



SOUTHRIDGE.  
We are all one.



*Academics*



*Athletics*

# Senior School

**CURRICULUM GUIDE**

2022-2023



*Arts*



*Service*

## VISION

A community where every spirit soars.

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## MISSION

Southridge develops well-rounded students with a deep sense of personal integrity who have the moral character, love of learning and self-confidence to realize their full potential.

Each student is encouraged and challenged to become someone who:

Is a lifelong learner

Has study, critical thinking, and communication skills

Can work effectively as part of a team

Is a creative and independent thinker

Has a positive attitude

Seeks their passion

Believes in the values of truth, tolerance, compassion, and respect

Understands the sacrifice and rewards of community service

Has an appreciation of, and desire for, lifelong physical activity and fitness

Commits to personal wellness

Appreciates the arts and their contribution to a richer life

**IN SUMMARY: Someone who makes a difference in the world.**

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## OUR GUIDING PRINCIPLES

**First Principle: As members of the Southridge community, each of us has both the privilege and responsibility to choose how we influence our community and the world.**

Shaping our relationships are the values of truth, tolerance, respect and compassion. We act, knowing our children are watching. Our behaviour influences all; every member is a role model for everyone in the school community and society.

**Second Principle: We commit to the power of community.**

At the foundation is the trust born of knowing that our values are shared and lived. The students, parents, teachers, staff, alumni and alumni parents and grandparents create a supportive, safe and loving environment through their positive, caring relationships. By providing a lighthearted place of serious purpose, one where our students can take risks in finding their potential, they find joy. With commitment to our shared vision and highest aspirations, we have the power to make a positive difference in the world.

**Third Principle: Contribution is at the heart of what we inherit and what we pass on.**

“Every spirit soaring” is made possible by the contributions – the passionate and compassionate selflessness – of everyone, from a small kindness to investing one’s life in the greater good. Membership in the Southridge community has always called us to shift our emphasis to “we” from “me.”



# Senior School

## CURRICULUM GUIDE

2022 - 2023

### TABLE OF CONTENTS

Senior School Educational Program	04
BC Ministry Graduation Requirements	06
Southridge School Academic Program	07
Academic Program Overview	08
English Language Arts	09
Social Studies	10
Mathematics	11
Sciences	12
Languages	13
Arts Education	14
Applied Design, Skills, and Technologies	15
Physical and Health Education	16
Career Education	16
Advanced Placement	17
Learning Strategies	17
Outdoor Education	17
The Southridge Service Program	18
Leadership Experience Week	18
Overview for Grades 8 to 10	19
Overview for Grades 11 and 12	19
Grade 8 Program	20
Grade 9 Program	24
Grade 10 Program	30
Grade 11 Program	36
Grade 12 Program	42



# Senior School

EDUCATIONAL PROGRAM

As a university preparatory day school, Southridge provides a stimulating diverse academic Grade 8 to 12 program with an enriched curriculum that is consistent with BC Ministry of Education guidelines.

This challenging program of studies is designed to prepare students for post secondary school courses of study, while allowing them to pursue their individual passions and abilities. A full range of academic electives is introduced in Grade 11. Students select individual programs according to their strengths and preferences and are guided in their decisions by the University Guidance Counsellors and the Senior School Vice Principal - Learning. The Southridge academic program covers all prerequisites for studies in the arts, sciences, engineering, business, and foreign languages at universities in Canada, the United States, and Europe. We also offer Advanced Placement (College Board) courses and examinations in several disciplines through which students earn university level course credits that are recognized at schools around the world. We believe that a student's attitude to his or her studies is also a vital

component of academic success and we foster independence and an innovative, creative approach in our students. We believe that critical thinking and problem solving, communication, collaboration, and personal and social responsibility are essential skills that will enable our students to fully realize their potential in the dynamic and constantly changing environment of the 21st century. To this end, we foster a student-centred, discussion based model of education, which is further enriched by the judicious use of technology. In many of our classrooms, students are seated in small groups or gathered around a large table, explaining a point, seeking clarification from the teacher or their peers, offering an opinion, challenging an assumption, and asking a key question – we encourage students to become active participants in their own learning.

While we focus on building a sound knowledge base for our students, we are equally committed to nurturing the development of students who are engaged with each other and the world around them; and students who are thoughtful, compassionate citizens. The development of sound character and personal integrity is central to our educational mandate, as



WE BELIEVE THAT CRITICAL THINKING AND PROBLEM SOLVING, COMMUNICATION, COLLABORATION, AND PERSONAL AND SOCIAL RESPONSIBILITY ARE ESSENTIAL SKILLS THAT WILL ENABLE OUR STUDENTS TO FULLY REALIZE THEIR POTENTIAL.

it is in all areas of school life. Sound character and integrity guide the useful application of knowledge in contributing to community, which is one of Southridge’s guiding principles.

Students who come to Southridge are quick to embrace the stimulating atmosphere generated by a comprehensive educational program in which academics, participation in the arts, applied design, athletics, service learning, outdoor education, and experiential learning are all essential components of a carefully crafted program. Our hope is to inspire each student towards academic excellence, personal fulfilment, and compassion for others. Our expectation is that all our graduates will go on to post secondary institutions and will thrive there.

#### BC MINISTRY REQUIRED COURSES:

Subject Area	Minimum Credits
Career Life Education	4
English Language Arts 10	4
an English Language Arts 11	4
English Studies 12	4
Mathematics 10	4
a Mathematics 11 or 12	4
an Arts Education and/or Applied Design 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 and Health Education 10	4
Career Life Connections	4
<b>52 Credits</b>	

#### ELECTIVE COURSES:

Students must earn at least 28 elective credits.

\*Of the 80 credits for graduation, 16 must be at the Grade 12 level, including English Studies 12.

# BC Ministry Graduation Requirements

## BC MINISTRY GRADUATION REQUIREMENTS FOR 2022/2023

To graduate, students will require 80 credits total, with a minimum of 16 at the Grade 12 level, and 28 elective credits. 52 credits are required from the following:

- Career Life Education and Career Life Connections (total 8 credits)
- Physical and Health Education 10 (4 credits)
- Science 10 (4 credits), and a Science 11 or 12 (4 credits)
- Social Studies 10 (4 credits), and a Social Studies 11 or 12 (4 credits)
- A Math 10 (4 credits), and a Math 11 or 12 (4 credits)
- An English Language Arts 10, 11 and English Studies 12 (12 credits)
- An Arts Education 10, 11 or 12 and/or an Applied Design, Skills and Technologies 10, 11 or 12 (4 credits)
- Write a Literacy Assessment and Numeracy Assessment in Grade 10
- Write a Graduation Literacy Assessment in Grade 12

## STUDENT SELF-ASSESSMENT AND REPORTING OF THE CORE COMPETENCIES

The BC Ministry of Education, responding to the need for education change and the development of children's divergent aptitudes and abilities, has made substantive changes to the curriculum and to assessment, laying a foundation that emphasizes the need for 'deep' understanding and 'big' ideas over rote learning and memorization. They have also introduced core competencies, which combined with numeracy and literacy assessments will form the essential elements of the redesigned curriculum. Students will be required to self-assess their development in the areas of core competencies outlined by the Ministry. They are: communication, creative thinking, critical thinking, personal and cultural identity, personal awareness and responsibility, and social responsibility.

Students will be required to assess their own skills and abilities in these areas and report back to parents and guardians on the development of these competencies. Students will report in their Student Led Conferences in February and at the end of the academic year in June.

## MINISTRY OF EDUCATION CORE COMPETENCIES



# Southridge School Academic Program

Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
<b>REQUIRED SUBJECTS</b>	<b>REQUIRED SUBJECTS</b>	<b>REQUIRED SUBJECTS</b>	<b>REQUIRED SUBJECTS</b>	<b>REQUIRED SUBJECTS</b>
English Language Arts	English Language Arts	English Language Arts	English Language Arts choose 1	English Language Arts: English Studies
Social Studies	Social Studies	Social Studies	Social Studies 1 minimum required may be taken in either Grade 11 or 12	Career Education
Mathematics	Mathematics	Mathematics	Mathematics 1 minimum	<b>ELECTIVE SUBJECTS</b>
Science	Science	Science	Science 1 minimum	Social Studies
French	Languages choose 1	Languages 1 minimum	Languages 1 minimum	Mathematics
Band	Physical and Health Education	Physical and Health Education	Physical and Health Education choose 1	Sciences
Visual Art	Career Education	Career Education	Career Education	Languages
Media Arts	<b>ELECTIVE SUBJECTS</b>	<b>ELECTIVE SUBJECTS</b>	<b>ELECTIVE SUBJECTS</b>	Creative Writing
Robotics	Music: Band	Concert Band	Concert Band	Physical and Health Education
Drama	Music: Jazz	Jazz Band	Computer Science	Concert Band
Physical and Health Education	Drama	Drama   Theatre Co	Drama   Theatre Co	Art Studio
Career Education	Media Arts	Media Arts	Media Arts	Media Arts
	Electronics and Robotics	Technology Explorations - Robotics	Art Studio	Drama   Theatre Co
	Visual Art	Art Studio	Robotics	Computer Science

## | NOTES |

Southridge requires students to take the following:

- A Grade 11 Language, can be either French or Spanish
- A Grade 11 or 12 level Arts Education elective
- Active Living or Fitness and Conditioning in Grade 11 (Due to Covid restrictions, we have allowed students in Grade 11 to choose either a Physical Education elective OR a Study Block)

• ADST 8 required course is completed through Computational Thinking 8 and Media Arts 8 rotation

• Music 9: Jazz, Art 9, Drama 9, Media Arts 9, Robotics 9 will meet the requirements for both ADST 9 and ART 9 through modules

• Enrollment in English Studies 12 is mandatory. Creative Writing 12 can be chosen as an additional elective

• Students choosing Music 9: Jazz or Jazz Band 10 must also take Band 9 or 10 except with permission



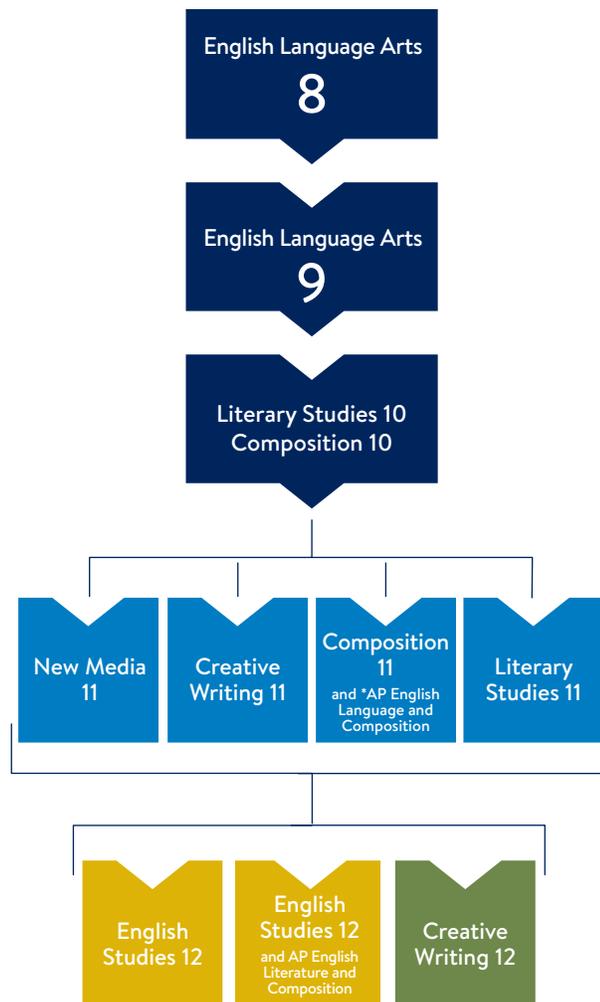
*Academic*  
PROGRAM OVERVIEW

# English Language Arts

The central purpose of our comprehensive English program is to develop skills of expression, both written and oral, and to promote creative, critical, and reflective thinking about language and texts. As students move through this program, their learning will be individualized and differentiated through their course focus selections, their encounters with texts that become increasingly sophisticated and complex, as well as assignments that challenge them to develop these qualities in their writing and learning activities. In every grade, students write in various forms and read works that share common themes and represent diverse voices and experiences.

Throughout the English program, the learning process is facilitated and enriched by implementation of the Harkness philosophy. Our seminar-style classes are conducted primarily through student-led discussions in which the instructor acts as mentor and fosters participatory and collaborative learning. The English Department actively works to promote the craft of speaking and discussion. Our popular annual events include writer's workshops with local authors, live theatre performance viewing, cross-examination debates, and the Southridge School Speech Day.

While all our courses offer challenging learning opportunities, students who are prepared and interested in pursuing Advanced Placement courses have the option of studying AP English Language and Composition and AP English Literature and Composition.



\* AP English Language and Composition is offered concurrently with Composition 11; AP English Literature and Composition is offered concurrently with English Studies 12.

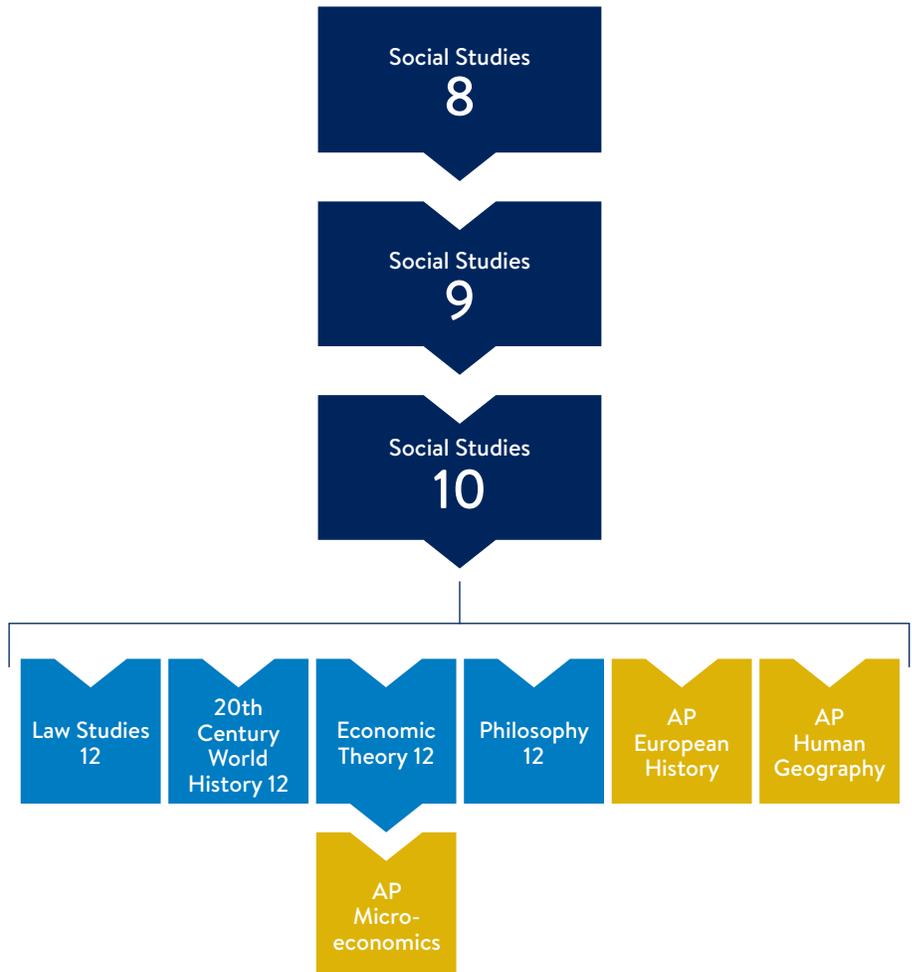
# Social Studies

The Social Studies department teaches students about the world in which they live. A multidisciplinary approach is used to draw from the social sciences and humanities to study human interactions and natural and social environments.

Students are encouraged to become thoughtful, responsible, active citizens who are able to consider multiple perspectives and to make reasoned judgements. Student-centred learning is encouraged through current events, group discussions, and Harkness philosophy.

Students are frequently given the opportunity to work on research projects with peers, often on topics of their own interest. This opportunity to construct their own knowledge base is often integrated with technology, through the use of the internet, and other web-based programs. Students in each grade further develop their writing skills by completing a documented research essay.

\* As of printing of this guide, AP Social Studies courses do not meet Ministry requirements for Social Studies credit



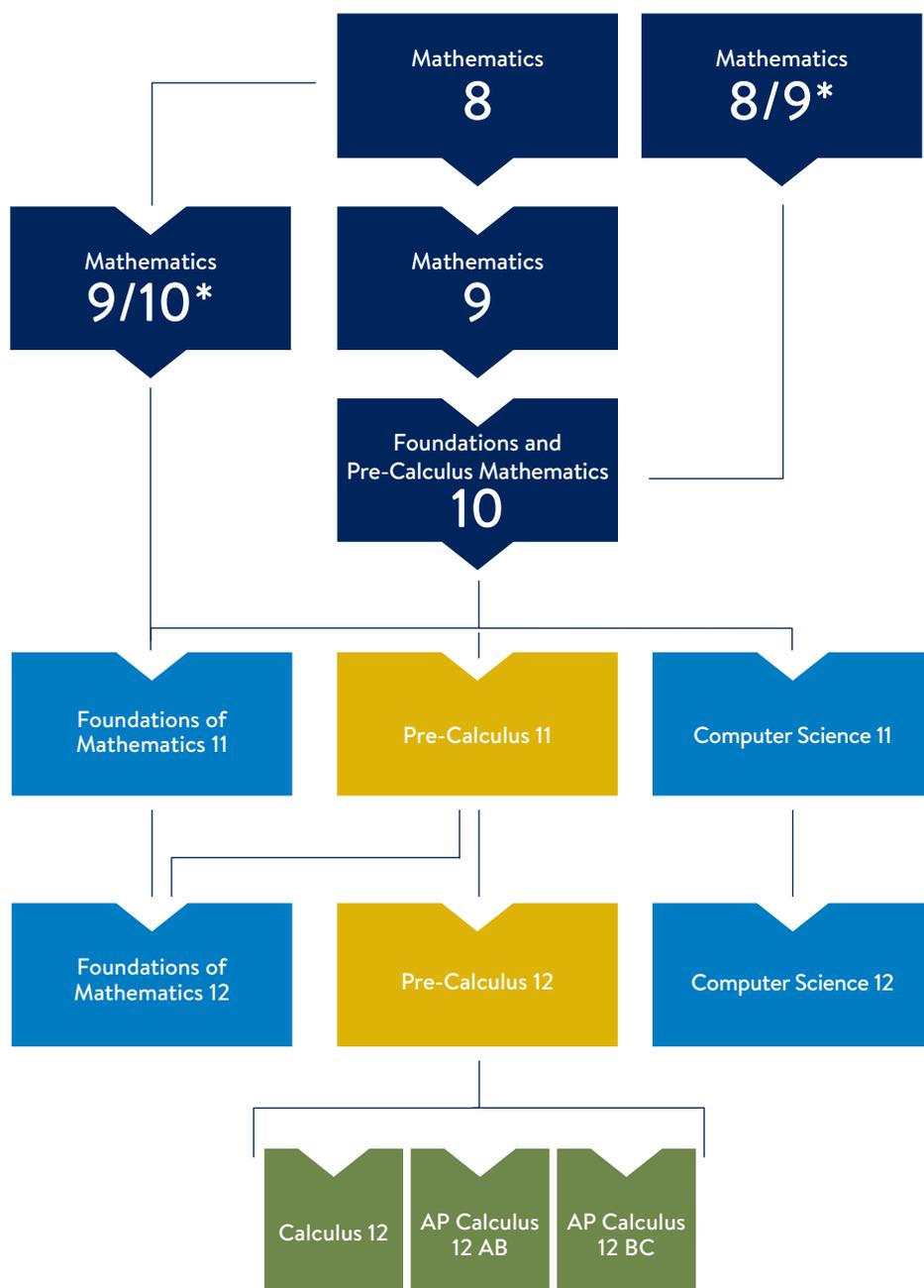
# Mathematics

The BC Math Curriculum follows the “Know-Do-Understand” model that focuses on content knowledge, the approaches to doing mathematics, and developing a deep understanding of the Big Ideas presented in the course. Students are encouraged in their mathematics programs to become strong communicators, problem solvers and critical thinkers, and to develop as numerate citizens.

In Grades 11 and 12, students have the option to select a pathway that suits their goals, interests, and abilities. Southridge offers "Foundations of Math" and "Pre-Calculus Math" pathways. Both pathways provide students with mathematical understandings and critical thinking skills. It is the choice of topics through which those understandings and skills are developed that varies among pathways.

Both "Foundations of Math" and "Pre-Calculus Math" pathways provide prerequisite attitudes, knowledge, skills, and understandings for specific post secondary programs. When choosing a pathway, students should consider their interests, both current and future.

**Students, parents, and educators are encouraged to research the admission requirements for post secondary programs of study as they vary by institution and by year.**



## \*ACCELERATED PROGRAM

Upon the completion of Math 8, select students will be given the option of accelerating their high school mathematics program by enrolling in Math 9/10 in their Grade 9 year. This placement option will be at the recommendation and discretion of their Math 8 teacher and is based on their performance in class as assessed through the Curricular Competencies, their Essential Skills marks, and their demonstrated commitment to mathematics via extracurricular involvement.

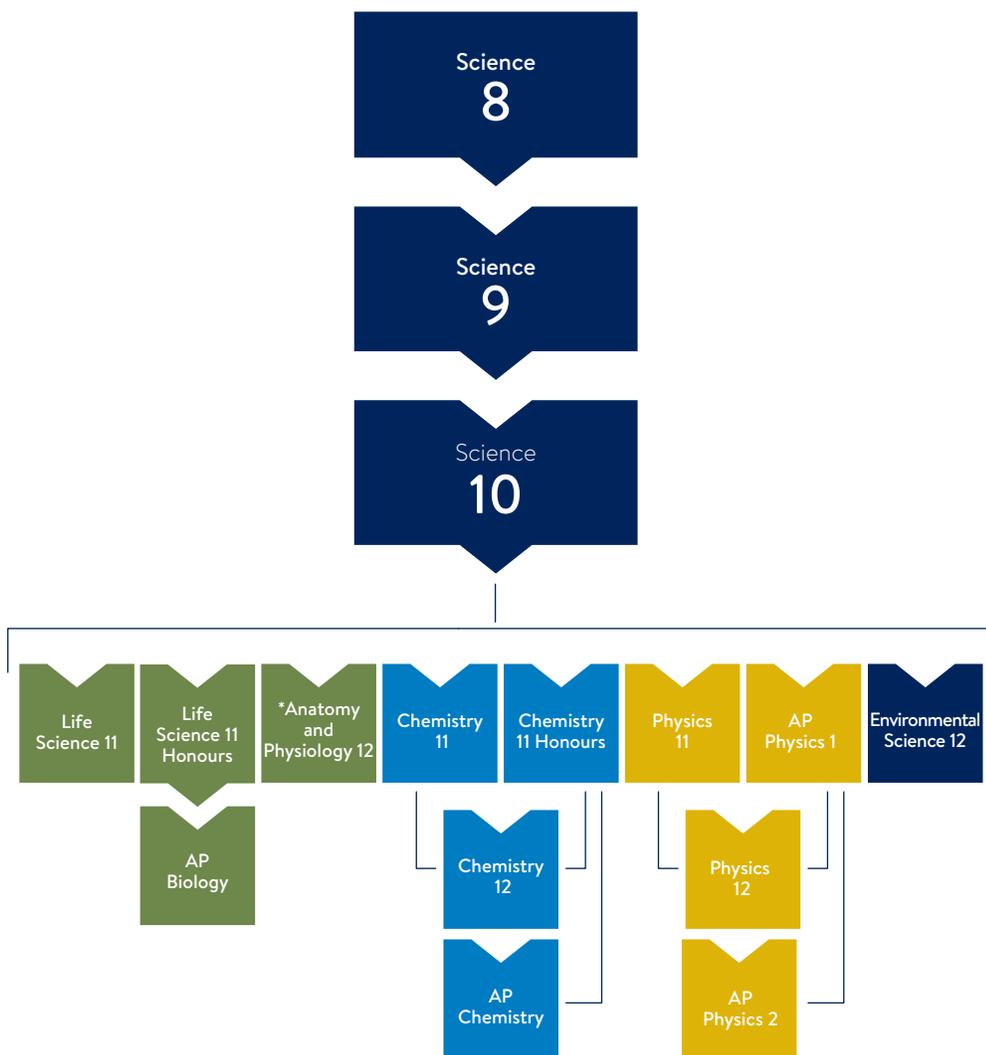
Students who are selected for Math 9/10 will be able to complete Pre-Calculus Mathematics 12 by the end of their Grade 11 year and allow them more flexibility in choosing their Grade 12 options. Students are expected to maintain a strong average in math in order to stay in the accelerated stream.

# Sciences

Science at Southridge is an interactive experience. Students enjoy the benefits of laboratories custom designed for each subject area. This allows for specialized equipment and specimen collections. Through the process of experimentation, students learn to hypothesize, design procedures, think critically, communicate effectively, and analyze results. Specialty teachers make these experiences more exciting by teaching the course components which fall into their area of expertise.

Southridge groups Science 8, 9, and 10 into four courses of study: biology, chemistry, physics, and earth science. Enrichment occurs by teaching additional AP topics or by expanding a given topic to challenge problem solving and critical thinking skills.

The science faculty has formulated an engaging and challenging program to capture the interest and imagination of students so they will see the value of science in their everyday life and acquire the knowledge and skills for a successful university experience.

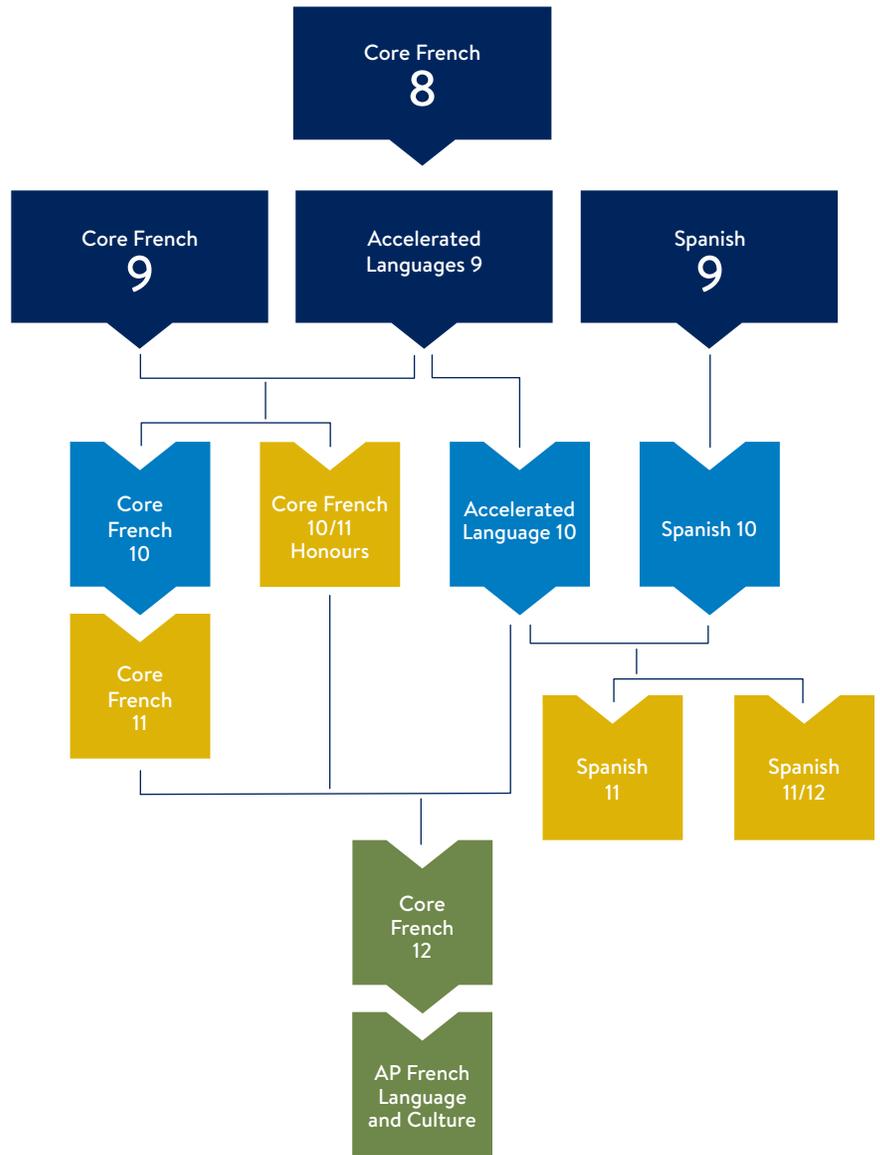


\* Life Sciences 11 is not a prerequisite for Anatomy and Physiology 12. Students with a Science 10 mark of 86% or higher can take Anatomy and Physiology 12 directly.

\*\* It is strongly recommended that students wanting to take AP Physics 1, Chemistry 11 Honours have 86% or higher in Math 10 and Science 10.

# Languages

The Languages Department uses the communicative-experiential approach to second language learning. In our classrooms, we employ a variety of strategies ranging from class roundtable conversations and group skits to individual listening, reading, and writing tasks in order to develop the knowledge and skills required to communicate effectively in other languages. Students also gain insights and appreciation for the many ways in which language can provide access to other cultures and world views. This aspect of the program is supported by exposure to short stories, novels, and foreign films as well as field trips that enable students to immerse themselves in local and international arts and culinary events. The program is enhanced by the success of our exchange program, that fosters strong relationships between our students and the students of Collège François-de-Laval School in Québec City.



## ACCELERATED PROGRAM

After completing Accelerated Languages 9 or excelling in Core French 9, academically strong and motivated students will be able to join an accelerated program that allows them to complete Core French 12 in Grade 11. The Core French 10 Honours class will cover Core French 10 and 11 curriculum.

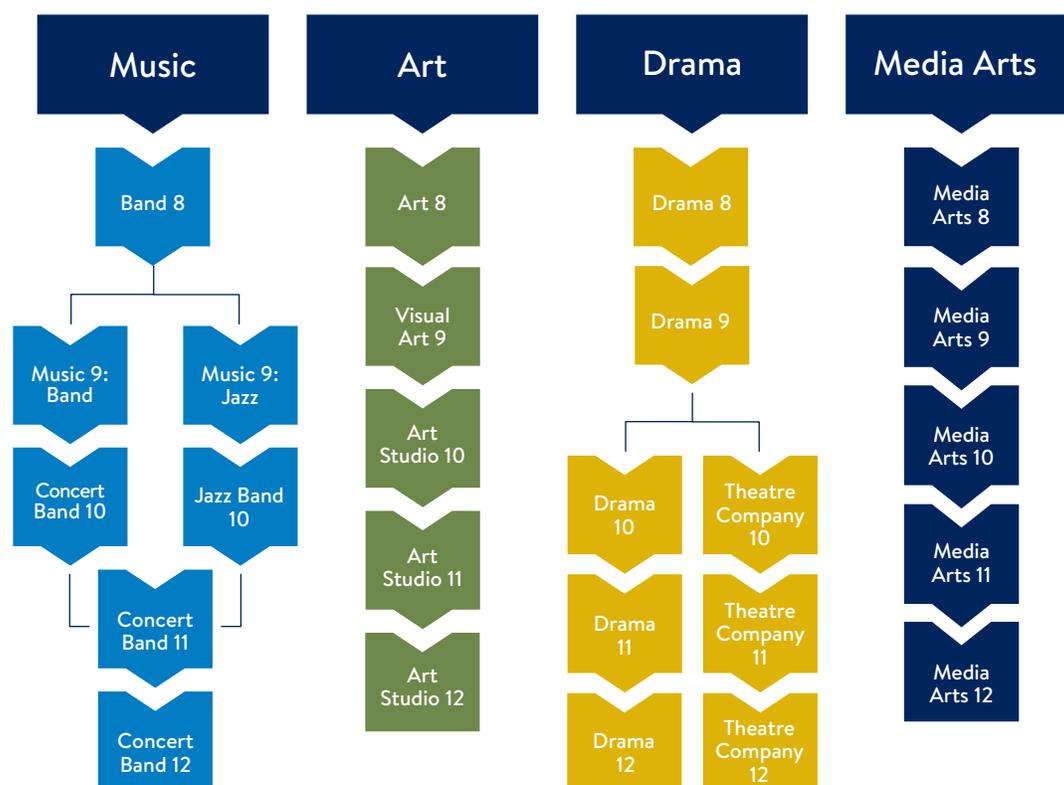
Students who have completed Spanish 10 successfully can continue learning the language in an accelerated Spanish 11/12 which covers both curriculums. The option to only complete Spanish 11 in that year is also available.

# Arts Education

The Arts faculty has designed programs and experiences to encourage participation by all students. Exploring and creating, reasoning and reflecting, communicating and documenting, and connecting and expanding are the curricular competencies used as a foundation of study in the Arts. Those who possess a unique visual, musical, or dramatic talent are given careful direction and exciting production and performance opportunities. All students are taught skills and approaches that assist them to overcome their uncertainties and boost their confidence and ability in the arts.

There are many opportunities for students to display their creative work, both within the school and in the local community. Visual Arts students enjoy an open studio concept in which they are invited to work on assignments and individual creative pursuits in and outside of class time. Artist grade mediums are available in the senior years. Artists regularly display their pieces around the Senior School and prepare for other student exhibits in the Lower Mainland. Because service is a large component of the program, students have created art with, and for, Semiahmoo House Society, The Hospice Society, and other community organizations. In Media Arts, students focus on photography, filmmaking, and animation, entering ZoomFest and a variety of provincial

competitions each year, as well as presenting work at the Film Nights Exhibition. Many of our student films have earned awards in recent years. Media Arts students may also have the opportunity to create a service film for leadership week. For drama students, in the Theatre Company Class, much of the rehearsal time, in both the Black Box Theatre and the Alan Brown Great Hall, is spent preparing for a major play, usually presented over several nights. Additionally, smaller casts present one act plays, both at the school and at local one act play festivals. For those students who enjoy drama without the major production, there are opportunities in the way of improvisation, scene studies, world theatre, monologues, and more. Local and international arts field trips and tours occur on a cyclical basis to further enrich the visual arts, media arts, and drama curriculums. The musicians take part in two major concerts each year, in December and May, and also perform at all major school events, such as Remembrance Day and Commencement. As opportunities arise, smaller ensembles often travel to local venues, such as seniors' homes, or for Semiahmoo House Society to perform and visit. Our jazz ensembles and concert bands also travel to festivals in the winter term and the students in Grades 10, 11, and 12 have the option to join tours to Cuba or Italy on a three-year cyclical basis.

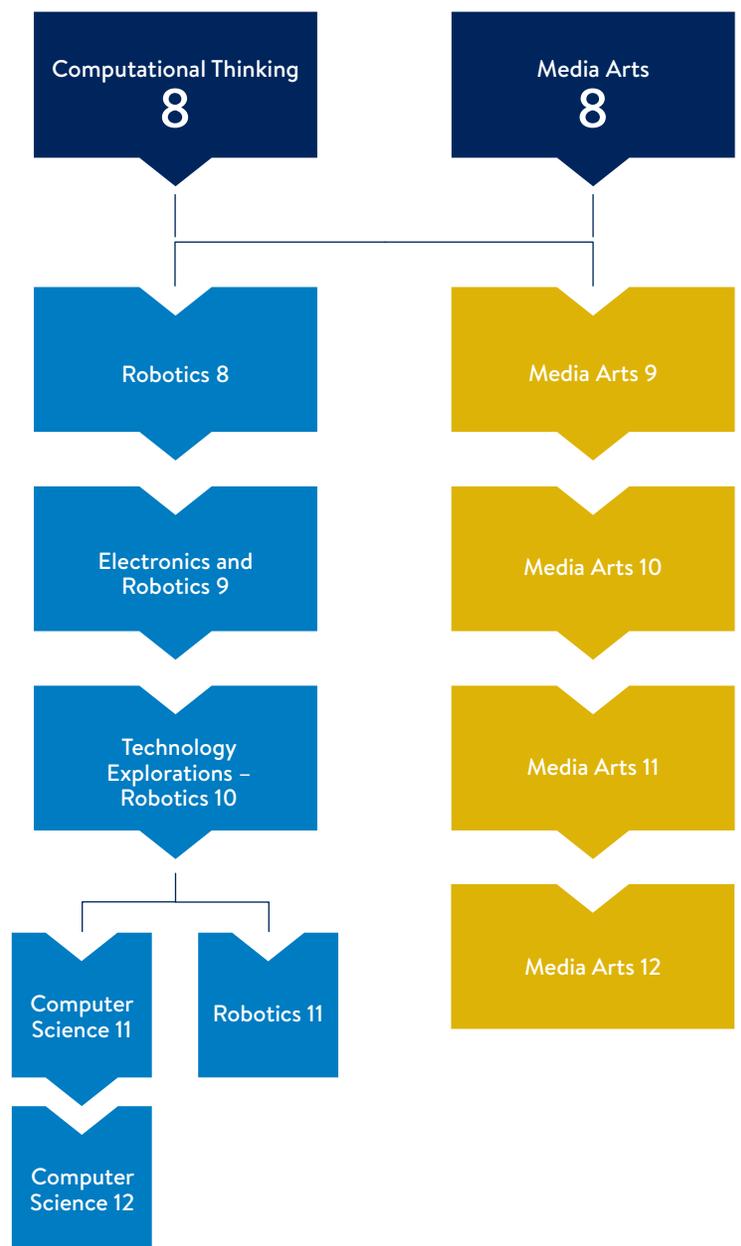


# Applied Design, Skills, and Technologies

The study of digital design, digital creation, video editing, programming, web creation, and robotics are important in an increasingly digital world. It is essential that students are provided with the opportunity to interact with and create using technology in a variety of capacities. In addition, today's young innovators require an understanding of computational thinking and the design cycle as a framework for the process of innovation, creation, and problem-solving within the digital context. By developing these conceptual skills, students become primed for the requirements of contemporary and future workplaces.

ADST 8 is offered to all students in Grade 8 to introduce students to Media Arts and Computational Thinking modules; this ensures a smooth transition into the Senior School laptop program with a focus on BC's Digital Literacy Framework and an introduction to programming. ADST 9 is offered as a module course in drama (stage production), jazz studies (sound production), and visual arts (ceramics). Additional IT skills are integrated into the course curriculum throughout Grades 8-10.

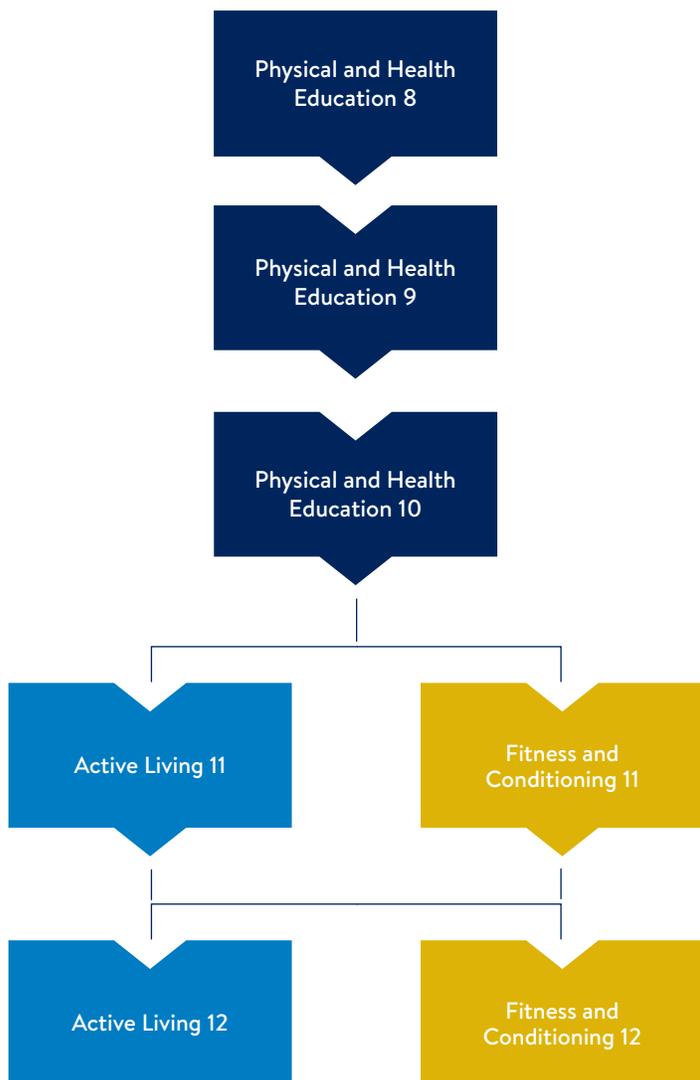
Students in Grades 9 and 10 can take Electronics and Robotics where they will build and program robots that will perform a variety of different tasks. Students will also learn how to integrate electronics such as sensors and lights into their robots. Students in Grade 11 or 12 may take Computer Science, in which they will use programming software to solve problems, and learn the design process for writing computer software. Students will write, test, and debug their own programs. These design and programming concepts are a major asset to those going on to pursue a career in computer-related fields as well as engineering.



Computer Science is classified as a Mathematics course by the BC Ministry of Education.

# Physical and Health Education

In an effort to promote a healthy lifestyle, the senior PE program combines progressive skill development with personal fitness enhancement and evaluation. Throughout Grades 8-10, the students focus on skill building in a variety of individual and team sports, primarily those sports which are a part of the school's competitive athletic program. There is considerable emphasis placed on developing and maintaining each individual's level of physical fitness. The learning of health and wellness portion of this course will continue to be taught throughout the year. As students reach the senior grades, there is an increased focus on such topics as nutritional programs and training principles. These students are also exposed to a variety of lifetime sports and leisure activities.



# Career Education

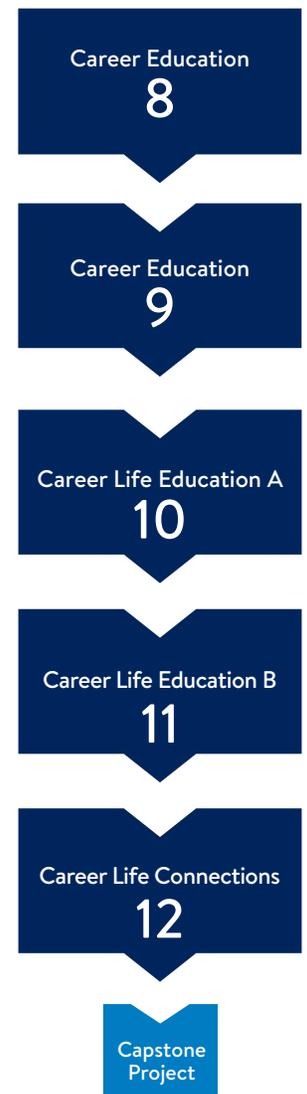
The aim of CE is to provide students with knowledge, skills, and attitudes that will assist them in making informed decisions in relation to their education and their future careers. CE 8 and 9 build on the CE K-7 curriculum by helping students understand their preferences, the value of work in their lives, in their communities, and in society as a whole. Also, they will become aware of career pathways that are defined by personal, community, and educational choices and why these pathways will require flexibility to adapt to economic and labour market influences.

**THE PROVINCIALLY PRESCRIBED COMPETENCIES ARE GROUPED UNDER THREE BROAD CATEGORIES:**

- Personal Development
- Connections to Community
- Life and Career Plan

In Grades 10 and 11, CE will focus on course choice planning, financial literacy, university research and related topics as well as career exploration and experience. In Grade 12, students focus on decision making, applying to university programs, scholarship opportunities, and preparing to transition to life after high school. Grade 12 students will also be required to present a Capstone Project that celebrates achievement and accomplishment and allows them to discuss their life, education, and career goals in the format of a graduation interview.

Overall, the goal of the high school career education program is to create individuals who have the self-knowledge, confidence, attitudes, and skills to succeed at their desired post secondary institutions and beyond.



# Advanced Placement

For students seeking an enriching and challenging academic experience, the Advanced Placement (AP) program is an excellent choice. AP offers motivated students an exciting opportunity to pursue university-level studies in the high school setting. Through AP, students gain knowledge, academic skills, and personal confidence. AP is intellectually demanding, but well within the capacity of Southridge students. Success in the AP program may lead to advanced standing, course credit, or both, on entry to university. The Advanced Placement program is fully recognized by the Ministry of Education of British Columbia and is an integral part of the BC graduation program. Our current AP courses are as follows: AP Calculus (AB and BC), AP Chemistry, AP Microeconomics, AP English Literature and Composition, AP European History, AP French Language, AP Human Geography, AP Physics 1, AP Physics 2, AP Biology, AP English Language and Composition. At the time of printing, AP European History, AP Human Geography, and AP Microeconomics do not meet the Social Studies graduation requirement by the BC Ministry of Education.

Course descriptions are included within the Curriculum Guide.

# Learning Strategies

Southridge Senior School provides academic support and testing accommodations for students in Grades 8 through 12. The Learning Strategies teacher evaluates, develops, and implements learning supports for individual students to decrease the barriers to education that students with a learning difference might experience.

Furthermore, the Learning Strategies teacher provides academic testing accommodations for students who have a Psycho-Educational Assessment. Through the development of an Individualized Education Plan, a student may be eligible for accommodations such as:

- Scribe | Reader | Extended time
- Adaptive technologies | Room with reduced distraction
- Calculator and/or formula sheet



## Outdoor Education

Outdoor Education is an important part of a Southridge student's experience. While participating in the Outdoor Education (OE) program in the Senior School, students strengthen their appreciation for and understanding of the natural environment of British Columbia. Students also develop the skills and attitudes that support good character development. Leadership, teamwork, and interpersonal skills are developed during OE trips as students are challenged, comfort levels are extended, and confidence is built.

Many different opportunities await Southridge students. All Grade 8 and 9 students travel to Strathcona Park Lodge Outdoor Education Centre on Vancouver Island for four nights each fall. In addition, the OE program runs different trips throughout the year that challenge students at different levels and allows students to develop their skills throughout their time at Southridge. Most recently, these trips have included hiking, canoeing, snowshoeing, ocean-kayaking, and cycling, ranging in length from a one-day experience to a four-day expedition.

**EXPERIENCES IN OUTDOOR  
EDUCATION ARE AN INTEGRAL PART  
OF OUR BALANCED PROGRAM.**

# The Southridge Service Program

## GUIDING PRINCIPLES

At Southridge, service means:

- Actively interacting with our local community through initiatives that engage all of our students in hands-on service activities
- Providing students with opportunities to act globally, as well as locally, to become responsible global citizens
- Developing long-term, rich relationships with local, national, and international service organizations
- Empowering students to develop leadership skills by facilitating student-generated and organized activities
- Integrating service initiatives into the curriculum, when it is appropriate to do so
- Recognizing that providing service for others often changes the way that we think about ourselves and the world in which we live, students will be provided with opportunities for meaningful reflection as well as opportunities to share their experiences with others

## SERVICE OPPORTUNITIES

More specifically, all Southridge students are involved in service work and service learning through advisory group activities (such as soup kitchen visits, Holiday hampers for local teen moms, Hoops for Heart, Terry Fox Run), school-related activities (such as TREK, Gala, Country Fair), or integration in the curriculum. Part of this integration is the Grade 10 service week, where students participate in workshops and local service work to learn more about global and local service issues. In addition, students can take their own initiative through out-of-school activities (with Semiahmoo House Society or Peace Arch Hospice Society, for example) on their own or in small groups. The student-run Service Club meets regularly to plan and carry out diverse service activities and opportunities. Finally, we have a growing international service program that gives students the opportunity to connect with developing world communities such as Guatemala and Cambodia. Service involvement is one of the strongest defining characteristics of a Southridge student.

# Leadership Experience Week

Each October, all Senior School students are immersed in the real world so that they come to a better understanding of who they are and what their contribution to the world can be. It is expected that all students attend and fully participate in this week as an integral part of our educational program here at Southridge. Specifically, each grade explores a different theme in a different format:

## GRADE 8

Identity: through challenging themselves at Strathcona Park Lodge, students further enhance their personal character, focus on self-leadership, and develop their grade identity.

## GRADE 9

Cooperation: by focusing on specific small group challenges at Strathcona Park Lodge, students build peer leadership skills, teamwork, and further develop grade cohesion.

## GRADE 10

Service: students learn the leadership skills that enable them to move beyond themselves to helping others in their local community. The skills are actively taught at the school, and then students volunteer with an organization of their choosing.

## GRADE 11

Leadership I: Exploration - students explore future options at a Career Day and develop valuable lifelong skills to prepare themselves for leadership roles in their senior years of high school and beyond. This is achieved through an off-campus leadership retreat.

## GRADE 12

Leadership II: Legacy - students reflect on contributions made during their school years, look forward to university life, and prepare to assume leadership in our school community in the present. This is achieved through an off-campus Grad Retreat.

# Overview for Grades 8 to 10

In Grades 8 through 10, students are required to take a range of mandatory academic classes. The use of technology is fully integrated into our curriculum and all students at Southridge Senior School are equipped with their own personal laptop computer. This tool is used to facilitate and expand opportunities for collaboration, exploration, and inquiry; authentic assessment and evaluation, and to facilitate our ability to meet the diverse learning needs of our students. Students also use this technology as a means of organization and communication beyond the classroom.

Throughout these years, the approach to learning is one of critical thinking and inquiry. We seek to develop students who question assumptions, offer creative solutions, advocate respectfully for themselves, and who are able to collaborate and communicate well with others.

We also take care to support students in these grades in acquiring the awareness and knowledge to understand where their own particular passions and interests lie – and to make informed decisions about pursuing them. The wide-ranging curriculum in Grades 8 through 10 prepares the students to choose those subjects which are of greatest interest to them in their Grade 11 and 12 years and beyond. In Grades 9 and 10 the choice of electives is limited to two. In Grades 8, 9, and 10, science, math, English, French and/or Spanish, social studies, physical education and health, and career education are mandatory.

Physical and health education provides students with the knowledge, skills, and attitudes that will assist them in making informed decisions in relation to their physical health and fitness and their emotional and mental well-being. Career education will assist them in making informed decisions in relation to their educational choices and future career aspirations. Electives are offered in applied design, skills, and technologies and fine and performing arts, including: band, visual art, jazz studies, media arts, robotics, and drama. Our students will also be exposed to First Peoples' history, perspectives, and knowledge as part of the wider integration of their culture and world view into the curriculum.

# Overview for Grades 11 and 12

Southridge's enriched, rigorous, university oriented academic curriculum fully prepares students for a diverse range of post secondary opportunities and entrance to prestigious universities in Canada, US, and around the world. A full range of academic electives is introduced in Grade 11. English Studies 12 is the mandatory Language Arts graduation requirement. Our students will be exposed to First Peoples' history, perspectives, and knowledge as part of the wider integration of their culture and world view into the curriculum.

University planning, which occurs once per cycle in Career Life Education 12, is also a mandatory requirement of the Grade 12 program and is instrumental in helping students select and narrow their focus to the university programs that best fit their academic interests and personal preferences. Students select their course of studies with the guidance of our University Counsellors. The strength of our university-planning program is evidenced by our students' high success rates in gaining admittance to the institutions and programs of their choice.

For students seeking an enriching and challenging academic experience, Advanced Placement (AP) courses can be an excellent choice. AP offers motivated students the opportunity to pursue university-level studies in the high school setting. Through AP, students gain knowledge, academic skills, and personal confidence. AP is intellectually demanding and success in the AP program can lead to advanced standing, course credit or better preparation for university courses on entry to university.

## **WE CURRENTLY OFFER THE FOLLOWING ADVANCED PLACEMENT COURSES:**

AP Calculus BC | AP Calculus AB  
AP Chemistry | AP Microeconomics  
AP English Language and Composition  
AP English Literature and Composition  
AP European History  
AP French Language and Culture  
AP Human Geography  
AP Biology | AP Physics (1) | AP Physics (2)



*Grade*  
8

PROGRAM OVERVIEW

# Grade 8

## Program Overview

### ENGLISH LANGUAGE ARTS 8

The study of literature is central to our English program at Southridge. It is presented as a source of creativity and joy for our students in Grade 8. We encourage students to use language purposefully, to be aware of multiple voices and perspectives, and to understand that different audiences require different approaches. In a collaborative, inquiry-based, student-centred environment, students develop competency in a variety of writing styles: narration, description, exposition, and persuasion. All Southridge students learn the protocol and format of cross-examination debate and practice these skills during in-class debates. Grade 8 students also learn to craft and present individual persuasive speeches during our annual Southridge School Speech Day. Students use a variety of oral, written, visual, and digital texts to develop curricular and core competencies outlined by the BC Ministry of Education. Typically, these texts include a minimum of two novels, one classic text, and a selection of poetry, non-fiction texts, and short stories. Students also participate in the Accelerated Reader program.

### SOCIAL STUDIES 8

The primary objective of Social Studies 8 is the development of the skills needed to advance the core competencies of social studies: communication, thinking, and socialization. This objective is met through a critical examination of civilization between the 7th and 16th centuries, including indigenous civilizations. Topics examined include: how contact and conflicts between peoples have stimulated change, how human and environmental factors have shaped changes in populations, how exploration and expansion has led to varying consequences for different groups, and how changing ideas about the world have created tension. Along with the focus on the core competences, Social Studies 8 is used as an introductory course to the Harkness discussion philosophy. The discussion skills learned here will help students throughout their career at Southridge.

### MATHEMATICS 8

The focus of Mathematics 8 is on the development of basic skills needed for the advanced study of mathematics in Grades 10-12 and the core competencies in this discipline (communication, collaboration, problem solving). Topics in this course include perfect squares and cubes, square roots, the Pythagorean Theorem, operations with fractions, rate, ratio, percent, patterns, relations, graphing, basic algebra, equation solving, construction, views and nets of 3D objects, surface area and volume of prisms and cylinders, geometry, probability, logic and pattern games/puzzles, and financial literacy. Students learn and are assessed via the curricular competencies of Understand and Solve, Reason and Analyze, Connect and Reflect, and Communicate and Represent. Problem solving is a major focus of the course and is integrated throughout the curriculum.

[Calculator Needed: Scientific Calculator \(TI-30X IIS series recommended\).](#)

### SCIENCE 8

In Science 8, students will explore topics in biology, chemistry, earth science, and physics. They will undergo a variety of lessons and labs that will develop their understanding of the life processes at a cellular level, kinetic molecular theory, the energy of particles and waves, and tectonic theory. Students will engage in skills based activities that will enhance their abilities to question and predict outcomes, plan and conduct experiments, process, analyze and evaluate data, and communicate their thinking. As a full year course, they will gain an appreciation of the connection between all of the science disciplines and this course will serve as an introduction to the amazing opportunities that the science department has to offer in the Senior School.

### CORE FRENCH 8

In French 8, students will learn basic oral and written communication skills. They will learn how to make themselves understood, to retell stories, and to appreciate and be aware of cultural differences. To accomplish these goals, the course begins with a thorough review of the basic language skills such as present tense verb conjugations, adjectives, time telling, numbers, question making, and common vocabulary. They will build on these structures throughout the course. Using these acquired language structures, students will discuss themes relevant to their experiences such as family, friendships, francophone cuisine and celebrations as well as traveling. Collaboratively, they will read short magazine articles, put together presentations, create brochures, and conduct interviews. They will watch, listen to, and respond to recordings, movie clips, and other audiovisual material in order to derive meaning. Finally, they will be regularly assessed and given feedback on the four language learning skills: writing, reading, listening, and speaking.

### BAND 8

All students in Grade 8 play in the concert band. Among other things, the major focus of each term is a public performance. In Term One, students prepare for An Evening in December (the first week of December); during Term Two, we play at BandFest at UVic (overnight to Victoria in early March); Term Three culminates in Café Concerto (May). Attendance at each of these events is expected.

Because students enter the Senior School with differing levels of skills on the band instruments, they are placed in a group appropriate to their level of experience: beginning players, who are just starting their journey; experienced players, usually with one year under their belt; and more experienced players, who can read music and have some facility on their instrument. In each group, the focus is on developing skills on one of the brass, woodwind, or percussion instruments, gaining understanding of various musical forms and genres, appreciating one's role within a musical ensemble, and performing with stylistic accuracy and musicality. Students in the experienced group spend additional time on the fundamentals, learning the concert repertoire, and test preparation. Those in the more experienced group receive additional, more challenging repertoire and also play in the "All Comers Jazz Ensemble". As such, the latter are welcome to join the other school jazz bands and vocal ensembles at the Jazz Retreat, an amazing three-day event in late October, held at the beautiful Rockridge Canyon.

*\*Subject to change based on timetable and/or health and safety regulations in the 2022/2023 school year.*

### CAREER EDUCATION 8

This course meets once per cycle. Students complete assessments that guide them on their learning styles, study habits, and personality traits. They will reflect on their core competencies and set goals that will assist them in both their academic and extracurricular commitments. They will discuss the role networking and mentorship plays in career planning and how volunteer opportunities provided at Southridge can assist in formulating a plan for life after high school.

### EXPLORATIONS IN ARTS EDUCATION AND APPLIED DESIGN, SKILLS, AND TECHNOLOGIES 8

The Arts and Applied Design, Skills, and Technologies (ADST) program for Grade 8 students consists of one rotation in each of the following: visual art, drama, media arts, and robotics. Students are given an overview of the respective disciplines in order to help them have a platform by which they can choose from the more in-depth artistic, creative, and design-based experiences offered in higher level courses.

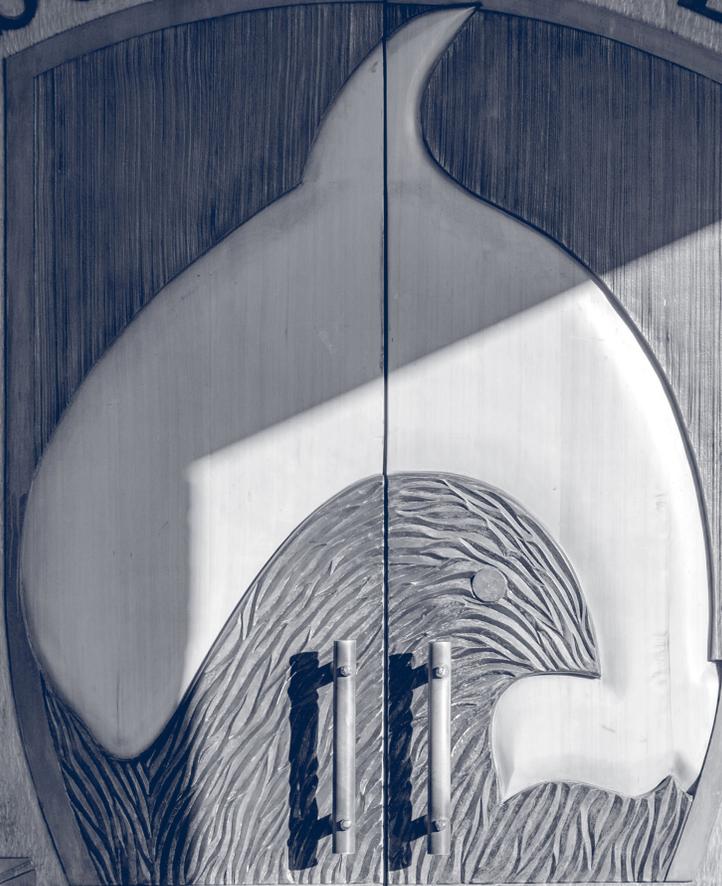
In their Arts Education experience, the Visual Art and Drama programs allow students to explore the individual and collective experiences of artistic voice while exploring new perspectives and creative processes.

In their ADST experience, the Media Arts program is a unique cross-disciplinary mix where students embark upon new creative processes and use technology to create art, tell their stories, and share their unique voices. The Robotics program provide students with the opportunity to investigate how to design for 3D printing, and to explore the use of sensors to control the motion of a robot.

### PHYSICAL AND HEALTH EDUCATION 8

Physical and Health Education 8 involves a variety of movement activities in individual, paired, and group settings. The focus is on developing a functional level of fitness, and encouraging lifelong participation in physical fitness as part of a healthy lifestyle which incorporates physical, emotional, and mental well-being. The value of social responsibility, and of making connections to the school and wider community, is emphasized and physical literacy is encouraged through skill development. The development of skills in the major Southridge interscholastic sports is emphasized; these include basketball, volleyball, soccer, rugby, and field hockey. There is also an emphasis on cooperative minor games. The learning standards for the more specific health and wellness portion of this course will continue to be taught throughout the year.

SOUTHRIDGE



OMNIS ANIMA VOLET

Grade  
9

PROGRAM OVERVIEW



# Grade 9

## Program Overview

### ENGLISH LANGUAGE ARTS 9

The study of literature and the purposeful use and understanding of language continue to be core elements in our English 9 program. Students continue to work in a collaborative, inquiry-based, student-centred environment to further develop their writing, speaking, listening, and reading skills. There is a strong emphasis on the process of writing, and Grade 9 students develop the planning, editing, and revision of their written samples. Students develop their oral communication skills by writing and presenting debates in class, and by individual public speaking contributions to the annual Southridge School Speech Day. Students use a variety of oral, written, visual, and digital texts to develop curricular and core competencies outlined by the BC Ministry of Education. Typically, these texts include a minimum of two novels, one classic text, and a selection of poetry, non-fiction texts, and short stories. Students also continue to participate in the Accelerated Reader program.

### SOCIAL STUDIES 9

Grade 9 Social Studies focuses on Canadian and European history during the time periods 1750-1914. The course examines emerging ideas and ideologies that profoundly influence societies and events, as well as disparities in power that alter the balance of relationships between individuals and between societies as demonstrated through political, social, economic, and technological revolutions. Canadian content focuses on the continuing effects of imperialism and colonialism on indigenous peoples, as well as the physiographic features of Canada and geological processes. The final section of the course looks at Canada's collective identity and how it was constructed and changed over time through its global affairs, immigration, and French/English relations.

### MATHEMATICS 9

Mathematics 9 continues the development of basic skills needed for the advanced study of mathematics in Grades 10-12 and the core competencies in this discipline (communication, collaboration, problem solving). Topics in this course include numerical and spatial reasoning, logic and patterns to solve puzzles and games, operations with polynomials and rational numbers, types of income, two variable linear relations, solving multi-step one variable linear equations, spatial proportional reasoning, probability, statistics, and financial literacy. Problem solving is a major focus of the course and is integrated throughout the curriculum. Students learn and are assessed via the curricular competencies of Understand and Solve, Reason and Analyze, Connect and Reflect, and Communicate and Represent.

[Scientific Calculator \(TI-30 Series recommended\).](#)

### MATHEMATICS 9/10

This course will develop concepts common to both the Math 9 and Foundations of Math and Pre-Calculus 10 courses. The focus of this course will be on understanding the Big Ideas of the course through the development of the curricular competencies: reasoning and analyzing, understanding and solving, communicating and representing, and connecting and reflecting. This will be achieved through the study of trigonometry, exponents, irrational numbers, polynomials, factoring, functions and relations, financial literacy, and linear functions and systems. Problem solving is a major focus of the course and is integrated throughout the curriculum.

[Calculator Needed: Graphing Calculator \(TI-83 Series, TI-84+ or TI 84+ Silver\).](#)

*\*Subject to change based on timetable and/or health and safety limitations in the 2022/2023 school year.*

### **BIOLOGY 9**

Understanding reproduction is the key focus of the Biology 9 program. Students discover DNA, mitosis, and meiosis through visuals, models, lab activities, and simulations. Students develop communication skills as they debate and discuss topics on bioethics and reproductive technology using evidence based arguments and scientific language. These topics challenge students to evaluate the dilemmas of modern biology and society.

### **CHEMISTRY 9**

In Chemistry 9, students learn that the electron arrangement of atoms impacts their chemical nature. Students will design procedures and perform many experiments that will allow them to discover that element properties are organized in the periodic table. By analyzing experimental data and information, students will determine that an element's properties are related to the arrangement and energy of its electrons and to its atomic size.

### **EARTH SCIENCE 9**

In Earth Science 9, students explore the effects of solar radiation on the cycling of matter and energy. They also unpack the different matter cycles within the biotic and abiotic components of ecosystems. Furthermore, the importance of sustainability and the interconnectedness of systems and First Peoples' principles will be emphasized. They will do this by analyzing the cause-and-effect relationships between and within systems and by using knowledge of scientific concepts to draw conclusions that are consistent with evidence.

### **PHYSICS 9**

The focus of Physics 9 is the study of electricity. After a brief introduction to electrostatics, students learn about electric current and circuits, understanding that it consists of the flow of electrons around a complete path. Through hands-on activities, relevant videos, and classroom discussion, they learn about the relationships among voltage, current, and resistance in series and parallel as well as combination circuits. These relationships are investigated at both a conceptual level and through mathematical calculations. Discussions of our use of electricity and the effect on society are included.

### **CORE FRENCH 9**

Students in French 9, will further develop their speaking, listening, reading, and writing skills as they learn how to express themselves in the present, past, and future tenses. Reflexive verbs, comparisons, all personal pronouns, and time permitting, the imperfect are added to their repertoire of language structures. They will be exposed to a variety of audio and audiovisual material which will strengthen their understanding and acquisition of the French language. They will read short authentic and sometimes simplified fiction and magazine articles practicing their reading comprehension as well as developing their cultural awareness. They will be asked to express their opinions and feelings regarding these texts. In order to hone their speaking skills, students will engage in spontaneous discussions daily. Themes in this course are of interest and relevant to students' lives. They include a selection of the following: the use of technology, the lives of celebrities, a future green planet, suspenseful stories, high school experiences, family, friends, and celebrations.



### SPANISH 9

This is an introductory Spanish course which focuses on the four fundamental skills of second language learning – listening, speaking, reading, and writing. The beginning of the course introduces students to basic greetings, time telling, colours, family, shopping, and description of friends. Throughout the course, students are expected to express their likes, dislikes, and preferences orally as well as in writing. Basic grammatical structures like the present tense and adjectives are taught through themes such as “School”, “Pastimes”, and “Family”.

### ACCELERATED LANGUAGES 9

This course offers strong and interested second language learners the opportunity to intensively study both French and Spanish in one year. It is a fast paced course which will allow students to either continue with Accelerated Languages 10, or choose one of either French 10 or Spanish 10 in their Grade 10 year. In the Spanish portion of the course, students will learn greetings, time, numbers, and some basic language structures like adjectives, regular and some irregular present tense conjugations. They will speak about themselves, their families, friends, school, and pastimes. For a closer description of the Core French 9 curriculum, please read its description under Core French 9.

### **MEDIA ARTS 9**

The Media Arts 9 course continues to build on knowledge already acquired from the Grade 8 year. Students develop foundational visual narrative skills using a wide variety of new techniques, technologies, and approaches in the context of exploring their own identity, the world around them, and developing new skills in design and project-management. An emphasis is placed on image design and development, as well as structure, meaning, and understanding the audience as students create works in film, photography, and animation. Students work with professional equipment, learn to operate cameras manually, and manipulate their work using post-production software. Students will frequently collaborate, present their work, and communicate their ideas as part of a creative community.

### **DRAMA 9**

In an environment that encourages the individual to take risks, students in Drama 9 explore a variety of theatrical styles using the theme of community. Physical character development is a major focus of the course, and through Harkness discussions, individual and group presentations, students will work towards a final play performance for an invited audience. Units of study may include movement, voice work, First Nations stories, comedy, scene study, and play building. By the end of the course, students should expect to not only have increased their understanding of theatre, but to have developed their confidence, built strong interpersonal and collaborative skills, and be prepared for more advanced drama and theatrical study. Theatre tech and production will round out the ADST component of the course.

### **VISUAL ART 9**

Building on knowledge, skills, and attitudes of the Grade 8 year, Grade 9 students continue to explore their own identity and personal knowledge through a variety of aspects of historical, contemporary, global, and community contexts. Students are asked to develop sound studio practices and refine their skills, while continuing to practice using the language of design in their communication of ideas. Individual goal setting and intrinsic motivation to artistically develop is emphasized and recognized at this level; the visual journal is a large component of this course.

### **ELECTRONICS AND ROBOTICS 9**

This course offers students the opportunity to learn about the engineering design cycle through an introduction to robotics and computer-aided design (CAD). Students learn how to use design software to create items that could be 3D printed or laser cut and add the appropriate electronics safely to get the desired outcome. Further progress in their understanding of robotics programming is supported through the use of NAO robots and Arduino microcontrollers. Through all projects, students are developing their ideas and communicating their progress in a design notebook.

### **MUSIC 9: CONCERT BAND**

The Concert Band continues to be the principal means by which students are challenged to improve their technical and musical skills. As the difficulty of music increases, students are required to be more independent players. In addition, they are expected to be able to perform in a greater variety of genres with idiosyncratic stylistic appropriateness. Increased musical literacy, the development of a more mature tone, and improvement in overall musicianship are the primary focus. Each April, the Grade 9 Concert Band attends a British Columbia Music Festival, where they perform and attend clinics, performances, and workshops. Attendance at the following performances is mandatory: *An Evening in December* (December) and *Café Concerto* (May).

### **MUSIC 9: JAZZ STUDIES**

This course is for students who desire to dig a little deeper. In it, students study the giants of jazz, listen to the finest recordings and live concerts available, and begin to unravel the complexities of the harmonies that underlie the music. The lion's portion of the course, however, is devoted to actually improvising, that is, composing and performing a melody at the same time! This ensemble takes advantage of any opportunity to perform, within the school or in the surrounding community. This course must be taken concurrently with Band 9. Except with permission, it may not be taken in isolation.



### PHYSICAL AND HEALTH EDUCATION 9

Physical and Health Education 9 further refines and develops the skills in Physical and Health Education 8. This program integrates the units to develop the knowledge, skills, and attitudes that allow students to incorporate physical activity into a regular routine. Additional units of study to the main school sports include cross-country running and softball. There is also an emphasis on cooperative minor games. The learning standards for the more specific health and wellness portion of this course will continue to be taught by health and planning specialists during a designated block throughout the year.

### CAREER EDUCATION 9

Students continue to explore a deeper understanding of their learning styles and techniques for building presentation skills. They build awareness of community connections and social responsibility. Students research a local service provider and present the information to their classmates. The course delves further into workplace presence and safety training, and provides opportunity to begin building a network of resources to pursue career and education research. Students will be assisted in discovering possible vocational opportunities.



# Grade 10

PROGRAM OVERVIEW

# Grade 10 Program Overview

## ENGLISH LANGUAGE ARTS 10

Working in a collaborative, inquiry-based, student-centred environment, students continue to develop their writing, speaking, listening, and reading skills. In following with the development of the new BC Ministry of Education English Language Arts curriculum, students in Grade 10 will develop the curricular and core competencies as outlined in the courses Composition 10 and Literary Studies 10. Composition 10 is designed to support students in their development of written communication through a critical process of questioning, exploring, and sampling.

Literary Studies 10 allows students to delve deeply into literature in general. Overall, students will develop their analytical and critical thinking skills and be able to communicate those through class discussions and written samples. Students use a variety of oral, written, visual, and digital texts throughout the course, which serve as a basis for synthetic analysis writing. Typically, these texts include a minimum of two novels, one classic text, and a selection of poetry, non-fiction texts, and short stories. Students refine their oral communication skills by participating in cross-examination debates in class, and by creating and presenting individual pieces for the Southridge School Speech Day. Students also continue to participate in the Accelerated Reader program by reading at least three independent titles, or by continuing in the points program.

## SOCIAL STUDIES 10

Social Studies 10 is a focus on Canada and the world from 1914 to the present. The course looks at the big ideas that transformed this era: regional and global conflict; the fight for rights and autonomy; and the development of our political institutions. The Canadian system of government and the electoral system are studied and are complemented with a visit to the provincial legislature in Victoria. The theme of Canada's emergence as a country is examined through its participation in the world wars and in the post-war era. Additional issues of Canadian identity including, French-English relations, the emergence of First Peoples' and women's rights, and the Charter of Rights and Freedoms are also examined.

Students will continue to enrich their skills in many areas, including writing, examining and analyzing documents, and discussing the issues within the Harkness philosophy.

## FOUNDATIONS AND PRE-CALCULUS MATHEMATICS 10

The focus of this course will be on understanding the Big Ideas of the course through the development of the curricular competencies: reasoning and analyzing, understanding and solving, communicating and representing, and connecting and reflecting. This will be achieved through the study of trigonometry, exponents, irrational numbers, polynomials, factoring, functions and relations, financial literacy, and linear functions and systems. Problem solving is a major focus of the course and is integrated throughout the curriculum.

[Calculator Needed: Scientific Calculator \(TI-30 series recommended\).](#)

## BIOLOGY 10

Biology 10 offers students an opportunity to discover and explore the fundamental basis of the diversity of all living things. Topics include the structure and function of DNA, patterns of inheritance, natural versus artificial selection, and numerous applications of genetics. While learning this, students will evaluate the various points of view that exist surrounding current advances in biotechnology. Understanding how genes are the foundation for the diversity of living things offers a great platform for discussions on ethical and controversial issues, and a reflection on how societies around the world approach scientific research.

## CHEMISTRY 10

In Chemistry 10, students will learn about chemical processes and their uses. In particular, they will study the rearrangements of atoms in chemical reactions, the law of conservation of mass, and the energy change during chemical reactions, and acids and bases. Students will be planning and conducting experiments and participating in discussions on data analysis and evaluating their investigation methods.

### **EARTH SCIENCE 10**

How did the universe form? What are the components of the solar system we are a part of? What are stars and how do we classify them? These questions, and others, are what Earth Science 10 students try and seek answers to through a variety of assessments and activities. Outer space is a topic that includes intriguing entities and fascinating theories that foster rich discussion. The highlight of this unit is a visit from the Planetarium's Starlab which allows students to experience outer space while inside a transportable bubble.

### **PHYSICS 10**

The big idea of physics in Grade 10 is the impact of energy conservation. This is explored through a variety of activities such as the transfer of mechanical energy on a roller coaster track and determining how much energy it takes to heat up various materials. There is also a focus on nuclear energy, both fission and fusion, and how atoms decay releasing energy. Students will engage in discussions regarding energy conservation and efficiency and the impact on the future of society. Students will also put their design skills to collaboratively build a machine that conserves energy through multiple tasks.

### **CORE FRENCH 10**

Students continue to communicate in the present, past, and future tenses. In order to describe events in the past, the imparfait is added to their repertoire. They also learn how to avoid repetitions by using object pronouns and they are exposed to a few conditional forms. They continue to hone their listening, reading, and speaking skills in daily class discussions as they share stories, negotiate meaning, and engage in spontaneous conversations. Students read and watch a variety of creative works and explore cultural differences. The themes discussed in this course include interior decorating, Canadian facts and trivia, employment as well as film-making and movies.

### **CORE FRENCH 10/11 HONOURS**

This course is by invitation only and chosen students are committed to and expected to enroll in French 12 in their Grade 11 year. It is intended for those excelling in French 9 and showing an interest in advancing their French skills at a faster pace. Throughout the course, they interact in French to situations drawn from real life. They learn how to express themselves using a variety of vocabulary, expressions, phrases, and verb tenses. The future tense, the conditional, the plus-que-parfait, and some subjunctive are added to their repertoire. There is a strong emphasis on reading and listening to a variety of creative works, particularly short fiction and magazine articles. In Voyages 1, the themes which students discuss are ethnic foods, childhood, memories, stress, and cultural festivals.

### **ACCELERATED LANGUAGES 10**

This course is the continuation of Accelerated Languages 9 and offers the opportunity to intensively study both French and Spanish in one year. It is a fast paced course which allows students to pursue both languages in Grade 11 (in separate courses). In the Spanish portion of this course, students learn how to express themselves in the past by discussing language level appropriate short fiction and personal experiences. They also study object pronouns in order to avoid repetition and improve the flow of their spoken and written language. The French portion of this course is a bit more advanced but essentially covers very similar skills and content: the past tenses, pronouns, short fiction, and different types of audio visual materials. In both languages, the focus of the course is on advancing the four second language learning skills: speaking, reading, listening, and writing.

### **SPANISH 10**

This course is the continuation of Spanish 9. Structures and skills previously introduced are reinforced and expanded upon. Students learn the past and the future tense as well as some object pronouns. They are expected to study more advanced reading materials including some Latin American and Spanish

legends and authentic documents from magazines and from the Internet. More emphasis is placed on learning how to write short paragraphs expressing opinions and preferences, and relating personal events in the present, past, and future. They are also expected to further develop their reading, listening and speaking skills.

### ART STUDIO 10

Students build on learning from Art 9 at this level. Students are challenged to create in a range of visual styles including realistic representations, innovative and stylized works, and abstract art. As students become more independent and comfortable with materials, they are expected to complete and present finished works of original art. Personal motivation to extend and refine skills is not only the focus at this level but also a requirement for continued studies in the senior years. Students are encouraged and directed to see the studio as a place to work outside of scheduled classroom lessons and to work independently on personal goals in, and outside, of their vision journal.

### DRAMA 10

Drama 10 allows students to further explore their knowledge of theatre history and improve their performance skills in a creative and interactive program that is focused on identity. Units of study may include improvisation, physical theatre, world theatre, acting for the camera, storytelling, monologue studies, and theatre for young audiences. The emphasis is on enhancing performance skills, including public speaking. Harkness focused reflections formulate the analysis portion of this course. Participation in the major school production is not expected.

### THEATRE COMPANY 10

This introductory performance course requires a high level of motivation, enthusiasm, and interest in Theatre. Participation in the major school production of the year is expected. This course allows students to begin to explore a variety of dramatic forms and theatre styles to expand and further their

learning as they specialize in areas of interest (performance and production). Units of study will correlate with the major production and will coincide with auditions, play building, theatre production, and One Act plays in performance. The emphasis is on improving performance skills, character analysis and reflection, play analysis, and Harkness style discussions, which comprise the theory portion of this course. This course is offered in conjunction with Theatre Company 11 and 12.

*\*Students enrolling in this course should not apply for a student exchange in the second term as this will conflict with performance dates.*

### CONCERT BAND 10

Grade 10 students form the first of three grades that comprise the most significant performing ensemble at Southridge School, the Senior Concert Band. In addition to each of the Music Department concerts, this group performs at all major school events, such as Remembrance Day and Graduation. A high level of musical literacy is expected, as is a strong grounding in the technical aspects of playing a woodwind, brass, or percussion instrument. For those interested in playing in a jazz band, class time each cycle is devoted to rehearsing the Grade 10 Jazz Ensemble.

During spring break, two international tours are offered on a three-year rotation. The Senior Concert Band travels to Italy, starting in Venice and wrapping up in Rome. The Senior Jazz Band and Vocal Ensemble spend a glorious week in sunny Cuba, absorbing the warmth of the Cuban culture, people, and sunshine, and enjoying making music where listeners love to dance along! As an off-timetable co-curricular, students may challenge themselves vocally or instrumentally in the Choir, the Senior Vocal Ensemble, the Brass Choir, and the Senior Jazz Band.



## Grade 10 continued...

**JAZZ BAND 10**

This course follows Music 9: Jazz Studies. Students expand on their improvisation skills and implement them in performance as an ensemble. The course consists of listening, discussion, and, most importantly, performance in and outside of school. As an ensemble there are exciting opportunities for students to govern much of the course direction, including bringing their own repertoire and presenting and rehearsing any recordings they may come across, and choosing the makeup of the ensemble. In their final term, students create their own compositions which are performed by the group. This course must be taken concurrently with Band 10. Except with permission, it may not be taken in isolation.

**MEDIA ARTS 10**

Media Arts 10 is a cross-disciplinary applied arts course, touching upon elements of visual arts, drama, creative writing, and technology. Through the production process, students will further develop their understanding of narrative, design, techniques and technology, as well as communication, collaboration, and project-management. In film, cinematography and directing are examined in detail through the creation of short, high-quality projects. In animation, students will apply and develop their skills to create short animations. Throughout the course, students will examine influential works and are also encouraged to share their unique voices throughout the creative process.

**EXPLORATIONS IN TECHNOLOGY 10**

This course continues to develop students' knowledge and understanding of the vast world of robotics. Using a more advanced robotics system, students learn about a variety of mechanisms and sensors to build effective remote control and autonomous robots. The course follows a variety of challenges used to prompt students to design and iterate both individually and collaboratively with a team.

**PHYSICAL AND HEALTH EDUCATION 10**

The Grade 10 curriculum will continue to build on both physical literacy skills along with an emphasis on active living. The healthy living component will now be implemented into the PHE curriculum. This includes understanding the factors that influence our health and empowers us to take action to improve it. In addition, the curriculum explores how healthy choices influence, and are influenced by, our physical, emotional, and mental well-being.

**CAREER EDUCATION 10: CAREER LIFE EDUCATION A**

The aim of this course is to enable students to develop the skills necessary to become self-directed individuals who set goals, make thoughtful decisions, and take responsibility for pursuing their career and educational goals throughout life. Through assessment and evaluation, students will begin to use personal networking and marketing strategies to promote themselves. They will begin to identify and explore local-to-global career and labour market information to make potential career and life decisions. Guidance with Grade 11 and 12 course selections in preparation for post secondary studies will be provided.





*Grade*  
**11**  
PROGRAM OVERVIEW

# Grade 11 Program Overview

## ENGLISH LANGUAGE ARTS 11

Working in a collaborative, inquiry-based, student-centred environment, students continue to develop their writing, speaking, listening, and reading skills. In following with the development of the BC Ministry of Education English Language Arts curriculum, students in Grade 11 will develop curricular and core competencies and as outlined in the following course options: [Composition 11](#), [Creative Writing 11](#), [Literary Studies 11](#), and [New Media 11](#). In every course, students will develop their analytical and critical thinking skills and be able to express and communicate their ideas through class discussions, presentations, debates, and in both formal and informal written samples.

Course offerings may vary year to year depending on student interest and/or scheduling conflicts.

While all our classes offer innovative and challenging learning opportunities, [Composition 11](#) is offered concurrently with AP English Language and Composition with a focus on rhetorical analysis and argumentation. Students must consult with their English teacher and English Department Curriculum Leader before registering for this course.

[Creative Writing 11](#) is designed for students who are interested in developing confidence and refining their writing skills through self-expression for various creative purposes.

[Literary Studies 11](#) allows students to delve deeply into literature. Students can explore specific themes, periods, authors, or areas of the world through fiction and non-fiction literary works in a variety of media.

[New Media 11](#) is a program of studies designed to reflect the changing role of technology in today's society and the increasing importance of digital media in communicating and exchanging ideas. [New Media 11](#) recognizes that digital literacy is an essential characteristic of the educated citizen.

## ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION

Offered concurrently with [Composition 11](#), AP English Language and Composition offers Grade 11 students an opportunity to explore the craft of writing by analyzing the use of rhetoric in a wide variety of literary and non-fiction texts. It is an academically rigorous course, which encourages students to consider language as a persuasive tool and to think deeply about the dynamic relationship that exists between writer, context, audience, and argument. Students who register for this course will write the Advanced Placement English Language and Composition examination in May. Students must consult with their English teacher and English Department Curriculum Leader before registering in this course.

## FOUNDATIONS OF MATHEMATICS 11

The “Foundations of Mathematics” program 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. Big ideas in the course include:

- Similar shapes and objects have proportional relationships that can be described, measured, and compared. Optimization informs the decision-making process in situations involving extreme values.
- Logical reasoning helps us discover and describe mathematical truths. Statistical analysis allows us to notice, wonder about, and answer questions about variation.
- Problem solving is a major focus of the course and is integrated throughout the curriculum.

\*[FOUNDATIONS OF MATHEMATICS 11](#) will only be offered when enrollment exceeds a minimum requirement.

Calculator Needed: Scientific Calculator (TI-30 Series recommended).

## PRE-CALCULUS 11

The Pre-Calculus program 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. Big ideas in the course include:

- Algebra allows us to generalize relationships through abstract thinking.
- The meanings of, and connections between, operations extend to powers, radicals, and polynomials.
- Quadratic relationships are prevalent in the world around us.
- Trigonometry involves using proportional reasoning to solve indirect measurement problems.
- Problem solving is a major focus of the course and is integrated throughout the curriculum.

Calculator Needed: Scientific Calculator (TI-30 series recommended) OR Graphing Calculator (TI-83, 84+ or 84+ silver) for students intending on taking AP Calculus.

## LIFE SCIENCES 11

How do viruses affect living organisms? How did we evolve to our present form? How are organisms classified and what is the basis for it? In Life Sciences 11, students will seek to answer these questions as they study various units related to characteristics of living things. Students will do a variety of activities in which they can learn the practical skills of observation, design, and analysis. The final assessment for this course is a practical lab exam, as opposed to a written test.

## LIFE SCIENCES 11 HONOURS

This course is the first year of the two-year Biology AP program. The AP topics that are covered, diverge from the regular Life Sciences 11 curriculum, and are covered in much greater depth of understanding. This, coupled with the regular provincial Life Sciences 11 content, makes for a very fast paced and intensive course, and for that reason a minimum 86% in Science 10 is mandatory. The emphasis of this course is on enduring conceptual understandings; using inquiry based learning to support the concepts. Students develop scientific literacy through reading primary literature and analyzing case studies. There is a strong lab component with an emphasis on science practices such as lab design, collecting and analyzing data, making predictions, applying mathematical routines, and connecting concepts across domains. Topics covered include molecular biology, genetics, evolution, and diversity.

## CHEMISTRY 11

Chemistry 11 is challenging, enjoyable, and requires hard work. This course involves problem solving that requires a good set of math skills. Students learn to design procedures and conduct labs to solve problems. They also learn to develop theories by interpreting data. A highlight of the course is the participation in the National Crystal Growing Competition. Topics include measurement, atoms, molecules and ions, mole concept, stoichiometry, chemical reactions, atomic theory, solution chemistry, and organic chemistry.

## CHEMISTRY 11 HONOURS

This course is the first year of the two-year Chemistry AP program. It is geared for independent learners who thrive in a fast paced environment. Students must have at least an 86% in Math 10 and in Science 10 to be eligible for this course. The course encompasses the entire provincial Chemistry 11 curriculum and additional topics. All topics are covered to the AP level of understanding. Students who do not wish to continue in the AP program will have met all the learning outcomes to take Chemistry 12 next year instead of Chemistry 12 AP.

### PHYSICS 11

Physics 11 is an exciting, challenging course that explores the how and why of multiple different aspects of everyday life. From roller coasters to circuits to sound to projectile launchers, so many applications are explored to help students understand more about the world around them. The topics covered include conservation of energy, one-dimensional Newtonian mechanics, projectile motion, electricity, sound, and simple machines. A significant component to this course is the application of physics concepts to create various projects, including a model roller coaster, a projectile launcher, and a musical instrument, which are noticeable highlights throughout the year.

### AP PHYSICS 1

The advanced placement physics program is a two-course, two-year program which begins in Grade 11. AP Physics 1 is the equivalent of a first-semester college course in algebra-based physics. The course covers one and two-dimensional Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound; and introduces electric circuits. AP Physics 2, taken in Grade 12, completes the equivalent of a first-year college course.

### CORE FRENCH 11

During daily discussions, students interact in French within situations drawn from real life. They continue to practice telling and responding to stories, to engage in spontaneous conversations, and to negotiate meaning. They gain confidence explaining and justifying their opinions as well as exploring different points of view. They learn how to express themselves using a variety of vocabulary, expressions, phrases, and verb tenses. The future tense and the conditional are added to their repertoire. There is a strong emphasis on reading and listening to a variety of creative works, particularly short fiction and magazine articles. Students are exposed to the themes of ethnic foods, childhood memories, advertising, stress, and cultural festivals.

### SPANISH 11

Students in this course continue to practice telling and responding to stories and to audiovisual materials such as video clips, movies, podcasts, and recordings. They gain confidence in negotiating meaning, as well as expressing and justifying their beliefs and opinions. While doing so, students review the present, past, and future tenses and add the conditional tense and commands to their repertoire. They also read and listen to a variety of creative works and discuss a number of relevant themes such as; outdoor recreational activities, current environmental challenges, entertainment, and leisure activities with friends. Students gain more understanding of Latin American culture and compare it to their own.

### SPANISH 11/12

Students are challenged to learn various linguistic elements of the Spanish language through various themes and readings. In the first part of this course, emphasis is placed on review of the present and past tenses and the acquisition of the future and conditional tenses through a combination of readings and themes like outdoor activities and traveling. In the latter part of the course, students read a variety of short stories, newspaper and magazine articles as well as literary excerpts. They discuss the readings both orally and in writing using varied vocabulary and sentence structures. They broaden their skills relating events, situations, or experiences and exchanging opinions and preferences. They also fine tune their composition writing skills. Through legends and other cultural texts, they gain knowledge of some of the customs and cultures of the Spanish speaking world. Students learn the present and past perfect tenses, as well as the subjunctive tense in the second half of the course.

### COMPUTER SCIENCE 11

This course provides a foundation for students interested in entering computer science courses at post secondary institutions or considering computer programming as a career. As well, students interested in pursuing a career in math, engineering, physics, or business would be encouraged to take this course. They will learn to write code for all sorts of applications, using the Python programming language. This course is intended to allow students to become skilled problem solvers and critical thinkers, as well as creators of useful algorithms. Students will learn to apply the principles of effective programming to analyze and solve problems. Successful course participants will become members of a collaborative culture. Course work will require students to become a skilled reader and writer of documentation associated with programming, as well as to write interpreter-ready procedures and methods and to debug programming errors including logic errors.

### ROBOTICS 11

Robotics 11 is a project-based course that builds upon previous experience in 3D design, robotics structures, and programming. Potential projects include animatronic props, autonomous sumobots, and more. An introduction to AI-based vision will also be explored through the use of HuskyLens. There would also be an expectation of public sharing of work in appropriate and inspiring ways, such as on Instructables and through participation in robot design contests/competitions.

### CAREER EDUCATION 11: CAREER LIFE EDUCATION B

This course builds on the career and education exploration completed in Grades 8, 9, and 10 and provides understanding that personal development awareness, self-assessment, and preparation are needed to achieve post secondary goals. This cultivation of interpersonal, intercultural, collaborative, and social skills will assist in building a “vocational identity”. Students will have an opportunity to test-out a variety of career and/or volunteer opportunities. They will also be introduced to financial literacy and planning with an emphasis on how to form a budget that supports post secondary goals.

All students will be paired with a Southridge Alumni member as part of the ASK mentorship program.

### ACTIVE LIVING 11

The focus of Active Living 11 curriculum is about finding enjoyable activities that can motivate people to participate more regularly in physical activity. Other components that will be reinforced are that preparation and organization can help students to engage more regularly in physical activity. This course will ensure that students will learn to safely participate in activities to avoid injuries which will sustain lifelong physical activity.

### FITNESS AND CONDITIONING 11

This course is designed to understand the principles of training by developing appropriate exercise techniques for a variety of fitness activities. It will help students create and implement a personalized fitness program, and identify and describe how different types of fitness activities influence the muscular and cardiovascular systems. This course will apply safety practices in different types of fitness activities (for self and others) and explore how different types of fitness activities affect the body. There will be components of resistance training, cardiovascular endurance, and flexibility. Also discussed will be the influences of food choices and eating patterns on physical performance.

### CONCERT BAND 11

Grade 11 students form the second of three grades that comprise the most significant performing ensemble at Southridge School, the Senior Concert Band. In addition to each of the Music Department concerts, this group performs at all major school events, such as the Remembrance Day service and Graduation. Off-timetable, students may challenge themselves vocally or instrumentally in the Choir, Senior Vocal Ensemble, Brass Choir, or Senior Jazz Ensemble. During spring break, two international tours are offered on a three-year rotation. The Senior Concert Band travels to Italy, starting in beautiful Venice and wrapping up in timeless Rome.

The Senior Jazz Band and Vocal Ensemble spend a glorious week in sunny Cuba, absorbing the warmth of the Cuban culture, people, and sunshine, and enjoying making music where listeners love to dance along!

### ART STUDIO 11

Students build on learning from Art Studio 10; applying and extending technical and aesthetic foundations learned in earlier grades, this level requires students to design and complete artwork that shows practiced and confident use of materials and processes, as they work through more complex concepts in image development. The goal of developing a personal style with respect to original and personally meaningful images is highly encouraged at this level. Many students going on to the next grade level are beginning to build portfolios that may be used for post secondary admission. This course is the prerequisite for Art Studio 12.

### MEDIA ARTS 11

Media Arts 11 is a cross-disciplinary applied arts course, touching upon elements of visual arts, drama, creative writing, and technology. The goal of Media Arts 11 is to ultimately create professional-grade products that have the potential to impact the intended audience and share the unique voices of the creators. In film, areas of study moving toward this goal include advanced skills in directing, cinematography, and production design. In animation, students will further develop their skills and understanding, introducing new techniques and processes to their toolkits. Students in this course have access and choice between an increasingly advanced selection of equipment. Influential works continue to be examined for their thematic and technical insight. At the end of the year, students are typically given the option to create reels of their best work to aid with post secondary admissions portfolios and other potential opportunities in the field. This course is a prerequisite for Media Arts 12. Students with no previous Media Arts course experience should consult with the instructor before entering the course.

### DRAMA 11

Drama 11 allows students to further explore their knowledge of theatre, drama, and various forms of communication in a creative and interactive program. Units of study may include improvisation, physical theatre, scene study, acting for the camera, and One Act plays for performance in an adjudicated festival. The emphasis is on enhancing theatrical performance skills, along with building capacity in leadership roles. Harkness focused reflections and play and character analysis comprise the theory portion of this course. Participation in the major school production is not expected. While there is no prerequisite for this course, it is recommended that students have taken either Drama 9, Drama 10 or Theatre Company 10 to be successful at this level, or alternatively have a teacher recommendation. This course may be offered in conjunction with Drama 12.

### THEATRE COMPANY 11

Theatre Company 11 allows theatre enthusiasts to explore a variety of dramatic forms and theatre styles to expand and further their learning, as they specialize in areas of interest (performance and production). A high level of motivation, enthusiasm, skill, and interest in the dramatic arts is required to achieve success in this course. Participation in the major school production of the year is expected. Units of study will correlate with the major production and include: audition, play building, production, and One Act plays for performance. The emphasis is on improving performance skills, character analysis, and reflection. Acting methodologies, Harkness style play analysis, and play reviews comprise the theory portion of this course. This course runs in conjunction with Theatre Company 10 and 12.

\* Students enrolling in this course should not apply for a student exchange in the second term as this will conflict with performance dates.



SOUTHRIDGE  
SCHOOL

*Grade*  
**12**  
PROGRAM OVERVIEW

# Grade 12 Program Overview

## ENGLISH STUDIES 12

Working in a collaborative, inquiry-based, student-centred environment, students continue to develop their writing, speaking, listening, and reading skills with a goal towards the academic writing practices and skills required in a post secondary setting. In following with the development of the BC Ministry of Education English Language Arts curriculum, students in Grade 12 will develop their analytical and critical thinking skills and be able to express and communicate their ideas through class discussions, presentations, debates, and in both formal and informal written samples.

While all our classes offer innovative and challenging learning opportunities, there is the option to enroll in [English Studies 12](#) which is offered concurrently with [AP English Literature and Composition](#). This course engages students in the careful reading and critical analysis of imaginative literature and includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. Reading and writing activities focus on the critical analysis of literature and include a wide range of writing forms and genres. Students are expected to write the AP English Literature and Composition examination in mid-May. Students must consult with their English teacher and English Department Curriculum Leader before registering in this course.

## ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION

AP English Literature offers Grade 12 students an opportunity to delve deeply into the exploration of literature. It is an academically rigorous course, which engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. Course material draws largely from a survey of English Literature from the 16th to the 21st century, with a foundation of texts in the literary canon leading to an exploration of contemporary texts. Students who register for this course will write the Advanced Placement English Literature examination in May. This course is taken

concurrently with English Studies 12. Students must consult with their English teacher and English Department Curriculum Leader before registering in this course.

## CREATIVE WRITING 12

The course provides students with opportunities to specialize and publish in real-world contexts. Students engage in the exploration of personal and cultural identities, memories, and stories, in a wide range of genres. Within a supportive community, students will collaborate and develop their skills through writing and design processes, and celebrating successes. Students will refine their ability to write in complex, controlled styles with effectiveness and impact. This course may be taken as an elective course in addition to the mandatory English Studies 12 course.

## 20TH CENTURY WORLD HISTORY 12

Students in 20th Century World History 12 concentrate on global events that have occurred between 1919 and 1991. First, students investigate the results of World War I and the growing strength of communist ideology. Secondly, they learn about the prosperity of the 1920s, the hardships of the Great Depression, and the rise of communism and fascism in Europe. Thirdly, students explore the seeds of World War II and the horror inflicted on humanity by men such as Mussolini and Hitler. In addition to learning the facts about the war, students discover various political systems and the effects of technology on warfare. The postwar era (1945-1963) is the focus of the fourth unit. The tensions between democratic and communist countries during this era in history will be studied in detail. The social changes of the '60s, conflicts in Asia and the Middle East, and the implications of computer technology are topics that fill the final unit of the year. 20th Century World History 12 students, besides acquiring knowledge of past events, further develop research and historical writing skills that they have been learning throughout their years in social studies.

## PHILOSOPHY 12

Philosophy is a discipline that examines the fundamental nature of knowledge, reality, and existence. In this course, students will be provided with the necessary tools and skills to look at different ways of thought and understanding. By using the philosophical inquiry processes and reasoning skills to respond to arguments and questions related to major issues in philosophy, students will be better prepared to question their own assumptions and beliefs. As a result, students will be able to better understand other perspectives and ways of thinking. Theories of justice and freedom, morality and ethics, and other theories that may conflict or complement each other will be examined throughout the year.

## ADVANCED PLACEMENT EUROPEAN HISTORY

AP European History is a survey course that examines modern European History from 1450 to the present. It is an exciting and challenging course for motivated students who want to learn about the events and ideas that have contributed to the basis of western society. Events and movements are explored through three themes: intellectual and cultural history, political and diplomatic history, and social and economic history. In addition, students develop their ability to express their historical understanding in writing. A firm grounding in the strengths and weaknesses of modern Europe prepares students to study history at the post secondary level.

*Note: This course does not meet the graduation requirement for Social Studies.*



### ADVANCED PLACEMENT HUMAN GEOGRAPHY

This is a full year AP Human Geography course designed to achieve a college introductory level human geography credit. The course follows the recommended units of study as outlined in the College Board AP Human Geography course description, to help students use spatial concepts and landscape analysis to examine the world in which we live. Topics such as population, migration, cities, religion, agricultures, politics, and economic development are investigated.

*Note: This course does not meet the graduation requirement for Social Studies.*

### ECONOMIC THEORY 12

Economics is the study of how households, individuals, firms, governments, and other types of human society choose to allocate and manage resources in a world of scarcity. The central focus of this introductory course is how and why markets (one important mechanism for allocating scarce resources) work, why they may fail to work, and the implications for social policy of both their successes and failures.

Students learn to think like an economist, which involves identifying and evaluating trade offs in the context of constraints, distinguishing positive from normative analysis, and tracing behavioural implications of change while abstracting from aspects of reality. They learn how to use data, graphs, and models to evaluate economic events, and how consumers and producers make choices. Finally, students learn how to examine many problems through a filter of efficiency vs. equality. Current events are sometimes analyzed in the course, where concepts and models that students have learned are applied to real-world situations.

### ADVANCED PLACEMENT MICROECONOMICS

The AP course in Microeconomics is for students interested in college or university-level work in microeconomics and/or gaining advanced post secondary standing. Microeconomics is a branch of economics that studies the behaviour of how individual modern households and firms make decisions to allocate limited resources. In this course, students examine how these decisions and behaviours affect the supply and demand for goods and services, which determines prices, and how prices, in turn, determine the production and availability of goods and services. Major topics include the nature of functions of product markets, factor markets and efficiency, equity, and the role of government.

*Note: This course does not meet the graduation requirement for Social Studies.*

### LAW STUDIES 12

In this course, students not only learn the basics of law in Canada, but also delve deeper into the legal system and truly understand the role of law in society and how it affects us on a daily basis. The study of law helps students understand their legal rights and responsibilities as Canadian citizens. In addition, the course helps foster critical thinking skills as students interpret many facets of the law, especially engaging in case studies based on actual cases and court trials. Through many discussions and presentations, students gain a tremendous grasp of the Canadian legal system.

## FOUNDATIONS OF MATHEMATICS 12

The Foundations of Mathematics program 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. Big ideas in the course include:

- Probabilistic thinking informs decision making in situations involving chance and uncertainty.
- Modelling data requires an understanding of a variety of functions.
- Mathematical analysis informs financial decisions.
- Through explorations of spatial relationships, we can develop a geometrical appreciation of the world around us.
- Problem solving is a major focus of the course and is integrated throughout the curriculum.

\*FOUNDATIONS OF MATHEMATICS 12 will only be offered when enrollment exceeds a minimum requirement.

Calculator Needed: Scientific Calculator (TI-30 Series recommended).

## PRE-CALCULUS MATHEMATICS 12

The Pre-Calculus Mathematics program 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. Big ideas in this course include:

- Using inverses is the foundation of solving equations and can be extended to relationships between functions.
- Understanding the characteristics of families of functions allows us to model and understand relationships and to build connections between classes of functions.
- Transformations of shapes extend to functions and relations in all of their representations.
- Problem solving is a major focus of the course and is integrated throughout the curriculum.

Calculator Needed: Scientific Calculator (TI-30 series recommends) OR Graphing Calculator (TI-83, 84+ or 84+ Silver) for students intending on taking AP Calculus.

## CALCULUS

Calculus is the study of change and embraces a truly fascinating set of topics ranging from rates of change and optimization to applications of mathematical modelling with physical, social, and economic situations. Limits, derivatives, summation, and integrals are examined closely and applied to the mathematical functions studied in Pre-Calculus 11 and 12. Students planning to study mathematics at university are strongly encouraged to study calculus while in high school. There are three options of calculus available for students to choose from.

### CALCULUS 12

This course is a provincially based calculus course with outcomes prescribed by the Ministry of Education. Big ideas in the course include:

- The concept of a limit is foundational to calculus.
- Differential calculus develops the concept of instantaneous rate of change.
- Integral calculus develops the concept of determining a product involving a continuously changing quantity over an interval.
- Derivatives and integrals are inversely related.
- Students cover topics similar to those in AP Calculus AB, but at a slower pace and in less depth. There is no provincial or other external examination for this course. Evaluation is based entirely on in-school assessments.

Calculator Needed: Graphing Calculator (TI-83 series, TI-84+ or TI 84+ Silver).

Prerequisite: "B" standing or better in Pre-Calculus 11.

Corequisite: Pre-Calculus 12.

### ADVANCED PLACEMENT CALCULUS AB

AP Calculus 12 AB is a university level course. Topics studied include limits, continuity, the derivative, exponential, logarithmic and inverse trigonometric functions, integration, area between curves, differential equations, slope fields, and applications of differentiation and integration. This course has an external examination in May that is marked on a five point scale. Students scoring a “4” or “5” on this examination can usually obtain advanced placement in their mathematics studies at university.

**Prerequisite:** 86% or better in Pre-Calculus 12 or permission from the mathematics curriculum leader.

**Calculator Needed:** TI-83 series, TI-84+ or TI-84+ Silver Graphing Calculator.

### ADVANCED PLACEMENT CALCULUS BC

AP Calculus 12 BC is a rigorous university level course designed for the most capable mathematics students. AP Calculus BC contains all of the topics in AP Calculus AB, plus 40% more content. These topics include series, tests for convergence, Maclaurin and Taylor polynomials and approximations, improper integrals, l'Hopital's rule, calculus of parametric, polar and vector functions, Euler's Method, and advanced integration techniques. This course has an external examination in May that is marked on a five point scale. Students scoring a “4” or “5” on this examination can usually obtain advanced placement in their mathematics studies at university.

**Prerequisite:** Completion of Pre-Calculus 12 with an “A” standing or permission from the mathematics curriculum leader.

**Calculator Needed:** TI-83 series, TI-84+ or TI-84+ Silver Graphing Calculator.

### ANATOMY AND PHYSIOLOGY 12

In Anatomy and Physiology 12, students focus on human biology with an overarching theme of maintenance homeostasis. Major topics of cell biology, biochemistry, and body systems provide students with a solid understanding of human anatomy and physiology. Students can perform DNA electrophoresis, urine analysis, enzyme catalysis, and dissect a cow's heart and fetal pig. These key lab experiences give students a practical understanding of the scientific process and the human body. They also have opportunities to discuss and evaluate topics in Biology, such as the social and ethical implications of genetic disorders, or the critical analysis of the claims of energy drinks. If a student wants to take Anatomy and Physiology 12 in their Grade 11 year, they must have 86% or better in Science 10 to be prepared for the rigour of the course.

### ADVANCED PLACEMENT BIOLOGY

This course is the second year of the two-year AP Biology program. The successful completion of Biology 11 Honours is mandatory to enrol in AP Biology. The emphasis of this course is on enduring conceptual understandings, using inquiry based learning to support the concepts. Students develop scientific literacy, reading primary literature, and analyzing case studies. There is a strong lab component with an emphasis on scientific practices such as lab design, collecting and analyzing data, making predictions, applying mathematical routines, and connecting concepts across domains. Topics covered include cellular biochemistry, the form and function of plants and animals, and ecology. Students are prepared to write the AP Exam in May.



### CHEMISTRY 12

Students who wish to pursue a career in science must be excellent researchers, problem solvers, and communicators. The Chemistry 12 curriculum helps students fulfill all three of these requirements. Students will engage in thoughtful scientific discussions, research, and design labs which will revolve primarily around the chemistry of aqueous solutions. Students will use new technology along with classical lab techniques to gain a better understanding of topics covered in Chemistry 11. Chemistry topics covered are kinetics, equilibrium, solubility, acids and bases, and electrochemistry. Chemistry 12 is a challenging course that requires good math skills and a desire to gain a deeper understanding of science.

### ADVANCED PLACEMENT CHEMISTRY

This course prepares students to write the College Board's AP Chemistry exam. Students who have successfully completed the Chemistry 11 Honours course are eligible to continue with AP Chemistry 12. The pace of this course is rigorous, as the AP exam is in May. The topics covered include: kinetics, equilibrium, solubility, acids and bases, electrochemistry, and thermodynamics. Students also learn how to represent and interpret information in graphs. They design procedures and conduct experiments to solve problems and interpret data to make plausible theories.

[Prerequisite: Chemistry 11 Honours.](#)

### ENVIRONMENTAL SCIENCE 12

In Environmental Science 12, students will increase their scientific and environmental literacy and examine the interrelationships that exist between science, the environment, and today's society. They will learn to evaluate the impacts of population growth on human health and the environment, consider the ethical dilemmas surrounding environmental concerns, and understand the role of science in addressing contemporary environmental challenges. Topics explored will include global water systems, the causes and impacts of climate change, land use management, global food security, and the impacts that a disregard for each of these topics will have on communities around the world. This course offers a local and global focus on issues that are often discussed in the media and gives students the opportunity to explore how science can explain and help remedy these matters.

### PHYSICS 12

Physics 12 applies kinematics, dynamics, and energy concepts introduced in Grade 11 to two-dimensional motion, additional topics are circular motion, torque, and equilibrium, electrostatics, and electromagnetism. The approach is mathematically rigorous, involving two-dimensional vector analysis of situations. Conceptual understanding of situations and clear communications of physics thinking are also emphasized. The course concludes with a study of Einstein's Theory of Special Relativity.

### ADVANCED PLACEMENT PHYSICS 2

This is the second half of a two-course, two-year program which in total is the equivalent of a first year college course in algebra-based physics. Students must have completed AP Physics 1 in Grade 11 to enroll in this course. The course covers fluid mechanics, thermodynamics, electricity and magnetism, optics, atomic, and nuclear physics.

### CORE FRENCH 12

Students further develop and apply their full repertoire of language-learning strategies to assist in comprehension and expression. During their daily discussions, they are expected to engage in spontaneous conversations on topics of interest, to support and defend opinions as well as to express doubts, needs, and emotions. They research, analyze, and use relevant information from several sources on chosen topics to complete authentic tasks. A particular emphasis is placed on spoken and written communication skills. They view, listen to, read, and fully understand a variety of creative works, including some short fiction and some French language films. Some examples read and discussed in class include *Le petit Prince* by Saint-Exupéry or the abridged versions of *Le tour du monde en 80 ans* and *Cyrano de Bergerac*.

### AP FRENCH LANGUAGE AND CULTURE

In this course, students review and refine all previously learned grammatical structures while building up their vocabulary to communicate orally and in writing. A variety of themes such as family and community, science and technology, beauty and aesthetics, and contemporary life will be discussed. Students read newspaper, magazine, and internet articles, as well as French fiction from around the francophone world. The reading component may include literary works like *The Miser* by Molière as well as a contemporary novel, such as *Kiffe Kiffe demain* by Faiza Guene. Students listen to and watch French news, podcasts, and movies and write personal and persuasive essays drawing information from two to three sources. They also practice composing a formal email response. Oral interpersonal and presentational communication and the study of francophone culture are other important components. This course is conducted entirely in French, and culminates with the external French Language and Culture AP exam in May.

### ART STUDIO 12

Students build on learning from Art Studio 11. Students at this level are directed to produce work that reflects personal goals and interests in image-making. Conceptual and thematic investigations and in depth studies are directed to meet individual student needs. The goal is for students to master various materials, processes, and concepts that challenge and interest them. Students are expected to build a portfolio of work that is a reflection of a mature, motivated, and skilled visual artist. It is an expectation in this course that students are intrinsically motivated to artistically develop and that they are able to approach this course in an advanced and sophisticated manner to produce work of the utmost quality. Art Studio 11 is a prerequisite for this course.

### CONCERT BAND 12

Grade 12 students form the third of three grades that comprise the most significant performing ensemble at Southridge School, the Senior Concert Band. In addition to each of the Music Department concerts, this group performs at all major school events, such as the Remembrance Day service and full school assemblies. Grade 12 students are expected to play a leadership role in their various sections and to exemplify model technique and expert musicianship. During spring break, two international tours are offered on a three-year rotation. The Senior Concert Band travels to Italy, starting in beautiful Venice and wrapping up in timeless Rome. The Senior Jazz Band and Vocal Ensemble spend a glorious week in sunny Cuba, absorbing the warmth of the Cuban culture, people, and sunshine, and enjoying making music where listeners love to dance along! Because both the co-curricular senior jazz groups and the senior band are made up of students in Grades 10, 11, and 12, this means that all students, should they desire, have an opportunity to attend both tours. Off-timetable, students may challenge themselves vocally or instrumentally in the Choir, the Senior Vocal Ensemble (auditioned), and the Brass Choir or Senior Jazz Ensemble.

### MEDIA ARTS 12

Media Arts 12 is an advanced, cross-disciplinary applied arts course. Drawing upon and developing their existing skill set, students will be given the opportunity to take their work to a new level and to have greater choice and independence. Media Arts 12 students are expected to be self-directed in their project-management and be intrinsically motivated. Senior students are also given the opportunity to create a website showcasing their work. Students who wish to take the course who have not taken Media Arts 11 need to obtain permission from the instructor.

### THEATRE COMPANY 12

Theatre Company 12 further allows students to explore a variety of dramatic forms and theatre styles and take on leadership roles, as they specialize in areas of interest (performance and production). A high level of motivation, enthusiasm, skill, and interest in theatre is required to achieve success in this course. Participation in the major school production of the year is expected. Units of study will correlate with the major production and may include audition, play building, production, and One Act plays for performance at an adjudicated festival. The emphasis is on refining performance skills and theatrical leadership. Character analysis and reflection, play analysis and play reviews, comprise the theory portion of this course. It is highly recommended that students selecting this course have taken Theatre Company 10 or 11, or alternatively have obtained permission from the instructor. This course will run in conjunction with Theatre Company 10 and 11.

*\*Students enrolling in this course should not apply for a student exchange in the second term as this will conflict with performance dates.*

### DRAMA 12

Drama 12 allows students to fine tune their skills in performance and communication, while exploring and refining theatrical leadership. Units of study may include improvisation, physical theatre, contemporary forms of theatre, and various relevant acting styles. Students will have the opportunity to select and direct a One Act play for an adjudicated festival. Students will be equipped with the presentation and collaboration skills that are an asset in any post secondary environment. This course runs in conjunction with Drama 11, where leadership becomes more apparent. It is highly recommended that students wishing to enroll in this course have taken Drama or Theatre Company 11, or alternatively have obtained permission from the instructor. Participation in the major school production is not expected, but is encouraged.

### COMPUTER SCIENCE 12

This course provides a foundation for students interested in entering computer science courses at post secondary institutions or going into software engineering. As well, students interested in pursuing a career in math, engineering, physics, or anything related to computers would be encouraged to take this course. Students will be learning to write code for all sorts of applications, using the object-oriented Java language. This course is intended to allow students to become skilled problem solvers and critical thinkers, as well as creators of useful algorithms. Students will learn to apply the principles of effective programming to analyze and solve problems. Successful course participants will become members of a collaborative culture. Course work will require students to become a skilled reader and writer of documentation associated with programming, as well as to write compiler-ready procedures and methods and to debug programming errors including logic errors. Prior experience in coding, such as in Computer Science 11, is strongly recommended.

### ACTIVE LIVING 12

The focus of the Grade 12 PHE curriculum is about finding enjoyable activities that can motivate people to participate more regularly in physical activity. Other components that will be reinforced are that preparation and organization can help students to engage more regularly in physical activity. This course will ensure that students will learn to safely participate in activities to avoid injuries which will sustain lifelong physical activity.

### FITNESS AND CONDITIONING 12

This course is designed to understand the principles of training by developing appropriate exercise techniques for a variety of fitness activities. It will help students create and implement a personalized fitness program, and identify and describe how different types of fitness activities influence the muscular and cardiovascular systems. This course will apply safety practices in different types of fitness activities (for self and others) and explore how different types of fitness activities affect the body. There will be components of resistance training, cardiovascular endurance, and flexibility. Also discussed, will be the influences of food choices and eating patterns on physical performance.

### CAREER EDUCATION 12: CAREER LIFE CONNECTIONS

The primary aim of this course is to assist and support students in their quest to transition successfully to their post secondary program of choice. The course will be delivered through small group classroom discussions, workshops (application essays and video support, resume and interview skills, budgeting), and a series of individual counselling appointments where progress is monitored, concerns are discussed, and action items are agreed upon. In May, students will be required to participate in a Capstone Project, where they will present their personal learning and achievement, growth in vocational/ career understanding, and their plans for life after high school.

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