cabinet making and concrete.

## **ESTHETICS AND HAIRSTYLING**

### Esthetics and Hairstyling 10/ 20/ 30 (Fee Applicable)

**\*Prerequisite\*** – *Esthetics and Hairstyling 10 is the prerequisite for Esthetics and Hairstyling 20. Esthetics and Hairstyling 20 is the prerequisite for Esthetics and Hairstyling 30.*

These courses introduce students to concepts and skills related to esthetics and hairstyling; including hair, nail and skin applications. Students will develop an awareness and appreciation of the industry as well as developing lifelong practical skills. There are many opportunities available to students who have a desire to further their interests in the industry. The field of Esthetics and Hairstyling encompasses many occupations including hairdressers, estheticians, make-up artists, theatrical make-up artists, aroma- therapists, massage therapists, nail technician, fashion designer, herbalist, image consultant, fashion editor, fashion trend forecaster, fashion buyer, dermatologist, perfumer, plastic surgeon, Feng-Shui consultant or a homeopathic practitioner.

## **MECHANICAL AND AUTOMOTIVE STUDIES**

### MECHANICAL AND AUTOMOTIVE STUDIES 10 (Fee Applicable)

In Mechanics 10, students will develop a general knowledge of the operations and functions of tools, equipment, cooling and exhaust systems. They will learn the regular maintenance tasks required in keeping an automobile running smoothly. Students will also develop a full understanding of the safety procedures and practice safe work habits while working in the shop. The units covered include tools and equipment, small engines, service and maintenance along with buying new and used cars.

### MECHANICAL AND AUTOMOTIVE STUDIES A20 (Fee Applicable)

**\*Recommended\*** – *Mechanical and Automotive Studies 10*

In Mechanics A20, students will develop specific knowledge of the operations and functions of brake systems, drivelines and electrical systems. They will also be given a full understanding of the internal combustion engine (multi-cylinder). The units covered includes engine removal, inspection and repair; brake systems and drive line systems.

### MECHANICAL AND AUTOMOTIVE STUDIES B20 (Fee Applicable)

**\*Recommended\*** – *Mechanical and Automotive Studies 10*

In Mechanics B20, students will gain specific knowledge of the operation, function and service of fuel systems. They will also gain specific knowledge of clutches, manual transmissions, transfer cases, and automatic transmissions.

### MECHANICAL AND AUTOMOTIVE STUDIES A30 (Fee Applicable)

**\*Recommended\*** – *Mechanical and Automotive Studies 10*

\*The emphasis in this class is placed on developing knowledge and skills in the areas of electrical and electronic diagnosis and repair, as well as emission control systems and drivability issues.

### MECHANICAL AND AUTOMOTIVE STUDIES B30 (Fee Applicable)

**\*Recommended\*** – *Mechanical and Automotive Studies 10*

The emphasis in this class is on developing knowledge and skills in the areas of suspension and steering systems, wheels, tires and wheel alignment. This course also examines axles, drive shafts and bearings.

## **WELDING**

### WELDING 10 (Fee Applicable)

Welding 10 introduces students to welding shop practices, equipment and safety. Students learn how to use all shop tools associated with cutting, grinding, drilling, threading and welding. Students spend the majority of class time learning how to arc and gas weld. Projects are produced for both arc and gas welding components.

WELDING 20 (Fee Applicable)

**\*Prerequisite\*** – *Welding 10*

Welding 20 introduces students to vertical and horizontal position welds using both Arc and MIG welding. Students are also introduced to the cutting process using a gas torch and a plasma torch. This course offers exposure to new equipment and techniques. Students spend the majority of class time designing and producing their own projects

WELDING 30 (Fee Applicable)

**\*Prerequisite\*** – *Welding 20*

Welding 30 is designed to allow students to continue to develop skills in producing advanced positional welds using MIG, Arc and Gas Welding. Further exposure is given to specialty welding processes and equipment. The majority of the course is spent in a hands-on learning environment with students designing and producing their own projects.

## TECHNOLOGY STUDIES

### COMMUNICATION MEDIA

#### COMMUNICATION MEDIA 10 (Fee Applicable)

Prepare for tomorrow today. This class offers exciting and innovative ways to communicate through video, audio, and multimedia productions. Career exploration and preparation will help students understand the challenges and opportunities presented by existing and developing technologies. The goals of this class are to enable students to utilize the tools of technology to enhance their knowledge and enhance their ability to be successful in their future. The units covered include: Introduction to CM, Beginning Video Production, Digital Photography, Beginning Multimedia Production, Introductory Audio Production, Special Effects (Optional) and Animation (Optional).

#### COMMUNICATION MEDIA 20 (Fee Applicable)

**\*Recommended\*** – *Communication Media 10*

This course increases students' understanding of important knowledge, skills, and abilities required in the creation of audio, video, and multimedia products. Students will be engaged in more complex processes than they experienced in Communication Media 10 and will participate in one or more production projects. Post-production activities may be minimal at this level. Students will be expected to increase their understanding of all three of audio, video, and multimedia production. The units covered include: Intermediate Video Production, Intermediate Audio, Intermediate Multimedia, Intermediate Production and Special Effects.

#### COMMUNICATION MEDIA 30 (Fee Applicable)

**\*Recommended\*** – *Communication Media 20*

This course will consist of an advanced production project utilizing all previous knowledge in multimedia, audio and video. There will also be an intensive script writing study along with a look at future technological advances and animation. If available, a work-study component may be added. The units covered include: Advanced Production Project, Software and Technology Research, Scriptwriting, Independent Study and Animation.

## PHOTOGRAPHY

#### PHOTO-GRAPHICS 10 (Fee Applicable)

**\*Pre-requisite\*** - *None*

This course introduces students to Photography and Graphic Arts as it relates to business and industry today. Students will examine the fundamentals of photography and graphic arts design through the use of technology and manipulation of other resources. Links to personal use and career pathways are explored.

#### PHOTOGRAPHY 20 (Fee Applicable)

**\*Recommended\*** - *Photo-Graphics 10*

This course deals with the fast-paced world of Digital Photography and Digital Manipulation/Graphic Design. The core modules of this course include capturing images that demonstrate advance camera knowledge, continued development of software and digital image proficiency, image editing software and photographic critique work.