

SIR WINSTON CHURCHILL HIGH SCHOOL

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Sir Winston Churchill High School, Calgary, CANADA

SIR WINSTON CHURCHILL HIGH SCHOOL
Grade 10, 11, and 12 Planning Guide
2012-13

WELCOME TO CHURCHILL

In keeping with our school motto "Non scholae sed vitae" (We learn, not for school, but for life.) Our aim at Sir Winston Churchill is to help students become competent, caring, productive and responsible young adults living successfully in a democratic society. The information in this booklet will help students plan a high school program that makes goals attainable while taking into consideration individual interests, strengths and ambitions.

THE SCHOOL

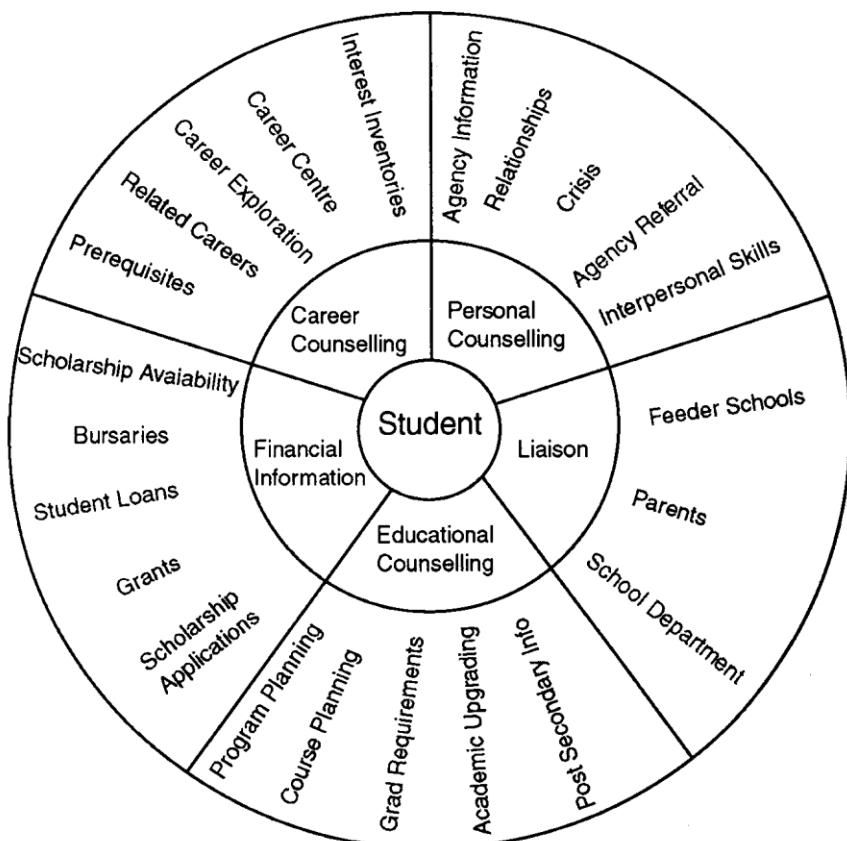
Sir Winston Churchill High School has a population of approximately 2000 students and is staffed by over 100 teachers. The school year consists of two five-month semesters: semester one runs from September through January and semester two runs from February through June.

Sir Winston Churchill offers a rich curricular and community-building program. The variety of courses offers students an opportunity to pursue interests and prepare for post-secondary opportunities. Students at Sir Winston Churchill are also encouraged to participate in their choice of activities from a broad selection of extra-curricular programs. It is our belief that programs both in and out of the classroom support a strong sense of community.

STUDENT SERVICES

Student Services (Guidance)

The Student Services Department is staffed with three full-time counsellors and a full-time secretary. Counsellors are available to provide personal, educational, and career counselling, as well as to provide information on scholarships, grants, bursaries, and student loans.



Students are invited to book an appointment with their counsellor to make use of the many services offered. Students can access support with academic, social, vocational, or personal matters. Students can make an appointment in Student Services. If parents wish to make an appointment along with their child, they may call (403) 289-9241 local 2410.

We encourage all students to make careful and informed decisions when planning their courses for the next school year. When students choose their classes at the time of registration, we work hard to create a timetable that includes their top choices. Our timetable is created based on students' course requests, along with our allocation of teachers. Once our timetable is set, very few changes will be granted.

Grade 10 students will not be granted class changes for complementary classes. The only class changes made for grade 10 students are those that involve changes to academic classes based on final report card marks in June.

Students planning for their grade 11 and 12 years need to be aware that very few class changes will be considered. Once again, teachers are allocated based on the class choices made in the spring. We expect the students to follow through with their choices and adjustments may be made to academic classes if final marks warrant the change. No class changes will be granted for complementary classes.

Requests to change teachers will only be considered if the current student has previously completed a class with that same teacher. If you have not completed a class with a teacher you may not request a change.

The Learning Centre

The Learning Centre provides learning support to students at Sir Winston Churchill. All students are welcome to drop in for extra help anytime during the school day, at lunch, or after school. Assistance is provided by the school's resource and learning strategist teachers. Peer tutors, volunteers, and educational assistants are also available to give one-on-one assistance to students in all their courses.

The Learning Centre offers credit classes as well. The Learning Strategies course is offered to students. The purpose of the course is to support students in their other subjects while teaching them strategies that they can apply to those classes. Some of the skill areas covered throughout the year are:

- self-advocacy
- attention and concentration in the learning process
- how memory works
- organizing materials
- time management
- reading skills
- writing skills
- test preparation.

Some of Churchill's most successful students take regular advantage of the resources in the centre as part of their study routine.

STUDENT ACTIVITIES

Athletics

Badminton Team	Rugby Girls
Badminton Club	Soccer Boys
Basketball Jr. Boys	Soccer Girls
Basketball Jr. Girls	Swimming & Diving
Basketball Sr. Boys	Track & Field
Basketball Sr. Girls	Volleyball Jr. Girls
Cross Country	Volleyball Sr. Girls
Field Hockey Jr. Girls	Volleyball Jr. Boys
Field Hockey Sr. Girls	Volleyball Sr. Boys
Football Jr. Boys	Wrestling Boys
Football Sr. Boys	Wrestling Girls
Rugby Boys	

Student Clubs and Programs

Anime Club	Math Club
Art Club	Model U. N.
Athletic Council	Musical Production
Band Concerts	Muslim Prayers
Biology Club	NASA Club
Chemistry/Physics/Biology/Math contests	Peer Tutoring
Chess Club	Peer Ambassador Cultural Club
Christian Life Club	Political Science Club
Citizens of Churchill	Recycling/Earth Club
Climbing Club	Right to Learn Club
Computer Science Club	Science Enrichment Program
Debate/Speech Club	Science Fair
Drama Productions	Science Olympics
Fitness Centre	Stock Market Competitions
Graduation Committee	Student Leadership Club
Heal Africa Club	Tennis Club
	Yearbook
	Youth Volunteer Corps

WELCOME GRADE 10 STUDENTS

This section is designed to help students register for grade 10 courses. Please read it carefully and then follow the counsellor's instructions.

Compulsory Courses

Everyone must register for the following five courses: English, mathematics, physical education, science and social studies.

In English, mathematics, science, and social studies, there are two different levels of courses from which to choose. Teachers and counsellors will recommend the level in which students should register according to their ability and achievement in that subject area. Students are expected to register for the levels that have been recommended. The following chart is a guideline for selecting academic courses.

Students requesting high school credit for courses completed in junior high school must be compliant with Alberta Education expectations, and will be individually assessed.

Grade 9 Achievement	Grade 10 Course
Language Arts 9 > 65%	English Language Arts 10-1
Language Arts 9 < 65%	English Language Arts 10-2
Math 9 > 60%	Math 10 Common
Math 9 < 60%	Math 10-3
Science 9 > 60%	Science 10
Science 9 < 60%	Science 14
Social Studies 9 > 65%	Social Studies 10-1
Social Studies 9 < 65%	Social Studies 10-2

Knowledge and Employability (K&E) Programming

Although our planning guide does not outline a specific K&E program, we welcome K&E students into our population. We will work with individual students to create a personalized program to meet their learning needs. If you are designated to Sir Winston Churchill and require K&E programming, please make an appointment with the appropriate guidance counsellor to begin this process.

Complementary Courses

Within their program each year students will have periods available for complementary courses. In each of those periods students may choose to take one five-credit complementary course or two three-credit complementary courses. These courses should be chosen from the following list. Descriptions of all courses can be found in a later section of the book.

Grade 10 Complementary Courses

Second Languages

Chinese 10
(5 credits)

French 10
(5 credits)

German 10
(5 credits)

Spanish 10
(5 credits)

Physical Education

Sports Medicine 15
(5 credits)

Sports Performance 15
(5 credits)

Fine Arts

Art 10
(5 credits)

Choral Music 15
(5 credits)

Drama 10
(5 credits)

Music 11B – brass
(5 credits)

Music 11W – woodwinds
(5 credits)

Music 15CB – concert band
(5 credits)

Musical Theatre 15
(5 credits)

Technical Theatre 101
(3 credits)

Career and Technology Studies - CTS

Computer Graphics /Digital
Photography 103
(3 credits)

Computer Graphics 202
(3 credits)

Computer Science 101
(3 credits)

Computer Science 201
(3 credits)

Construction Technology 101
(3 credits)

Cosmetology 101
(3 credits)

Cosmetology 102
(3 credits)

Cosmetology 103
(3 credits)

Cosmetology 104
(3 credits)

Design Studies 101
(3 credits)

Electronics 101
(3 credits)

Electronics 201
(3 credits)

Fashion Studies 101
(3 credits)

Fashion Studies 103
(3 credits)

Food Studies 101
(3 credits)

Financial Management 101
(3 credits)

Legal Studies 101
(3 credits)

Management and Marketing 101
(5 credits)

Mechanics 101
(3 credits)

GENERAL COURSE INFORMATION

What Are Credits?

1. Credits are received for successful completion of a course (minimum 50%).
2. A course taken for a full semester earns 5 credits. A course taken for half a semester earns 3 credits.
3. Credits can be earned only once in any one course.

Course Numbers

- Grade 10 courses begin with the number 1 or Introductory
i.e. 10, 101, 102, etc.
- Grade 11 courses begin with the number 2 or Intermediate
i.e. 20, 24, 201, 202, etc.
- Grade 12 courses begin with the number 3 or Advanced
i.e. 30, 31, 35, 301, 302, etc.

What is a Prerequisite?

A prerequisite course is a course that must successfully be completed before students can proceed to the next level. For example, students must pass English Language Arts 10-1 with a minimum mark of 50% before they can take English Language Arts 20-1.

ALBERTA HIGH SCHOOL DIPLOMA REQUIREMENTS

(For students entering high school in 1994 and later)

Students must:

1. Earn a minimum of 100 credits.
2. Complete and meet the standards of the following courses:
 - English Language Arts 30-1 **OR** English Language Arts 30-2 **OR** Français 30
 - Social Studies 30-1 **OR** Social Studies 30-2
 - Math 20-1 **OR** Math 20-2 **OR** Math 20-3
 - Science 20 **OR** Science 24 **OR** Biology 20 **OR** Chemistry 20 **OR** Physics 20 (**OR** Science 10 and any other 5 credit science course)
3. Complete and meet the standards of the following:
 - Physical Education 10 (3 credits)
 - Career and Life Management (CALM) 20 (3 credits)
 - 10 credits, in any combination from:
 - Career and Technology Studies (CTS) **OR**
 - Fine Arts **OR**
 - Second Languages **OR**
 - Physical Education 20 and/or Physical Education 30 **OR**
 - locally developed/acquired and authorized courses in CTS, Fine Arts or Second Languages.
 - This 10 credit requirement may also be met by: one 36-level course from any occupational cluster **OR** two 35-level courses from any trade in the Registered Apprenticeship Program.
 - 10 credits in any 30 level courses (including locally developed) in addition to English Language Arts 30-1 **OR** English Language Arts 30-2 and Social Studies 30-1 **OR** Social Studies 30-2.

For specific information on what constitutes Second Languages, Fine Arts, and Career and Technology Studies, contact a counsellor.

SPECIFIC PROGRAM REQUIREMENTS

Grade 10 Students

This year's course load must carry a minimum of 40 credits. Grade 10 students are not eligible for spares. **Students will not be permitted to take courses beyond their grade level.**

Note: exception for IB students who take IB classes Semester II of grade 10 **OR** students arriving from special CBE programs at the discretion of the Principal or Assistant Principals.

Grade 11 Students

It is important that students carefully choose their courses in grade 11 in relation to their post-secondary plans. Grade 11 courses should be planned to fulfill the prerequisites for the grade 12 courses. Check the post-secondary requirements of the institutions that are being considered and remember to keep in mind the high school diploma requirements. Students may select courses from grade 11 and, if space permits, courses from grade 10 offerings.

This year's course load should total a minimum of 35 credits.

Grade 12 Students

Two primary concerns should govern the selection of courses:

1. to ensure eligibility for a high school diploma
2. to meet entrance requirements for further study at post-secondary institutions.

This year's course load should total a minimum of 30 credits, and a minimum of 3 full course equivalents per semester.

General Caution/Suggestions

1. Students should include a variety of exploratory complementary courses in their program of study for grades 10 through 12. Specialization is better left to post-secondary study.
2. Post-secondary entrance requirements should be considered beginning in grade 10. If an admission standing of 80% is required, students should strive for at least an 80% average in grade 10 and 11, not just in grade 12. Courses tend to become more difficult in senior grades, not less difficult.
3. It is CBE policy that students are eligible to register in high school programs for 3 years **OR** 6 semesters. In general, students requiring time beyond their grade 12 year to complete diploma requirements will be directed to Chinook Learning Services to continue their education.
4. Course withdrawals are discouraged, so students should plan their program carefully. Withdrawals from courses will be dealt with on an individual basis.

Withdrawals will not be considered after the start of term II in semester I, or term III in semester II.

5. If a student does not pass a course, repeating a course will not be allowed in the same school year. Students may, however, repeat a course in the following school year. For this reason, it is important that students work hard at successfully completing their courses the first time. Students will not be allowed to repeat a course more than once, or for upgrading.

NOTE: *A planning guide to help students develop a tentative high school program on page 85.*

COURSE DESCRIPTIONS

CAREER AND LIFE MANAGEMENT (CALM)

CALM 20 (Career and Life Management) - 3 credits

Required for High School graduation

The aim of senior high school Career and Life Management (CALM) is to enable students to make well-informed, considered decisions and choices in all aspects of their lives and to develop behaviors and attitudes that contribute to the well-being and respect of self and others, now and in the future. CALM is the core course for health literacy at the senior high school level in Alberta. Emphasis is placed on individual decision making and goal setting throughout the CALM course.

CALM provides students with opportunities to develop and shape their lives occupationally, financially, and socially. The curriculum is organized into three major units: Personal Choices, Resource Choices, & Career and Life Choices. In addition, the course will contain one optional theme, Human Sexuality.

CAREER AND TECHNOLOGY STUDIES (CTS)

The Career and Technology Program of Studies offers students the opportunity to explore complementary courses that can develop and cultivate their individual talents, interests and abilities. These courses can help students:

- prepare for entry into the workplace and/or related post-secondary programs
- develop daily living skills
- investigate career skills

Alberta Education has reorganized the Career and Technology Program of Studies from the original 22 “strands” to 5 occupational “clusters”. The occupational clusters are based on the National Occupational Classifications (NOC). The 5 occupational clusters include: Business, Finance and Information Technology (BIT), Trade, Manufacturing and Transportation (TMT), Media, Design and Communication Arts (MDC), Health, Recreation and Human Services (HRH) and Natural Resources (NAT). The intent of this reorganization is to make it easier for students

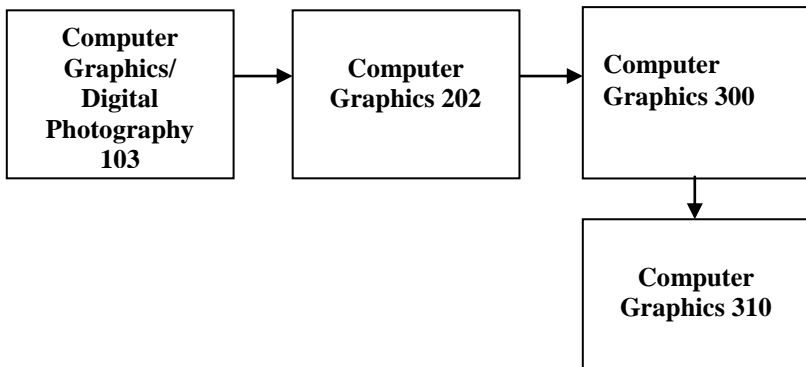
to develop a personal “pathway” when planning for post-secondary education or employment after high school. A pathway is a series of high school courses that reflect a student’s interests and abilities.

Advanced Level courses may be used to satisfy Alberta high school diploma requirements. Depending upon the university and faculty chosen, advanced level C.T.S. courses may be used for university entrance purposes. They may also be used for the Rutherford scholarship.

BUSINESS ADMINISTRATION, FINANCE AND INFORMATION TECHNOLOGY (BIT)

- **COMPUTER GRAPHICS**
- **COMPUTER SCIENCE**
- **FINANCIAL MANAGEMENT**
- **MANAGEMENT & MARKETING**

COMPUTER GRAPHICS



Computer Graphics /Digital Photography 103 - 3 credits

This is an introductory course designed for students interested in learning about digital photographic technology. Students will learn the fundamentals of digital image acquisition using a digital camera and basic manipulation of images using available software.

Computer Graphics 202 - 3 credits

Turn simple snapshots into unique photographs. Using PhotoShop, learn to edit and enhance photos from the digital camera and scanner for printing, illustration and for the Web. Create effects that are seen in magazines, on TV, and on the Web. Retouch photos, colour paint, add filters for special effects and make alterations to the photos.

Dreamweaver will be used to create a web page of photos. Use of PhotoShop and Image Ready to create animations.

Computer Graphics 300 - 3 credits

Prerequisite: Computer Graphics 202

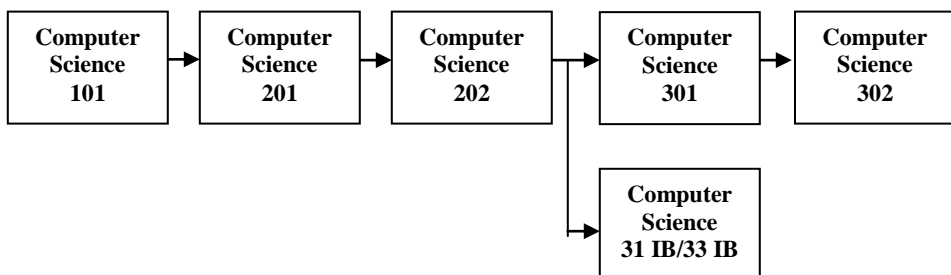
Students will learn how to design their own animations using Adobe Flash and/or Autodesk 3ds Max. They will have a thorough understanding of animation basics and know how to incorporate sound, interactivity, and engaging animations. They will also learn to build and design an attractive and effective multi-page web site using Adobe Dreamweaver software. Students will also use Adobe Premiere software for video editing to learn video editing basics.

Computer Graphics 310 - 3 credits

Prerequisite: Computer Graphics 300

This course is a continuation of Computer Graphics 300. Students will learn to use the advanced features of Dreamweaver and Flash programs as well as video editing techniques such as Green Screening and Color Keying using Adobe Premiere. Students will create interactive presentations using the action scripting features of Flash.

COMPUTER SCIENCE



Computer Science 101 - 3 credits

Introduction to Computer Programming: This is an introductory Computer Science course that uses *Alice*, a Java based programming system. Students rapidly learn about object oriented programming. Students create movies and interactive games with characters from Alice in Wonderland, ballerinas, wizards, samurai, space aliens, robots, and lost worlds of ancient Greece and Egypt. Students are also introduced to other areas of computing such as robotics.

Computer Science 201 - 3 credits

Prerequisite: Computer Science 101

Object-Based Programming: Using the Java computer programming language, students will solve problems by organizing information in a way that reflects the real world rather than the way computers are designed. Students will develop their understanding of decisions and repetitive instructions. They will also be introduced to Java graphics libraries and use lists of information called arrays in their programs.

Computer Science 202 - 3 credits

Prerequisite: Computer Science 201

Object-Oriented Designs and Data Structures: This is a more advanced class that places an emphasis on systematic class design using a subset of UML (Unified Modeling Language), test driven development, debugging and error handling. Recursion, inheritance and polymorphism get demystified.

Computer Science 301 - 3 credits

Prerequisite: Computer Science 202

Project Driven Application of Computer Science Skills: Students develop their understanding of hardware and software as well as apply their computer programming skills. The ability to store data to files and implementing graphical user interfaces will be developed. Students will prepare a major project that develops their project management skills and integrate their skills acquired in other CTS areas.

Computer Science 302 – 3 credits

Prerequisite: Computer Science 202

Dynamic Data Structures, Recursion and Project Problem Solving: Data structures are explored with each structure being presented in the context of the standard Java collections library using iterators, sets and maps. Students also learn to implement their own structure classes. A major project is undertaken to synthesize concepts covered, the programs students develop are now more sophisticated, and an emphasis is placed on efficiency and speed of accessing data.

Computer Science 31 IB - 6 credits (full semester)

Prerequisite: Computer Science 202

Dynamic Data Structure & File Handling: Data structures are explored with each structure being presented in the context of the standard Java collections library using iterators, etc. and maps. Students also learn to implement their own structure classes. Java's AWT and Swing classes are applied.

IB Dossier may be completed at either the IB Computer Science Standard Level or Higher Level.

Dossiers document the use of UML (Unified Modelling Language) diagrams, Javadoc comments, exception handling, and unit testing.

Computer Science 33 IB - 6 credits (full semester)

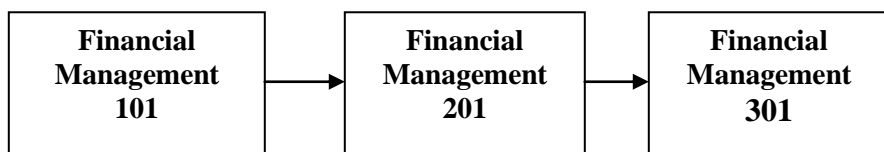
Prerequisite: Computer Science 31 IB

Advanced Computer Science Topics: Topics include: systems analysis, the software life cycle, computer architecture and peripherals, data representation, number systems, Boolean logic, operating systems and utilities, algorithmic evaluation, the social significance and implications of computer systems, and a case study of an industry wide application. Project management tools are investigated through the delivery of the IB Dossiers and a learning resource.

Computer Program Dossier: Students continue the program dossier begun in Computer Science 31 IB.

Web Pages: Students place their dossier and related program files on a web site. Students create a website that teaches an approved topic.

FINANCIAL MANAGEMENT



Financial Management 101 - 3 credits

The introductory level course will give students some experience in the mechanics of the accounting cycle. They will be introduced to the step-by-step preparation of simple sets of accounting records in a service business. This includes the preparation of journals, ledgers, and simple financial statements. This course will assist students if they take accounting in post-secondary institutions.

Financial Management 201 - 3 credits

Prerequisite: Financial Management 101

Students will be introduced to a step-by-step preparation of accounting records for a merchandising business. This includes the preparation of journals, ledgers, and simple financial statements. Incorporated through the course will be the opportunity to learn and use computer software to discover how this software may be used effectively to assist in the creation of accounting records.

Financial Management 301 - 5 credits

Prerequisite: Financial Management 201

Financial Management 30 allows students to take prior accounting knowledge and apply those skills in real world situations. Through the use of case studies, an investing competition while and numerous real world examples we will learn how to read and analyze the financial health of a business and prescribe ways in which to improve that health. We will also learn how determine which businesses are good investments and which are not.

Come and make millions in Financial Management 301!

MANAGEMENT AND MARKETING

Management and Marketing 101 - 5 credits

(Formerly known as Enterprise and Innovation)

Students will learn how to be an entrepreneur. In the classroom, they will develop and operate their own businesses. By learning how to formulate a business plan, they will create and sell a product their company has designed.

Management and Marketing 201 - 3 credits

Learn basic management and marketing concepts, as well as retail merchandising strategies. Study the basics for setting up and successfully running a retail business.

Management and Marketing 301 - 5 credits

This is the class to learn about what it takes to be a business person. A great introduction if you have an interest in joining the business world right away and very valuable if you intend to take business at the post-secondary level.

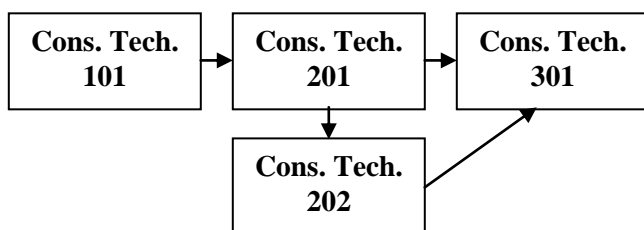
Create your very own advertising campaign for television, radio and magazines! In this exciting and dynamic class, you are the creator, producer and director of an exciting marketing campaign. You will learn about effective selling strategies, and have the opportunity to deliver a pitch! Learn about strategies that are used to inform potential customers about products and services available in the marketplace, as well as techniques for successful selling.

Students will also have the opportunity to look at organizational structures, management theories and organizations as working units. The manner in which business decisions are made within the community, provincially, nationally and globally will be examined.

TRADE, MANUFACTURING AND TRANSPORTATION (TMT)

- **CONSTRUCTION TECHNOLOGY**
- **ELECTRONICS**
- **MECHANICS**

CONSTRUCTION TECHNOLOGY



These courses will introduce students to the interesting world of woodworking. Learn about the many different types and uses of wood - from furniture and cabinet making, to home construction and renovation.

These courses will be of interest to all students whether their interests are career exploration, art and design, or general interest.

Construction Technology 101 – 3 credits

Prerequisite: None

In Construction Technology 101 students will be introduced to basic hand tools, simple wood joinery techniques, and safe usage of large power tools. Students will complete projects using various solid woods.

Construction Technology 201 – 3 credits

Prerequisite: Construction Technology 101

Construction Technology 201 will continue to build upon the basic skills learned in Construction Technology 101, with the student focusing more on furniture and cabinet making. Multiple materials will be used and students will learn how to combine composite materials.

Construction Technology 202

Prerequisite: Construction Technology 101

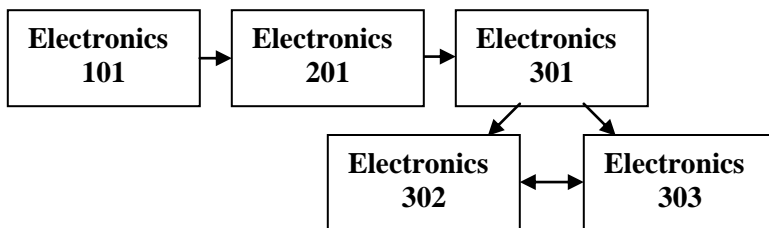
In Construction Technology 202 students will continue to build on the skills developed in Construction Technology 201. Students choosing both Construction Technology 201 and 202 will be able to build larger and/or more elaborate wood projects.

Construction Technology 301

Prerequisite: Construction Technology 101

Construction Technology 301 continues to develop skills in the fine art of furniture making and design. This course will provide the student an opportunity for complete design and creation of a free standing project of their choice.

ELECTRONICS



Electronics

Seventy percent of the time will be spent on practical lab work and exercises, and the rest of the time on theory.

Electronics 101 - 3 credits

Study DC power sources, build an electronic project (Strobe light), and learn how to read and measure resistances and voltages in a DC circuit. Students will do a variety of experiments that involve measuring and reading resistances and voltages in a DC circuit. Students will also learn some of the most common electrical components and then assemble their own electronic project – Strobe light.

Electronics 201 - 3 credits

Prerequisite: Electronics 101

Students will identify and explain logic systems, construct and experiment with basic gates, and build a digital electronics project using the photographic method. Students will learn bread boarding techniques and construct several circuits to practice this technique. Finally, students will be given the opportunity to assemble and disassemble a computer using the disk operating system.

NOTE: Students will also be introduced to a new technology called Mechatronics where they will experiment with electro pneumatics and automation.

Electronics 301 - 3 credits

Prerequisite: Electronics 201

Students will learn to identify and describe various direct and alternating current power supplies and to build alkaline battery chargers or a variable DC power supply. Students will experiment with oscilloscopes and ohmmeters to further their understanding of electrical components (e.g.,

inductors, capacitors, transformers.) Using Lego Mindstorms students will build and program a robot to perform specific tasks. Students will also learn basic repair and maintenance techniques to repair electrical and electronic devices.

NOTE: Students will also engage in a new program called Mechatronics, where they will experiment with electro pneumatics and automation.

Electronics 302 - 3 credits

Prerequisite: Electronics 301

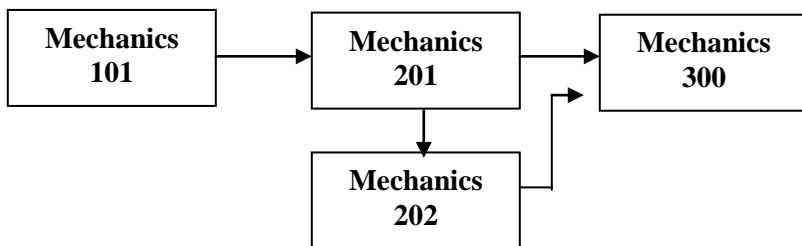
Students will investigate consumer audio and complete auto systems – for example: stereo amplifiers, car amplifiers, tape decks, walkmans and disc players. Construction of one or more amplifiers will be required. Students will also learn basic repair and maintenance techniques to repair electrical and electronic devices.

Electronics 303 “Robotics” - 3 credits

Prerequisite: Electronics 301

Students will learn how to identify, interface, and experiment with small scale robots. Construction techniques will be explored as students build and experiment with numerous variables to increase the efficiency of the robots. Students will also gain experience in controlling the robot through a variety of programming techniques.

MECHANICS



Mechanics

The focus of the Mechanics courses is on skill development. The courses will be of benefit to all students, whether their interests are in vehicle ownership or career exploration.

Mechanics 101 - 3 credits

Mechanics 101 is an introductory level course. Students will study various vehicle systems and gain an understanding of how they operate together to make a functioning vehicle. Minor mechanical tasks will be performed in Mechanics 101 as well as disassembly and reassembly of a small gasoline engine. CTS modules in Mechanics 101 include:

- vehicle service and care
- engine fundamentals
- hydraulic and pneumatic systems.

Mechanics 201 - 3 credits

Prerequisite: Mechanics 101

Mechanics 201 is an intermediate level course that will focus on major mechanical repairs. CTS modules in Mechanics 201 include:

- braking systems
- ignition systems
- electric fundamentals.

Theory and practical tasks will cover all aspects of these vehicle systems.

Mechanics 202 - 3 credits

Prerequisite: Mechanics 101. (Mechanics 201 preferred)

Students will build on the skills developed in Mechanics 201. CTS modules in Mechanics 202 include:

- lubrication and cooling systems
- fuel and exhaust systems
- emission controls.

Mechanics 300 - 3 or 6 credits

Prerequisite: Mechanics 201 and/or 202

Mechanics 300 is an advanced level course. Students will be able to choose from a number of CTS modules. Modules in Mechanics 300 include:

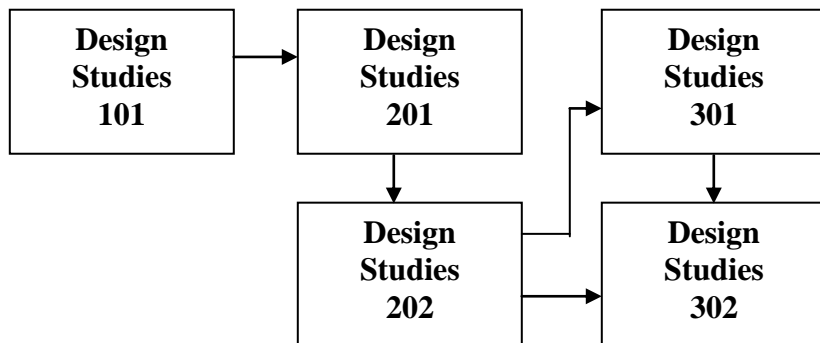
- electrical components
- engine performance diagnosis
- engine tune-ups
- engine removal and installation
- engine reconditioning I (upper engine)
- engine reconditioning II (lower engine)
- computer management systems
- automatic transmissions.

Prerequisites apply to some modules; therefore not all modules included in Mechanics 300 are available to all students. Students who have received full credits in Mechanics 201 and 202 will have the required prerequisites for all modules.

MEDIA, DESIGN & COMMUNICATION ARTS (MDC)

- **DESIGN STUDIES**
- **FASHION STUDIES**

DESIGN STUDIES



Design Studies 101 - 3 credits

The course involves basic design sketching for architectural floor planning and then advances using AutoCAD to introduce computer aided drafting techniques. Students create a 3d model of a bungalow house from their earlier blueprint using Google SketchUp and/or Autodesk Revit architectural software.

Design Studies 201 (Architectural) - 3 credits

Prerequisite: Design Studies 101

Study architectural design dealing with residential construction techniques and their representation on drawings using Autodesk Revit architectural software. Students are introduced to solid part modeling through the use of Autodesk Inventor software. Students create parts, assemblies and digital prototypes simulating real world products.

Design Studies 202 (Architectural) - 3 credits

Prerequisite: Design Studies 201

Students create their own design brief for an architecture project of their choice, producing a set of working drawings for an architectural structure using Autodesk Revit Software. Students will be given the opportunity to produce the working drawings and media to add to their design portfolio. Students continue working with solid part assemblies in Autodesk Inventor and animation using 3ds Max.

Design Studies 301 - 3 credits

Prerequisite: Design Studies 202

Students concentrate on various drawing and computer drawing types to illustrate design concepts and solutions. From a design brief students will deal with such aspects as shaping, massing, proportion, scale, contrast, colour, texture and finish within the context of complex three-dimensional design projects. Students have the option to design a unique single family residence to be entered in a city wide competition. A variety of software programs from the Design Academy Suite will be used including 3ds Max for animation and architecture visualization projects, Inventor for solid part assembly modeling and Revit for architecture design problems.

Design Studies 302 - 3 credits

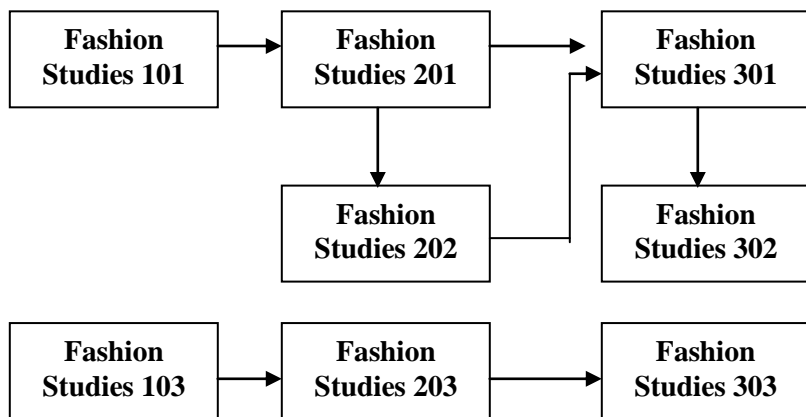
Prerequisite: Design Studies 202

Given preliminary information for a small commercial structure at the beginning of the course, students will produce a set of working drawings. They will finish with the working drawings and 3d models of personal design. Course is largely project based. Students are given a choice of potential design projects and software to accomplish module objectives to create a portfolio based presentation of work created in their previous courses.

FASHION STUDIES

Fashion Studies involves the study of clothing and textiles in a variety of contexts. It is concerned with the design, production, and merchandising of clothing, textiles and accessories.

The Fashion Studies curriculum provides opportunities for students to increase their knowledge of the fashion industry and develop important daily living skills. The curriculum prepares students for their roles as consumers, enables them to explore and prepare for fashion-related careers, and provides a creative outlet.



Fashion Studies 101 - 3 credits

Creative Sewing

This course introduces students to the elements and principles of design and how they are used in fashion. Students learn how to use a variety of skills to create great clothes that will reflect their personal style. No previous sewing experience is required. Projects selected will be at the student's skill level. Students have a great deal of choice in projects made, from pajama pants to suit jackets.

Fashion Studies 103 - 3 credits

Fashion Merchandising

Learn how today's exciting fashion industry works. The focus in this course is on understanding the basics of the fashion industry, its promotion and career opportunities. Discover the intriguing world of fashion illustrations and design. In this course, students will learn how the history of fashion is reflected in today's styles. They will design their own store and the clothing in it. Students will complete the Ready Set Sew module as a pre-requisite.

Fashion Studies 201 - 3 credits

Creative Sewing

Prerequisite: Fashion Studies 101

Create a basic skirt or pant using body measurements and drafting techniques to obtain a desired look. Students will use more advanced techniques and knowledge of fabrics to complete intermediate-level garments.

Fashion Studies 202 - 3 credits

Creative Sewing

Prerequisite: Fashion Studies 101

Learn how to make unique and attractive serviceable active wear. The modules also include design and sewing techniques to create home and personal accessories, as well as fashion accessories.

Fashion Studies 203 - 3 credits

Fashion Merchandising

Prerequisite: Fashion Studies 103

Create a fashion line by using technical or impressionistic techniques. Enjoy learning how stores are designed and how fashions are merchandised. No sewing.

Fashion Studies 301 - 3 credits

Creative Sewing

Prerequisite: Fashion Studies 101

Students will create their own designs in advanced specialty fabrics as well as learn about high fashion couture techniques, specialty clothing and surface designs.

Fashion Studies 302 - 3 credits

Creative Sewing

Prerequisite: Fashion Studies 101

Students will study past couturiers to help them create their own haute couture fashions. Computers and appropriate software will be used to design and draft patterns for fashion items.

Fashion Studies 303 - 3 credits

Fashion Merchandizing

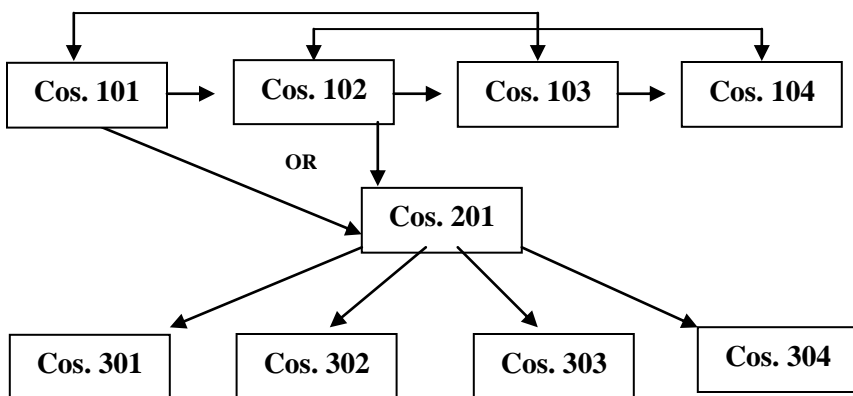
Prerequisite: Fashion Studies 203

Discover the world of fashion designers such as Vivienne Westwood the Mother of Punk, Coco Chanel and the Chanel Suit, Marc Jacobs and his grunge look. Explore the fiber industry, textiles, fibers and fabrics. Look at trends in fashion retailing and how to merchandise a product using visual merchandising, as in window dressing, fashion magazine ads, and broadcast media. Travel to TD square to get a first hand look at fashion merchandising at its best and go to an interview with a fashion merchandiser at Holt Renfrew.

HEALTH, RECREATION, AND HUMAN SERVICES (HRH)

- **COSMETOLOGY**
- **FOOD STUDIES**
- **LEGAL STUDIES**
- **SPORTS MEDICINE**

COSMETOLOGY



The Cosmetology program offers three years of study for students who are interested in learning all the secrets used to create artistic hair styles, haircuts, colors, and perming techniques. Students will also learn how to care for their nails, skin and to apply make-up products, by learning how to give esthetic treatments, and by choosing the best professional beauty products to use for themselves and others.

In grade 10, students can choose from four 3 credits courses. Students need a minimum of 3 credits from grade 10 in either the Cos. 101 or Cos. 102 courses to advance to the Cos. 200 level and then the Cos. 300 level.

Cosmetology Grade 10

Cosmetology 101 - 3 credits Student Fee

No prerequisite

This course will introduce the students to basic hair styling tools and techniques used to create a variety of hair styles with thermal styling, braiding designs, shampoos, roller sets and comb outs. These are just some of the techniques taught in this course. Students will also learn about professional hair care products that they can use for their own hair and scalp care needs.

Cosmetology 102 - 3 credits Student Fee

No prerequisite

This course will teach the student how to care for their hands and nails. Students will be taught how to give a basic manicure with massage manipulations, and learn how to create nail art designs. They will also learn to give a facial treatment and do a make-up application while gaining a better understanding of professional skin care and make-up products.

Cosmetology 103 - 3 credits Student Fee

Prerequisite: Cosmetology 101

This course is intended for students who would like to develop more skills in hairstyling techniques by creating more classic and contemporary styles for long and short hair. Students will also learn the secrets of selecting the right hair style for themselves and others by studying hair artistry.

Cosmetology 104 - 3 credits Student Fee

Prerequisite: Cosmetology 102

This course is for students who want to learn more about creating nail art designs, French manicuring, skin care and facials services. Included will be spa inspired treatments such as aroma therapy, reflexology, and air brush make-up applications.

A minimum of 3 credits from grade 10 Cosmetology is required before a student can take Cos. 201. This course is required before a student can advance to the 300 level of Cosmetology.

Cosmetology 201 - 5 credits Student Fee

Prerequisite: Cosmetology 101 or 102

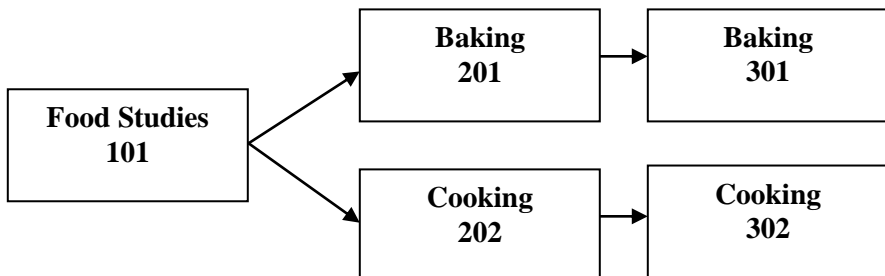
This course will provide students with an opportunity to develop skills and knowledge in hair cutting, hair coloring, and permanent waving. Students will continue to develop skills in shampooing, thermal styling, roller sets and comb outs on short and long hair. Students will receive not only their own scissors and manikin for hair cutting, but also extra combs, hair coloring kits, and perm rods.

Cosmetology 301, 302, 303, and 304 - 5 credits each course Student Fee

Prerequisite: Cosmetology 201

Students at the 300 level of Cosmetology will be prepared to provide clients with basic salon services, such as: shampoos and sets, haircuts, colors, highlights, and perms. Students will also learn how to give pedicures and hair removal services. Reception duties, product sales, and salon management are also included at the 300 level to prepare them for further training in an apprenticeship and salon employment.

FOOD STUDIES



Food Studies 101 - 3 credits

Students will learn the basics of cooking and baking by developing skills in the preparation of a variety of foods.

Each module in the Foods 10 course consists of a combination of food preparation labs and written activities. Learning how to plan, prepare and serve family size portions. Each module will include food sanitation, kitchen safety, and nutritional wellbeing.

You must successfully complete the Food Basics 1010 module in order to take sequential courses in Grades 11 or 12.

Baking 201 - 3 credits

Prerequisite: Food Studies 101

This course is in greater depth than Foods 101 with a focus on Baking. Students will develop their skills and learn to prepare a variety of baked goods from Yeast Breads, Cakes and Pastry and pipping and Icing techniques.

Baking 301 - 3 credits

Baking 301 is in further depth into baking techniques and various types of icing. Written projects and baking projects are an expectation.

Cooking 202 – 3 credits

Prerequisite: Food Studies 101

More advanced cooking techniques and styles are practiced. Nutrition and healthy food choices and styles are explored. Modules include; Safety and Sanitation, International and Vegetarian Cuisine.

Cooking 302 - 3 credits

Cooking at the 302 level is advanced and continuing on from Cooking 202. In this course, more advanced cooking styles are explored. Theory and written work as well as selecting recipes are an integral part of this course.

LEGAL STUDIES

Legal Studies 101 - 3 credits

What are an individual's rights? Through the use of realistic scenarios and case studies, students will gain a better understanding of our legal system. This exciting look at the Canadian justice system will include examining how laws directly affect students. This course will also look at various elements of criminal and civil law, and specifically at the Youth Criminal Justice Act.

Legal Studies 201 - 3 credits

Legal Studies 201 is an exciting class which allows students to examine in detail areas of law such as; Family Law, Employment Law, and Travel Law. Through the use of case studies and mock trials students will have the opportunity to examine a broad range of legal issues relating to personal relationships, contracts of employment, unions and collective bargaining, employment insurance, and workers' compensation in the workplace. Students will also have the opportunity to learn about legal issues that may arise when individuals travel domestically and internationally.

Legal Studies 301 - 5 credits

Legal Studies 301 is an exciting and dynamic class that investigates topics in areas of law such as:

Criminal Law

Where we examine the criminal justice system, including the criminal process and the roles and responsibilities of the participants. We also explore challenging issues and law-related careers and you will have the opportunity to take part in a mock trial.

Negligence

We explore the legal meaning of negligence and legal actions relating to negligence.

Property Law

We identify laws relating to real, personal and intellectual properties and investigate the process of buying and selling real property and legal implications associated with Internet transactions.

Controversy and Change

We explore how controversial issues evoke responses that may bring about changes in the law and describe a wide variety of strategies that may be used for changing the law.

Landmark Decisions

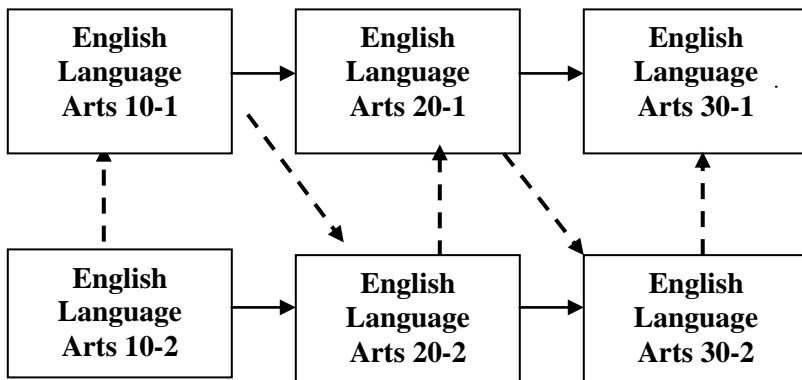
Students analyze in detail landmark decisions and their influence on society.

SPORTS MEDICINE (*See Physical Education p.59*)

ENGLISH LANGUAGE ARTS

ELA 10-1, 20-1 and 30-1 are academically rigorous courses designed for students who are interested in the study, creation, and analysis of literary texts. Students registering in these courses should have demonstrated strengths in both their reading comprehension and writing skills.

ELA 10-2, 20-2 and 30-2 are courses for students who are interested in popular culture and real world contexts or students who have encountered difficulty with English and who could benefit from continuing support. This program can lead to the -1 program. Students should check with a guidance counsellor for more specific information regarding post-secondary entrance requirements.



English Language Arts 10-1 - 5 credits

Recommendation for success at least 65% in grade 9 ELA

This is an academically demanding course designed to help students develop skills in reading, writing, listening, and oral communication. Assignments will encompass formal essays, critical analysis, personal responses, and creative writing for a variety of audiences and purposes. This course serves as a preparation for ELA 20-1 and ELA 20-1 IB. Course requirements include the study of short stories, novels, poetry, Shakespearean or modern drama, film, and non-fiction.

English Language Arts 10-2 - 5 credits

This course is designed to help students develop fundamental skills in reading, writing, listening, viewing, and oral communication. Teachers will offer an integrated approach in the development of language arts skills by using short stories, novels, poetry, Shakespearean or modern drama, film, and non-fiction for discussion and writing. Assignments and activities stress personal, analytical and functional writing for a variety of audiences, contexts, and purposes.

If students are encountering difficulty with English Language Arts and wish to graduate with ELA 30-1 credits, they are encouraged to take ELA 10-1 upon successful completion of ELA 10-2. A minimum grade of 65% is recommended.

English Language Arts 20-1 - 5 credits

Prerequisite: English Language Arts 10-1

Recommendation for Success – at least 65% in ELA 10-1

This is an academically demanding course designed to help students continue to develop more effective skills in reading, writing, listening and oral communication. Assignments encompass formal essays, both critical and analytical, personal responses, and creative writing for a variety of audiences and purposes. Course requirements include the study of short stories, novels, poetry, Shakespearean drama, film and non-fiction.

English Language Arts 20-2 - 5 credits

Prerequisite: English Language Arts 10-2 OR 45% in ELA 10-1

This is a general course designed to help develop fundamental skills in reading, writing, listening, viewing and oral communication. Teachers will offer an integrated approach in the development of language arts skills by using short stories, novels, poetry, Shakespearean or modern drama, film and non-fiction for discussion and writing. Assignments and activities stress personal, analytical, and functional writing for a variety of audiences, contexts and purposes.

If students are encountering difficulty with English Language Arts and wish to graduate with ELA 30-1 credits, they are encouraged to take ELA 20-1 upon successful completion of ELA 20-2. A minimum grade of 65% is recommended.

English Language Arts 30-1 - 5 credits

Prerequisite: English Language Arts 20-1 OR a 65 Teacher Mark of 65% in ELA 30-2 and teacher recommendation

Recommendation for Success: 65% in English Language Arts 20-1

This is an academically demanding course that surveys a variety of literature and other texts, with emphasis on understanding themes and literary techniques. It is also designed to help students continue to develop more effective skills in reading, writing, representing, viewing, listening and speaking. Writing assignments encompass formal essays, both critical and personal, and creative writing for a variety of audiences and purposes. Course content includes the study of short stories, novels, poetry, Shakespeare play, modern drama or feature film, and non-fiction.

Students will be required to write the Alberta Diploma Exam which will count for 50% of their overall grade.

English Language Arts 30-2 - 5 credits

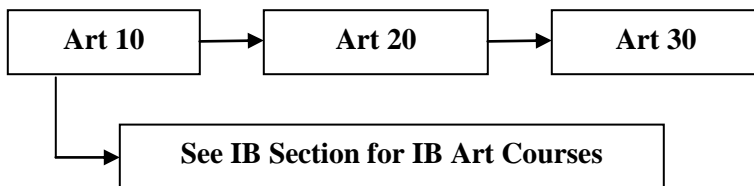
Prerequisite: English Language Arts 20-2 OR 45% in English Language Arts 20-1

This is a general course that emphasizes the integration of life skills with a study of language, media, and literature. It is designed to help students develop fundamental skills in reading, writing, representing, listening, viewing and speaking. Teachers will offer an integrated approach in the development of language arts skills by using short stories, novels, poetry, Shakespearean or modern drama, film and non-fiction for discussion and writing. Assignments and activities stress personal, analytical, and functional writing for a variety of audiences, contexts and purposes.

Students will be required to write the Alberta Diploma Exam which will count for 50% of their overall grade. Students wishing to graduate with ELA 30-1 credits need to register in 30-1 after successfully completing ELA 30-2. A minimum grade of 65% is recommended to do this.

FINE ARTS

ART



Art 10 - 5 credits

This is a fun and challenging introductory course which gives students the opportunity to explore and develop skills in drawing, colour and design, painting, ceramics and sculpture. The program also introduces students to the cultural importance of art through the study of significant artists. Junior high art is not a prerequisite; however students must have a sincere interest in art.

Art 20 - 5 credits

Prerequisite: Art 10

This is an intermediate course where students will continue to build their skills and confidence. Students will be challenged to explore a wider range of media in drawing, painting, and sculpture.

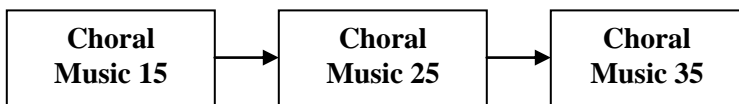
Art 30 - 5 credits

Prerequisite: Art 20

This is the final course in studio art. Students will now have the skills and confidence to explore a significant number of individually developed projects. Students will further develop their skills and apply these skills towards creating powerful personal statements in drawing, painting, photography, sculpture, printmaking and mixed media. All students in this course will exhibit their work in our Grad Art Show at the end of each semester.

The completion of this challenging and satisfying program empowers students to visually express themselves powerfully. This program also enables serious art students to create competitive portfolios with which to apply to programs such as fine arts, graphic design, interior design, and architecture at universities or colleges.

CHORAL MUSIC



Choral Music 15 - 5 credits

This is a course that will allow the choral student to participate in a performing concert choir singing in a variety of musical styles and genres. It will be offered twice a week during after-school rehearsals *outside the regular timetable* for the entire school year. Concert Choir is scheduled this way to allow the ensemble to perform through the entire school year while receiving five credits. This course requires a commitment to a variety of performing experiences including concerts, workshops, and festivals.

Choral Music 25 - 5 credits

Prerequisite: Choral Music 15

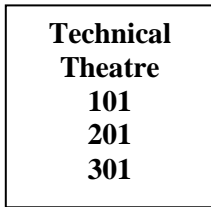
This course builds upon the fundamentals of large ensemble singing as introduced in Choral Music 15. Student musicians are challenged to develop sight-reading skills, interpretive skills and independent rehearsal skills via section practices. In this course students will perform at school assemblies, the winter and spring concerts at the university, local music festivals, and a variety of Calgary venues.

Choral Music 35 - 5 credits

Prerequisite: Choral Music 25

In their third year of choir students will be expected to fulfill team leadership roles such as section leaders. They will serve as musical role models for younger musicians. This type of cross-grade course involvement allows students to work as musical mentors. This course requires a commitment to a variety of performing experiences. Students will perform at school assemblies, the winter and spring concerts at the university, local music festivals, and a variety of Calgary venues.

DRAMA



Drama 10 - 5 credits

This is an entry level program. It is not necessary to have junior high drama, however, a sincere interest in theatre is important.

Areas of study are: movement, voice and speech, improvisation and character work.

Drama 20 - 5 credits

Prerequisite: Drama 10

Students will use the skills developed in Drama 10 to interpret and bring to life someone else's words - in other words, to focus on acting and script work. Acting, playwriting, scene study, and monologues are all part of the curriculum.

Drama 30 - 5 credits *Prerequisite: Drama 20*

This course pulls everything together. Topics include: acting, directing, auditioning, and technical theatre. When students have completed this program, they will:

- be comfortable in any secondary theatre setting
- be comfortable auditioning for any program
- enjoy giving reports and other public speaking situations
- find the analysis of literature easier.

Most importantly, students will find they have the tools to control and focus their creativity in theatre. Excellence is the result.

Technical Theatre 101 - 3 credits

In this course students will work with set design, set construction, lighting, costume, stage management, etc. When possible, they will work with the current school production.

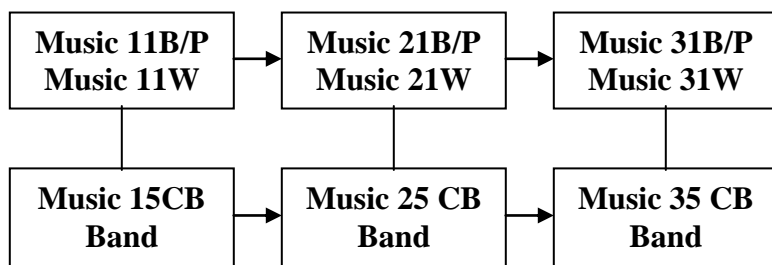
Technical Theatre 201 - 3 credits

Technical students at this level will be expected to work on two more areas in technical theatre, and to control a real project for the school play or some other production.

Technical Theatre 301 - 3 credits

Students at this level are expected to take a leadership role in a production.

MUSIC (Instrumental)



If students do not own their own instruments, rentals are available.

Music 11W (Woodwind Section) - 5 credits

Prerequisite: Junior high band participation OR a minimum of one full year of regular private lessons on a band instrument and an ability to read music.

This is a course designed to build fundamental musical skills on instruments. It emphasizes performance and covers all facets of music study including performance, theory, applied history, and chamber music. A midi-lab is used to augment the studies. This course is a co-requisite needed to enroll in Music 15CB (Concert/Symphonic Band). All Band and Instrumental music students must have basic skills in reading music notation.

Music 11B (Brass/Percussion Section) - 5 credits

Prerequisite: See Music 11W above

Music 21W (Woodwind Section) - 5 credits

Prerequisite: Music 11B OR Music 11W

This course continues to develop the techniques of the apprentice student musician. Music theory, applied history, and chamber music continue at a higher level. Ten mini-computer work stations are used for theory, ear training, and composition. This course is performance focused, and continues to develop musicality and music concepts for the instrumentalist. Independent study projects allow students to design and focus a portion of this course.

Music 21B (Brass/Percussion Section) - 5 credits

Prerequisite: See Music 21W above

Music 31W (Woodwind Section) - 5 credits

Prerequisite: Music 21B OR Music 21W

This is a sequential program for the advanced apprentice musician. Independent study projects will allow students to design and focus a portion of the course. This course, along with some private music lessons on instruments, fulfills the requirements for university entrance.

Music 31B (Brass/Percussion Section) - 5 credits

Prerequisite: See Music 31W above

Music 15 CB (Concert/Symphonic Band) - 5 credits

Prerequisite: Junior high music or equivalent private study

Co-requisite: Music 11B, 11W

This course allows the band student to participate in a performing concert band. It will be offered two times per week during early morning rehearsals *outside of the regular timetable* for the entire school year. Concert band and symphonic band are scheduled in this way to allow the group to perform for the entire school year while receiving five credits. This course requires a commitment to a variety of performing experiences including: concerts, workshops, festivals, and band trips. All Band and Instrumental music students must have basic skills in reading music notation.

Music 25 CB (Concert/Symphonic Band) - 5 credits

Prerequisite: Music 15 CB

Co-requisite: Music 21B OR 21W

This course builds upon the fundamentals of large ensemble playing as introduced in Music 15 CB. Student musicians explore a wider array of repertoire and are challenged to develop sightreading skills, interpretive skills, and independent rehearsal skills via section practices. This course requires a commitment to a variety of performing experiences including: concerts, workshops, festivals, and band trips.

Music 35CB (Concert Band) - 5 credits

Prerequisite: Music 25 CB.

Co-requisite: Music 31B OR 31W

In their third year of band, students will be expected to fulfill team leadership roles such as section leader, principal player, or soloist. They will be a musical role model for younger musicians. This type of cross-grade course involvement allows students to work as musical mentors. This course requires a commitment to a variety of performing experiences including: concerts, workshops, festivals, and band trips.

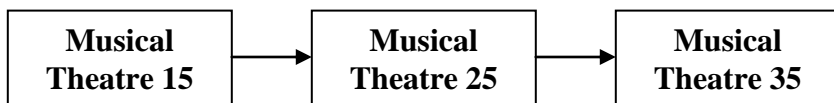
Music 15, 25, 25 (Blue Jazz Band – Advanced Jazz Study)

Co-requisite: Music 11 or 21 or 31 AND Music 15 or 25 or 35

Concert/Symphonic Band

This group of musicians is selected by audition in mid-September. All members must be involved in the regular Concert/Symphonic Band program. This is a five credit course that meets twice per week outside of the regular timetable on Tuesday after school and Friday morning before school. This course focuses on advanced performance of jazz music and jazz improvisation in all styles, and will be limited to twenty musicians. Students not participating in the Blue Jazz course are welcome to join the extra-curricular Jazz Army.

MUSICAL THEATRE



Musical Theatre 15 - 5 credits

Musical Theatre is designed for students who wish to explore their talents in the disciplines of acting, dancing and singing. Students will be introduced to a variety of musical styles from the 1920's to current Broadway hits. Students have the opportunity to audition for a large production every other year.

Musical Theatre 25 - 5 credits

Prerequisite: Musical Theatre 15

In the second year of musical theatre, students will continue developing and refining their acting, dancing and singing skills. They will continue working with professionals, and will also begin to develop their own style. Directing skills are started, and students will be expected to perform small projects that are self-initiated.

Musical Theatre 35 - 5 credits

Prerequisite: Musical Theatre 25

In the final year of musical theatre students will develop and direct their own projects that will be presented to the school. In addition, resume and audition workshops will be explored. Students will be expected to perform in school productions as well as to continue to develop their singing, dancing, and acting skills.

INTERNATIONAL LANGUAGES

Studying an additional language helps students in all areas of their studies. As well as improving their first language skills, studying an additional language increases students' understanding of the world around them and helps them in study, travel, leisure and job-related activities.

At Sir Winston Churchill, students can study Chinese, French, German and Spanish. These languages are considered to be academic subjects and are, therefore, used in the academic average for scholarships and for entrance to many programs at the post-secondary level.

Through classroom activities and the interactive multi-media language lab students build fluency and understanding. As well, Sir Winston Churchill offers exchange trips in Spanish, French and German. These opportunities allow students to rapidly improve their language ability and also expand their cultural knowledge. Each course also provides opportunities for summer programs and individual opportunities for students to practice their language in immersion, real-life situations. See individual teachers for explanations.

Sir Winston Churchill offers IB courses in French and Spanish. (See the IB section of this course guide.)

Bilingual students wishing to challenge language courses in Chinese, French, German or Spanish should contact the Learning Leader of International Languages for information on the procedures.

CHINESE

Background	Grade 10	Grade 11	Grade 12
No Chinese or very little	Chinese 10	Chinese 20	Chinese 30
3 years of Junior High Chinese or family background is Chinese <i>See note below</i>	Chinese 20		

Chinese 10 - 5 credits

This beginner level course is for students who have no background in Mandarin Chinese (or a very limited background). All four areas of language learning (listening, speaking, reading and writing) will be covered to provide students with basic communication skills. They will learn to read and write Mandarin Chinese using simplified characters. They will also learn many aspects of Chinese culture.

NOTE:

Students who have had Chinese-as-a-second-language instruction at the junior high level for grades 7, 8 and 9 or those who have a family connection to the culture and minimal knowledge of Chinese language, may be eligible to challenge Chinese 10 and go to Chinese 20.

Chinese 20 - 5 credits

This course is for students who want to continue developing their language fluency and global understanding of Chinese culture.

Chinese 30 - 5 credits

In this course students will continue developing their language competence so that they will be able to use Mandarin to communicate outside the classroom.

FRENCH

Background	Grade 10→	Grade 11→	Grade 12
No French or very little	French 10	French 20 French 20 IB ab initio	French 30 French 30 IB ab initio
3 years Jr.High 70% average	French 20	French 30	
Immersion program		French 30 French 21 IB	French 31 IB

French 10 - 5 credits

This beginner level course is for students who have no background in French (or a very limited background e.g. up to Grade 7). All four areas of language (listening, speaking, reading and writing) will be covered to provide students with basic communication skills through the study of a variety of topics.

French 20 - 5 credits

Prerequisite: French 10 or grades 7, 8 and 9 with a 70% average

This intermediate level course is for students who have successfully completed French 10. If they have completed French at the grade 9 level with at least a 70% average, final assessment will determine whether credits are granted in French 10 and/or 20. This course continues to develop language skills.

French 30 - 5 credits

*Prerequisite: French 20 **OR** Grade 9 Immersion*

This intermediate level course is for students who have successfully completed French 20 or have graduated from the Grade 9 French Language Arts Immersion Programs. This course further develops their ability to speak, understand, read and write in French.

<p>See IB section for French IB courses.</p>

GERMAN



German Language and Culture 10 (5 credits)

This course offers an initial experience in acquiring a fundamental knowledge of the German language. Through the various themes introduced, all four components of language learning: speaking, writing, listening and reading will be emphasized. The student will have an introductory knowledge of the culture and history of Germany. Facets of everyday German life will be presented and experienced to some degree.

German Language and Culture 20 (5 credits)

Prerequisite: German 10

Continuing directly from the German 10 course, this German 20 course gives a more in-depth study in oral German, grammar structures and reading. There is more emphasis on writing and knowledge of modern culture of the German-speaking countries. The information and work in this course focuses on practical every day vocabulary and structures. Successful completion of this course will make students eligible to participate in a three month **exchange trip** to Germany during the Grade 11 year.

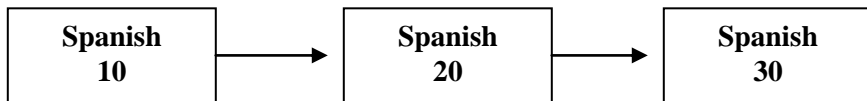
German Language and Culture 30 (5 credits)

Prerequisite: German 20

This course is based upon knowledge obtained by students in German 10 and 20. The objectives are the further refinement of linguistic skills and adding to the cultural understanding and appreciation of the German way of life in order for students to be able to express themselves more freely in a variety of settings.

If students have previous experience with German, please make an appointment with the German teacher at the beginning of the school year **before** classes commence to determine which class is most appropriate.

SPANISH



Spanish 10 - 5 credits

This is a beginner level course designed to help students achieve success in learning Spanish in context. Emphasis will be on the four components of language learning: reading, writing, speaking and listening. A variety of activities will be incorporated to ensure a spiral learning process with specific attention paid to different learning styles. The course is theme-based and uses relevant material to encourage the development of the learner's Spanish.

Spanish 20 - 5 credits

Prerequisite: Spanish 10

This course follows Spanish 10 at an intermediate level. It focuses on perfecting and developing Spanish using a variety of thematic materials and activities. Course content focuses on the practical use of Spanish via reading, writing, speaking and listening and prepares the learner to proceed to Spanish 30. The course emphasizes conversation, spontaneous writing, using Spanish in the community, and provides the opportunity for students to develop effective language learning strategies.

Spanish 30 - 5 credits

Prerequisite: Spanish 20

This course builds on what was learned in Spanish 10 and 20 and incorporates a less structured manner of learning. Emphasis is placed on the students' abilities to express themselves naturally and freely. By the end of the course students will have a very solid base in grammar and culture and be ready to meet the Spanish speaking world.

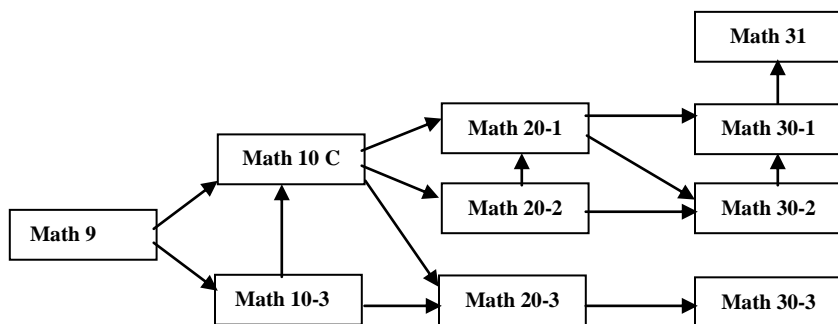
If students have previous experience with Spanish, please make an appointment with the Spanish teacher at the beginning of the school year **before** classes commence to determine which class is most appropriate.

See IB section for Spanish IB courses.

MATHEMATICS

A new Mathematics curriculum will be implemented in Alberta for students entering high school in September 2010. Further information can be found at <http://education.ab.ca>

COURSE SEQUENCES – for students entering September 2010 or later



Mathematics 10C (Common) - 5 credits

Prerequisite: Successful completion of Mathematics 9

Recommendation for Success: Students should have 60% in Mathematics 9 and Science 9 OR 75% in Math 10-3

This course is designed to serve both the Pre-calculus and Math Foundations streams that begin in grade 11. Students will study polynomials and factoring, coordinate geometry, systems of equations, exponents and radicals, measurement and right angle trigonometry.

Mathematics 10C (Candidate) - 5 credits

This course is designed to serve students that will be registering in the IB program. Students must register in this course if they wish to apply to the mathematics IB program.

Mathematics 10-3 - 5 credits

This course is designed for students who were not successful in Math 9. Math 10-3 should be taken by students with less than 60% in Math 9 and Science 9. Students will study measurement, geometry, right angle trigonometry and finance.

Mathematics 20-1 - 5 credits

Prerequisite: Mathematics 10C OR Mathematics 20-2 with teacher recommendation.

Recommendation for Success: Students should have a 65% or better in Mathematics 10C or 75% or better in Mathematics 20-2.

Course content includes: algebra and numbers, trigonometry, relations and functions.

Mathematics 20-2 - 5 credits

Prerequisite: Mathematics 10C

This course includes: measurement, geometry, number and logic, statistics, relations and functions.

Mathematics 20-3 - 5 credits

Prerequisite: Mathematics 10-3 OR 45% or better in Mathematics 10C.

This course focuses on the trades. Topics include: measurement, geometry, numbers, algebra, and statistics.

Mathematics 30-1 - 5 credits

Prerequisite: Mathematics 20-1 OR Mathematics 30-2 with teacher recommendation

Recommendation for Success: At least 65% in Mathematics 20-1 or in Mathematics 30-2

In this course students will study: transformations, polynomial, radical and rational functions, exponential and logarithmic functions, permutations and combinations, trigonometric functions. A diploma exam is written upon completion of this course.

Mathematics 30-2 - 5 credits

Prerequisite: Mathematics 20-2 OR 45% or better in Mathematics 20-1 with a teacher recommendation

Topics in this course include: probability, permutations and combinations, polynomial and rational functions, exponential and logarithmic functions. A diploma exam is written upon completion of this course.

Mathematics 30-3 - 5 credits

Prerequisite: Mathematics 20-3 OR 45% or better in Mathematics 20-2 with a teacher recommendation

Topics in this course include: measurement, precision and accuracy, sine law and cosine law, polygons, transformations, linear relations, mean, median and mode, buying and leasing vehicles, running a small business

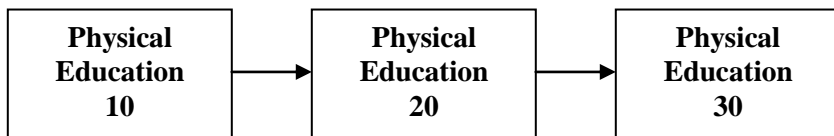
Mathematics 31 - 5 credits

Prerequisite: Mathematics 30-1

Recommendation for success: 70% in Mathematics 30-1

This course is designed for students who are planning to attend university and considering post-secondary studies in mathematics, applied science, engineering or business. The course begins with the study of limits, followed by an introduction to differential and integral calculus in one variable.

PHYSICAL EDUCATION



Physical Education 10 - 5 credits

Required for High School graduation

Students will participate in a variety of team activities and sports where the emphasis is on physical fitness, basic sport skills, strategies, rules, knowledge and understanding of techniques. There are a number of compulsory units, however students will be able to choose between a variety of sports and activities for the rest of their class curriculum. The course stresses cooperation, sportsmanship, self-discipline and active participation.

Physical Education 20 - 5 credits

(A 3-credit course will be available)

Prerequisite: approved pass from Physical Education 10

Students will participate in individual lifetime oriented activities. Due to the off-campus nature of the course, classes will require travel time outside of the regular timetable. Activities include: badminton, bowling, broomball, curling, dance, tennis, golf, racquetball, and kayaking. A cross-country ski unit culminates in a one day trip to Kananaskis. The 5 credit course has a service component of 4 hours. (The 3 credit course requires 2 service hours).

Successful completion of either the 3 or 5 credit course allows enrollment in P.E. 30.

Physical Education 30 - 5 credits

Prerequisite: Physical Education 20 (3 or 5 credit courses)

This course emphasizes individual off-campus activities and leadership skills. A leadership project involving volunteering in the community provides a valuable opportunity for individual growth. Course activities include: dance, rock climbing, curling, badminton, low organizational games, flat water and moving water kayaking, squash, tennis, and golf. The highlight of the course is an outdoor unit culminating in a three day camping trip.

The Physical Education 30 course may, in some situations, be used for university entrance.

Some of the activities in the Physical Education program have a limited element of risk to them. The department would like to assure parents and students that all activities will be taught with well conceived progressions in very safe environments.

SPORT MEDICINE



Sports Medicine 15 - 5 credits

This is a course for students who are interested in working as trainers with one of the school's athletic teams. The curriculum offers a logical beginning for students who are interested in such fields as: sports medicine, physiotherapy, nursing, medicine, anatomy, kinesiology, physiology, physical education or basic first aid. In addition to class time, students are also required to work as trainers for a minimum of 20 hours with school teams.

Sports Medicine 25 - 5 credits

Prerequisite: Sports Medicine 15

This is a continuation of the Sports Medicine 15 course, concentrating on injuries of the upper body. Students will have to perfect a wide variety of taping skills, train in first aid and CPR, and increase their knowledge of stress tests and assessment of athletic injuries. For the practicum, students will work as a trainer for a school team for a minimum of 60 hours throughout the school year.

Some of the curriculum content will be available on-line in order that students may work more independently.

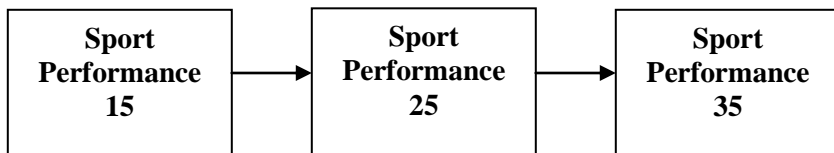
Sports Medicine 35 - 5 credits

Prerequisite: Sports Medicine 25

This course includes a concentrated study in the areas of rehabilitation of athletic injuries and an understanding of a variety of treatment modalities. Students will use the computer to work on scenarios focusing on detailed assessment and immediate care. Advanced CPR, taping skills, massage, and a study of career options through guest speakers and tours are also studied. As a trainer of a team, students will also work with mentoring Sports Medicine 15 and 25 trainers. For the practicum, students will work as a trainer for a school team for a minimum of 60 hours throughout the school year.

Some of the curriculum content will be available on-line in order that students may work more independently.

SPORT PERFORMANCE



Sports Performance 15 - 5 credits

The purpose of this course is to provide students involved in sports with the knowledge, skills and attitudes necessary to understand the factors related to sports performance. By exposing students to both the theoretical and practical nature of sports, students will be expected to demonstrate outcomes in a variety of areas. These include: current training principles, basic sport nutrition and hydration, performance evaluation, goal setting, leadership fundamentals, and sport psychology.

Sports Performance 25 - 5 credits

Prerequisite: Sports Performance 15

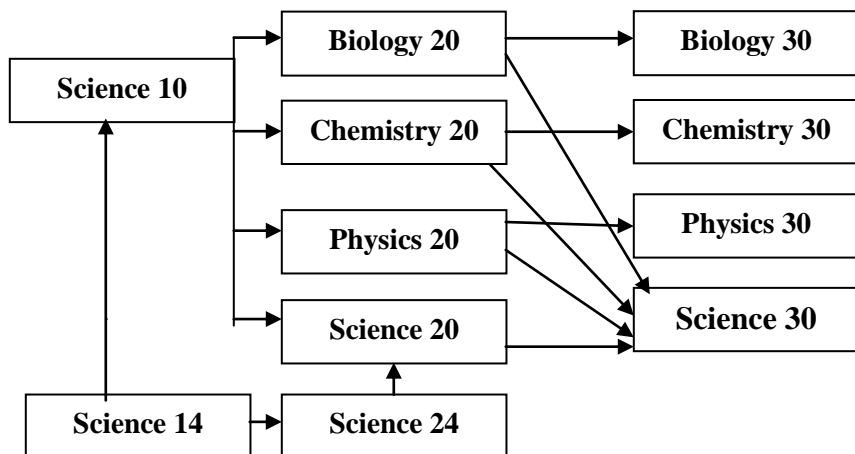
The purpose of this course is to build on the knowledge acquired in the Sports Performance 15 class. Students will be expected to demonstrate knowledge in high level athletic training. Students will study and use in a practical context: Developing and following a short term personal fitness plan, developing a nutrition and hydration plan, Olympic lifting, advanced concepts of speed, agility and aerobic training.

Sports Performance 35 - 5 credits

Prerequisite: Sports Performance 25

This course is a continuation of Sports Performance 25. This course focuses on year round high level athletic training. Sports Performance 35 concentrates on individual performance in an athletic setting. Students learn to design and implement a year-round program specific to an activity. Students will also learn to track and analyze their nutritional habits as they pertain to physical & mental performance.

SCIENCES



Science 10 - 5 credits

Prerequisite: Successful completion of grade 9 Science

*Recommendations for Success: 60% in grade 9 Science and in grade 9 math **OR** 80% in*

Science 14 with a teacher recommendation. Completion or concurrent registration in Math 10 Common is advised.

Science 10 is an integrated academic course designed to help students understand and apply concepts and skills common to biology, chemistry, physics and the environmental sciences. The themes of Science 10 are: energy, matter and change in chemical, technological, living, and global systems. Skills in algebraic problem solving, in tabling and graphing data, and in writing are used throughout the course. Strong math skills are expected. Workplace Hazardous Material Information System (WHMIS) is learned. There are many opportunities for activities, research, lab work and projects. Successful completion of Science 10 should allow the student to develop common skills and attitudes that are a part of the scientific process, and enable the student to make wise choices for the completion of a Science program in high school.

Science 14 - 5 credits

Science 14 is a course designed to provide an opportunity for success if students had difficulty in grade 9 Science or grade 9 Math. Science 14 should be considered if a student's grade 9 Science and Math marks are less than 60%. The units to be covered in the course include properties of matter, energy transfer technologies, matter and energy in living systems, and matter and energy in the environment. Math skills are developed as well. Workplace Hazardous Material Information System (WHMIS) is also learned. If successful in Science 14, the student would normally next complete Science 24.

Science 24 - 5 credits

Prerequisite: Successful completion of Science 14

Science 24 is intended to allow students to complete the Science credit requirements for an Alberta high school diploma (10 credits). There is usually no Science course that follows this one. Students should consider taking this course if their Science 14 grade is less than 80%, or they have been recommended to take this course by their Science 10 teacher. The concepts in Science 24 build on those developed in Science 14, and include a study of the applications of matter and chemical change, understanding common energy conversions systems, linking disease defense and human health, and studying motion change and transportation safety. Skills in group or team work, individual work, lab work, computer use, math skills, reading, writing and communication skills are usually developed in this course.

Biology 20 - 5 credits

Prerequisite: Successful completion of Science 10

Recommendations for Success: 60% in Science 10 overall and 60% in the biology unit of Science 10. Chemistry 20 background and greater than 60% in Math 10 Common would be an asset.

Biology is the study of living systems. Students will study the processes in the exchange of matter and energy in the biosphere, ecosystems and population change, photosynthesis and cellular respiration, and some human systems. An extensive field study is required. Tabling, graphing, and writing skills are used throughout this course. Strong math and communication skills are required. Group work and computer work are expected, and independent study may be undertaken.

Most years at SWC, this course is offered in the traditional classroom and in a blended program. In the blended program, students complete much of the course online, using D2L. In-class work is expected for lab work and for major assessments.

Biology 30 - 5 credits

Prerequisite: Successful completion of Biology 20

Recommendations for Success: 60% in Biology 20. Chemistry 20 background and successful completion of Math 20-1 would be an asset.

The concept of maintaining equilibrium is examined through the study of electrochemical and chemical control in human systems. The theme of change is a focus of learning in the study of human reproduction and development. The topics of genetics and molecular biochemistry, as well as changes observed quantitatively in populations and communities are covered in this course. Tabling, graphing, and writing skills are used throughout this course. Strong math and communication skills are required. A diploma exam is written upon completion of this course.

Most years at SWC, this course is offered in the traditional classroom and in a blended program. In the blended program, students complete much of the course online, using D2L. In-class work is expected for lab work and for major assessments.

Chemistry 20 - 5 credits

Prerequisite: Successful completion of Science 10

Recommendations for Success: 60% in Science 10 and 60% in the Chemistry unit of Science 10. Students with success in the Chemistry unit of Science 10 will have a better chance to master the concepts in Chemistry 20. Greater than 60% in Math 10 Common is recommended.

Chemistry is the study of matter and its changes. In Chemistry 20 the different states of matter are investigated and the types of attractive forces between particles are discussed. Solutions such as acids and bases are introduced. Mathematical relationships between species in a reaction are investigated. Chemical reactions, algebraic problem solving, skills in tabling data and graphing, and writing are used constantly. Strong math and communication skills are expected. Skills (from Science 10) in naming chemicals, writing formulas, and balancing reactions, are expected at the beginning of this course.

Chemistry 30 - 5 credits

Prerequisite: Successful completion of Chemistry 20

Recommendation for Success: 60% in Chemistry 20. Successful completion of Math 20-1 is recommended.

Chemistry 30 requires mastery of some topics taken in Chemistry 20 and extends these topics in the study of introductory organic chemistry, energy changes in chemical reactions, acid-base chemistry, reaction rates and equilibrium concepts, and a detailed study of oxidation-reduction reactions. Algebraic problem solving and skills in tabling, graphing data and in writing are used constantly. Strong math and communication skills are necessary. A diploma exam is written upon completion of this course.

Physics 20 - 5 credits

Prerequisite: Successful completion of Science 10

Recommendation for Success: 60% in Science 10 overall and 60% in the Physics unit of Science 10. At least 60% in Math 10 Common is recommended. Completion of or concurrent registration in Math 20-1 is recommended.

Physics is the study of matter and energy and their interactions. Through a study of physics, an opportunity is given to explore and understand the natural physical world and to become aware of the influence of physics on our lives. Topics include: kinematics, dynamics, periodic motion and conservation of energy. Skills in algebraic problem solving, tabling and graphing data are used throughout the course. Success in this course depends on strong math and communication skills.

Physics 30 - 5 credits

Prerequisite: Successful completion of Physics 20

Recommendations for Success: 60% in Physics 20. Greater than 60% in Math 20-1 is recommended.

This is a continuation of the study of Physics concepts, with the addition of more abstract topics. It emphasizes conservation laws (especially momentum and energy), electricity and magnetism, field theory, electromagnetic induction and waves, models of the atom, wave-particle duality and radioactivity. Algebraic problem solving, tabling, graphing and writing skills are used throughout this course. Strong math and communication skills are required. A diploma exam is written upon completion of this course.

Science 20 - 5 credits

Prerequisite: Successful completion of Science 10

Recommendations for Success: 60% in Science 10. Successful completion of Math 10 Common (greater than 60%) is expected.

Science 20 is an **academic** Science course that has been designed to fit students' needs if they intend to go into post-secondary studies leading to a non-Science career. This course is designed to help students become scientifically literate adults by exposing them to a variety of Science topics from Biology, Chemistry, Physics, and Earth Science. The theme of change is explored in relation to geologic evidence, matter and energy in the biosphere, in chemical systems, and in velocity, acceleration, force and momentum. Algebraic problem solving, tabling, graphing and writing skills are used throughout this course. Strong math and communication skills are recommended. An extensive field study is required.

Science 30 - 5 credits

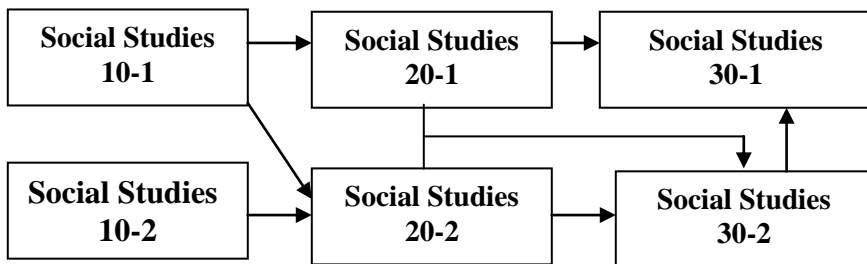
Prerequisite: Successful completion of any of Science 20, Chemistry 20, Biology 20 or Physics 20

Recommendations for Success: 60% in the prerequisite course.

Successful completion of Math 20-1 is expected.

Science 30 is an **academic** Science course. There is a major emphasis throughout this course upon developing skills in using scientific knowledge to make personal decisions. Science 30 continues the integration of the Science disciplines. The four units of study include living systems responding to their environment, chemistry in the environment, electromagnetic energy, and energy and the environment. Algebraic problem solving, tabling, graphing and writing skills are used throughout this course. Strong math and communication skills are required. A diploma exam is written upon completion of this course.

SOCIAL STUDIES



Social Studies Curriculum:

Social Studies is the study of people in relation to each other and to their world. It draws upon history, geography, ecology, economics, law, philosophy, political science and other social science disciplines. The Social Studies curriculum provides opportunities for students to develop the attitudes, skills and knowledge that will enable them to become engaged, active, informed and responsible citizens. It focuses on the concepts of citizenship and identity in the Canadian context. The program reflects multiple perspectives, including Aboriginal and Francophone that contribute to Canada's evolving realities.

(<http://www.education.alberta.ca>)

Social Studies 10-1 - 5 credits

Prerequisite: Social Studies 9

Recommendation for success: 65% or better in Social Studies 9

This course will examine multiple perspectives on the origins of globalization, and the impacts of globalization on culture, economies, human rights and quality of life for the world community. Students will examine these relationships with the goal of enhancing their skills for effective participation as citizens in a globalizing world.

The use of multiple perspectives will encourage the examination of globalization on Canadians (including impacts on Aboriginal and Francophone communities), as well as the global population. Themes of study will include concepts such as: identity development and cultural diffusion, historical studies of globalization and imperialism and the effects on contemporary, economic development; the status of human rights, and citizen's roles, and the global community for both indigenous and non-indigenous peoples.

Social Studies 10-2 - 5 credits

Prerequisite: Social Studies 9

This course will allow students to explore historical aspects of globalization as well as the effects of globalization on lands, cultures, human rights and quality of life. Students will explore the relationships among globalization, citizenship and identity. The infusion of multiple perspectives will allow students to examine the effects of globalization on people in Canada and other locations, including the impact on Aboriginal and Francophone communities. Students will develop skills to respond to issues emerging in an increasingly globalized world.

Social Studies 20-1 - 5 credits

Prerequisite: Social Studies 10-1

Recommendation for success: 65% in Social Studies 10-1

In this course, students will explore the complexities of nationalism in Canadian and international contexts. They will study the origins of nationalism and the influence of nationalism on regional, national, international and global relations. The infusion of multiple perspectives will allow students to develop an understanding of nationalism and how nationalism contributes to the citizenship and identity of peoples in Canada. Themes of study will include concepts such as: the relationship between nation and nation-state, the various types of nationalism (ethnic, civic, religious, political, economic, cultural, linguistic, spiritual and psychological), the connection between nation and identity, and the development of nationalism.

Social Studies 20-2 - 5 credits

Prerequisite: Social Studies 10-2

In this course, students will examine historical and contemporary understandings of nationalism in Canada and the world. They will explore the origins of nationalism as well as the impacts of nationalism on individuals and communities in Canada and other locations. Examples of nationalism, ultranationalism, supranationalism and internationalism will be examined from multiple perspectives. Students will develop personal and civic responses to emergent issues related to nationalism.

Social Studies 30-1 - 5 credits

Prerequisite: Social Studies 20-1 OR Social Studies 30-2

Recommendation for Success: 60% in prerequisite courses.

This course is intended for students who have an interest in ideas and issues drawn from history, geography, economics, social science, and the humanities. Students will explore the origins and complexities of ideologies and examine multiple perspectives regarding the principles of classic and modern liberalism. An analysis of various political and economic systems will allow students to determine the viability of the principles of liberalism. Developing understandings of the roles and responsibilities associated with citizenship will encourage students to respond to emergent global issues. This understanding will enable students to effectively investigate, analyze and evaluate government policies and actions and develop individual and collective responses to contemporary local, national, and global issues. A diploma course is written upon completion of this course.

Social Studies 30-2 - 5 credits

Prerequisite: Social Studies 20-1 OR Social Studies 20-2

In this course, students will examine the origins, values and components of competing ideologies. They will explore multiple perspectives regarding relationships among individualism, common good and collectivism. An examination of various political and economic systems will allow students to assess the sustainability of the practices of political and economic systems and the viability of the values of liberalism. Developing understandings of the roles and responsibilities associated with citizenship will encourage students to respond to emergent global issues. An awareness of the evolution of ideologies is key to comprehending and responding to local, national and global issues. A diploma course is written upon completion of this course.

Psychology 30 - 6 credits

Prerequisite for Experimental Psychology: Social Studies 20-1 OR Social Studies 20-2

Prerequisite for Philosophies of Man: Social Studies 20-1 OR Social Studies 20-2 and successful completion of Experimental Psychology.

This is a complementary academic course designed to introduce students to some of the theories related to personal development, learning, mental functioning and behaviour of humans and animals, relationships, abnormal behaviour, mental illness, and the treatment of psychological problems. This course consists of two 3-credit classes (Experimental Psychology and Philosophies of Man).

WORK EXPERIENCE/CAREER EXPLORATION

15/25/35

Work Experience provides students with an opportunity to do some career exploration while working or volunteering outside the classroom in a community or professional environment. This course is designed for both career exploration and the development of valuable employability skills. Students are matched to an approved work site with an experienced mentor. Work Experience offers students the chance to experience certain career paths before they start or choose their future post-secondary path. They receive 1 credit for every 25 hours worked at their work site, verified by their employer on a weekly time sheet. Work Safety (HCS3000), a 1 credit course must be completed by all students prior to beginning at their work site.

REGISTERED APPRENTICESHIP PROGRAM RAP

15/25/35

RAP is a wonderful opportunity for those students who wish to pursue a career in the trades after high school. This course allows students to be matched with a journeyman mentor to begin their apprenticeship while still in high school. The students must complete 3 prerequisite 1 credit CTS modules: Personal Safety, Workplace Safety and Work Preparation, before being placed with their mentor. Students then complete a 5 credit (125 hour) work experience probationary period at the work site, to see if the match is working for both student and mentor. If both sides are in agreement, the apprenticeship will begin. Hours are earned towards the student's trade, while earning high school credits and receiving a salary.

- Students wanting to be involved in the RAP Program should start in the spring/summer of their Grade 10 or 11 year. A student/parent information night will be held in March.

SPECIAL PROGRAMS

ENGLISH AS A SECOND LANGUAGE (ESL)

Success in high school courses, particularly those with demanding language requirements such as English and Social Studies, requires a solid investment in English language development. Our ESL program helps students gain the language competence necessary for them to achieve the success required for post-secondary study.

If students are not sufficiently fluent in English to meet the academic challenges of high school courses, their English language proficiency will be assessed and they will be directed to the appropriate ESL classes to improve their speaking, listening, reading and writing.

At Sir Winston Churchill, to help promote English fluency, we focus on the four strands of language acquisition which are: reading, writing, speaking, and listening. Student placement and movement within the ESL classes is determined by the Alberta ESL Proficiency Benchmarks.

Sir Winston Churchill High School, Calgary, CANADA

In the ESL program, we center on the needs of the individual student, and provide programs accordingly. Some students move through the ESL courses and program very quickly, while others take more time. Each student is unique and will progress at different rates. Using the Alberta ESL Proficiency Benchmarks, teachers in the ESL program assess and evaluate student progress throughout the semester.

ESL 10 Level 2 - 5 credits

This is a beginner level English class. Level 2 students work on building their English skills in all capacities. Students enrolled in this class will be completing Alberta ESL Proficiency Benchmark 2.

ESL 10 Level 3 - 5 credits

This is an ESL course designed to challenge our level 3 students with various types of text. This is a high-beginner/low intermediate class. Students will begin to learn how to respond to text. As well, there is an emphasis on reading strategies and paragraph writing as well as the continued development of vocabulary and grammar proficiency. This class is for students who are working towards completing Alberta ESL Proficiency Benchmark 3. Students who successfully complete this level may progress to our full year English course.

FULL YEAR ENGLISH CLASS - 10 credits

This course is designed to prepare students for English 10-2 credits and/or English 10-1 credits. At mid-year, students may be able to challenge the English 10-2 final exam or the English 10-1 final exam as determined by the teacher. Teachers will then recommend the next English course: either continue in 10-2 or English 10-1 in their grade 10 year; or move to 20-2 or 20-1 in their grade 11 year.

Students, who write the English 10-2 exam in June and pass, will be awarded credits for both, ESL Level 4 and English 10-2.

This class will be recommended to students by administration at Sir Winston Churchill. Students who are working at ESL Benchmark 4/5 will be considered for this course.

INTERNATIONAL BACCALAUREATE

Students who love learning and enjoy a rigorous academic challenge should consider the International Baccalaureate (IB) programme. IB students are self-motivated, have achieved good marks in junior high, love learning and enjoy studying. Success in this programme will depend on the student's ability to:

- handle a demanding workload at a fairly quick pace
- work to understand concepts and their development rather than just memorize
- learn to become an independent, self-disciplined student.

Students have two candidacy options in IB: Diploma or Certificate.

Diploma - students take full IB (in Grade 11 and 12, all courses are in IB). In addition, students will complete Theory of Knowledge, Extended Essay and CAS (creative, action or service activities).

Certificate - students must take a minimum of two IB courses, the Certificate program must be balanced or well-rounded, including a humanities based IB course (For example, Mathematics IB, Chemistry IB and History IB, plus be involved in CAS activities).

In May, of either the Grade 11 or Grade 12 years, students will write challenging IB exams and, when applicable, the Alberta Education Diploma exams in January and/or June.

Additional costs – students will be responsible for: examination and registration fees, the external assessment of their Extended Essay, Theory of Knowledge essays, plus a mailing fee.

IB courses are: Higher Level (HL) and Standard Level (SL). Higher Level courses are in-depth two year studies of a particular subject. Standard Level courses are normally of one year study duration. They do not go into the depth or detail of HL courses .

IB Courses Offered at Sir Winston Churchill:

1. Language A1 (HL)- English
2. Language B - French SL **OR** Chinese SL* or French SL ab initio (beginning French course) **OR** Chinese ab initio* **OR** Spanish SL ab initio
3. The Study of Individuals and Society –World History HL
4. Experimental Science: Chemistry HL, Physics SL, Biology SL
5. Mathematics HL/SL
6. Electives: Visual Arts HL **OR** Computer Science HL/SL** (SL Computer Science only with consent/recommendation of teacher/IB coordinator)

NB

*Cantonese IB and Mandarin IB are offered at The Chinese Academy, a Saturday Chinese School in partnership with the Calgary Board of Education.

**Diploma candidates may substitute one of these HLs for Chemistry HL.

Sir Winston Churchill High School is looking at the possibility of expanding course offerings for 2011-2012 to perhaps include Music, Business and Organization, Economics, Theatre Arts and Mathematics HL.

Admission into IB

Students must apply in December of Grade 10 for admission into the IB program. Selection is granted on a course-by-course basis and the admission criteria are:

1. a mark of 75% **OR** better
2. a recommendation by the subject area teacher
3. priority placement for (full) IB Diploma Candidates
4. a well-rounded selection of IB courses for Certificate IB Candidates (e.g.#1 Mathematics, Physics, English **OR** e.g. #2 Biology, Mathematics, History)

If students accept placement in IB **they will be expected to fulfill their commitment to the program** notwithstanding unforeseen circumstances. Withdrawal from the program will be granted only with IB Coordinator's consent.

Please select IB carefully.

Over the next two years, in order to fulfill the IB Diploma Requirements and an Alberta Education High School Diploma, a student must register for the following:

1. Math 10 (candidate) and Science 10 for the first semester of Grade 10.
2. Math 20 IB and one of the Science 15 options, Physics or Biology, for the second semester of Grade 10.
3. PE 10.
4. Second language (French, Spanish, or Mandarin at the 10 or ab initio level).
5. CALM 20.
6. Theory of Knowledge, Extended Essay and CAS.
7. 3 HL subjects.
8. 3 SL subjects.

HL subjects are:

English 30/35

World History 30/35

Math 30/31 IB HL

SL subjects are:

Biology 20/30 IB

Physics 20/30 IB

Math 30/31 IB SL

GRADE 10 COURSE SELECTIONS

Biology 15 IB - 3 credits

Prerequisite: Science 10

This course continues the biology section of Science 10. Topics that are studied may include: the plant kingdom, ecology (population and community in-depth as per Biology 20 and 30), and energy flows in photosynthesis and cellular respiration. This course is a prerequisite to Biology 20 IB.

Mathematics 20 IB - 5 credits

Prerequisite Math 10 Candidate

Students will study an enriched and extended presentation of the Math 20-1 curriculum. This course is taken in the second semester of the grade ten year. Therefore candidates must take Math 10 Candidate in the first semester. Continuation in IB Mathematics SL or movement into IB mathematics HL will occur in consultation with Mathematics IB teachers at the end of 20IB and the beginning of 30IB.

Physics 15 IB - 3 credits

Prerequisite: Science 10

Students will study an enriched presentation of various topics covered in regular Physics 20, such as: the study of gravity and free fall, dynamics, and energy and momentum. This course is a prerequisite for Physics 20IB.

GRADE 11 COURSE SELECTIONS

Art 20 IB - 5 credits

Prerequisite: Art 10 and successful I.B. application

Students in Art and Design 20 I.B. are introduced to an enriched studio program that provides opportunities to develop technical skills while exploring the following media: drawing, sculpture, printmaking, mixed media and painting. This is a rigorous and rewarding program where students will begin to develop their own personal vision through studio work and personal research of themes, significant artists and culture in the I.B. Research Work Book.

Biology 20/30 IB - 10 credits (full year)

Prerequisite: Biology 15 IB

Students will cover all the components of the Biology 20 and 30 Alberta Curriculum that are not covered in Science 10 including in-depth studies of photosynthesis, the immune system, and genetic engineering. A wide variety of lab experiences and field trips will be included.

Chemistry 20 IB - 5 credits

This course includes the study of acids and bases, coordination compounds, oxidation reduction reactions, chemical kinetics, and carbon chemistry.

English 20 IB - 5 credits

Prerequisite: English 10-1

Students will be introduced, literally, to the wide world of literature. Different genres of writing from different eras and countries will be discussed, studied, and compared. There is a great variety of viewing, listening, discussing, reading and writing.

French 20 IB (ab initio) - 5 credits

This French course is designed for those who have no previous instruction or experience with the French language.

French 21 IB

The regular French 21 curriculum of Alberta Education is initially covered. Then a variety of readers are added to the program to improve reading comprehension and a source for developing oral skills. Students are introduced to writing compositions. If students are coming from a

bilingual junior high school they should request this course in Grade 11 to continue their French studies for the International Baccalaureate Program.

Mathematics 30/31 IB - 10 Credits (full year)

Prerequisite: Pure Math 20 IB

In addition to an enriched presentation of all the topics in Pure Math 30 and Math 31, this course will cover extensions in calculus, vectors, and matrices.

Mathematics 30/31/35 IB - 15 Credits (to be taken over 3 semesters)

Prerequisite: Pure Math 20 IB and teacher recommendation

In addition to an enriched presentation of all the topics in Pure Math 30 and Math 31, this course will cover extensions in calculus, vectors, matrices, inverse trigonometric functions, probability density functions, sets, relations and groups.

Physics 20/30 IB - 10 credits (full year)

Prerequisite: Physics 15 IB

The course covers all the components of the Physics 20 and 30 Alberta curriculum that are not covered in Science 10 including: gravitational potential and escape velocity; thermal physics, radioactivity, isotopes and nuclear energy.

Social Studies 20 IB - 5 credits

Prerequisite: Social 10

This course provides students with an introduction to the discipline of history by surveying the development of western civilization from the Enlightenment to the Armistice ending World War I. (Includes American and European history)

Spanish 20 IB (ab initio) - 5 credits

This Spanish course is designed for those who have no previous instruction or experience with the Spanish language.

GRADE 12 COURSE SELECTIONS

Art 30/31 IB - 10 credits (full year)

Prerequisite: Art 20 IB

Students in Art 30/31 IB continue to explore the exciting connection between their studio work and individual research. Students will have individual and class instruction and work towards creating powerful, and personally meaningful themes in drawing, photography, painting, sculpture and mixed media.

Chemistry 30/35 IB - 10 credits (full year)

Prerequisite: Chemistry 20 IB

Topics covered include: the transition metals, representative elements, chemical equilibrium and chemical kinetics. Two optional units (selected by the teacher) are also covered.

Computer Science 31 IB/33 IB - 6 credits for 31 IB and 6 credits for 33IB

Prerequisite: Computer Science 202 and enrollment as an IB Higher Level Computer Candidate

A student cannot get credit in both Computer Science 301 and Computer Science 31-IB

- **Dynamic Data Structures:** Structures are studied as standard Java collections, using iterators, sets and maps, but student must also independently design ADT (Abstract Data Types) implementing their own versions of dynamic data structures such as vectors, linked lists, binary search trees, stacks and queues.
- **File Handling:** Both sequential and direct access file handling structures are designed and implemented.
- **Computer Program Dossier Project:** Students will plan and develop programs using systems analysis, UML (Unified Modelling Language) diagrams, Javadoc documentation, exception handling, JUnit testing, file handling, either linked lists or binary search trees, and a graphical user interface.
- **Extended Computer Science Topics:** Topics include: systems analysis, software life cycle, computer architecture and peripherals, data representation, number systems and representations, Boolean logic,

- operating systems and utilities, algorithmic evaluation, social significance and implications of computer systems, and a case study of an industry wide application.
- IB students complete the Computer Program Dossier Project begun in Computer Science 31-IB.
- **Two web pages:** One attractively presents all code and documentation of the earlier created Computer Program Dossier Project. A second page teaches an approved topic in computer science.

English 30/35 IB - 10 credits (full year)

Prerequisite: English 20 IB

Students will further develop a literary perspective by studying more literature from different cultures, time frames, and translations from their original languages. Students are expected to complete both oral and written final exams.

Extended Essay IB - 5 credits

Prerequisite: IB Diploma Candidate

French 30 IB - 5 credits (ab initio)

Prerequisite: French 20 IB

This course prepares students for the French 30 ab initio oral and written Diploma exams. The course is based on the curriculum of French 30 of Alberta Education (level 5/6) and on the new curriculum of the French ab initio. A variety of resources are used: **C'est à toi** and **Images** are the principal ones. The study of a variety of short stories will be done in class and students will engage in enrichment activities that are more difficult and advanced in terms of scope and depth, frequency, and richness of expression.

French 31 IB - 5 credits

Prerequisite: French 21 IB OR Approval by the IB Department

Students will cover regular French 31 curriculum of Alberta Education. Emphasis is placed on consolidation of grammatical structures to enhance written composition using a variety of formats: journals, editorials, personal and formal letters, reports, stories etc. **Bon Voyage Level 3** is the principal resource. For reference, **Destinations Nouveaux Horizons**, and **Avec Brio** will be used for the study of grammar and structure of text. The novel **L'étranger** by Albert Camus will be studied

thoroughly. Oral assessment for the IB Exam is ongoing throughout the semester.

Theory of Knowledge - 3 credits

Prerequisite: IB Diploma Candidate and/or World History 30 IB

World History 30 IB/Social Studies 30 IB - 10 credits (full year)

Prerequisite: Social Studies 20 IB

This course provides a detailed outline survey of modern American and European history from 1900's to the present era. Emphasis is placed upon the study of major historical themes, document analysis, research procedures and class discussions.

IB at Churchill: Possible Program Sequences

