

Academic Requirements (Grade 8-9)

Courses	Grade 8	Grade 9
Religion (School Requirement)	Religion 8	Religion 9
Career Education	Career Education 8	Career Education 9
Language Arts	English 8	English 9
Social Studies	Social Studies 8	Social Studies 9
Science	Science 8	Science 9
Physical & Health Education	PHE 8	PHE 9
Second Language	French 8	French 9
*Mathematics	*Mathematics 8	* One from Mathematics 9 or *Mathematics 9 Enriched
**French	French 8	French 9
***Fine Arts/Applied Skills Elective Courses	Choose One from the following full year courses Band 8 or Choir 8 OR ***Choose two of the following half year courses Art 8 Design & Tech 8 Drama 8 Woodwork 8	Choose One from the following full year courses Band 9 or Choir 9 OR ***Choose two of the following half year courses Art 9 Design & Tech 9 Drama 9 Woodwork 9

LEARNING ASSISTANCE

Students on IEPs - in consultation with the Administration, the LA Department, and their parents will take a *Learning Assistance* Block rather than French.

* MATHEMATICS

Advanced students can write a Mathematics 8 Challenge Exam. The STMC Mathematics Head of Department will determine the ultimate placement within Mathematics courses.

**FRENCH

French Immersion students can write a French Challenge Exam. French placement may vary at the discretion of the French Department Head for French Immersion students.

***APPLIED SKILLS/FINE ARTS

NEW Design & Technology (DaT) 8 & 9 will be a new elective in 2018-2019 and will involve the developing of coding & computer skills.

Note: Due to class size limitations, students may not always get their first choice in these courses.

Academic Requirements (Gr. 10-12)

What You Need to Graduate from BC and STMC

In order to graduate from the province of BC, every student in the Graduation Program has to pass certain basic courses in their grade 10, 11 and 12 years. **In addition, students must successfully complete Religion 10, 11 and 12 to graduate from STMC.**

The New BC Curriculum begins in the 2018-2019 school year for all of our senior students. The STMC staff is working hard preparing for the full implementation of this new direction in education this fall (September 2018). We are also fortunate in that we have an STMC staff member on Counsellor Advisory committees at both UBC and SFU. Because of this, we are beginning to more fully understand what this new direction will likely mean with respect to the admissions process for the post-secondary institutions where our students typically apply. We will continue to stay on top of these changes and do whatever it takes to ease the transition for both current, as well as future STMC students.

NEW MINISTRY REQUIRED COURSES (2018)	Credits
Career Education (Career Life Education & Career Life Connections)	8
English 10	4
English 11	4
English 12	4
a Mathematics 10	4
a Mathematics 11	4
an Arts Education and/or Applied Design, Skills, & Technology 10, 11 or 12	4
Social Studies 10	4
a Social Studies 11 or 12	4
Science 10	4
a Science 11 or 12	4
Physical & Health Education 10	4
Capstone 12	4
Total Required Course Credits	52 credits
REQUIRED STMC COURSES	
Religion 10	4
Religion 11	4
Religion 12	4
Total STMC Required Course Credits	12 credits
In addition, students must take a minimum of 4 other elective courses. At least 4 of these electives must be at the grade 12 level.	16 credits
OVERALL TOTAL:	80 credits

Applied Skills

Courses:

Design & Technology 8, Woodwork 8, Design & Technology 9, Woodwork 9, Guitar Building 11

NEW Design & Technology 8 (½ Year Elective)

Design Technology 8 will introduce students to designing and building integrated hardware and software technologies, analysing, testing, and communicating results. There will be four streams that will continue through Grade 9 and broaden to become individual courses by the Grade 10 to 12 level. The four streams are: Programming, Robotics, Design, and Data Analysis. The focus of each stream will be to present the students with a challenge that requires them to analyze a problem, design and build a hardware or software solution, test and refine their solution, and present their product. Programs used will include Game Maker, Vex Robot C, AutoCAD Tinkercad, Excel, Unity, and Adobe Photoshop.

Woodwork 8 (½ Year Elective)

The course is mainly an introduction to hand tools, with a variety of smaller power tools and machines being included. The main objective is to provide a variety of woodworking experiences and techniques, which develop the students' skills in proper woodworking procedures, including the safe setup, operation, general maintenance, and use of all the hand and power tools in the course. Techniques for developing good designs, choosing and manufacturing the most appropriate wood joints, proper production procedures, assembly strategies and finishing techniques will also be covered.

NEW Design & Technology 9 (½ Year Elective)

Design and Technology 9 will continue with the 4 streams from Design and Technology 8; Programming, Robotics, 3D design, and 2D image editing, although Design and Technology 8 is not a prerequisite. One focus of the year will be to introduce the students to various multimedia software applications during the design stream. These will be pulled from the worlds of website design, digital imaging, and animation. Specific software and applications examined may include digital image capturing and editing using Adobe Photoshop, 2-D animation using Flash CS4, computer based drawing and design using AutoDesk TinkerCAD. Another focus will be programming using a game design engine and RobotC.

Woodwork 9 (½ Year Elective)

The emphasis in this course is to introduce students to the proper setup and safe use of power tools and power machines, primarily the table saw, radial arm saw, jointer and surface planer. The use of the lathe is optional. By their choice of specific projects and assignments – coffee and end tables, medicine cabinets, chests of drawers, piano benches, etc. students develop specific skills, which will enable them to calculate materials and costs and to manufacture quality modern and/or traditional furniture.

Guitar Building 11 (Elective)

We are also proud to offer a popular specialized course for students interested in building an electric or acoustic guitar. Students are instructed in a systematic building method. Each student is encouraged to use their creativity in design and finishing techniques. Career opportunities are presented in repairing and building guitars at the professional level. Students are exposed to a wide variety of music genres and are given lessons on how to play the guitar!

Career Education

Courses:

Career Education 8, Career Education 9, Career Life Education 10, & Career Life Connections 11-12

Career & Health Education 8 and 9 (Required)

The aim of Career Education 8 and 9 is to provide students with the knowledge, skills and attitudes that will assist them in making informed decisions related to their education, skill set and their future careers.

Career Education 8 and 9 provides a foundation of learning, personal development, connections to the community, and hopefully a start to a student's life and career plan. Furthermore, Career Education offers individual students opportunities to acquire the knowledge and competencies necessary for success in school, in the workplace, and in their daily lives.

Career Life Education & Career Life Explorations 10-12 (Required)

The BC Ministry of Education requires both of these new courses for students at part of the new 2018 Graduation Program. Both courses are currently in their DRAFT formats. We will update and post both courses later this spring when are posted on the ministry website.

English Language Arts

Courses:

English 8, 9, 10, 11, 12, English Literature 12

Because 90% of our graduates attend post-secondary institutions, our English courses designed to help students develop into imaginative thinkers, powerful analysts, cogent writers, and informed citizens. Our approach to an intensive scrutiny of some of the world's greatest literature is the key to unlocking academic excellence. By promoting fine writing, keen powers of analysis, and a true love of speaking, we allow students to explore the world of literature through their own experiences. Throughout their time at STMC, students learn to develop their rhetorical crafts and leave as assertive and sophisticated speakers.

Additionally, the English Department wants to demonstrate to students the value of live performances, thus we arrange visits by theatre companies to the school for grades 8, 9 and 10, while the grade 11's study and attend a performance of a Shakespeare play at Bard on the Beach.

Fine Arts – Music

Grade 8 Band

This full year course is designed for Grade 8's who are interested in playing in a concert band setting. This on the timetable course allows students the opportunity to learn basic music theory, history, and performance skills on an approved concert band instrument. During the course of the year students will rehearse, perform, and take part in clinics and workshops. *Students are required to rent their own instrument for this course. Prior musical training is not required for this class.*

Grade 9 Band

This on the time table, full year course is designed to further the musical development within a concert band setting for students in Grade 9. Students will be instructed in areas of music theory, listening, music history, and musical performance in various musical styles. *Students are required to rent their own instrument for this course. Students must either have completed Grade 8 band or have permission of the Band Director to be eligible to take this course. This course is a co-requisite for Jazz Band.*

Senior Concert Band Grades 10-12

This on timetable full year course is open to students from grades 10 to 12 and is designed to develop students' musical skills to a higher degree within a concert band setting. Students will be further instructed in areas of music, theory, listening, music history, composition, and musical performance in various musical styles. *Students are required to rent their own instrument for this course. Students must either have completed Grade 9 band or have the permission of the Band Director to be eligible to take this course.*

Jazz Band A

This full year course meets regularly off the timetable every Tuesday and Thursday morning as well as every Friday at lunch. This auditioned group is open to students from Grades 8 to 12 who are selected based on their audition. Students will be instructed in advanced areas of Jazz theory, listening, Jazz history, composition, Jazz improvisation, and performance in the Jazz style. *Students are required to rent their own instrument for this course. Students must either be enrolled in a concert band program or have the permission of the Band Director to be eligible to take this course. All students must audition to be eligible for this class. They will be placed in either Jazz Band A or B dependent on their audition.*

Jazz Band B

This full year course will meet regularly off the timetable every Monday and Friday morning, as well as Wednesday at lunch. This group is open to all students who are currently enrolled in a concert band program. Students will be instructed in basic areas of Jazz theory, listening, Jazz history, composition, Jazz improvisation, and performance in the Jazz style. *Students must either be enrolled in a concert band program or have the permission of the Band Director to be eligible to take this course. All students must audition to be eligible for this class. They will be placed in either Jazz Band A or B dependent on their audition.*

Concert Choir 8

This yearlong course explores choral music from a wide variety of cultures, genres, and periods through study and performance. Emphasis will be placed on developing the complete musicianship of each student through instruction on basic vocal technique, sight-reading skills, and introductory music theory. In addition to our Christmas and Spring music nights, all choir students will have the opportunity to perform at music festivals, school masses and services, and are eligible to go on the STMC music trips.

Concert Choir 9

This yearlong course explores choral music from a wide variety of cultures, genres, and periods through study and performance. Emphasis will be placed on developing the complete musicianship of each student through instruction on basic vocal technique, sight-reading skills, and music theory. In addition to our Christmas and Spring music nights, all choir students will have the opportunity to perform at music festivals, school masses and services, and are eligible to go on the STMC music trips.

Senior Concert Choir 10/11/12

This yearlong course explores choral music from a wide variety of cultures, genres, and periods through study and performance. Emphasis will be placed on developing the complete musicianship of each student through instruction on basic vocal technique, sight-reading skills, and advanced level music theory. In addition to our Christmas and Spring music nights, all choir students will have the opportunity to perform at music festivals, school masses and services, and are eligible to go on the STMC music trips.

STMC Chamber Singers (Grades 9 to 12)

This is an auditioned choir open to students in grades 9 to 12. Students must be registered in the concert choir program to be eligible for this course. Emphasis will be placed on performing challenging choral music from a wide variety of cultures, genres, and periods. In addition to our Christmas and Spring music nights, the chamber singers will perform at various festivals throughout the lower mainland. Opening and remembrance mass, the STMC open house, the elementary recruitment tour, as well as a number of different performance engagements that come up throughout the course of the year.

STMC Jazz Singers (Grades 10 to 12)

This is an auditioned choir open to students in grades 10 to 12. Students must be registered in the concert choir program to be eligible for this course. Emphasis will be placed on performing a wide variety of vocal jazz repertoire as well as study of history and jazz theory. In addition to our Christmas and Jazz music nights, the Jazz Singers also perform at various competitive festivals throughout the lower mainland and at occasional school functions.

Recording & Sound 11/12

The St. Thomas More Collegiate Music program is excited to offer a specialized Recording and Sound program for senior students in Grades 11 and 12. In this program, students will receive instruction and practice with live sound set up and design, basic music theory and composition, live studio recording techniques, and MIDI composition creation. Students will use current recording software and equipment to create various projects including covers, originals, and soundscapes.

Fine Arts –Theatre

Drama 8 (½ Year Elective)

This course allows students to learn and develop communication skills and gain speaking and performing confidence. Students partake in improve activities, learn about theatre history and vocabulary and work collaboratively with their peers to create and perform scenes based on a variety of concepts.

Drama 9 (½ Year Elective)

This class builds upon the skills explored in Drama 8. Students participate in various activities, which help them develop their creativity and concentration skills. Students are also introduced to basic theater terminology. The skills that are learned in this class can also be used in other classes.

Fine Arts - Visual Arts

Courses: Art 8, Art 9, Art 10, Art Foundations 11, Art Foundations 12

Art 8 (½ Year Elective)

Art 8 provides students with an introduction to Visual Arts at a secondary level. In Art 8, students will use a variety of art media, which include graphite, ink, charcoal, pencil crayon, collage material and water colour paint. Students will complete sketchbook activities and drawing tutorials that reinforce the skills and techniques learned in the classroom and modeled in the studio. The students will engage in an extensive study of the visual Elements of Art and Design. These elements are line, colour, form, space, shape, texture, value and tone. The focus on Art 8 is to have fun and learn about Visual Art. The focus of Art 8 is to have fun and learn about Visual Art.

Art 9 (½ Year Elective)

Art 9 allows students to expand upon the visual art styles and methods studied and work towards mastering the art media they were introduced to in Art 8. Students will complete sketchbook activities and drawing tutorials that reinforce the skills and techniques learned in the classroom and modeled in the studio. Students engage in an intensive study of the visual Principles of Art and Design: balance, movement, rhythm, contrast, emphasis, pattern & unity. The focus of Art 9 is to have fun and develop confidence using various art media.

NEW Architectural Design (Grades 10-12)

Architectural Design students will explore Industrial, Interior, Landscape and Architectural Design. Through the design process and study of 20th century architects and their philosophies students will solve design problems, create various types of design drawings, build real and 3D models, construct animation walkthroughs, and create technical drawings used for fabrication and construction. Students will collaborate with others to communicate ideas and participate in critiques and presentations. Students will also learn to use tools and technologies used in design fields today such as AutoCAD, Revit, Sketch Up, Blender, and Photoshop.

ART 10

In Art 10, students experiment with a wide range of processes, materials and technologies, both individually and collaboratively to explore their identity and sense of belonging. They develop skills and techniques in a range of styles and movements, comment on social and environmental issues and explore traditions, perspectives, and worldviews through visual arts.

ART 11

In Art 11, students reflect on the interconnectedness of the individual, community, history and society. Working individually and collaboratively, students use imagination, observation and inquiry to create meaningful artistic expression to represent personal identity and cultural expression. Engaging in risk taking, and problem solving, they develop artworks with a specific audience in mind, using visual arts to communicate and respond to social and environmental issues and connect to their personal values.

ART 12

In Art 12, students refine artistic skills, and make purposeful artistic choices to enhance the depth and passion of their message. Students create works to reflect their own personal voice, story and values in connection with a specific place, time and context. Working individually and collaboratively, they combine various materials and processes, demonstrate creative thinking and innovation to communicate ideas and express emotions.

Languages

Courses: French 8, French 9, French 10, French 11, French 12

French 8

Students learn to communicate in authentic communication contexts. The basic elements of French grammar are introduced as a means to facilitate communication. Students learn to express themselves using complete sentences in predominately present timeframes. Reading, writing, listening and speaking activities will focus on vocabulary and structures used to express preferences, emotions, opinions and physical states. Learners will also explore Francophone communities to appreciate other cultures, as well as their own.

French 9

French 9 continues to offer authentic communicative tasks and explore cultural practices in Francophone regions. A variety of text types are used to increase comprehension and vocabulary. Students begin to have meaningful conversations in French, using structures relating to situational dialogues. The program introduces the use of past tense to open up students' capacity to read, write, listen and speak in French.

French 10

French 10 is designed to use the Ça Marche 3 program. It continues to build comprehension and communication skills in the four areas of language learning; listening, reading, speaking and writing. Students are encouraged to express themselves both orally and in the written form using present, past, future and conditional tenses. Students are introduced to Francophone culture through written text and film. They build towards an end of unit project with a presentation using a variety of media.

French 11

In this program students explore a variety of texts and express themselves with better fluency orally and in writing. Students will continue to learn new vocabulary and expressions and further written and communicative skills through an interactive and immersive approach. They will experience a variety of creative works such as dance, songs or books, as language and culture are intertwined. This course currently fulfills the language requirement for entrance into many post-secondary institutions.

French 12

French 12 prepares students for post-secondary studies, while at the same time developing their skills in speaking, understanding, reading and writing French. The program consists of five units, each comprising a wide variety of reading and listening activities. Students examine social issues as a context for advanced grammar. Oral communication is a strong component of French 12, with classes conducted in open-ended question format, debates, presentations, and role-playing. The reading sections are authentic and present students with materials they will encounter in post-secondary. Students are expected to possess knowledge of all the simple tenses, and most of the compound tenses. Currently, at UBC, French 12 fulfills the language requirement in order to receive a General Arts Degree.

Mathematics

Courses: Mathematics 8, Mathematics 9, Foundations of Mathematics & Pre-Calculus 10 or Workplace Mathematics 10, Foundations of Mathematics 11 or Pre-Calculus 11 or Workplace Mathematics 11, Foundations of Mathematics 12, Pre-Calculus 12, Calculus 12.

The Mathematics Department has four classrooms fully equipped with smart boards to facilitate learning. STMC offers both an enriched program for students with strong mathematics skills, and programs for students who require more support. Mathematics students participate in a range of mathematics contests throughout their time at STMC.

Mathematics 8

BC's redesigned curriculum is centred on the core competencies of communication, thinking, and personal & social skills. Mathematics 8 is designed to help students develop these competencies through daily group work in which students have opportunities to make their thinking visible. Additionally, Mathematics 8 is centred on curricular competencies that are designed to build numeracy and mathematical thinking. The following curricular competencies are the centre of all mathematics courses: reasoning and analyzing, understanding and solving, communicating and representing, and connecting and reflecting. The big ideas of Mathematics 8 include: number sense, computational fluency, linear relations, shape and space, and data analysis.

Mathematics 9

Mathematics 9 builds on the competencies developed in Mathematics 8 in the areas of reasoning and analyzing, understanding and solving, communicating and representing, and connecting and reflecting. The big ideas of Mathematics 9 include: number, patterns and relations, spatial sense, and statistics and probability. Special attention is paid to operations with rational numbers and exponents. Algebra continues with linear equations and an introduction to polynomials. Students also study the symmetry and proportional relationships of 2D objects, and further their study of data analysis, collection, and reliability. The prerequisite for this course is the successful completion of Mathematics 8. At the end of this course, students are prepared for Workplace Mathematics 10 and/or Foundations of Mathematics and Pre-calculus 10.

Foundations of Mathematics and Pre-Calculus 10

Foundations of Mathematics and Pre-calculus 10 is designed to provide students with mathematical understandings and critical thinking skills identified for post secondary studies in both the arts and the sciences. These skills will be developed through a continued focus on the curricular competencies that are the centre of all mathematics courses including: reasoning and analyzing, understanding and solving, communicating and representing, and connecting and reflecting. This course focuses on the big ideas of proportional comparisons in trigonometry, operations with algebraic expressions, linear relations, and financial literacy. The prerequisite for this course is the successful completion of Mathematics 9. At the end of this course students are prepared for Workplace Mathematics 11, Foundations of Mathematics 11, and/or Pre-calculus 11.

Workplace Mathematics 10

This pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into a trades program or for direct entry into the workforce. These skills will be developed through a continued focus on the curricular competencies that are the centre of all mathematics courses including: reasoning and analyzing, understanding and solving, communicating and representing, and connecting and reflecting. This course focuses on the big ideas of proportional comparisons including trigonometry and unit conversions, operations with formulas as applied to surface area and volume, graphical relations, and financial literacy. The prerequisite for this course is the successful completion of Mathematics 9. At the end of this course, students are prepared for Workplace Mathematics 11.

Pre-Calculus 11

The Pre-calculus pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus (e.g. sciences, business, or engineering). Topics include algebra and number, relations and functions, and trigonometry. The prerequisite for this course is the successful completion of Foundations of Mathematics and Pre-calculus 10. This course meets the grade 11 mathematics requirement for graduation. Students may choose to take Foundations of Mathematics 12 or Pre-calculus 12 upon completion of this course.

Foundations of Mathematics 11

The Foundations of Mathematics pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of theoretical calculus, including most arts programs. Topics include financial mathematics, geometry, measurement, logical reasoning, relations and functions, and statistics. The prerequisite for this course is the successful completion of Foundations of Mathematics and Pre-calculus 10. This course meets the grade 11 mathematics requirement for graduation. Students may choose to take Foundations of Mathematics 12 upon completion of this course.

Workplace Mathematics 11

This pathway is designed to provide students with the mathematical understandings and critical thinking skills identified for entry into a trades program or for direct entry into the workforce. Topics include algebra, geometry, measurement, number, and statistics. The prerequisite for this course is the successful completion of Workplace Mathematics 10 and/or Foundations of Mathematics and Pre-calculus 10. This course meets the grade 11 mathematics requirement for graduation. Students may choose to take Workplace Mathematics 12 upon completion of this course.

Pre-Calculus 12

The Pre-calculus pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into post-secondary programs that require the study of theoretical calculus (e.g. science, business, or engineering). Topics include algebra, logarithms and their applications, relations and functions, trigonometry, and combinations. The prerequisite for this course is the successful completion of Pre-calculus 11.

Foundations of Mathematics 12

The Foundations of Mathematics pathway is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of theoretical calculus, including most arts programs. Topics include financial mathematics, logical reasoning, relations and functions, and probability. The prerequisite for this course is the successful completion of Foundations of Mathematics 11 or Pre-calculus 11.

Calculus 12

Calculus 12 is intended for students who plan to take a 1st year Calculus course as part of their post-secondary studies in disciplines such as economics, engineering, mathematics and science. This course will preview most of the major topics taken in first-year Calculus. It is a great advantage for students to be familiar with the nature of the subject prior to heading to a post secondary institution. Topics Include, Limits and Continuity, Derivatives and Differentiation Techniques, Functions and Graphs, Related Rates, Antiderivatives, Differential Equations, Area and Volume and Integration Methods.

[Pre-Calculus is a co-requisite for Calculus 12. At STMC, students typically takes these two courses concurrently]

NEW Pre-Calculus 12 and Calculus 12 Combo

The goal of this course is to build and develop deep connections between the concepts in Pre-calculus 12 and Calculus 12. This course is scheduled as two mathematics blocks with the same students and same teacher. In the first part of the year, the two blocks will be used to accelerate learning of the Pre-calculus 12 content. Calculus 12 concepts will be introduced as appropriate. Once the majority of the Pre-calculus 12 course is complete, students will focus on the Calculus 12 content in the second part of the year. Students will graduate with credit for both courses. The prerequisite for this course is the successful completion of Pre-calculus 11 with very good work habits.

Enriched Mathematics Courses

The Mathematics Department offers Enriched Mathematics 9, Enriched Foundations of Mathematics and Pre-calculus 10 and Enriched Pre-calculus 11. The enriched pathway is designed for high-achieving mathematics students who are looking to extend and challenge their mathematics development. Students must enjoy mathematics and persevere through difficulty. Enriched courses follow the same BC Mathematics curriculum, but students will be working through the main course at a faster pace to enable the inclusion of enrichment topics and challenging problems throughout the units. Enriched students write the same tests and exams as other students. Enriched students will also write several mathematics contests throughout the year. Acceptance to the enriched pathway is by application to the Mathematics Head of Department.

Physical & Health Education

Courses: Physical & Health Education 8, 9, 10, Fitness & Conditioning 11, Fitness & Conditioning 12

Every student in every grade participates in STMC's Physical Education program. Activities change regularly and have included basketball, volleyball, yoga, badminton, fitness and dance. The activities and benefits of the Physical & Health Education program have been greatly enhanced by the recent construction of the StanJean Centre, which includes a full size gymnasium, weight room, and open fitness area.

The goals of the Physical & Health Education Program are to assist students in developing knowledge and understanding of factors involved in attaining competence in and appreciation of physical activity, maintaining positive personal attributes and interpersonal relationships as well as a positive attitude towards participation in physical activity, developing efficient and effective motor skills, and enabling them to apply these skills to a wide variety of physical activities, and in developing and maintaining a healthy lifestyle.

PHE 8

There will be a variety of units throughout the school year that will allow students to work towards the learning standards and promote lifelong physical activity and healthy living.

The learning standards for Physical & Health Education 8 include:

- Develop and demonstrate safety, fair play, and leadership in physical activities
- Develop, refine, and apply fundamental movement skills in a variety of physical activities and environments
- Assess factors that influence healthy choices and their potential health effects

PHE 9

There will be a variety of units throughout the school year that will allow students to work towards the learning standards and promote lifelong physical activity and healthy living.

The learning standards for Physical & Health Education 9 include:

- Develop and demonstrate safety, fair play, and leadership in physical activities
- Develop, refine, and apply fundamental movement skills in a variety of physical activities and environments
- Assess factors that influence healthy choices and their potential health effects

PHE 10

There will be a variety of units throughout the school year that will allow students to work towards the learning standards and promote lifelong physical activity and healthy living.

The learning standards for Physical & Health Education 10 include:

- A focus on developing healthy habits in all areas of health that students will continue to practise after graduation
- The development of knowledge, skills, and mindsets to make informed decisions for lifelong participation in a range of physical activities and environments
- The development of knowledge, skills, and strategies for building respectful relationships, positive self-identity, and emotional health
- The development of the knowledge, skills, and strategies needed to make responsible and informed health and safety decisions

Fitness & Conditioning 11/12

Fitness & Conditioning 11/12 is a course designed to maximize your athletic potential and promote a healthy and active lifestyle. The course covers a range of fitness and health content including: basic skeletal and muscular anatomy, performance nutrition, and exercise program design. The goal is to transform students from casual gym goers into knowledgeable fitness enthusiasts.

Religion

Courses:

Religion 8, Religion 9, Religion 10, Religion 11, & Religion 12

STMC Religion Department Philosophy

The mission and vision of the religion department are based on the Essential Elements of a Christian Brother education. We strive to enrich the spiritual lives of our students and encourage them to manifest their faith through instruction, community service and personal growth. The curriculum and co-curriculum experiences (i.e. retreats) has an aim to encourage students to live a Christian lifestyle. Overall, through our teaching, mission collections, our service program and the presence of the Brothers, the religion department aims to create a positive religious experience for our community.

Religion 8

Religion 8 serves as a foundation for our Catholic community with a focus on the basic overview of the Old Testament and God's covenant relationship with us. Students will also learn about the life and charism of Blessed Edmund Rice and the Essential Elements of an Edmund Rice Christian Brother Education. In addition, an introduction to prayer, the sacraments, the liturgy and Theology of the body will be covered in this course.

Religion 9

Religion 9 is a study of the New Testament with a special focus on Jesus as a person, his position as the son of God, how he was called, his discipleship and his mission. The course covers Jesus and the Mystical Body, the Sacraments, the Eucharist and the Liturgical Year.

Several main units of study are involved in this course and they are principally focused on the key events of Jesus' life and the central themes that are found in the gospels. The other major component of the course is how we as individuals fit in with the teachings of Jesus, prayer life, the sacraments, the liturgy and Theology of the body.

Religion 10

The focus of this course is Moral theology, including the study of natural Law, conscience and its formation, Sin and Virtue. The course is designed to make the student think by discovery. The Sacrament of Reconciliation is covered, as are decision-making, critical thinking skills, specific moral issues, and sexual ethics.

Morality comes from the Latin word *moralitatem* meaning 'character'. The choices we make build our character and shape the people we become. If life is a trip, morality is our road map. This course explores Catholic teaching and questions societal values, providing students with an opportunity to shape and flex their moral compass.

Religion 11

The focus of this course is Church history. The Church has a very rich and complicated past. As Catholics, we believe that Jesus Christ is God. Therefore, the most important event in our history was the Incarnation. The second most important event must be the establishment of our Church by Christ. Throughout the year, we will be examining the Church and its history to have a better understanding of the Church.

This course is intended to help you appreciate and understand the history of the Catholic Church by tracing the major moments in Church history; showing how the Church is on a journey guided by the Holy Spirit, fostering knowledge and pride in Christian heritage and identity; exposing students to Catholic writers, helping students recognize themselves as Church; and by examining the connections between Church and state throughout history.

Religion 12

Religion 12 is designed to help students develop a fundamental understanding of how Catholicism interacts with who they are and how they plan to live the rest of their lives. The course is designed to help students explore issues involving decisions about life, legal, cultural and moral dimensions. In addition, students will take a deeper look at the church teachings as it relates to human life and the dignity of the person. An overall analysis of the Essential Elements of an Edmund Rice Christian Brother Education will also be a focus of this year.

<p>Students of St. Thomas More Collegiate must pass their Religion class to advance to the next grade. If a student fails Religion, the student will be required to work on a series of assignments. Successful completion of this project will allow the student to advance to the next grade.</p>

Sciences

Courses: Science 8, Science 9, Science 10, Chemistry 11, Astronomy 11/Earth Science 11, Biology-Life Sciences 11, Physics 11. Anatomy & Physiology 12, Chemistry 12, Physics 12

Science is one of the four cardinal directions on the Knights Compass, along with Academics, Arts, and Athletics: all centered around Faith. STMC is deeply committed to the pursuit of scientific understanding, and offers courses that ponder everything from molecular and atomic theory to the ethical implications of genetic modification.

Science 8

Science 8 explores the branches of biology, chemistry, physics and earth science. Students will investigate life processes at the cellular level, the behaviour of matter explained through kinetic molecular theory and atomic theory, the transfer of energy as both a particle and a wave, and the theory of plate tectonics. Opportunities will be presented for students to question and predict, plan and conduct, process and analyze, apply and innovate, evaluate and communicate topics within each branch.

Science 9

Students are encouraged and expected to become proficient in asexual and sexual cellular reproduction, the anatomy of the atom, and how ions form. Naming and writing chemical formulas are essential components, which prepares the students for future science courses. Understanding Ohm's law and how it applies to electric circuits allows students to become aware of how simple circuits function in their homes. Students also discover how energy flow and matter cycling connects the living and nonliving parts of the Earth's four spheres: the atmosphere, biosphere, geosphere, and hydrosphere.

Science 10

Science 10 has four major units of study. In Biology, this course looks at genes as the foundation for the diversity of living things. In Chemistry, the fact that chemical processes require energy change as atoms are rearranged is the major focus. In Physics, energy conservation and transformations and how they can affect living things and the environment is the area of study. In Earth Science, the Big Bang Theory as an explanation of how the universe was formed is the primary focus.

Astronomy 11 / Earth Science 11

Astronomy 11 explores the human understanding of space through historical, cultural and scientific perspectives. Students will conduct research, using data from NASA telescopes and observe astronomical events throughout the year. While this is not a mathematically intensive course, students should be comfortable using some math in a science setting. Topics explored will include origins of the universe, identifying objects in the night sky, classifying stars and galaxies, technological advances in space research and a historical perspective on astronomy. Students wishing to receive credit for Earth Science 11, will complete a series of directed-study modules in addition to Astronomy content.

Biology – Life Sciences 11

Life Sciences 11, formerly Biology 11, has three main areas of focus. Characteristics of living things, which will focus on: differences in cell structure between eukaryotic and prokaryotic cells, sexual and asexual reproduction, cellular reproduction and photosynthesis, and basic structures of viruses and how they affect organisms will be studied. Process of Evolution will look at: agents of evolution, major theories, models of evolution, co-evolution, trends in complexity of organisms, and genetic modifications including ethical considerations. The unit on Taxonomy will focus on: evidence for groupings of organisms, the current taxons, the use of cladograms, the three domains, and the six kingdoms method of classification.

Chemistry 11

Chemistry 11 includes five major Units. Unit 1 (The Mole) introduces the mole as the central unit of measurement in chemistry and students learn how to use it to express amounts of chemical species, determine empirical and molecular formulae, and become fluent with stoichiometry in many of its applications. Unit 2 (Chemical Reactions) discusses the predictable ways atoms rearrange in chemical reactions while focussing on the conservation of both matter and energy. The applications and significance of chemical reactions for human health, society, and health are also presented. Unit 3 (Atoms and Molecules) revisits and elaborates upon the discussion of the building blocks of matter, namely atoms and molecules, that students learned about in Science 10. The quantum mechanical model of the atom is introduced and its implications for chemical bonding, periodicity of elemental properties, and intermolecular forces are described in detail. Unit 4 (Solution Chemistry) discusses the nature of solutions including solubility and what it depends on. The applications and implications of solution chemistry for human health, society, and the environment are also covered. Unit 5 (Organic Chemistry) discusses carbon's unique set of properties that result in the existence of such a wide variety and complexity of organic compounds. Nomenclature, isomerism, classes of organic compounds, and their reactions are discussed in detail as well as the significant implications of this branch of chemistry for human health, society, and the environment.

Physics 11

Physics 11 is a practical yet challenging course combining scientific principles and mathematical skills. It involves analysing how moving objects behave and what causes them to move in various directions. We look at the concept of momentum and its conservation and then incorporate the conservation of energy and the ability to do work on objects. The application of conservation laws helps to explain the flow of electricity within circuits. We study wave motion with respect to mechanical and electromagnetic waves. Light optics is another topic that can be analyzed. Nuclear reactions gives us an understanding of the atomic model and how it relates to the energy stored in atoms. Quantum mechanics can be used to describe the behaviour of very small particles and Special Relativity helps explain the relationship between space and time.

Biology – Anatomy & Physiology 12

Anatomy and Physiology 12 focuses on cell and human biology, allowing you to develop an interest in and understanding of science by investigating how the human body systems are integrated to maintain homeostasis. The course initially examines cellular level biology with a focus on how biological molecules are important to the function of organelles. The majority of the course is spent discussing systems and how they work together, including: circulation, respiratory, digestive, nervous, excretory and reproductive systems.

Chemistry 12

Chemistry 12 includes five main Units. Unit 1 (Reaction Kinetics) discusses the rates of chemical reactions and the factors that affect them in terms of Collision Theory on both a qualitative and quantitative level. Industrial applications and implications of Reaction Kinetics are also presented. Unit 2 (Chemical Equilibrium) shifts from a focus of kinetics to thermodynamics with respect to reversible reactions and the phenomenon of chemical equilibrium. Le Chatelier's Principle is discussed in detail and the equilibrium constant "K_{eq}" is introduced along with a rigorous quantitative treatment of various types of K_{eq} problems. Industrial applications and implications of chemical equilibria are also presented. Unit 3 (Solubility Equilibrium) concentrates on aspects of the equilibria existing in saturated solutions on both a qualitative and quantitative level. The Solubility Product constant "K_{sp}" is introduced along with various types of K_{sp} problems. Applications of solubility equilibria for society, human health, and the environment are also presented. Unit 4 (Acids and Bases) introduces students to the concept of acid and base strength and the equilibria associated with weak acids and bases. A detailed qualitative and quantitative treatment of the topic includes problems involving K_a, K_b, pH, pOH, pK_a, pK_b, hydrolysis, buffer chemistry, and titrations. Unit 5 (Oxidation and Reduction) introduces students to the complementary processes of oxidation and reduction. A qualitative and quantitative discussion of the processes and the applications and implications of electrochemical and electrolytic cells for society, resource development, and the environment is covered.

Physics 12

Physics 12 builds and extends on the concepts learned in Physics 11. Kinematics, Dynamics, Rotational Equilibrium, Momentum and Energy are explored in two dimensions in the first half of the year. The second half of the course focuses on electricity and magnetism. The course focuses equally on problem solving skills and conceptual understanding, with students urged to work cooperatively to strengthen their learning.

Social Studies

Courses:

Socials 8, Socials 9, Socials 10, 20th Century History 12, Law 12, Economics 12, Psychology 12, Social Justice 12, Social Justice/Genocide Studies 12 Accelerated, Comparative Cultures 12

Socials 8

Social Studies 8 is a very exciting course in which students study major world religions alongside an in-depth study of World Civilizations, with an emphasis on comparative analysis of civilizations from the Fall of Rome to the Age of Exploration. Students examine the rise and fall of ancient civilizations; the role of religion as a powerful guiding force in people's lives; the nature of social and political organization (such as feudalism); basic economic systems and forms of exchange; the impact of science and technology on political, economic, and social structures; periods of significant cultural achievement; and what causes civilizations to develop and decline. Students will also acquire fundamental geographic skills and knowledge that helps us understand both the past and the present. Throughout the course students also develop skills which are essential to the study of people and places over time: identifying and clarifying a problem, issue, or inquiry; gathering, organizing, and interpreting information from a variety of sources, including print and non-print; assessing a variety of positions on controversial issues; preparing and delivering written, oral and graphic presentations; developing library and research skills and working cooperatively. Students will also examine current events and issues throughout the year.

Socials 9

This course covers the period from 1750 to 1919. The four BIG IDEAS include emerging ideas and ideologies, the effects of the physical environment on different aspects of society, problems that result from disparities in power, and how a peoples' collective identity can change over time. In keeping with these themes, Socials 9 students will learn about different types of revolution, the effect of imperialism on indigenous people, global demographic shifts, nationalism, discrimination, global and regional conflicts, and the different physical features of Canada.

Socials 10

Socials 10 is an exciting course that looks at Canada's role during the 1900's starting with World War I and concludes with the Quebec separatist issues. Students will explore how Canada became not just a more independent country but also a world player in many significant ways. While the course focuses on Canada, students will also learn about many world events that changed the world such as the Cold War, the Cuban Missile Crisis, the impact of terrorism, and others.

Students will also be introduced to the Canadian political system and the importance of democracy. The policies of federal and provincial political parties will be examined from a historical and modern perspective. Students will also see how the Canadian Charter of Rights and Freedoms has impacted our society.

The last unit studied is Human Geography where students will look at demographics, the developed vs the developing world as well as Canada's contribution to helping the developing world.

20th Century World History 12

Formerly known as History 12 this course covers significant historical events including major conflicts such as World War I, World War II and the Cold War. Civil wars and the rise of authoritarian regimes will also be discussed. Furthermore, the impact of civil rights and women's rights plus the importance of economics will also be explored. This course will help students understand that events today have been greatly influenced by events of the past.

Comparative Cultures 12

This course is the study of societies and cultures from a comparative and cross-cultural perspective. The student will focus on the differences and similarities between cultures across time and space as well as analyzing their specific interactions, value systems, power structures, agricultural and technological development and more. The goal is to foster an understanding in the student of his or her own multi-cultural backgrounds, how culture changes over time and how it affects their modern world.

Economics 12

This course introduces students to the role that economics plays in our everyday lives. The course commences with a basic introduction to Economics as a social science and how we make economic decisions with the scarce resources that we have. The course is intended to have the students well prepared for an introductory course in Economics in university. In that regard, the next two major areas of focus in the course are Microeconomics as well as Macroeconomics. Microeconomics explores how individuals, households and firms make decisions with how they choose to allocate the resources that they have. Macroeconomics explores the behavior and performance of an economy as a whole. It explores wider economic areas such as unemployment, growth rate, gross domestic product and inflation.

Law 12.

This course is an interesting look at our legal system. The major component will be to analyze criminal law, civil law and family. Students will grow to understand the need for laws and the importance of the Charter of rights and freedoms. They will also learn that with rights and freedoms comes responsibilities to act in a responsible manner and be good citizens of Canada.

Physical Geography 12

As an ever-increasing world population puts more and more demands on the planet's resources, there is a need for a society that is able to make informed decisions about the sustainability of the Earth's resources and the future of the planet. The geographically literate student is able to interpret the landscape and understand the interconnections between his or her actions and the Earth's physical systems. Students will have opportunities to analyze the critical interplay of culture, economics, politics, and social considerations when examining the relationship between people and the environment. Through the study of geography, students can develop an understanding of how local, regional, and global environments affect them, and allow them to make informed decisions and take appropriate action to manage the earth's resources in a responsible manner.

Psychology 12

This course designed to introduce students to the basic concepts and areas of study within the social science of Psychology. The course essentially looks at the systematic and scientific study of the behavior and mental processes of human beings and other animals. It looks at how our thoughts, behaviors, and emotions affect how we develop through our lifespan. Students who take Psychology 12 will have the potential to challenge the AP Psychology exam in order to obtain university credit for the course.

Social Justice 12

Social Justice 12 is a course that allows students to explore the background and possible solutions to many of the social injustices in our local and global communities. Major topics include systemic poverty, feminism, First Nations and the legal system, genocides, LGBTQ, and globalization. Throughout all these topics students are encouraged to develop their empathy skills and to reflect on their values and beliefs. A major component of this course is the Action Plan. This year-long project encourages students to research and then work for a cause that interests them and then present their findings to the class. Social Justice 12 is accepted at many Canadian universities as a grade 12 approved course.

NEW Social Justice/Genocide Studies 12 Accelerated

This new course at STMC allows students to complete the requirements of two courses within one calendar school year and receive 8 credits. Students interested in the Arts and with strong academic skills and work habits will be able to challenge themselves in this course that investigates many of society's injustices with an added emphasis on the causes and responses to genocides around the world. Social Justice units will include racism, First Nations, poverty, feminism and others so that students can see why injustice occurs and how society responds to them. The backgrounds, political motivations, methods and international responses to genocides will be integrated and investigated throughout the course. This course will be an excellent opportunity for students interested in pursuing the Arts to receive additional Arts credits and allow them to take more courses in their grade 11 and 12 years.
