

ALPHA

**Course Planning Booklet
2017-2018**

ÉCOLE ALPHA
SECONDARY SCHOOL
HOME OF THE AZTECS

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COURSE SELECTION 2017 - 2018

This Course Selection book provides students and parents with the necessary information to develop a meaningful educational plan for the graduation program.

EDUCATIONAL PLANNING

Planning for Success

As a student at École Alpha Secondary School the path to future success relies on your active involvement. The key to success is **you!** Good planning takes time and thought. Your course selection is an important decision. Discuss your goals with your parents/guardians and counsellor. In selecting courses, particularly for Grade 10 and 11 students, post-secondary options should be considered.

Many opportunities are available here at Alpha. Make your high school years challenging as well as enjoyable.

- The information that you provide is used to build our timetable and determine staffing
- Every effort will be made to provide you with the courses that you have selected
- Because of various timetable constraints your initial course requests may have to be adjusted
- Students are expected to take at least 8 courses per year
- Students may take a 9th or 10th course that is scheduled before or after the regular school day

CHOOSING COURSES

We encourage students to read course descriptions carefully and consult with their parents/guardians and their counsellor before finalizing course selections for next year.

POST-SECONDARY INFORMATION

Each student is responsible for ensuring that selected courses meet post-secondary requirements in accordance with his/her learning plan. If you have questions, please meet with your counsellor.

ADVANCE PLACEMENT (AP) COURSES

The AP Program gives students the opportunity to take post-secondary level courses while they are still in high school.

AP courses are challenging and demanding. However, the rewards are many: much smaller class size (compared to post-secondary), complimentary use of textbook(s) and advanced credit and/or placement at participating colleges and universities throughout the world are just some of the benefits.

In addition, students who take an AP course and score a 5 or 4 typically perform better in university than students who do not take an AP course

In order to obtain advanced placement and/or credit status at a participating college or university, a student will need to write the AP exam(s). Also, students need to check with the post-secondary institution of their choice to see whether AP exams are accepted and what AP exam grade is needed to gain credit and/or advanced placement for a particular course. It is strongly recommended that students conduct this investigation before ordering AP exams.

If an AP course is not offered, students can write the corresponding AP exam, however the exam mark is not used in admissions calculations.

Information about ordering AP exams will be available to all students in January. Please note that each exam costs approximately \$135 (the price is subject to change with notice due to the fluctuating value of the Canadian dollar) and is payable by the end of February. AP exams are written in May. Full course descriptions can be found at the AP website:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

AP 2D DESIGN PORTFOLIO 12

This portfolio is intended to address a very broad interpretation of 2D design issues. This type of design of space, illusion of motion, pattern, texture, value, and color) are like a palette of possibilities that involves purposeful decision-making about how to use the elements and principles of art in an integrative way. The principles of design help guide artists in making decisions about how to organize the elements on a picture plane in order to communicate content. These principles include: unity/variety, balance, emphasis, rhythm, and proportion/scale. For this portfolio, students are asked to demonstrate proficiency in 2D design using a variety of art forms. These could include graphic design, typography, digital imaging, photography, collage, fabric design, illustration, painting, and printmaking. A variety of approaches such as: representation, abstraction, and expression may be part of the student's portfolio.

AP 3D DESIGN PORTFOLIO 12

This portfolio is intended to address a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light and texture. Such elements and concepts can be articulated through additive, subtractive, and/or fabrication processes. A variety of approaches, such as: representation, abstraction, and expression may be part of the student's portfolio. These might include traditional sculpture, architectural models, apparel, ceramics, 3D fibre arts or metalwork.

AP BIOLOGY 12

The key concepts and related content that define the revised AP Biology course are organized around a few underlying principles: the process of evolution drives the diversity and unity of life; biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis;

living systems store, retrieve, transmit and respond to information essential to life processes; and biological systems interact, and these systems and their interactions possess complex properties

AP CALCULUS 12 AB

A.P. Calculus is a university level calculus course. This course is intended for students who are concurrently taking, or have completed, Mathematics 12. Topics include differentiation, integration and their applications. The pre-requisite is Pre-Calculus 11 and the student must either have already completed Pre-Calculus 12 or be taking it concurrently.

AP CHEMISTRY 12

The AP Chemistry course provides students with a foundation to support future advanced course work in chemistry. Through inquiry based learning, students develop critical thinking and reasoning skills. Students cultivate their understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

AP ENGLISH LITERATURE & COMPOSITION 12

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

AP ENVIRONMENTAL SCIENCE 12

The AP Environmental Science course is designed to be the equivalent of a one semester introductory college course in environmental science. Topics include earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution and global change. *Completion of Chemistry 11 and Biology 11 is highly recommended.*

AP FRENCH LANGUAGE & CULTURE 12

This course, open only to French Immersion students, strives to develop a superior level of skills emphasizing the use of the language for communication in a variety of contexts. Students will increase their vocabulary through reading magazines, newspapers, literary works and other nontechnical articles. This course will emphasize oral presentations, development of listening skills and a further appreciation of culture.

AP HUMAN GEOGRAPHY 12

The purpose of the AP course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. Topics of study include urbanization and patterns of urban development, agriculture, demographics, industry and its location, spread of world languages and religions, and different uses of space by various cultures.

AP MICROECONOMICS 12

The purpose of the AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy.

AP PHYSICS 1

This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry based learning, students will develop scientific critical thinking and reasoning skills

AP PSYCHOLOGY 12

The AP Psychology course is designed to introduce students to the systematic and scientific study of behaviour and mental processes of human beings and other animals. This course is recommended for those students who have an interest in a comprehensive study of the breadth and depth of Psychology and may wish to pursue it further at a post-secondary institution. This course focuses on developing student skills that will help them succeed in a post-secondary setting. This will include: critical thinking, essay writing, research and experimental methods, academic reading, and oral presentation skills.

AP STATISTICS 12

In colleges and universities, a large number of students take a statistics course. Courses similar to AP. Statistics are required for study in such fields as business, the social sciences, and health sciences. Knowledge of statistics is required for students intending to do research. A.P. Statistics introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data.

FRENCH IMMERSION PROGRAM

École Alpha Secondary is one of the three schools in Burnaby that offer Secondary French Immersion. This program is a continuation of either Early French Immersion or Late French Immersion. In grades 8, 9 and 10 students will take 4 courses in French. Grade 11 they will take 2 courses in French and in grade 12 they will take 1 course in French, and AP French should they choose. By the end of grade 12, they will have completed their requirements for the Double Dogwood Diploma.



HUMANITÉS 8 : Français Langue Seconde & Sciences Humaines

The *Français Langue* component of this course continues with the development of the linguistic skills - speaking, listening, reading and writing - begun at the elementary level. Students will have the opportunity to be creative and exercise their critical thinking skills through different means. Using the writing process, students will develop their composition abilities. They will learn techniques to enable them to communicate effectively and clearly when writing in French. Grammatical points will be reviewed and/or introduced as an integral part of the writing and speaking processes. These skills are taught together with meta-cognitive strategies that will enable students to become stronger listeners, readers, writers and speakers. It is to be noted that the oral/aural component of *Français Langue Seconde* is as important as the written one. The *Sciences Humaines* component of this course parallels the *Social Studies* component of *Humanities 8*.

SCIMATIQUES 8: Mathématiques & Sciences Naturelles

The *Mathématiques* and *Sciences Naturelles* components of this course parallel the *Mathematics* and *Sciences* components of *Scimatics 8* (in English). In addition, the French Immersion teachers will provide second language acquisition strategies to promote learning.

ANGLAIS 8: English 8

The aim of this course is to develop students' communication skills (oral and written) and to experience a variety of genres in literature. Students will develop critical thinking skills through enjoying, understanding, and responding creatively to literature and media. Students continue to develop writing skills in a variety of forms and for varied audiences and purposes. These skills are taught together with meta-cognitive strategies that will enable students to become stronger readers and writers.

FRANÇAIS LANGUE SECONDE 9-11

The *Français Langue Seconde* courses offer a progressive development of linguistic skills: speaking, listening, reading and writing. Students will have opportunity to be creative and exercise their critical thinking and communication skills through a variety of means. These skills are taught together with meta-cognitive strategies that will enable students to become stronger listeners, readers, writers and speakers. Students will learn techniques to enable them to communicate effectively and clearly when writing and speaking in French. Grammatical points will be reviewed and/or introduced as an integral part of the writing and speaking processes. Students also study and experience Francophone cultures around the world. It is to be noted that the oral/aural component of these courses is as important as the written one. *Français Langue 12 will not be offered in the 2017 – 2018 school year.*

SCIENCES HUMAINES 9

Students will study conflict as an agent of change – rebellions, executions, revolutions and wars mark massive changes to Europe’s political and social landscape. Investigation of documents of the time, historical maps and graphic information helps students’ critical evaluation skills and brings this time period to life in classroom activities. In part 2 of the course, students look at the early contact between the existing First Nations and European migrants. A critical look at the impact of colonialism and the economic system of mercantilism will be followed up with a look at the early relationship we had with our rebellious American neighbours. Throughout the course tools of geographers will be used to depict our past and evolving world. In addition, the French Immersion teachers will provide second language acquisition strategies to promote learning.

MATHÉMATIQUES 9

This is the standard Mathematics course for entrance into all three of the senior mathematics pathways. The course includes the study of algebra, geometry and graphing, and an introduction to trigonometry. In addition, the French Immersion teachers will provide second language acquisition strategies to promote learning.

SCIENCES NATURELLES 9

New Science 9 curricular components focus on cell growth and reproduction, electron arrangement of the atom, current and static electricity, and energy flow in ecosystems. In addition, the French Immersion teachers will provide second language acquisition strategies to promote learning.

SCIENCES HUMAINES 10

Students focus on Canadian nation building: the rebellions, the marginalized groups of early Canadian society (women, First Nations, immigrants), political union, and the history of B.C. Continuing conflicts between First Nations and colonial Europeans arise as more contact is imposed by westward exploring and trading. Students learn to relate current issues facing all these same groups of Canadians today. Students will also be introduced to the Canadian economy and continue to learn about Canadian geography. Students continue use geographic tools in their analysis of historical events.

MATHS : FONDEMENTS ET PRÉ-CALCUL 10

This course is intended for students who wish to continue their education after graduation in the fields of Science, Engineering, Language Arts, Fine Arts and other courses offered at post-secondary degree and diploma granting institutions. The basis of this course is both theoretical and applied mathematics focussing on algebra, number systems, relations and functions, and measurement. In addition, the French Immersion teachers will provide second language acquisition strategies to promote learning. *Students in 2017 – 2018 are given a choice of completing either this course or Planification 10; the course with the most student requests will run.*

SCIENCES NATURELLES 10

Science 10 has four major units: Ecology: biomes, energy flow, nutrient cycles and ecosystems; Physical Science: atomic theory, chemical reactions and radioactivity; Physics: velocity acceleration, direction and positioning; and Energy Transfer: earth's atmosphere, climate change, and plate tectonics. In addition, the French Immersion teachers will provide second language acquisition strategies to promote learning.

SCIENCES HUMAINES 11

All French immersion students entering Grade 11 must take Sciences humaines 11. This course is exactly the same as Social Studies 11, except that it is taught entirely in French. Immersion students need this course if they wish to receive full immersion credit upon graduation. For further course information, please see the Social Studies 11 course description in this booklet.

PLANIFICATION 10

Planification 10 is a French Immersion version of *Planning 10*, a four-credit course that must be completed in order to satisfy provincial graduation requirements. Four areas of focus in Planning 10 are: 1. Career and Education; 2. Graduation Program; 3. Healthy Living and 4. Financial Literacy. Planning 10 is designed to help students develop the skills they need to become self-directed individuals capable of setting goals, making thoughtful decisions, and taking responsibility for themselves and their lives. In addition, the students will have an opportunity to continue to develop and use their French language skills in meaningful real-life situations as well as explore ways in which their French skills can be used to further their post-secondary education and careers. *Students in 2017 – 2018 are given a choice of completing either this course or Maths: Fondements et Pre-Calcul 10; the course with the most student requests will run.*

SCIENCES HUMAINES 11: Études Politiques

In this course, students will come to understand how political decisions are made is also critical to being an informed and engaged citizen. They will examine how political institutions and ideology shape both the exercise of power and the nature of political outcomes and how decision making in a democratic system of government is shaped by the unequal distribution of political and social power. Additionally, they will explore how international political agreements require compromises between countries with a wide range of values and priorities. Students will have the opportunity to learn strategies and skills that can help them become more efficient and skillful learners. Various readings, articles, videos and films will be used. Students will also employ inquiry based processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions.

APPLIED DESIGN, SKILLS AND TECHNOLOGY

HOME ECONOMICS

“Teaching skills for LIFE”

ADST 8: FOOD STUDIES & TEXTILES

Home Economics: For the first 20-21 classes. Students will focus on Textiles Design. Students will learn hand-sewing skills and machine skills. They will complete 3 projects and have the opportunity to do a small scale personalized image on their apron and create their own pocket design. Students will also learn the properties of fibres, the importance of colour and the appreciation of proportion and texture in the Fashion Industry. Upon completion of the Textiles Design component, students will then move into the Foods lab for the remaining 20-21 classes. Here, students will learn the basics of food safety and food preparation. Labs include: cookies, muffins, pizza, French toast, smoothies and quesadillas. Kitchen basics, the role of ingredients and nutrition will be introduced. Total time: ½ semester, for the remaining ½ semester, students will experience design, programming, robotics, woodworking, electronics and more...in the **Technology Education** (see course description in the Technology Education section)

ADST 9: FOOD STUDIES

Students will use a variety of cooking methods to prepare tasty and nutritious dishes and simple meals. The major units of study will meal preparation for breakfast, lunch and dinner with a small unit on Baking. Students will learn about safety, sanitation, nutrition, kitchen basics, the roles of ingredients, trends in health and various techniques used in food preparation.



ADST 9: TEXTILES

Students will construct simple garments, crafts, accessories and household items. Possible projects include: pyjamas, simple skirts/pants, t-shirts/shirts, bags and craft items such as knitting, macramé and crocheting. Students will explore and study career opportunities in the Textile and Fashion Industry, cultural influences on fashion and textile choice, basic sewing terminology, and fabric and fibre basics including production, characteristics and care.



FOODS & NUTRITION 10

Students will take a culinary journey around the world. We will globe trot from Canada to places such as Italy, Germany, China, Japan, Mexico, India, Greece and Thailand. Join us as we prepare nutritious appetizers, soups, salads, sweets, and main dishes, while learning about world cuisine, factors influencing food choices, nutrition and balancing meals, and analysing food additives. Bring your appetite and sense of adventure to try new and delicious foods!



TEXTILES 10: TEXTILES DESIGN AND CRAFTING

Students will review basic techniques of garment construction and plan projects to include these new techniques. Possible projects include the use of both knits and woven fabrics. Construction techniques include: fly-front zipper pants, unlined jacket, lined skirt, shirts with a collar stand and cuff. Crafting projects will include up-cycling, stamping and imprinting. Students will also explore and study fashion, design and marketing. Their focus will be learning the Canadian Fashion Market and discovering what influences our designers

FOODS & NUTRITION 11: Year A—Food Safe Level 1 offered 2017-2018

Students will further enhance their knowledge, skills, talents and techniques in Culinary Arts by preparing healthy, nutritious and appetizing items. Labs include sweet and savory quick breads, soups, pastas, vegetables and salads, complete and incomplete proteins, as well as desserts. Course content will also focus on food marketing practices, environmental and health issues related to the production and consumption of food. Come and bring an open mind and an adventurous palate. Food Safe Level 1 Certification course \$30 per student.

TEXTILES 11: TEXTILES DESIGN AND CRAFTING

Students will construct more advanced garments, crafts, accessories and household items. Possible projects include: lined jackets/coats, pants and skirts, evening wear, dresses, knits and craft items. Students will explore and study careers in the design, production and marketing of clothing and textiles, historical influences on fashion and textile choices and an advanced study of the properties, selection and care of natural and manufactured fibres and yarns, advanced fabric and sewing terminology and Canadian Fashion Designers.

FAMILY STUDIES 11: FAMILY LIFE AND RELATIONSHIPS

This course will cover the completion of 2 modules:

1. Child Development and Parenting- topics include decisions to be a parent, pregnancy and childbirth, infant care (1st year of life) and child care and development (years 1-12). Course content will also examine potential occupations and careers related to child development and parenting.
2. Adolescence-transition to the teen years, adolescent development, self-awareness, effective communication skills, issues and challenges in adolescence and how adolescence contribute to society.



FOODS & NUTRITION 12: Year A - Food Safe Level 1 offered 2017-2018

Students will learn advanced culinary techniques, meal preparation and food presentation skills. Eating Well with Canada's Food Guide (2007) and basic information on nutrients, additives, label-reading and making healthy choices will be the underlining theme throughout the year. Course content will include occasional modification of recipes to improve nutritional value, critiquing the use of additives in food preparation and present-day food production practices. This course will be an asset to anyone who plans to enter the food, beverage and hospitality industry.

***note: Food Safe Level 1 is offered at \$30 per student**

TEXTILES 12: TEXTILES DESIGN AND CRAFTING

Challenging fabrics, challenging techniques and personal design will be emphasized in this course. Students will construct advanced textile items using challenging fabrics and patterns. Possible projects include tailored garments, evening and special occasion wear, personal design and swimwear. Students will explore and study International fashion designers, environmental and global issues in the clothing and textile industry, careers in the production and/or marketing of clothing and textiles, political influences on fashion and textile choices and an advanced fabric study including fibre identification, fabric qualities and the appropriate selection for various garments based on these characteristics.



FAMILY STUDIES 12: LIFE FAMILY AND CAREER DEVELOPMENT

This course will cover the completion of 2 modules: \

1. Interpersonal and Family Relationships: topics include reasons and the importance of forming relationships, what is a committed relationship, changes in relationships, effective communication skills in interpersonal relationships, wellness and safety in relationships.
2. Housing and Living Environments: topics include the evolution of housing and the future trends, housing needs and changes as we age, how to establish independent living, the rights and responsibilities of renting, designing our living space, the elements of design, consumerism, house buying and major home purchases.

The course will also examine potential occupations and careers related to interpersonal relationships and careers in housing and design.

BAKING 12

Baking 12 is a practical, hands-on course that enables a student to learn both beginning and advanced techniques in the area of Baking and Pastry. Emphasis on the course will include time management, creative expression, presentation and cost efficiencies. Labs will cover cookies, pastry, muffins, scones, cupcakes and more. Cake decorating included. ☺



TECHNOLOGY EDUCATION

ADST 8: TECHNOLOGY EDUCATION

This is a half a semester course which provides the opportunity to learn the safe uses of a variety of hand and machine tools. The course will also cover the processes involved in working with a number of different materials such as wood, plastics, metals, fabrics, etc. In addition, students will build functional electronic components, use computers in the design process and design their own solutions to a variety of technological problems.



ADST 9: DRAFTING & DESIGN

(Technical Design) Students will explore basic drafting that will demonstrate architectural, mechanical and computer aided design (CAD) and model construction.

ADST 9: ELECTRONICS

This course covers basic electronic concepts, including circuits, schematics, electronic test equipment and measurement. Students will construct electronic projects such as strobe lights, electronic games, toys, alarms, timers, motion detectors and amplifiers. Additional costs may be incurred for program options.

ADST 9: WOODWORKING

This course develops a basic knowledge of many aspects of woodworking including design, joinery and finishing. Workplace health and safety will be emphasized. Additional costs may be incurred if students choose to purchase their own wood for individualized projects.

DRAFTING & DESIGN 10

During this introductory year, students will explore how to create basic drawings on the computer using the Vectorworks application programs. Some hand drawings will be required. The curriculum is designed to provide learning opportunities for male and female students with a wide range of abilities. Areas covered are basic shapes, orthographic projection, dimensioning and pictorial views. Students will be given designing and construction problems in these areas. They will be required to work cooperatively and to communicate their ideas to others.

ELECTRONICS 10

This course covers basic electronic concepts in both analog and digital circuits. Students will construct a variety of project designs and will be encouraged to apply circuit design to a chosen application. An introduction to programming micro-controllers and robots using Easy 'C' and other programming languages are included. Students will also learn the standards and conventions of electronic engineering and learn acceptable attitudes and ethics required in industry.

WOODWORKING 10

This course provides the opportunity to learn the safe uses of a wide variety of hand and machine woodworking tools. It will also cover some basic knowledge of wood and wood products as well as basic finishing techniques. Students will complete at least three projects during the year. Two will be assigned and one (or more) will be of the student's choice, if appropriate to the course level. Areas covered are: machine tools (stationary and portable), hand tools, project organization and procedures, recognition and characteristics of common wood and wood products (plywood, particle board, etc.), joinery techniques and furniture construction methods, abrasives, fasteners, gluing, clamping and assembly methods.

ROBOTICS, MECHATRONICS & ENGINEERING 10

This course introduces students to the design and construction of robots using the VEX Robotics and Arduino platforms. This course applies science, technology, engineering and math (STEM) and is largely project based. The course will focus on concepts such as torque, gearing and leverage, which are taught throughout. Students will learn about various input methods (analog vs digital), explore the uses of various sensors, and incorporate them into their designs. The annual game for the VEX Robotics competitions drives the design component of this course. Students receive a basic introduction to computer programming (EasyC, as well as Arduino IDE, both C derivatives), and students will have various opportunities to work individually and in groups.

DRAFTING & DESIGN 11

The Drafting and Design curriculum provides students with challenging opportunities to develop their skills through a practical, hands-on learning environment using project-based activities. During this senior year, students will explore how to create basic drawings on the computer using the Vectorworks application programs. Some hand drawings will be required. Areas covered are basic shapes, orthographic projection, dimensioning, pictorial views, developments, sections, architectural, and mechanical drawings. Students will be given designing and construction problems in these areas. Students will be required to work cooperatively

and to communicate their ideas to others. The curriculum is designed to provide learning opportunities for male and female students with a wide range of abilities. This course is a pre-requisite to Drafting and Design 12.

ELECTRONICS 11

The first component of this course will focus on the design and function of analog circuits and their application in projects such as amplifiers, power supplies, and frequency filters. Projects will be designed and built using this technology.

CARPENTRY & JOINERY 11

This course provides the opportunity to learn the safe uses of a wide variety of hand and machine woodworking tools. It will also cover some basic knowledge of wood and wood products as well as basic finishing techniques. Students will be expected to finish the following required projects: a bedside table, secret box, curved box, and lamp table with drawer. Once the assigned projects are finished, students may build a project of their choice if it falls within their skill level. Areas covered are: machine tools (stationary and portable), hand tools, measuring and layout tools, project organization and procedures, recognition and characteristics of common wood and engineered wood products (plywood, particle board, etc.), joinery techniques and furniture construction methods, abrasives, fasteners, gluing, clamping and assembly methods.

ROBOTICS, MECHATRONICS & ENGINEERING 11

This course sees an expansion of topics from Robotics 10, with the use of sensory feedback systems considerably more incorporated into their robot designs and computer programming. Students also have the opportunity to learn a new, more versatile programming language, RobotC. They also receive a basic introduction to computer aided drafting/design and prototyping software. Students have various opportunities to work individually and in groups. The VEX annual competition will drive the design component of the course, with a heavy focus on creating efficient, autonomous robots.

DRAFTING & DESIGN 12

The Drafting and Design curriculum provides students with challenging opportunities to develop their ability at a higher level through a practical, hands-on learning environment using project-based activities. During this senior year students will explore how to create basic drawings on the computer using the Vectorworks application programs. Some hand drawings will be required. Areas covered are basic shapes, orthographic projection, dimensioning, pictorial views, developments, sections, auxiliary views, architectural, site plans and mechanical drawings. Students will build on the concepts learned in Drafting 11 and apply these design principles and processes to more advanced situations. Those students that enjoyed Drafting in a previous year can continue working on more challenging activities. Students will continue with computer work, drawing shapes and designing work.

ELECTRONICS 12

The second component of Electronics will focus on a variety of digital electronic concepts, such as logic gates, memory, and counters. Projects will be designed and built using this technology. Employment opportunities in this field will be presented, as well as post-secondary options.

CARPENTRY & JOINERY 12

This course provides the opportunity to learn the safe uses of a wide variety of hand and machine woodworking tools. It is expected that students will produce the following projects: coffee table, Tambour door bread box, and a medicine cabinet. These projects will form the basis upon which student learning will be assessed. The comprehensive nature of the projects will allow students to experience a sense of accomplishment and to demonstrate skills acquired in relation to a range of learning objectives. Areas covered are: machine tools (stationary and portable), measuring and layout tools, project organization and procedures, recognition and characteristics of common wood and engineered wood products (plywood, particle board,

etc.), joinery techniques and furniture construction methods, stile and rail door construction, hardware, fasteners (including European style) and adhesives.

CARPENTRY & JOINERY 12: FURNITURE

In this course, students will produce at a minimum an Adirondack chair, and a bathroom cabinet. These projects will form the basis upon which student learning will be assessed. The comprehensive nature of the project will allow the student to experience a sense of accomplishment and to demonstrate skills acquired in relation to a range of learning objectives. Areas covered are: project organization and procedures, recognition and characteristics of common wood and engineered wood products (plywood, particle board, etc.), face frame and flush face cabinet construction, dovetail and mortise and tendon joints, form and function considerations in furniture design, and various edge to edge joins including biscuits, spines and dowels.

ROBOTICS, MECHATRONICS & ENGINEERING 12

This course has students honing their programming skills in the language RobotC and EasyC, while incorporating more advanced programming techniques and structures into their programs. They also learn to use the prototyping programs such as SketchUP, Inventor and QCAD as a design tool, to construct 3D virtual models of their designs before physical construction. Students have various opportunities to work individually and in groups. The annual VEX competition will provide a starting point for student designs. Students will develop an independent directed study style research and development project which will be documented in a design portfolio.

BUSINESS EDUCATION

ADST 8: DIGITAL LITERACY

This full-semester course allows students to experience, explore and develop the exciting topics of entrepreneurship and marketing, computers, and digital literacy. Students will display their creativity by constructing a business plan for a product that they will prototype, test, make and share. Students will develop computer skills that will benefit them throughout high school, including, Word, PowerPoint, Excel, introduction to computer coding, and keyboarding techniques. Additionally, students will examine the critical topics of Internet safety (Cyberbullying), digital self-image, and research techniques.

ADST 9: MARKETING & ENTREPRENEURSHIP

Are you the next Steve Jobs? Do you like hands-on projects? In this course students will have the opportunity to develop and display their entrepreneurial and marketing skills by participating in a school-wide business venture. In the creation of this venture students will:

- Evaluate the risks and benefits of entrepreneurship
- Develop marketing strategies
- Understand consumer needs and wants
- Utilize computer technologies
- Reflect on financial performance and overall business success
- Work effectively both as individuals and collaboratively in a group



BUSINESS EDUCATION 10

This course introduces students to the various avenues of business education, including: marketing, entrepreneurship, accounting and economics. This is a fantastic course for students who may be interested in pursuing further business studies at Alpha. Students will develop transferable skills that they can apply to future courses, careers and life in general, such as: financial literacy, presentation and teamwork skills, promotion and advertising, problem-solving, and critical reflection of project success.

- In Business Education 10 students will have the opportunity to start their own business and compete with other teams to sell products in the school.

BUSINESS COMPUTER APPLICATIONS 10/11

In this course students will develop extremely useful and life-long skills that they will use in high school, post-secondary education, and career pursuits. This is a practical hands-on course for students interested in learning how to use their computer skills in various environments. Students will learn how to:

- Elevate their current Microsoft Office application skills
 - Create letters, memos, reports, and learn the do's and don'ts of email correspondence
 - Develop advertisements and logos
 - Generate dynamic PowerPoint presentations
 - Chart and graph data
 - Produce spreadsheets & budgets
- Design and create a website that can be used as a future career portfolio
- Improve and develop keyboarding techniques and learn proper computer ergonomics

ACCOUNTING 11/12

Accounting is a valuable course for all students to learn how to manage and account for their personal finances. Additionally, this course is fundamental for any student wanting to pursue business after graduation. In accounting students will:

- Be introduced to fundamental accounting and budgeting concepts
- Learn the accounting cycle and how it is used in business
- Use real business case studies to read and analyze financial statements
- Learn how to make sound financial decisions
- Grade 12's will learn how to use Simply Accounting software
- Understand the variety of careers in accounting, and hear from guest speakers
- Increase your opportunity to work in banks and accounting firms

MARKETING 11

In this course students will have the opportunity to create and participate in a real business. Potential business ideas include; food items, Alpha clothing and merchandise, promotion of school events/performances, and more! This is a fun, collaborative, hands-on course that will allow students to see what marketing is all about.

Course topics include:

- Create marketing and promotion strategies to persuade consumers to purchase
- Learn how to build and maintain both an online and physical store
- Target market and segmentation
- Evaluate existing company marketing strategies/campaigns
- Design different forms of advertising, including print ads & commercials
- Understand the risks associated with marketing a product: environmental, financial, and emotional



ICT: COMPUTER PROGRAMMING 11/12

This is a great course for students who are interested in computer-related technologies and who have an interest in computer science. The course will revolve around the technical/logical aspects of information technology tools and resources. Topic selection will be modified based on students' interest and curriculum.

Some course topics include:

- 2D and 3D design and animation
- Networking technologies and systems management
- Desktop digital media including websites and blogs
- Object oriented programming

ICT: DIGITAL MEDIA DEVELOPMENT 11/12

This course provides practical, hands-on experience that encourages students to pursue the technical side of digital media development. Students will be able to create multimedia rich projects including video, print,

web-based and audio. The theme in this course will be storytelling and will focus on the communication aspect of computer technology. Students will:

- Create and edit digital videos and animations
- Record and edit sound and music
- Write and produce their own movie
- Collaborate with other courses to develop promotional materials

ECONOMICS 12

Are you interested in the economy, human behaviour, or the accumulation of wealth? In this course you will learn how the economy works from both a micro and macroeconomic perspective. Economics 12 fills the admission requirements for local universities such as SFU and UBC. Current events, simulations, and debates are integrated throughout this interactive and project-based course. The key topics examined include:

- The economic problem of scarcity
- Supply and demand
- Competition, trade and government policies
- GDP, inflation, and unemployment
- Stock market, banking and currency
- Business strategies and trends

MARKETING 12: E-COMMERCE

This course introduces students to owning and operating an e-commerce business, while applying marketing fundamentals. Students will gain valuable future employability skills such as managing staff, communication and leadership, marketing goods and services, and developing and implementing new and innovative ideas. Some of the main activities/topics include:

- Conduct market research and evaluate existing local and global competition
- Design and implement inventory, marketing, accounting, and personnel plans
- Gain hands-on experience with the evolution and nature of e-commerce
- Learn cyber-marketing strategies to direct traffic to websites
- Explore distribution channels for a digital business
- Create advertisements for print, radio, television and e-commerce

TOURISM 11/12

This is an excellent course for students who are interested in event planning, hospitality, and tourism. Course topics include:

- Explore the evolving sectors of the tourism industry in a changing marketplace
- Visit some of the main tourist attractions in the lower mainland
- Examine Aboriginal tourism and the local/provincial market and economy
- Plan an itinerary for both a Canadian and International destination
- Explore adventure tourism and outdoor recreation in BC
- Research jobs available in the tourism industry
- Develop marketing strategies
- Develop techniques for communicating and interacting with diverse individuals and groups



LEADERSHIP COURSES

LEADERSHIP 9/10

This course is designed for students interested in developing leadership and team building skills. Students will receive instruction in areas such as group process, communication



skills, organization skills, problem solving and decision making. Students will apply what they have learned by organizing, implementing and evaluating student-oriented activities.

LEADERSHIP 11/12

This course will focus on a comparison of leadership styles through group activities and event planning with the school in the community. Emphasis will be on improving and developing decision-making skills, communication and organizational skills. The class will be responsible for the planning and implementation of school activities related to school culture, school spirit and community service as well as mentoring younger students.

FIRST AID 11

This course is geared toward promoting and learning first aid techniques and providing a first aid service for the school. Components of the program include belonging to St. John Ambulance Division, participating in a 20-hour course and receiving a standard certificate. Students will be expected to attend a class session outside of the regular timetable as well as being available during class time for first aid response.

COMMUNICATION & LEARNING MANAGEMENT 11

This leadership course provides self-motivated students with an opportunity to learn and develop the interpersonal skills required to work as a modern administrative assistant. Individuals should be organized, reliable, and efficient. The knowledge you gain here will provide you with a foundation for entry into a wide variety of office careers.

PEER TUTORING 11/12

The Peer Tutoring Program is an integral component of the supportive learning services provided at Alpha Secondary School. This course prepares and motivates students to provide assistance to individuals with a variety of academic needs. Peer tutors are matched with a student or group of students to facilitate academic support. Students will develop social responsibility while acquiring skills in communication and interpersonal relations. This course is suitable for mature, responsible students who are interested in working with students with various learning needs.

PEER MENTORING 11/12

Students in Alpha's peer mentoring program will learn skills in working with other students through guided instruction as well as through application of skill development. Peer mentors will work with new students to Alpha; particularly in mentorship with grade 8 students. Further, peer mentors will be assigned to students within a classroom during collaboration sessions where they will interact with younger students in a leadership role.

APPLICATIONS OF LEADERSHIP 11/12: MUSIC

This course is for the mature, dedicated music student who wishes to expand their own leadership skills while working with younger musicians to improve their instrumental, vocal, and music composition abilities. Students must get permission from their music teacher before registering for this class, and they *must* be registered in at least one other music course.

ENGLISH LANGUAGE LEARNING

ELL LEVEL 1: LANGUAGE & LITERACY

The intent of ELL Language and Literacy is to prepare ELL students for successful participation in regular English classes. Language and Literacy explores who we are and our connections to a wider world through the study of fiction and nonfiction texts. Students focus on familiar, concrete themes and connections to family and communities.

ELL LEVEL 1: CULTURAL STUDIES

The intent of ELL Cultural Studies is to prepare ELL students for successful participation in regular social studies classes. Cultural Studies explores the interaction of students and their communities. Initially students focus on familiar, concrete environments of family and communities. The major themes of society, politics and law, economy and technology and environment are explored.

ELL LEVEL 1: SCIENCE APPLICATIONS

The intent of ELL Science Applications courses is to support successful participation in regular science classes. Students focus on topics that are concrete and familiar. The major streams of life science, physical science, earth and space science are explored.

ELL 1: TECHNICAL & APPLIED LANGUAGE

The intent of ELL Technical and Applied Language is to support student success in a number of elective secondary courses such as physical education, home economics, technology education, and career and health education. It is also designed to help students acquire the cultural and linguistic knowledge necessary to insure personal safety.

ELL 2: LANGUAGE AND LITERATURE

The intent of ELL Language and Literacy is to prepare ELL students for successful participation in regular English classes. Topics extend to more abstract concepts that apply in both local and global communities. A wide range of literary and factual genres including, short stories, novels, poems and plays, biographies and expository writing are included to develop an understanding of how authors use language to communicate effectively with their intended audience.

ELL 2: CULTURAL STUDIES

The intent of ELL Cultural Studies is to prepare ELL students for successful participation in regular social studies classes. Topics extend to less familiar national and international communities. Emphasis is placed on scaffolding language to support critical thinking. The major themes of society, politics and law, economy and technology and environment are explored.

ELL 2: SCIENCE APPLICATIONS

The purpose of ELL 2 Science Applications is to support literacy development for ELL students currently enrolled in regular science courses. Emphasis is placed on the development of all four language strands- listening, speaking, reading and writing. The focus is on the development of specific science literacy skills.

ENGLISH 10: LANGUAGE ADAPTED

While continuing to develop their proficiency in English, students will work towards meeting the outcomes of the English 10 curriculum. Students will develop a large vocabulary with which to express their ideas effectively and will be expected to write about and discuss literature in an increasingly critical and sophisticated manner. This course has a compulsory provincial exam that is worth 20% of the mark.

SOCIALS 10: LANGUAGE ADAPTED

While developing their proficiency in English, this course acquaints students with Canadian geography, history, government, law, culture, customs and current events. In addition, it allows students to explore Canada's role in the global community. A wide range of strategies will be used to teach students how to access, comprehend and process information and communicate their understanding through writing and oral presentations.

ELL 3: COMPOSITION 11

Composition 11 offers additional time and support to develop and refine writing and is highly recommended for students who have completed ELL levels 1 and 2 and will be taking regular English courses. This course

can be taken in conjunction with Language Adapted English 10 or English 11. This course will assist students in further developing their writing skills in a variety of genres and styles including: descriptive, narrative, expository, analytical and creative compositions. Students will also be encouraged to experiment with tone, voice and audience. This course will help students be better prepared for all of their courses (especially their English course) needed for graduation.

ENGLISH

HUMANITIES 8: ENGLISH

Students will take English and Social Studies every day from the same teacher and work on a blended curriculum. This interdisciplinary model will allow students to explore language arts and social sciences in a unique way. Students will explore the rise and fall of several major civilizations while developing their understanding of the diverse world of cultures that surround us. Students develop their skills at assessing documents (writings, drawings, records) for bias in order to understand history as more than a collection of facts. Students will also study short stories, poetry, novel(s), drama, and essays. Assignments will require that students write in a variety of formats and for a variety of purposes, and study skills will be addressed. Coherent paragraph development will also be emphasized, as well as an introduction to the essay.

DISCOVERY HUMANITIES 8: ENGLISH HONOURS

The Alpha Discovery program is an enriched honours program. It is designed for students who are interested in and capable of pursuing a more challenging course of study. Classroom instruction and activities focus on the examination of broad and compelling themes or ideas that are relevant to many areas of study in the Social Sciences and Humanities. While students who are accepted into this program need to be reasonably strong writers and enthusiastic readers, the curiosity and desire to explore ideas through engaged discussion and other activities are key qualities. Hands-on classroom activities, field trips (one or more each month) and guest presenters are significant components of the program.

ENGLISH 9

English 9 will provide students with a wide range of reading experiences. Students will study short stories, poetry, novel(s), drama, and essays. Assignments will require that students write in a variety of formats and for a variety of purposes. Coherent essay development will also be emphasized.

ENGLISH 9: HONOURS

This course is for the student who is interested in probing more deeply into Language and Literature. This course is particularly helpful if you wish to remain in the Honours stream during English 10, 11, or 12. While the skills (reading, writing, speaking, listening, presenting, working in groups, etc.) and the genres (stories, drama, poetry, novels, media education) are the same as the regular English 9 course, the literature studied is more challenging, as are some of the assignments. The criteria for grading are also the same as for the regular course.

**ALL of the following courses will include reading, writing,
speaking, listening, viewing, and representing:**

ENGLISH 10: LITERARY/ SPOKEN LANGUAGE

This course is designed to focus on literature of a particular era, geographical area, or theme. The course allows students to delve more deeply into literature as they explore specific themes, periods, authors, or areas of the world through literary works in a variety of media. Spoken language skills are increasingly necessary in everyday, educational, and professional contexts. Spoken Language 10 provides opportunities for students individually and collaboratively to study, create, and use language to produce original pieces in a variety of modes. The course will provide students with opportunities for performance and public speaking. It will

appeal to students who enjoy public performance or oral storytelling or who want to gain more experience and skill in this area.

The following are possible areas of focus in Spoken Language 10:

- performance — suggested content/topics include spoken word/slam poetry, poetry recitation, oral storytelling, readers' theatre, radio/podcasts/video posts
- oral tradition — suggested content/topics include oratory, local story knowledge, and oral history

ENGLISH 10: LITERARY / CREATIVE WRITING

This course is designed to focus on literature of a particular era, geographical area, or theme. The course allows students to delve more deeply into literature as they explore specific themes, periods, authors, or areas of the world through literary works in a variety of media.

Creative Writing 10 is designed for students who have an interest in creative expression through language. The course provides students with in-depth opportunities to become better writers through the exploration of personal and cultural identities, memories, and stories in a wide range of genres. Within a supportive community of writers, students will collaborate and develop their skills through writing and design processes, inviting students to express themselves creatively as they experiment with and refine their writing.

The following are possible areas of focus within Creative Writing 10:

- contemporary creative forms such as slam poetry, oratory, rap, drama, song, graphic novels
- creative non-fiction, historical fiction
- poetry, song lyrics
- multimodal creative forms that combine visual, written, and oral texts

ENGLISH 10: LITERARY / NEW MEDIA

This course is designed to focus on literature of a particular era, geographical area, or theme. The course allows students to delve more deeply into literature as they explore specific themes, periods, authors, or areas of the world through literary works in a variety of media.

New Media 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. Coursework is aimed at providing students with a set of skills vital for success in an increasingly complex digital world by affording opportunities to demonstrate understanding and communicate ideas through a variety of digital and print media.

The following are **possible** focus areas in New Media 10:

- media and film studies — suggested content/topics include the globalization of the media industry, influence of media on users' perceptions, documentaries in the age of digital media
- journalism and publishing — suggested content/topics include the changing roles and structures within news organizations; risks, challenges, and opportunities associated with professional journalism
- poetry, song lyrics
- digital communication — suggested content/topics include blogging/vlogging, writing for the web, writing for social media, podcasting

ENGLISH 10: HONOURS

This course is for the student who is interested in probing more deeply into Language and Literature. This course is particularly helpful if you wish to remain in the Honours stream during English 11 or English 12. While the skills (reading, writing, speaking, listening, presenting, working in groups, etc.) and the genres (stories, drama, poetry, novels, media education) are the same as the regular English 10 course, the literature studied is more challenging, as are some of the assignments. The criteria for grading are also the same as for the regular course.

ENGLISH 11: COMPOSITION

This course is designed for students who have an interest in developing their skills in written communication in a variety of contexts. It provides students with opportunities to think critically as they explore, extend, and refine their writing. Within a supportive community of writers, students will work individually and collaboratively to explore and create coherent, purposeful compositions. They will develop their craft through processes of drafting, reflecting, and revising to build a body of work that demonstrates breadth, depth, and evidence of writing for a range of situations. The course provides opportunities for diverse learners to be supported in developing and refining their writing abilities.

The following are possible areas of focus within Composition 11:

- narrative, expository, descriptive, persuasive, and opinion pieces
- planning, drafting, and editing processes
- writing for specific audiences and specific disciplines
- learning how to cite sources, consider the credibility of evidence, and evaluate the quality and reliability of the source

ENGLISH 11: CREATIVE WRITING

Creative Writing 11 is designed for students who have an interest in creative expression through language. The course provides students with in-depth opportunities to become better writers through the exploration of personal and cultural identities, memories, and stories in a wide range of genres. Within a supportive community of writers, students will collaborate and develop their skills through writing and design processes, inviting students to express themselves creatively as they experiment with and refine their writing.

The following are possible areas of focus within Creative Writing 11:

- contemporary creative forms such as slam poetry, oratory, rap, drama, song, graphic novels
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- multimodal creative forms that combine visual, written, and oral texts

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- media and film studies — suggested content/topics include the globalization of the media industry, influence of media on users' perceptions, documentaries in the age of digital media
- journalism and publishing — suggested content/topics include the changing roles and structures within news organizations; risks, challenges, and opportunities associated with professional journalism
- poetry, song lyrics
- digital communication — suggested content/topics include blogging/vlogging, writing for the web, writing for social media, podcasting

ENGLISH 11: HONOURS/ENGLISH LITERATURE 12

This course is for the student who is interested in probing more deeply into Language and Literature. Students who are in the honours stream will take this course in their grade 11 year in order to prepare them for English

12 Honours or AP English Literature and Composition 12. While the skills (reading, writing, speaking, listening, working in groups, etc.) and the genres (stories, drama, poetry, novels, media education) are the same as the regular English 11 course, the literature studied is more challenging, as are some of the assignments. The criteria for grading are also the same as for the regular course.

COMMUNICATIONS 11

This is a practical course focusing on the use of English in everyday life. It is designed for students who would have difficulty being successful in the regular English courses.

FILM STUDIES 11

In this introduction to visual storytelling, students will explore a variety of film genres and styles. As movies are visual narratives, they can be “read” or interpreted like novels, plays and poems; therefore, this course will be conducted much like an English class, with many of the same goals: to develop an appreciation of artistic expression, to hone analytical and critical thinking skills, and to articulately express thoughts and ideas. Film Studies 11 is an elective course and does not replace English 11.

ENGLISH 12

In English 12, students will develop a critical vocabulary with which to respond to literature, both in writing and in discussion. The principal materials studied will be short stories, poetry, novels, essays, and plays. Students should leave this course with the ability to write an insightful and well-organized essay and use descriptive or narrative techniques effectively. *This course has a compulsory provincial exam worth 40% of the mark.*

COMMUNICATIONS 12

This is a practical course focusing on the use of English in everyday life. It is designed for students who would have difficulty being successful in the regular English courses. *This course has a compulsory provincial exam that is worth 40% of the mark.*

ENGLISH LITERATURE 12

English Literature 12 offers senior students the opportunity to examine and appreciate the rich literary heritage of English speaking peoples. Reading widely is an important factor for an educated mind. By reading works that are sophisticated in thought and style, English Literature 12 students strengthen their aesthetic appreciation and critical judgement. The curriculum covers selections from the Western Canon for each of the following periods: Middle Ages, Renaissance, Restoration, Romantic Age and Victorian Age. This course seeks to view literature in the context of history, politics and philosophy, and shows the progress of ideas in western civilization. English Literature 12 is an elective course and does not replace English 12.

SOCIAL STUDIES

HUMANITIES 8: SOCIALS

Students will take English and Social Studies every day from the same teacher and work on a blended curriculum. This interdisciplinary model will allow students to explore language arts and social sciences in a unique way. Students will explore the rise and fall of several major civilizations while developing their understanding of the diverse world of cultures that surround us. Students develop their skills at assessing documents (writings, drawings, records) for bias in order to understand history as more than a collection of facts. Students will also study short stories, poetry, novel(s), drama, and essays. Assignments will require that students write in a variety of formats and for a variety of purposes, and study skills will be addressed. Coherent paragraph development will also be emphasized, as well as an introduction to the essay.



DISCOVERY HUMANITIES 8: SOCIALS HONOURS

The Alpha Discovery program is an enriched honours program. It is designed for students who are interested in and capable of pursuing a more challenging course of study. Classroom instruction and activities focus on the examination of broad and compelling themes or ideas that are relevant to many areas of study in the Social Sciences and Humanities. While students who are accepted into this program need to be reasonably strong writers and enthusiastic readers, the curiosity and desire to explore ideas through engaged discussion and other activities are key qualities. Hands-on classroom activities, field trips (one or more each month) and guest presenters are significant components of the program.

SOCIAL STUDIES 9

Students will study how emerging ideas and ideologies changed the landscape of Europe, North America and around the globe, impacting political, social and economic landscapes. Revolutions and rebellions are a major topic of interest, including events in Europe and North America, and the impact these had on migrating peoples and indigenous peoples. Along with the physiographic regions of Canada, the other major component is the Development of Canada as a nation, how its identity was created in the first fifty years after Confederation, and how that impacted our relationship with First Peoples, our American neighbours, and European contacts. This historical context will be compared to modern-day conflicts and challenges that face Canada today, such as immigration and trying to come to terms with historical wrongs. This content is interwoven with the key skills students will need to look critically at our changing world, such as document analysis, map interpretation, synthesizing ideas and defending opinions.

SOCIAL STUDIES 9: HONOURS

The Honours option for Social Studies 9 looks to provide opportunities to dig deeper into the topics shared by all Social Studies 9 students. The purpose is Honours 9 is to open doors to students that wished to be challenged, by looking at some of the more complex issues in studying the past and looking at modern day Canada. Students will study the same key content areas as Social Studies 9 students, and will be learning and building the same skills. The goal will be to develop citizens who have a deeper understanding and appreciation of the events of the past and can apply those lessons to the complexity of today.

SOCIAL STUDIES 10

Social Studies 10 covers much of the same material as Social Studies 11 used, as that course is being phased out. Student will build on skills learned in grade 8 and 9 to develop a greater understanding of more difficult and abstract ideas that have impacted Canada over the last one hundred years. Many of the problems of the modern world, such as climate change, economic disparity, and political and social turmoil are a result of or can be compared to events in the 20th Century. Key issues concerning political institutions and ideologies, First Peoples self-governance, and discriminatory policies will be examined, in conjunction with Canada's role in global affairs as they look at economic inequality and development, the human-environment interaction, and other population pressures.

SOCIAL STUDIES 10: HONOURS

The Honours option for Social Studies 10 looks to provide opportunities to dig deeper into the topics shared by all Social Studies 10 students. The purpose is Honours 10 is to open doors to students that wished to be challenged, by looking at some of the more complex issues in studying the past and looking at modern day Canada. Students will study the same key content areas as Social Studies 10 students, and will be learning and building the same skills. The goal will be to develop citizens who have a deeper understanding and appreciation of the events of the past and can apply those lessons to the complexity of today.

SOCIAL STUDIES 11

Through their continued use of critical thinking skills, students will develop a greater understanding of global issues regarding economic disparity, social inequities and environmental degradation. They will exercise their ability to research issues for debate along themes of individual rights and responsibilities in Canadian society while gaining understanding of their role as active citizens influencing government and public policy.

Students also will understand how key events such as the two world wars, the Depression, and the Cold War influenced Canadian autonomy in the world. The historical roots of regional, ethnic and gender conflict in Canada help students to understand the Canadian identity.

HISTORY 12

This course looks at the major events of the 20th century, with a focus on European events, including the various political systems. Beginning with the aftermath of World War I and carrying through to the Cold War and the nuclear arms race, students will have the opportunity to discuss the many strong personalities and sometimes frightening events of this period. In addition, students will be introduced to the Asian powers and this century's conflicts in Southeast Asia, Afghanistan, the Middle East and China.

GEOGRAPHY 12

Students understand the topics of resources and resource management through studying people's interaction with an ever-changing environment. Humans affect their world through agricultural systems, biotechnology, mining and forestry and are in turn impacted by those environments through environmental degradation and natural disasters. The physical processes that affect the earth form the basis of students' understanding. Topics include plate tectonics, volcanism, earth-quakes, landscapes of the world, climate, weather, map skills, vegetation, and soils.

COMPARATIVE CIVILIZATIONS 12

This is an academically based survey course designed to provide students with an understanding and appreciation of features and accomplishments of past civilizations. Studies in disciplines such as art, architecture, philosophy, religion, technology and governance are included. The course looks at both European and non-European civilizations over a wide range of countries and periods in history.

LAW 12

The course will provide a comprehensive introduction to law and legal process, particularly as they relate to the Canadian justice system. In addition to discussing the basic components of the law, the course will explore some of the major legal issues facing Canadians, including the parole system, young offenders and juvenile justice, and constitutional rights under the Charter. The course also includes a variety of classroom activities, which supplement the course material. Field trips, guest speakers, films, and documentaries all add to the course. Reading, writing and research skills are essential to student success. Students will analyze actual legal cases utilizing decision making techniques with their legal knowledge to determine case outcomes.

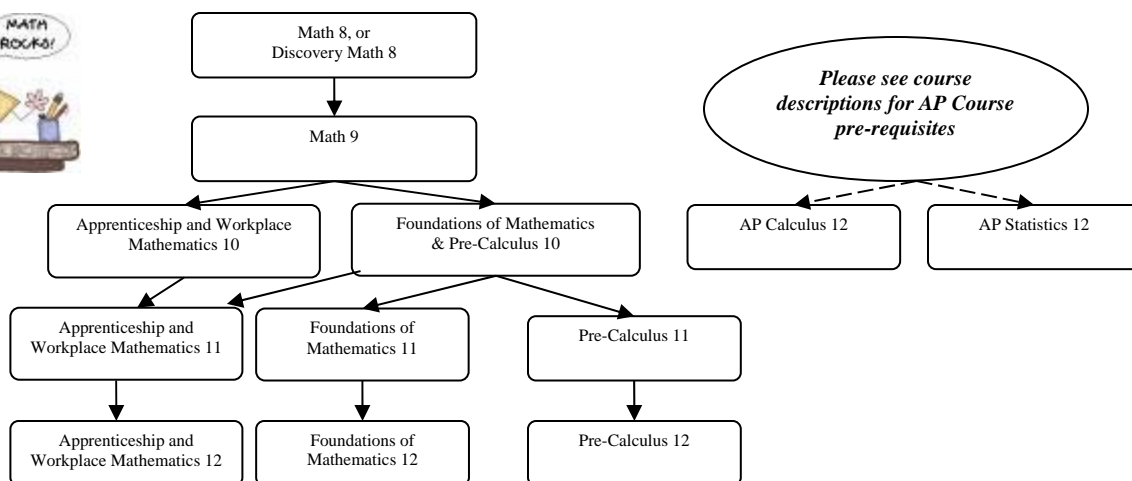
SOCIAL JUSTICE 12

Social Justice 12 is open to students in Grades 11 and 12. Grade 12 students will be given priority if there is limited space. The course has three focus areas: "defining social justice", "recognizing, confronting and overcoming injustice", and "moving toward a socially just world". Students will be active participants in class discussions, will research issues of injustice, and will develop an action plan to address a selected issue. This will be a stimulating course for students interested in taking the initiative to direct their own learning and to use their acquired knowledge and skills to help create a socially just world.

PSYCHOLOGY 12

Psychology 12 is a course on human behaviour and basic concepts in modern psychology. This course covers the five major psychological domains: methods, bio-psychological, cognitive, developmental, and socio-economic domain. This course is recommended for those students who have an interest in Psychology and wish to pursue it further at a post-secondary institution. The focus of this course is to develop students' abilities with critical thinking, essay writing, research and experimental methods, academic reading, and oral presentations.

MATHEMATICS



SCIMATICS 8: MATHEMATICS

Students will take Math and Science from the same teacher. The course will utilize a variety of learning strategies including laboratory work, projects, and individual and small group work. Students will also receive several field experiences to enhance their learning in both curricular areas. Math topics will include algebra, geometry, graphing, and an introduction to trigonometry, while the Science component will include: cells and systems, optics, fluids and dynamics, and water systems on Earth.

DISCOVERY SCIMATICS 8: MATHEMATICS HONOURS

The Alpha Discovery program is an accelerated honours program. It is designed for students who are interested in and capable of pursuing a more challenging course of study. Classroom instruction and activities focus on the examination of broad themes or ideas that are relevant to many areas of study in both Science and Mathematics. Students will cover the Science 8 and Science 9 curriculum in one year. The Math 8 curriculum will be covered with in-depth enrichment exercises. Hands-on classroom activities, and projects are significant) and guest presenters are significant components of the program. This course may include dissection of preserved or fresh biological specimens. If you have any questions or, if for any reason you would prefer your son or daughter not participate in this experience, please contact the classroom teacher.

MATHEMATICS 9

This is the standard Mathematics course for entrance into all three of the senior mathematics pathways. The course includes the study of algebra, geometry and graphing, and an introduction to trigonometry.

MATHEMATICS 9: HONOURS

This course has the same learning outcomes and texts as the standard Math 9 course but also include a significant enrichment component. Students explore non-routine problems and prepare to participate in Mathematics competitions.

FOUNDATIONS OF MATH & PRE-CALCULUS 10

This course is intended for students who wish to continue their education after graduation in the fields of Science, Engineering, Language Arts, Fine Arts and other courses offered at post-secondary degree and diploma granting institutions. The basis of this course is both theoretical and applied mathematics focussing on algebra, number systems, relations and functions, and measurement. (The Honours course includes an enrichment component).

FOUNDATIONS OF MATH & PRE-CALCULUS 10: HONOURS

This course is intended for students who wish to continue their education after graduation in the fields of Science, Engineering, Language Arts, Fine Arts and other courses offered at post-secondary degree and diploma granting institutions. The basis of this course is both theoretical and applied mathematics focussing on algebra, number systems, relations and functions, and measurement. (The Honours course includes an enrichment component).

APPRENTICESHIP & WORKPLACE MATHEMATICS 10

Through more exploratory and real-world applications, this pathway introduces concepts of measurement systems, number systems and algebra. The intent for this course is to provide a strong basis of numerical knowledge for those wishing to continue their post-secondary education in apprenticeship and trade institutions. Apprenticeship and Workplace Mathematics 11 meets the graduation requirements as set out in Ministry of Education documents.

FOUNDATIONS OF MATHEMATICS 11

Foundations of Mathematics is intended for students who wish to continue their post-secondary education in Language Arts or Fine Arts. It has a focus on measurement, relations and functions, algebra and number systems. Foundations of Mathematics 11 completes the graduation requirements for Mathematics.

PRE-CALCULUS 11

Pre-calculus 11 provides students with opportunities to explore the concepts introduced in Foundations and Pre-Calculus Math 10 in more depth. This course is intended for students who are interested in enrolling in such programs as business, science, engineering and human kinetics. Students studying this course experience a rigorous analysis of all the elementary functions, number systems, curve-sketching and algebra and those who successfully master the course content may register to take Pre-Calculus 12.

APPRENTICESHIP & WORKPLACE MATHEMATICS 11

This pathway is strongly recommended for students who are planning on entering the workforce directly after high school, or who are planning on pursuing a career in the trades industries. It provides a practical, contextual focus that encourages students to develop their mathematical knowledge, skills, and attitudes in the context of their lives and possible careers. Topics covered include trigonometry, rate of change, graphical analysis, geometry, measurement, banking and budgets. This course satisfies the Ministry of Education's mathematics graduation requirement

FOUNDATIONS OF MATHEMATICS 12

This course is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in the arts or the humanities. Topics in this course involve the study of puzzles, compound interest and investment portfolios, set theory, probability, polynomial exponential logarithmic and sinusoidal functions, current events in math.

PRE-CALCULUS 12

This course is for students who will study calculus in a post-secondary institution in such areas as Mathematics, Business, Sciences, or Engineering. This course includes the following topics: combinatorics, binomial expansion, composite functions, transformations of graphs, exponential and logarithmic functions, polynomial factoring, radical and rational functions, trigonometry, equations and identities.

APPRENTICESHIP & WORKPLACE MATHEMATICS 12

This course is specifically designed to provide students with the mathematical understandings and critical-thinking skills identified for a career in the trades industries, or for direct entry into the work force. Topics include the following: purchasing vehicles, small business liability, polygons, geometric transformations,

number puzzles, precision and accuracy of instruments, probability, linear relations, central tendency, sine and cosine law.

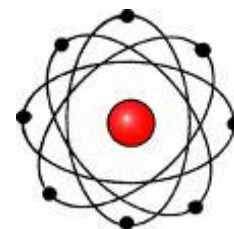
CALCULUS 12

Calculus 12 will introduce the student to the fundamentals of differentiation and integration along with applications. Topics include graphing, maxima and minima, related rates, areas, volumes and exponential functions. This course is an excellent introduction to university level Calculus. Students interested in post-secondary studies in Math, Business, Science, or Engineering should consider Calculus in preparation for post-secondary studies in these areas.

SCIENCE

SCIMATICS 8: SCIENCE

Scimatics 8 is a linear course (September–June) with the objective of developing effective work habit strategies, scientific experimentation methods and problem solving skills. Math topics focus on algebra, geometry, graphing, fractions and integers. New Science curricular components focus on cells, kinetic molecular theory, energy transfer and plate tectonics.



DISCOVERY SCIMATICS 8: SCIENCE HONOURS

Admission to Alpha's Discovery program is based on a pre-assessment from both the student's elementary teacher and a written test administered at Alpha (usually in the spring of the student's Grade 7 year). The course is an accelerated linear course (September–June) covering Science 8, Science 9 and Math 8 curriculum. This course is designed for students who are interested in and capable of pursuing a more challenging course load at an accelerated pace. The science curriculum will include enrichment with specialized field trips and presentation of a Science Fair project.

SCIENCE 9

New Science 9 curricular components focus on cell growth and reproduction, electron arrangement of the atom, current and static electricity, and energy flow in ecosystems.

SCIENCE 9: HONOURS

Students in Science 9 Honours are integrated with the regular Science 9 class. The curriculum is the same as the Science 9 with the addition of independent research topic(s) of interest through further scientific study. Students will consult with their teacher and discuss an individual plan to enrich their own learning. After successful completion of the criteria, students may be eligible to receive Honours designation on their report cards. Success in Honours means completing requirements independently, meeting deadlines, and checking in regularly with their teacher.

SCIENCE 10

Science 10 has four major units: Genetics, Chemical Processes, Energy Transfer and Big Bang Theory. Students will use an inquiry based approach to learn the 4 main units.

SCIENCE 10: HONOURS

The Science 10 Honours course follows the curricular areas of Science 10 but topics will be covered in more depth. This course is to prepare students for the senior level Advanced Placement courses (Biology, Chemistry and Physics) with extra lab work and enrichment in materials of the regular course.

SCIENCE & TECHNOLOGY 11

This course allows the students to explore science and its application through technology. Students will study the following topics through a “hands-on” approach: human biology, genetics, forensic science, energy resources and computer technology. Lastly, students will be presented with challenges and using their own problem-solving skills, will have to rise to meet the challenges.

EARTH SCIENCE 11

This is a survey course that explores the Earth and its environment in space through lab and field experiences. Earth science topics include rocks and minerals, plate tectonics, volcanoes, earthquakes, ocean and weather sciences, and oil, gas and mineral exploration. Space science topics include planets and the solar system, stars, galaxies, and deep space objects such as quasars and black holes.

BIOLOGY 11

Biology 11 is designed to introduce students to the diverse adaptations and ecological relationships in a variety of living organisms. This course covers microbiology, mycology (fungus), plant biology, animal biology and ecology with themes of evolutionary change throughout the course.

BIOLOGY 11 HONOURS and AP BIOLOGY 12 (*students must choose both*)

This program is designed to cover both semesters so students must request both courses. The two courses cover the objectives of Biology 11 and 12 as well as additional material for Advanced Placement. The AP Biology course is designed to be the equivalent of a college introductory biology course and is open to any students who are prepared to do extensive inquiry based research and labs. More than 25% of the course is practical laboratory work. *Upon completion, students will receive a total of 12 credits. The AP Biology exam is written in May.*

CHEMISTRY 11

Chemistry 11 includes the study atoms, molecules, chemical reactions, solution chemistry and organic chemistry. These concepts are reinforced through laboratory work

CHEMISTRY 11 HONOURS and AP CHEMISTRY 12 (*students must choose both*)

This program is designed to cover both semesters so students must request both courses. The two courses cover the objectives of Chemistry 11 and 12 as well as additional material for Advanced Placement. The AP Chemistry course is designed to be the equivalent of a college introductory chemistry course. College Board guidelines are followed in the design of the course. Many topics in Chemistry 11 and 12 are covered in more detail than in the regular course. In addition, topics such as thermodynamics and thermo chemistry are studied. *Upon completion, students will receive a total of 12 credits. The AP Chemistry exam will be written in May.*

PHYSICS 11

Welcome to the world of Galileo, Isaac Newton and Albert Einstein! These giants of physics teach us how to see the invisible forces and energies that govern movement of cars and spaceships alike. This course includes the study of motion, forces, momentum and energy, the properties of mirrors, lenses, waves and light, as well as nuclear power and Einstein's special theory of relativity.

PHYSICS 11 Honours and AP PHYSICS 1 (*students must choose both*)

This program is designed to cover both semesters so students must request both courses. This is a first-semester college/university level course that is mathematically rigorous, requiring problem-solving at a Physics 12 level. The course is faster-paced than Physics 11 and individual study of 1 to 2 hours daily will be necessary to successfully complete the requirements. Students will be accepted on the recommendation of their teachers and an application process. The course is also suitable for grade 12's who only need one physics course.

BIOLOGY 12

Biology 12 encompasses two major topics of study: Cellular Biology: cell structure/function, biological molecules DNA, protein synthesis and enzymes; and Human Anatomy and Physiology: digestive, circulatory, respiratory, nervous, endocrine, excretory and reproductive systems.

CHEMISTRY 12

Chemistry 12 builds on concepts covered in Chemistry 11 and emphasizes the interaction of atoms, molecules, and ions. The course covers the study of reaction kinetics, chemical equilibrium, and oxidation-reduction. The concepts are reinforced through laboratory work. Through this investigation, students will gain an increased understanding of the importance of chemistry in the modern world.

PHYSICS 12

Physics 12 is the study of classical mechanics and electromagnetism. Topics are similar to Physics 11 with the addition of projectile and circular motion and torque, electricity and electromagnetism. Are you up for a challenge? Problem-solving is mathematically much more rigorous than in Physics 11, and takes much more time every night to get the same good grades.

LANGUAGES

FRENCH 8

This course builds upon the background students have acquired at elementary school. Basic vocabulary and grammar structures are reviewed and reinforced as a basis for communication in situations drawn from real-life. Students are taught to use language learning strategies to help them understand spoken and written French. They will be expected to participate in short conversations, give presentations and exchange information about their interests and activities. Language is taught within the context of age appropriate themes, with a large emphasis on listening and speaking.

FRENCH 9

This course builds upon the knowledge, skills and language learning strategies acquired in French 8. There is an increased emphasis on listening, speaking, reading and writing. In this course, students will use French to participate in short conversations, ask for and share information about activities and interests, listen to French audio scripts, read various texts and express themselves in the written language. Communication is centered on age-appropriate themes. Students will discover aspects of Francophone culture around the world.

SPANISH 9

This course is an introduction to the Spanish language. Emphasis is on listening, speaking, reading and writing. Opportunities are provided for students to participate in short conversations, ask for and share information about activities and interests, listen to authentic audio scripts, watch films, read various texts and express themselves in the written language. Communication is centered on age-appropriate themes. Students will discover aspects of the Spanish-speaking world and its culture.

FRENCH 10

This course reviews and builds upon the French 9 program. By the end of this course, students will have increased confidence in understanding and communicating in French. Grammar and vocabulary are taught within the context of engaging themes, allowing for individual expression, through a variety of written and performance based tasks. Students will also explore Francophone culture around the world.

SPANISH 10

This course builds upon the knowledge, skills and language learning strategies acquired in Spanish 9. There is an increased emphasis on listening, speaking, reading and writing. By the end of this course, students will have greater confidence in understanding and communicating in Spanish. Grammar and vocabulary are taught within the context of engaging themes, allowing for individual expression, through a variety of written and performance based tasks. Students will explore the Spanish-speaking world and its culture.

FRENCH 11

This course reviews and builds upon the French 10 program, with an emphasis on written communication and reading comprehension. By the end of this course, students will be able to use French to complete a variety of written and performance based tasks. Grammar and vocabulary are taught more extensively, in order to clarify and enhance communication skills. Students will continue to explore Francophone culture around the world. This course satisfies university entrance requirements.

SPANISH 11

This course provides further development in listening, speaking, reading and writing. It builds upon the knowledge, skills and language learning strategies acquired in Spanish 10 or Intro. Spanish 11. By the end of this course, students will be able to use Spanish to complete a variety of written and performance based tasks. Grammar and vocabulary are taught more extensively, in order to clarify and enhance communication skills. Students will examine Spanish-speaking culture around the world. This course satisfies university entrance requirements.

INTRODUCTORY SPANISH 11

This course is open to students looking for a challenging introductory language course; curriculum is presented at an accelerated pace. Language and culture is explored through engaging themes aimed at meeting the needs of all learners. Learning outcomes are taught within the context of real life situations, allowing for individual expression through a variety of written and performance based tasks. This course satisfies some university entrance requirements and is a prerequisite for Spanish 11.

FRENCH 12

This course will provide increased opportunity to develop all four skills in listening, speaking, reading and writing. Grammar and vocabulary are taught within motivating themes that promote critical thinking and creative expression. Instruction will often be in French, and students will be encouraged to use French as the routine language of communication. Students will examine Francophone culture around the world. This course has an optional provincial exam.

SPANISH 12

This course will provide increased opportunity to develop all four skills in listening, speaking, reading and writing. Grammar and vocabulary are taught within motivating themes that promote critical thinking and creative expression. Instruction will often be in Spanish, and students will be encouraged to use Spanish as the routine language of communication. Students will examine Spanish-speaking culture around the world. This course has an optional provincial exam.

*If student interest is sufficient, the following languages may be offered:
Mandarin, Japanese, Croatian, Italian, Korean and Punjabi.*

PHYSICAL EDUCATION

PHYSICAL & HEALTH EDUCATION 8

This course will introduce students to a wide variety of sporting, recreational, and fitness activities enabling them to further develop their fundamental movement skills and contribute to their physical growth and development. Students will also have the opportunity to participate in alternate environment activities to build their understanding and appreciation for the components of active living such as skating, bowling and a year-end trip to Cultus Lake Waterpark. In addition, students will be introduced to health literacy units that promote healthy eating choices. Students will learn about the anatomy of bones and muscles and will read/discuss case studies about bullying and cyberbullying. These educational experiences will allow each student to learn and understand the importance of fundamental movement skills that may transfer to different activities and concepts of being healthy and the importance of mental health.



PHYSICAL & HEALTH EDUCATION 9

The course is a continuation and progression of Physical and Health Education 8 with more attention given to healthy relationships with one another and an extension to the nutrition unit. In addition, students are provided opportunities to participate in alternate environment activities which may include skating, bowling, traditional Kung-Fu, self defense, yoga, and table tennis. This course will continue to build on transfer of fundamental skills to activities done in PHE and further enhance the understanding of being healthy and the importance of mental health.

PHYSICAL EDUCATION 10

The Physical Education 10 course builds upon PHE 9, enabling students to explore many alternate activities, yet still developing their fundamental movement skills. In this course, they will be given the opportunity to explore activities such as skating, bowling, golf, hip-hop dance classes and a CPR/First Aid certification course lead by Firefighters in Burnaby. In addition, students will have discussions about making healthy living choices through active health units. Students will to explore, learn and understand the concepts of physical and health literacy and emphasize the importance of self-awareness and mental health.

PHYSICAL EDUCATION 11

This course progresses from the PE 10 program and offers students the chance to participate in a wider variety of sporting and recreational activities. The senior PE program combines aspects of the junior program with an increasing focus on lifelong recreational pursuits. This course is a good choice for those who enjoy ACTIVELY participating in individual or team sports, recreational and/or competitive activities. Field trips in this course could include bowling, laser tagging, bubble soccer, kayaking, indoor/beach archery and the Grouse Grind. Students are provided with leadership opportunities throughout this course such as planning and running an activity, visiting a junior PHE class to lead activities or with approval, visit a local elementary school to run low organized activities/games with elementary students. This course emphasizes healthy lifestyles and teaches students to stay active after they graduate from Alpha Secondary.

PHYSICAL EDUCATION 11 – KEEP FIT

This course focuses on fitness, recreational activities, and health related topics of specific interest to students in grade 11. Topics explored could include physical activity and exercise, self-esteem, nutrition, stress management, weight management, healthy eating and healthy lifestyles. Students are offered opportunities to participate in a wide variety of activities which may include weight-

training, Pilates, yoga, Zumba, dance, minor games, kayaking, hiking and more. In addition, students will develop a personalized fitness routine targeting their interests and goals. This course is a good choice for students who prefer recreational activities over competitive activities and learning about topics related to their health and well-being.

WEIGHT TRAINING 11

This course is a good choice for students wanting to learn how to train and improve their physical fitness levels including muscular strength/endurance, flexibility, cardiovascular endurance, speed, balance, power and agility. The majority of the course will take place in the weight room with periodic classroom sessions covering a number of topics that include physiology of exercise, nutrition, performance supplements, goal setting (FITT principle) and the basics of individual program design. Students will learn the basics of the different types of training equipment, weight room etiquette, training techniques and safety in the weight room. This course will emphasize students to maintain the importance of personal fitness when they graduate from Alpha Secondary.

PHYSICAL EDUCATION 12

This course progresses from the PE 10 program and offers students the chance to participate in a wider variety of sporting and recreational activities. The senior PE program combines aspects of the junior program with an increasing focus on lifelong recreational pursuits. This course is a good choice for those who enjoy actively participating in individual or team sports, recreational and/or competitive activities. Field trips in this course could include bowling, laser tagging, bubble soccer, kayaking, indoor/beach archery and the Grouse Grind. Students are provided with leadership opportunities throughout this course such as planning and running an activity, visiting a junior PE class to lead activities or with approval, visit a local elementary school to run low organized activities/games with elementary students. This course emphasizes healthy lifestyles and teaches students to stay active after they graduate from Alpha Secondary.

PHYSICAL EDUCATION 12 – KEEP FIT

This course focuses on fitness, recreational activities, and health related topics of specific interest to students in grade 12. Topics explored could include physical activity and exercise, self-esteem, nutrition, stress management, weight management, healthy eating and healthy lifestyles. Students are offered opportunities to participate in a wide variety of activities which may include weight-training, Pilates, yoga, Zumba, dance, minor games, kayaking, hiking and more. In addition, students will develop a personalized fitness routine targeting their interests and goals. This course is a good choice for students who prefer recreational activities over competitive activities and learning about topics related to their health and well-being.

WEIGHT TRAINING 12

This course is a good choice for students wanting to learn how to train and improve their physical fitness levels including muscular strength/endurance, flexibility, cardiovascular endurance, speed, balance, power and agility. The majority of the course will take place in the weight room with periodic classroom sessions covering a number of topics that include physiology of exercise, nutrition, performance supplements, goal setting (FITT principle) and the basics of individual program design. Students will learn the basics of the different types of training equipment, weight room etiquette, training techniques and safety in the weight room. This course will emphasize the importance of personal fitness for students when they graduate from Alpha Secondary.

VISUAL & PERFORMING ARTS

DANCE COURSES

DANCE 9

Students of all ability levels will come to understand how dance concepts add depth, variety and complexity to movement. Students will progressively learn physical skills, technique and principles of movement in order to increase the variety of combinations that the movements may be performed in. There will be opportunities for students to apply imagination and inventiveness to their movement as they work cooperatively to create and perform short pieces in class



DANCE 10: PERFORMANCE

This course continues to develop the technique and skills as a dancer. With a solid foundation of dance techniques, students will be able to explore and enjoy a variety of dance styles and genres. Students will also work on performance skills such as focus, precision, and stage presence. This course will involve students in the creative process of exploration, refinement and reflection on movement elements and require them to present and perform students and teacher developed choreographies.

DANCE COMPANY 10 *(Offered outside the timetable)*

This performance based class is considered an honours class for students who are highly motivated and dedicated to train in Dance. Students will explore and perform different genres of dance, such as Hip Hop, Tap, Flamenco, Jazz, Lyrical, Contemporary and Ballet. Emphasis will be placed on performance skills and technique.

DANCE 11: PERFORMANCE

This course will focus on Choreography and Performance by providing students with an opportunity to create dance pieces for formal and informal stages. Students are expected to be committed and work hard as dance is demanding, but very rewarding. Students will continue to sharpen their technical skills, study various styles and explore the history of dance.

DANCE COMPANY 11 *(Offered outside the timetable)*

This performance based class is considered an honours class for students who are highly motivated and have also had previous experience with Dance classes or Dance Team. This class will explore and perform different genres of dance, such as Hip Hop, Tap, Flamenco, Jazz, Lyrical, Contemporary and Ballet. Emphasis is placed on performance skills, technique, terminology, understanding of theory and context of dance performance. It is strongly recommended that students take an additional dance class, either Dance Performance 11 or Choreography 12 to help with their overall learning.

DANCE 12: PERFORMANCE

This course will focus on Choreography and Performance by providing students with an opportunity to create dance pieces for formal and informal stages. Students are expected to be committed and work hard as dance is demanding, but very rewarding. Students will continue to sharpen their technical skills, study various styles and explore the history of dance

DANCE 12: CHOREOGRAPHY

Intermediate to advanced dancers will thrive in this progressive class that includes many elements of technique, group composition and individual choreography work. Ample opportunity for performance will be provided. Students will improve technical skills/knowledge and awareness of composition. Through problem, solving, critiquing and performance students will increase their understanding of creative and artistic development.

DANCE COMPANY 12 (*Offered outside the timetable*)

This performance based class is considered a master class for students who are highly motivated and have also had previous experience with Dance classes or Dance Team. This class will explore and perform different genres of dance, such as Hip Hop, Tap, Flamenco, Jazz, Lyrical, Contemporary and Ballet. Emphasis is placed on performance skills, technique, terminology, understanding of theory and context of dance performance. This class explores skills necessary to participate as a dance performer.



DRAMA COURSES

DRAMA 8

This introductory course provides students with opportunities to experience, understand, and value the language and art of both drama and dance. The Drama portion of the course will encourage students to trust themselves and others while learning the fundamentals of theatre and the elements of basic acting. Students will explore the elements of drama through warm up games, improvisation, and role-playing. As well, students will learn the general rules of the stage, such as staging, blocking, voice, gestures and movement. In the Dance portion of the course, students will explore movement; build rhythm, strength, co-ordination and flexibility through daily warm-ups, exercises and combinations. Through dance, students will reflect on experiences and explore creative expression while being introduced to dance vocabulary, as well as techniques from different styles of dance, such as hip-hop, jazz, tap, etc.

DRAMA 9

Drama 9 develops student's knowledge, skills and experiences in drama with projects, group activities and games and script work. Through performance opportunities and basic script work, students increase personal development and communication skills. This fun class is open for both new and returning drama students.

DRAMA 10

This course is a creative dramatics course with an emphasis on personal and social development, concentration, trust and cooperation. We will study some of the basic techniques of improvisation and role-playing to create theatre. As well, we will cover the general rules of the stage, such as staging and blocking, voice, gestures and movement. We use a variety of techniques such as theatre games, improvisation, role-playing, storytelling, description, observation and critique. This course will cover the fundamentals of theatre, the elements of basic acting as well as preparing roles through simple character development. We will do some script work but mostly group and ensemble work.

THEATRE PRODUCTION 10/11/12 (*Offered outside the timetable*)

This course will be offered outside the regular timetable. Students enrolled in this course will take part in major productions at Alpha Secondary, which will be performed for students and public audiences. Students will also study stagecraft and production skills, attaining knowledge in lights, costumes, sound, and set. No experience or prerequisite necessary: hard work and commitment is all it takes. Classes will run 2 or 3 days after school, involve show rehearsals, and performance evenings.

THEATRE PERFORMANCE 11/12: ACTING

This course continues with improvisation and learning stage blocking, voice projection, movement etc., but also shifts from role playing and improvisational exploration to a greater emphasis on the art of acting and tools and techniques of basic technical theatre. You will work with scripts and study some technical aspects of theatre. Personal awareness and self-discipline play an important role in this course.

THEATRE PERFORMANCE 11/12: DIRECTING & SCRIPT DEVELOPMENT

Students enrolled in this class will be responsible for the selection and direction of scenes and short one act plays. They will participate in an acting class in a performance capacity. Students will also take a leadership

role in devising and editing scripts, auditioning, casting and rehearsing actors, and contributing to the design of sound, costume, lights and sets for class productions.



MUSIC COURSES

MUSIC 8: BEGINNER BAND

This course is an introduction course in which students are introduced to the technique, rudiments, and maintenance of a selected band instrument. Concepts such as articulation, embouchure, blend, balance, tone and style are introduced to form a foundation of musical awareness that encourages expression, reflections and performance. Students should choose Beginner Band 8 if they have no previous experience with an instrument.

MUSIC 8: CONCERT BAND

This course is intended for students who have already taken Elementary Grade 7 Band course. The course will involve instrumental technique, performance, theory, music history and music appreciation as they relate to the repertoire studied. Students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations.

CHORAL 8: CHOIR (*Offered outside the timetable*)

Choir 8 is intended as an introductory choral experience. While no prior experience is required for this course, previous participation in choir would be an asset. Students will develop music-reading skills, knowledge of music and vocal technique through the performance in choir. Choir is at 7:20 a.m. on alternate days throughout the school year.

MUSIC 9: CONCERT BAND

This course is intended for students who have taken Junior Band course in Grade 8. The course will involve instrumental technique, performance, theory, music history and music appreciation as they relate to the repertoire studied. Students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations.

CHORAL 9: CHOIR (*Offered outside the timetable*)

The course will cover basic singing technique, music reading, repertoire understanding, performance and the responsibilities, which go along with working in a group situation. As with all music activities, members of this class should expect that part of their learning situation will involve a commitment to regular home practice and extra-curricular activities. Students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations. Choir is at 7:20 a.m. on alternate days throughout the school year.

MUSIC 9: JAZZ BAND (*Offered outside the timetable*)

Students will gain a general knowledge of jazz styles and interpretation, as well as the techniques and rhythms unique to jazz. Students will learn fundamental jazz improvisation skills. Instruments are: trumpet, trombone, saxophone (alto, tenor, bari) and rhythm section (piano, bass, drums, and guitar). All Jazz Band students must be registered in Concert Band as well. Please see your music teacher if you are interested in this course.

MUSIC TECHNOLOGY 10

This course is a unique music composition class at Alpha, with a focus on technology. This course is intended for students who have some background in a band program or private piano study for at least two years. Students will learn to explore and arrange sound to form compositions for both live instruments and computer generated sounds. Programs in the music lab include Cubase, Sibelius, and Band in a Box, used with synthesizer workstations. Students will also learn to create recordings of their performances and

compositions. Music written by students will be performed for the class or in the program's Fall and Spring concerts. Students who enjoy a challenge, a sense of accomplishment and are self-motivated will find this course fun and rewarding.

MUSIC 10: GUITAR (Acoustic)

Students will learn basic chord patterns in folk, pop and rock styles, rudimentary music theory, note-reading, tablature, rhythmic skills, basic finger-picking patterns, various left-hand techniques, and some forms of melodic/harmonic styles of guitar playing. The emphasis in the course is on ensemble playing. Guitars will not be provided for classroom use. *No previous musical experience is required*

CHORAL 10: CONCERT CHOIR (*Offered outside the timetable*)

This course will be a continuation of Choir 9, with increased emphasis on performance and the development of musical skills. Repertoire will be more challenging and will provide the opportunity for students to work in small ensembles and in solo activities. As with all music activities, members of this class should expect that part of their learning situation will involve a commitment to regular home practice and extra-curricular activities. Students will be required to attend all scheduled rehearsals and performances as part of the course expectations.

CHORAL 10: CHAMBER CHOIR (*Offered outside the timetable*)

Students enrolling in this course should have completed or are currently enrolled in Junior Concert Choir. Students should consult with the choir teacher at their school for specific admission requirements.

MUSIC 10: CONCERT BAND (*Offered outside the timetable*)

This course is a continuation of Band 9 with appropriate changes in level of repertoire, knowledge and skills. Students will begin to do work in small ensemble format as well as solo work, if desired. Students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations.

MUSIC 10: JAZZ BAND (*Offered outside the timetable*)

Students will gain a general knowledge of jazz styles and interpretation, as well as the techniques and rhythms unique to jazz. Students will learn fundamental jazz improvisation skills. Instruments are: trumpet, trombone, saxophone (alto, tenor, bari) and rhythm section (piano, bass, drums, and guitar). All Jazz Band students must be registered in Concert Band as well. Please see your music teacher if you are interested in this course.

MUSIC 11: GUITAR (Acoustic)

Students will learn basic chord patterns in folk, pop and rock styles, rudimentary music theory, note-reading, tablature, rhythmic skills, basic finger-picking patterns, various left-hand techniques, and some forms of melodic/harmonic styles of guitar playing. The emphasis in the course is on ensemble playing. By the end of the course, students should be reading and playing at approximately the level of Grade One Royal Conservatory guitar. Guitars will not be provided for classroom use. Some students who wish to can spend some of their class time learning about the compositional process for different styles of electronic music. This portion of the course will utilize computer/synthesizer equipment and appropriate software. Student compositions may be performed in public concerts.

CHORAL 11/12: CONCERT CHOIR (*Offered outside the timetable*)

Students in this course will explore very challenging and sophisticated vocal material, and will begin to learn basic choral arranging skills for in-class projects. Small ensemble work will be made available to anyone who wishes to pursue this option more fully and solo opportunities will be readily available. Students will also have the opportunity to learn basic conducting skills. As with all music activities, members of this class should expect that part of their learning situation would involve a commitment to regular home practice and

extra-curricular activities. Students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations.

CHORAL 11/12: CHAMBER CHOIR (*Offered outside the timetable*)

Students enrolling in this course should have completed or are currently enrolled in Junior Concert Choir. Students should consult with the choir teacher at their school for specific admission requirements.

MUSIC 11: CONCERT BAND (*Offered outside the timetable*)

In this course, students will continue their exploration of music repertoire, instrumental performance technique and small ensemble/solo work in addition to more advanced studies in theory and music history related to the repertoire studied. Students will also have the opportunity to do arrangements for ensembles and to study conducting. Students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations.

MUSIC 11: JAZZ BAND (*Offered outside the timetable*)

This course will be an extension of Jazz Band 10 with students continuing to develop improvisational skills, learning basic arranging skills, and providing leadership within the ensemble. There will also be opportunity for students to do small jazz ensemble groups (duos, trios, quartets, etc.) within the structure of this course. This is a performance-oriented course and all students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations. All Jazz Band students must be registered in Concert Band as well. This is designed to address a very broad interpretation of drawing and painting issues and media. Light and shade, line quality, rendering of form, composition, surface manipulation, and illusion of depth are drawing issues that can be addressed through a variety of means. Many works of painting, printmaking, and mixed media, as well as abstract, observational, and inventive works, may qualify. The range of marks used to make drawings, the arrangements of those marks, and the materials used to make the marks are endless.

MUSIC 12: GUITAR 12 (Acoustic)

Students will explore an increasingly difficult repertoire of pieces, various finger picking patterns, alternate tunings, scales, modes, and styles of playing. The emphasis in this course is on individual and small-group practice and instruction. By the end of the course, students should be reading and playing at approximately the level of Grade Two Royal Conservatory Guitar. Guitars will not be provided for classroom use. Students will have the option of either beginning or continuing their study of electronic music. Continuing students will have the option of composing and/or arranging music for any of the performing ensembles in the school.

MUSIC 12: CONCERT BAND (*Offered outside the timetable*)

Band 12 students will continue the course of studies outlined in Band 11 and will be expected to provide a leadership role within the ensembles. Opportunities for conducting in public will be available to Band 12 students if sufficient skill is acquired. As with all other Band classes, students will be required to attend all scheduled extra-curricular rehearsals and performances as part of the course expectations.

MUSIC 12: JAZZ BAND (*Offered outside the timetable*)

Jazz Band 12 provides an opportunity to develop jazz soloing techniques and to play in small ensembles. Students will be expected to take on a leadership role both musically and as group members. As with all music ensembles, students will be required to take part in all extra-curricular rehearsals and performances. All Jazz Band students must be registered in Concert Band as well.

MUSIC COMPOSITION & TECHNOLOGY 11/12

This course is a unique music composition class at Alpha, with a focus on traditional methods of composition, as well as the use of technology. This course is intended for students who have some background in a band program or private piano study for at least three years. Students will learn to explore and arrange sound to



form compositions for both live instruments and computer generated sounds. Programs in the music lab include Cubase, Sibelius, and Band in a Box, used with synthesizer workstations. Students will also learn to create recordings of their performances and compositions. Music written by students will be performed for the class or in the program's Fall and Spring concerts. Students who enjoy a challenge, a sense of accomplishment and are self-motivated will find this course fun and rewarding.

ART COURSES

ARTS EDUCATION 8

An introductory course for students to explore a variety of materials in 2-D and 3-D image making, develop basic drawing skills and study the work of selected artists.

ARTS EDUCATION 9

This course provides opportunity for exploration of a variety of materials, processes and techniques in two-dimensions and three-dimensions, and study of artists who have worked in these areas. Emphasis will be placed on the development of personal imagery and a basic understanding of the elements and principles of design. A sketchbook is recommended.

VISUAL ARTS 10/STUDIO ARTS 11/12: DRAWING & PAINTING

This course is designed for the serious art student who wishes to develop drawing and painting skills. Emphasis is on technical skill in drawing the human form, landscape and in depth studies of color and design. Art history and informed criticism are an integral part of this course. It is highly recommended that students taking AP Studio Art 12 take this course previously or concurrently. Studio Arts 11/12 will build upon Arts 10 components with individual research related to the sources of imagery and art history. A sketchbook is mandatory

VISUAL ARTS 10/STUDIO ARTS 11/12: CERAMICS & SCULPTURE

This course is for students who wish to concentrate on 3D projects. Clay, wire, papier-mâché, plaster, cardboard, etc. are a few of the mediums explored. Historical and contemporary ceramics and sculpture will be explored. Studio Arts 11/12 will build on skills acquired in Arts 10.

VISUAL ARTS 10/STUDIO ARTS 11/12: PRINTMAKING & GRAPHICS

This course is designed for students who wish to work in 2D design. Students will apply classical photography, 2D design and digital photography in art and advertising. Students must have some knowledge of drawing skills. Basic skills of Adobe Photoshop CS 3 will be applied. It is highly recommended that students taking AP Studio Art – 2D Design take this course previously or concurrently.

YEARBOOK 11/12

The Yearbook is a book whose average lifespan will be 40 years. Teamwork and responsibility are a must in this course. Each student must be prepared to dedicate more than just class time to the production of this historical document. In return, this course offers students valuable work skills and training in desktop publishing and design. Students will use Photoshop and InDesign, and learn about journalism, photography, photo editing, layouts, typography and colour theory. Highly motivated and organized students will have the opportunity to take on various leadership roles on the Yearbook Executive, including Co-Editor, Photo Archivist, Events Coordinator and Sales Manager. Because of the demands of meeting publishing deadlines, both attendance and punctuality are a must.

PHOTOGRAPHY 11

This course provides an introduction to photography and includes both technical and creative components. It will encourage students to participate in a creative process that is direct and technical. Traditional film and darkroom processes, as well as digital photography and image manipulation, are taught. Test, critiques and regular walking field trips are required. There may be additional costs associated with this course.

PHOTOGRAPHY 12

This course builds on Photography 11. Students will study historical developments in photography, understand and apply the elements and principles of design in photographic production and critiques. They will further their understanding of lenses and filters, develop a portfolio of personal work and explore career options. Basic computer skills are introduced through Photostitch and Photoshop. Regular in-class field trips are required. There may be additional costs associated with this course.

ADVANCED PLACEMENT ART COURSES

AP courses are for both college bound and career oriented students. Students may choose from 2D or 3D Studio AP Courses. Students will be expected to work intensively with personal imagery developing 24 original quality images. These courses are for committed art students who wish to submit a portfolio for the Advanced Placement Exam. At the end of the year approximately 24 pieces of artwork will be submitted to the College Board Testing Center for college advanced placement credit. Cost: AP Exam, approximately \$120. Students should expect to take at least two years to create a portfolio.

CAREER EDUCATION

PLANNING 10

This required course for graduation. It is designed to help students develop the skills they need to establish goals and make thoughtful decisions in the following areas: education planning, career development, healthy decision making, financial literacy.

GRADUATION TRANSITIONS 12

This is not a course; however, it is a requirement for graduation. Full details can be found at www.alphagradtran.wordpress.com, There are three components to completing the graduation transition requirement:

1. **PERSONAL HEALTH – Healthy Living Plan & Daily Physical Activity (DPA) Requirement**
All students in grades 10, 11, and 12 are expected to participate in a minimum of 150 minutes each week of moderate to vigorous physical activity. If they are NOT registered in a physical activity class (*ie PE, Dance, Weight Training, etc.*). Students need to document their hours on a Calendar that can be printed from www.alphagradtran.wordpress.com. Students must hand in their Calendars to the Career Centre at the end of each term. Grade 12 students complete a personal healthy living plan which requires students to examine nutritional habits, exercise routines, emotional wellness and Healthy
2. **COMMUNITY CONNECTIONS - 30 Hours: Paid/Unpaid Work or Volunteer Experience**
Students must complete and submit paperwork documenting a minimum of **30 hours of work experience and/or community volunteer experience** between grades 11 and 12.
3. **CAREER AND LIFE - Graduation Transition Portfolio and Interview**
Each graduating student must complete and submit a **Graduation Transition Portfolio** assignment which requires students to research post-secondary schools, suitable careers, finances, health and wellness, and provide a current resume. In addition, each graduating student must participate in a **Graduation Transitions Interview** where students will reflect on their life so far and explain their future plans.

CAREER PREPARATION 11

Grade 11 students interested in taking the elective course Work Experience 12A the following year will select a Career Preparation (CP) focus area for grade 11, i.e. "CP Business & Applied Business." Students can begin work experience in grade 11 to then complete in Grade 12.

WORK EXPERIENCE 12A

This elective course is designed to give students a real-life introduction to career exploration through individual student's interests, passions and goals. In addition to career exploration, students review post-secondary options that can provide a more elevated work experience, resume writing, job search skills, and interview skills. As a requirement of this course, all students must complete 90 hours of work experience that begins in their grade 11 year, as well as completing a Career portfolio assignment. Students must be aware that work experience scheduling is flexible but may extend beyond regular school hours and/or days. Grade 12 students may choose to select a Work experience as an eighth course or in addition to their eight courses.

INDUSTRY TRAINING PROGRAMS (ACE IT)

What is iSTEP?

iSTEP (interdisciplinary Skills Trades Exploration Program) is a full year program for students in grade 10. The program is exploratory in nature allowing students to determine areas of interest and strength in various trade fields: carpentry electrical, metal fabrication, plumbing, welding, automotive, etc., in order to help them choose their preferred grade 11/12 industry training program.

Youth Training in Trades - ACE IT

ACE-IT (Accelerated Credit Enrolment in Industry Training) is an industry program for high school students. Through an ACE-IT program, you can take courses that will give you both high school graduation credits and lead to apprenticeship level one technical training certification.

ACE-IT programs are developed and offered as partnerships between school districts and post-secondary institutions, and classes are often taught at colleges. Local employers also get involved in the development of ACE-IT programs, and students who complete these programs typically have very good success in finding employment.

Once you successfully complete an ACE-IT program you will get credit for at least level one of the technical training (in-class) component of your Industry training Program. Enroll in both ACE-IT and the Secondary School Apprenticeship program and you will be well on your way to completing your first year of post-secondary education by the time you graduate from high school.

YOUTH TRAINING IN TRADES PROGRAM OPTIONS - ACE-IT

Program	Location	Total Elective Credits
Auto Collision Repair Tech	VCC	28
Auto Refinishing and Prep Tech	VCC	20
Auto Service Technician	Cariboo Hill	20
Baker	VCC (Downtown Campus)	24
Carpentry Level 1 (Construction)	Cariboo Hill	20
Computer Networking Technician	Burnaby South	20
Construction Electrician	Burnaby Mountain	20
Music & Technology Production	Burnaby North	16
Film and Broadcast	Burnaby North	20

Fitness Leadership Instructor	Burnaby South	20
Graphics/Media Arts	Byrne Creek	16
Hairstylist (2 year program)	Alpha	36
Health Sciences	Moscrop	16
Hotel & Event Management	Burnaby Mountain	16
Metal Fabrication	BCIT	16
Commercial Painter & Decorator	FTI	4
Pipefitter	Squamish Nations Trade Centre	16
Plumbing	Piping Industry(PIAB)	4
Professional Cook Training	Burnaby Central	28
Robotics (Mechatronics)	Alpha	16

Youth Training in Trades Program (SSA)

The Secondary School Youth Training in Trades Program (SSA) provides Grade 10, 11, and 12 students with a tremendous opportunity to receive a minimum of 480 hours of paid, on-the-job training while still in school. An apprenticeship involves a formal agreement between a student, the Industry Training Authority (ITA) and an employer/union whereby the student learns current skills and knowledge associated with a trade or occupation under the supervision of a qualified journey person.

District Programs Hosted at Alpha

Burnaby School District Hairdressing Program



The Burnaby School District ACE-IT Hairdressing Program is a two (2) year program. It offers an exclusive opportunity for secondary students to earn graduation credits and post-secondary Industry Certification in the professional career of Hairdressing

Units of study include:

- Draping, shampooing, massaging
- Haircutting
- Hairstyling
- Hair colouring
- Sciences related to the profession (anatomy, chemistry, hair and scalp disorders and diseases)
- Salon business
- Professionalism
- Job skills
- Client relations
- Support an apprentice pathway into the industry through work experience
- Learn about professional products

Requirements:

- Grade 11 or 12 student
- Accumulation of 990 classroom hours over two years
- Minimum of 300 work experience hours in a salon

Upon successful completion of this program students will be eligible to continue on to Hair level 2, continuing to attain the ITA Standardized Red Seal recommendation for certification.

Robotics (Mechatronics)

The Robotics and Automation program offers students who aspire to become programmers, designers and/or engineers the opportunity to participate in a project-based technology program in mechatronics and manufacturing. It enables students to acquire up to 16 graduation credits. This program allows students to continue their focus and studies into a post-secondary institution. As part of the ACE-IT program requirements, students will complete 120 hours of workplace experience in a related setting. This program is suited for students in grades 11 or 12, enrolled in Math, have a knowledge of physics, and exhibit a strong interest in designing and building robots, as well as an aptitude for working with computer hardware, software, and electronics.