

# **BRITANNIA SECONDARY**



## **BRITANNIA COURSE CALENDAR**

**2024 - 2025**

**Master Calendar**



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## GENERAL INFORMATION

The course descriptions in this booklet provide students with details to help them choose their courses. Counsellors will guide students through the course selection process. Parent or guardian approval will be asked for by means of a signature on the course-planning sheet during course selection January-March.

Because of the constraints resulting from facilities, staffing, graduation requirements and other student choices, students should anticipate some conflicts in course scheduling. Students will need to choose alternate courses carefully because we may not be able to timetable all eight of their first choices.

The courses finally offered in the master timetable are set by the number of students requesting the courses. If not enough students request a certain course, it will have to be dropped from the schedule. In addition, changes in staffing or other circumstances may result in modifications to course offerings.

## GRADUATION REQUIREMENTS

### PROGRAM REQUIREMENTS FOR STUDENTS IN GRADES 8 AND 9

PLEASE NOTE: All courses are designed with the understanding that you will take them in Grade sequence i.e. Math 8→Math 9→Math 10 etc. Exceptions can be made with permission of the teacher.

Students in Grades 8 and 9 must take 8 courses per year. Daily timetables will not normally contain unscheduled or study blocks. The following courses are required in grade 8 and 9:

English 8 & 9\*  
Mathematics 8 & 9  
Science 8 & 9  
Social Studies 8 & 9  
Physical and Health Education 8 & 9  
Applied Design, Skills and Technologies 8 & 9  
Arts Education 8 & 9  
French 8\*\*  
Career Education 8 & 9\*\*\*

- English as a Second Language students may be required to take English support (ELC) courses prior to or alongside the prescribed English course.

\*\* Students needing assistance in reading, writing, vocabulary and mathematics skills may be enrolled in Skill Development (SDC) to support their learning in academic courses.

\*\*\* Career Education 8 & 9 are offered through pull out and as part of other course topics.

## **GRADUATION PROGRAM REQUIREMENTS - GRADE 10-12**

Students require a minimum of **80 credits** to graduate.

Of these 80 credits:

- At least 16 credits must be at the Grade 12 level, including a required Language Arts 12 and Career Life Connections
- At least 28 credits must be elective course credits
- 52 credits are required from the following:
  - Career Life Education (4 credits), and Career-Life Connections (4 credits)
  - Physical and Health Education 10 (4 credits)
  - Science 10 (4 credits), and a Science 11 or 12 (4 credits)
  - Social Studies 10 (4 credits), and a Social Studies 11 or 12 (4 credits)
  - A Math 10 (4 credits), and a Math 11 or 12 (4 credits)
  - An English Language Arts 10, 11, and a required 12 (12 credits)
  - An Arts Education 10, 11, or 12 and/or an Applied Design, Skills, and Technologies 10, 11, or 12 (4 credits)
  - Indigenous-focused (4 credits)

**Graduation Assessments:** Students must also complete the three Graduation Assessments:

Numeracy Assessment

- Students in grade 10 will complete the Numeracy 10 Assessment in January Literacy Assessments
- Students in grade 10 will complete the Literacy 10 Assessment in November
- Students in Grade 12 will complete the Literacy 12 Assessment in January

**Career Education:** Students will be able to meet the career education graduation requirement by completing the following:

- Career Life Education
- Career Life Connections + Capstone

## **STUDENT SERVICES: MISCELLANEOUS COURSES**

### **CAREER LIFE EDUCATION 10 (MCLE-10)**

Career Life Education 10 is a required course for graduation. It supports students in the process of becoming successful, educated citizens by providing them with opportunities to explore a variety of careers and options for their future. Career Education helps students to discover a bridge between classroom learning and workplace and post-secondary realities, and is intended to make their learning meaningful and relevant.

Students will refine their understanding of the links between personal development and their career decisions. They consider regional and global trends to reflect on career possibilities, refine their understanding of safety requirements associated with occupational areas and related technologies, and further develop and refine their understanding of career possibilities through planning, practice, and application of competencies and knowledge.

Students may explore and experience various career options before they discover the most appropriate and meaningful direction for them. For some students, a successful transition will involve a direct path to further education, while for others it will involve a direct path to the world of work.

### **CAREER LIFE CONNECTIONS (MCLC-12)**

Experiential learning is a process of engaging in and reflecting on direct experiences beyond traditional classroom settings. Through this CLC learning standard expectation, students can further refine their career-life goals and transferrable skills. Based on student needs and interests, career-life exploration can include service learning, volunteerism, employment, fieldwork, entrepreneurship, and projects focused on an area of deep interest.

### **PEER TUTORING 12 PEER T12 (YIPS-2B)**

Peer Tutoring 12 is a practical hands-on course where grade 12 students develop knowledge and skills related to peer tutoring. Students receive instruction through a placement in a peer tutoring situation. Areas of focus of this course include: roles and responsibilities of a peer tutor, communication skills, and interpersonal skills, learning disabilities/difficulties and learning styles, strategies and skill development (goal setting and organizational skills learning strategies and study skills, test-preparation and test-taking skills) and tutoring techniques for one-to-one and group learning.

## **LIBRARY SERVICES 11 (YBMO-1B)**

This course is designed for students who show an interest in library organization and management. Students are required to have library community service, library experience, or have participated in the Library Club. Students without one of these prerequisites must have teacher-librarian permission.

The Britannia Library Learning Commons is a space that radically welcomes all students. The mission of the library is to support student learning and improve opportunities for student success by facilitating access to computers, print and digital media, and consumable resources. Students who take this course will be part of a team that helps the school and the student body through the organization and management of the library space.

## **SKILLS DEVELOPMENT 8-12 (XLDCD08, XLDCD09, YLE--0A, YLE--1A, YLE--2A)**

The Skill Development Program (SDC) is designed to assist students with their learning in a variety of ways. Students enroll for one block. Grade eight and nine students work on the development of academic strategies that will enhance their reading, writing, research, science and math skills. They are taught to develop and maintain organizational skills, including agenda usage, binder and locker organization. Each class begins with a check-in and identification of specific concepts/topics in academic subjects that the student will work on in the class.

Students will have time available to work directly on their English, Math, Social Studies and Science course work, assignments, review and test preparation. Detailed reports are prepared each term and a mark is given to reflect the skills learned and applied across subject areas. The program is flexible to allow students to focus more on specific areas of need.

Senior students, those in grade 10 and higher, may also enroll. Their program has the same criteria with more direct focus on specific academic courses, with teacher support, and the use of effective study skills. Senior students may also gain course credits for successful completion of the course.

Students may be recommended by the resource teacher, subject teachers, counsellors or can refer themselves subject to space availability.

- develop cross-curricular strategies for learning
- develop English and Math skills
- learn through review assistance
- receive course assistance
- receive organizational assistance
- prepare for exams
- write tests or exams in a quiet setting
- a quiet workplace
- learning resources available
- six computers and a printer
- research and word program
- teacher assistance

# BUSINESS EDUCATION

Get a head start on a successful professional career and take business courses! Britannia's Business Education department will not only prepare you for college/university business programs, it will help you utilize technology to support your transition to your post-secondary endeavors. You will develop valuable employment skills which can be used immediately and in the future.

By taking Business Education courses, you may have the opportunity to:

- Receive the Business Education Certificate of Achievement for excellence in your business studies!
- Use various computer programs to learn about business and create products.
- Network with business professionals from the community.
- Qualify for Business Education scholarships at graduation.

## **ADST – ENTREPRENEURSHIP AND MARKETING 8 (MADEM08)**

Applied Skills 8 is an exciting activity-based course designed to provide learning opportunities for all students in the field of business. Students will be introduced to various topics in business and will use computer software to gain a variety of practical skills and knowledge. Students will be asked to work independently and as part of a team when completing course work. Applied Skills 8 will provide students with the analytical, inter-personal, and technical skills they require to be active participants in a thrilling and busy world.

## **ENTREPRENEURSHIP AND MARKETING 9 (MADEM09)**

This is an introductory Business course that will introduce students to the areas of finance, accounting, marketing, business management, and entrepreneurship. You will learn to use your computer as a communication and design tool. Activities will be practical and hands-on with students having the opportunity to create products by using a button press, vinyl cutter, t-shirt press, mug press, and sublimation printer. This course will help get the most out of a computer to produce high quality reports, essays, business letters, and school projects. The skills acquired will be very useful in both personal and business applications.

## **ENTREPRENEURSHIP AND MARKETING 10 (MADEM10)**

\*This course fulfills the ADST/Arts education graduation requirement.

This course is intended for students entering Grade 10 who would like to further develop their business skills and abilities in prototyping. Entrepreneurship and Marketing 10 introduces students to all senior Business Education courses by offering insights into accounting, marketing, business computing, financial literacy, entrepreneurship, and e-commerce. Students will have the opportunity to create a variety of products by using current technologies in the school. This course will provide an excellent introduction to ready students for more advanced business courses and will help prepare students for the business world many students find themselves participating in after high school.



## **ACCOUNTING 11 (MAC--11)**

This business course will provide you with information and practical bookkeeping experience that will help you understand and work within a business environment. Accounting knowledge is vital information to have when working in any area of business. You will:

- Be introduced to fundamental accounting concepts.
- Learn the accounting cycle and how it is used in business.
- Learn about the CPA designation
- Listen to professional guest speakers.
- Potentially be given the opportunity to work in banks, such as RBC, CIBC, BMO and accounting firms such as Ernst & Young.

## **MARKETING & PROMOTION 11 (MMA-P-11)**

Prerequisite: None. This course is intended for students entering Grades 10 to 12.

\*This course fulfills the ADST/Arts education graduation requirement.

This valuable business course will introduce you to retailing and show you what it takes to run a successful business. This course may cover:

- Successfully run virtual grocery, sporting goods and electronics stores through Virtual Business Retailing online.
- Learn how to sell products and connect with customers.
- Develop advertising campaigns to promote school activities.
- Be introduced to the Bank of Canada and have the opportunity to receive the Counterfeit Money Detection Program Certificate.
- Compete in online business simulations.
- Potentially be given the opportunity to work in Vancouver's best school store, The Cave.

## **E-COMMERCE 12 / MARKETING 12 (MECOM12)**

Prerequisite: Marketing 11

\*This course fulfills the ADST/Arts education graduation requirement.

This exciting course introduces you to marketing concepts like segmentation, research, promotion, pricing, virtual stores, etc. This course may cover:

- Review commercial websites, Amazon, E-Bay, Facebook and Instagram
- Operate and manage a virtual sports franchise and take over the role of General Manager at a bicycle factory.
- Open a virtual restaurant and control menu design, staffing, equipment purchases, restaurant layout, purchasing, marketing, inventory control and more.
- Create digital graphics and transfer them to products, such as water bottles and colour changing mugs, by using the sublimation printer.
- Potentially be given the opportunity to manage Vancouver's best school store, The Cave.

## **ECONOMICS 12 (MEC--12)**

\*This course fulfills the ADST/Arts education graduation requirement.

What qualities should I possess in order to succeed in business? How important are personal financial skills to my economic wellbeing? Is our system of taxation fair? What are the pros and cons of labour unions? Why do Canadians identify unemployment as their most important concern? How concerned should I be about the deficit?

The topics of this course contribute to an understanding of economics as it impacts individuals, businesses and governments. In addition to the acquisition of economic concepts and vocabulary, the development of communication skills, research skills, problem solving skills and decision-making skills will be emphasized. This course will be of benefit to those planning to take further courses in commerce at the post-secondary level.

## **ENTREPRENEURSHIP 11/12 - (MENT-12)**

\*This course fulfills the ADST/Arts education graduation requirement.

This course is for students interested in business, entrepreneurship, and innovation, or those just interested in learning more about how the world works and how to put their ideas into action. Students will have the opportunity to manage the school store: The Cave. You will learn how to evaluate and operate a business, build a personal network, hone your creative and critical thinking, and apply teamwork skills. There may also be the opportunity to compete with students from across the province in a venture business competition. Even if you do not plan on studying business, learning how to think creatively and innovatively within the context of business are skills that will allow you to succeed in any situation. Entrepreneurial Thinking is becoming a skill set more and more universities and employers are looking for.

## **BUSINESS ADMINISTRATIVE ASSISTANT 12 (YBMO-2C)**

Students in this course will assist the instructor in the day-to-day operations of The Cave, Britannia's school store. Activities include training employees, maintaining stock, visual display, record keeping, making the daily deposit, and ensuring that the store is "business-ready" for store opening.

Students must have experience managing in the school store, and they must be responsible, mature, and be able to take tasks from start to finish with little supervision.

# ENGLISH

## **ENGLISH 8 (MEN--08)**

In English 8, we will work to comprehend and connect, by carefully reading, listening and viewing, and to create and communicate, by thoughtfully writing, speaking and representing. We will read widely - novels, articles, poems, graphic texts, memoirs, plays, etc. – explore different perspectives, and practice many types of writing and representing.

## **ENGLISH 9 (MEN--09)**

In English 9, students will continue to develop and refine their communication skills in order to read, write, speak and listen more effectively. As we analyze and explore stories and other texts, and question and respond to what we hear, read and view, we hope to better understand ourselves, make connections to others and to the world, and to become more engaged and educated citizens.

## **ENGLISH 10: CREATIVE WRITING & ENGLISH FIRST PEOPLES: LITERARY STUDIES (MCTWR10 & MEFLS10)**

In English 10, students will read and analyze a wide variety of texts and will respond orally, visually, and in writing. Within a supportive community, students will develop their writing craft and practice writing for a range of situations and audiences. Through the exploration of text and story, students will deepen their understanding of their own identities, others, and the world. Students will consider how First Peoples texts and stories provide insight into Canada's past, present and future, and how self-representation through authentic First Peoples texts is a means to foster justice.

**ENGLISH 11 – Grade 11 students must choose at least one of the two English 11 options. Students can take both courses if they choose.**

## **NEW MEDIA 11 (MNMD-11)**

All senior English courses will require students to read and analyze a wide variety of texts and genres, to engage with texts on both a literal and inferential level, and to respond to texts in a variety of ways, including orally, visually, and in writing.

New Media 11 is designed for students who have an interest in developing their digital literacy and critical thinking skills. Within a supportive community, students will engage with texts to interpret, analyze and question their relationship with the digital world. Students may use new media technologies to respond to texts. In New Media, text can be defined as short stories, novels, films, plays, music videos and more. Possible areas of focus include digital citizenship, media representation, and moving from print to digital.

## **ENGLISH FIRST PEOPLES: LITERARY STUDIES + WRITING 11**

All senior English courses will require students to read and analyze a wide variety of texts and genres, to engage with texts on both a literal and inferential level, and to respond to texts in a variety of ways, including orally, visually, and in writing.

In English First Peoples: Literary Studies + Writing 11, students will engage with a wide variety of BC, Canadian, and global First Peoples texts, gaining an awareness of how First Peoples languages and texts reflect their cultures, knowledge, histories, and worldviews. Students will consider the role that authentic First Peoples literature plays within the process of Reconciliation and the pursuit of justice. This course fulfills the Ministry of Education's Indigenous-Focused Graduation Requirement.

**ENGLISH 12 – Grade 12 students must take English Studies 12 and can choose one of the two remaining English 12 options as an elective.**

### **ENGLISH STUDIES 12 (MEN--12)**

This required course provides students with opportunities to refine their ability to communicate effectively in a variety of contexts. Students will think critically and creatively about the uses of language, explore texts from a variety of sources and perspectives, and deepen their understanding of themselves and others in a changing world. They will gain insight into the diverse factors that shape identity and expand their understandings of what it means to be educated Canadian and global citizens. Students will also contribute to Reconciliation as they build greater understanding of the knowledge and perspectives of First Peoples.

### **CREATIVE WRITING 12 (MCTWR12)**

Writing 12 will provide extensive and varied opportunities for students to generate ideas, draft, edit, and polish their own writing, seek publication, and workshop their writing with both peers and more experienced mentors. This course is appropriate for students of all levels in Grades 10, 11 and 12. Through lessons on writing technique this course will also help students improve their basic essay writing skills. In this course, students will have the opportunity to write in a variety of forms -- memoirs, poetry, short plays and film scripts, essays, short stories, journalistic pieces, etc.

### **NEW MEDIA 12 (MNMD-12)**

New Media 12 is based on the principal that digital literacy is an essential characteristic of the educated citizen. This course provides students with opportunities for in-depth exploration of a variety of topics under the new media umbrella. Students will engage critically with diverse texts, such as short stories, novels, films, plays, music videos and more. This course is suitable for Grade 12 students with an interest in the changing role of technology in today's society and the increasing importance of digital media in communicating and exchanging ideas.

# VENTURE

The Venture Program is an academically challenging program that provides an enriched educational experience for motivated students in grades 8, 9 and 10. Students selected for Venture are grouped in cohorts for their core academic subjects in grades 8 and 9. In grade 10, Britannia students may apply for individual Venture courses as well, depending on their strengths and interests, and with the coordinator's approval.

The Venture Program philosophy is based on four key tenets as the building blocks to an enriched secondary school education:

Universal Values – an education that includes core values of respect and acceptance for all persons.

Global Understanding – an education that teaches how national, linguistic, and cultural diversity enriches the world community.

Personal Excellence – an academic education which emphasized the pursuit of high goals and encourages each child to achieve their personal best in all facets of school life, with the IB Learner Profile as our guide.

Community Service – an education which inspires student to contribute actively to their physical and/or social environment, thereby fostering personal and social responsibility in the global community.

Venture 8-10 offers students thematic curriculum across subject areas, hands-on learning in and out of the classroom, overnight outdoor experiences and community involvement with leadership and personal growth workshops.

The Venture Program is excellent preparation for students intending to apply for the International Baccalaureate Program in grade 11 and 12.

## GRADE 8

English 8 Venture	Social Studies 8 Venture
Science 8 Venture	Mathematics 8 Venture
French 8 Venture	Physical Education
Applied Skills 8	Fine Arts 8

## GRADE 9

English 9 Venture	French 9 Venture or Mandarin 9 Venture
Social Studies 9 Venture	Physical Education 9
Science 9 Venture	Two Electives
Mathematics 9 Venture	

## GRADE 10: DIPLOMA and CERTIFICATE OPTIONS AVAILABLE

### Diploma Options

English 10 Venture	French 10 Venture or Mandarin 10 Venture
Social Studies 10 Venture	Career Life Education 10
Science 10 Venture	Two Electives
Mathematics 10 Venture	

### Certificate Options

One or more Venture 10 courses. Acceptance will be based upon your academic record in prerequisite courses, permission of the teacher and space available, and approval of the coordinator. You must complete and submit a Venture 10 application.

Additional courses (including Career Life Education 10) to complete a grade 10 program will be required. It is recommended that Diploma Students obtain a grade 11 Fine Arts and/or an Applied Skills credit in their grade 10 year.

### **VENTURE ENGLISH 8 (MEN--08DC2)**

Integrated with the expectations of the regular grade eight program, and designed to prepare the young student for the International Baccalaureate program, Venture 8 English examines facets of English Language and Literature with more scope and depth. The student is challenged to strengthen and develop expressive capabilities and to enhance comprehension and critical skills, through individual and group assignments. Social and interpersonal skills will be developed through a variety of strategies focusing on research, critical thinking, and presentations.

### **VENTURE ENGLISH 9 (MEN--09DC2)**

This course emphasizes the study and appreciation of the various forms of literature, including short stories, novels, plays, essays and poetry as social criticism. When appropriate, units are coordinated thematically with other Venture 9 courses. The development and presentation of ideas in written and oral form, creative and critical thinking skills, and the acquisition of research skills necessary for academic success are stressed. Student evaluation is based on achievement in written and oral expression of original argument based on research, organization, reflection and discussion.

### **VENTURE ENGLISH 10: LITERARY STUDIES & COMPOSITION (MLTST10DC2 & MCMPS10DC2)**

Prerequisite: English 9 Enriched or English 9 (teacher recommendation).

This preparatory course for the International Baccalaureate program is strongly recommended for those intending to apply for IB. Students not intending to enter the IB program, but who wish enrichment, may also enroll, where class size permits. Student evaluation will be based on essays, presentations and other projects. This course emphasizes world literature, and selections will be read in translation from several cultural backgrounds and periods of history.

### **VENTURE SOCIAL STUDIES 8 (MSS--08DC2)**

This course offers students an opportunity to explore world history during the time period of the 7<sup>th</sup> century to 1750. Students will use historical and geographical thinking concepts such as cause and consequence, and patterns and trends to frame their study of the innovations, political systems, cultural shifts, migrations, exchanges, and explorations (to name a few) of many cultures. Topics of study may include the Barbarian invasion and the Dark Ages, European Feudalism and the Crusades and the Black Plague, the Islamic and Ottoman Empire expansion, Golden Age of China-Tang Dynasty, Feudal Japan-Edo Period, and Renaissance and Reformation. Students will develop social studies competencies, and critical and political thinking competencies by doing independent studies of current events.

### **VENTURE SOCIAL STUDIES 9 (MSS--09DC2)**

This course offers an in-depth study of significant events, developments, places, and people in the years 1750 to the lead up to WWI in the early 20<sup>th</sup> century in Canada and around the world. Students will investigate a wide variety of topics that may include discriminatory policies and historical wrongs in Canada, such as the Head Tax and the Komagata Maru incident; revolutions and conflicts (for example: the American Revolution, industrialization, the Chilcotin War, the Armenian genocide); and case studies of nationalism, such as Japan. Topics about Canada that stretch beyond this time period may include Canada's physiographic features and the consequences of colonialism on indigenous people. Students will apply relevant historical and geographical thinking competencies to deepen their understanding of Canada's past and to expand their knowledge of global developments and events.

### **VENTURE SOCIAL STUDIES 10 (MSS--10DC2)**

An important goal of the International Baccalaureate program is the development of reflective, knowledgeable, and involved world citizens. Venture Social Studies 10 is designed to provide a learning environment that will promote this objective. In this course, students will be given the opportunities to develop the dispositions, habits and skills that enhance both creative and critical thinking in the context of examining issues and problems in the Social Studies field.

This course examines significant global and Canadian events, developments, people, and places beginning with WWI through the lenses of historical and geographical thinking competencies. Students will investigate topics of interest up to present day that may include the Japanese internments, the Quiet Revolution, Canada and WWI and Canada WWII, and Iroquois governance. Each topic will have an open-ended question to frame the students' investigation. An overarching question for the entire course is - What does it mean to be Canadian? Students could embark on a walking tour of Chinatown and collaborate with local community Truth and Reconciliation action events.

### **VENTURE SCIENCE 8 (MSC--08DC2)**

In addition to covering material from the Provincial Science 8 curriculum, this course will give students an opportunity for enrichment, individual experiments and to research various topics. Students will develop a variety of laboratory skills, with due regard for personal safety and the environment. All students are required to participate in the Britannia Science Fair and in the Britannia Environment Club. Topics will reinforce the Venture Mathematics 8 course wherever possible. Students will develop critical thinking skills and work habits.

### **VENTURE SCIENCE 9 (MSC--09DC2)**

This course stresses the application and enrichment of science concepts in Biology, Chemistry, Physics and Astronomy. Students will follow the Provincial Science 9 curriculum and investigate selected enrichment topics. Students will be given the opportunity to use community resources to produce individual and group projects. Science investigations and critical thinking are emphasized. All students are required to participate in the Britannia Science Fair and in the Britannia Environment Club.

### **VENTURE SCIENCE 10 (MSC--10DC2)**

This course is the preparatory course for the International Baccalaureate program and is strongly recommended for those intending to apply for IB. Students not intending to enter the IB program, but who wish enrichment, may also enroll with teacher permission. The course will follow the Provincial Science 10 Curriculum and introduce some enrichment topics from grade 11 IB science. Students will be introduced to IB style marking for laboratory reports. Project work will enable students to develop skills in experimental design. All students are required to participate in the Britannia Science Fair and in the Britannia Environment Club.

### **VENTURE MATHEMATICS 8 (MMA--08DC2)**

This course will cover material from Mathematics 8 and enrich the coverage of topics with extensions in algebra and geometry. Problem-solving techniques and critical thinking will be highlighted, and the uses of technological tools will be explored. All students will write the University of Waterloo's Gauss Contest.

Big Ideas:

- Numbers
- Computational Fluency
- Discrete Linear Relationships
- 3D Objects
- Data

### **VENTURE MATHEMATICS 9 (MMA--09DC2)**

This course is a continuation of Venture Mathematics 8. It centers on a formal approach to beginning algebra, including simplifying expressions, equation solving, inequalities, and graphing linear equations. Wherever appropriate, extensions into Mathematics 10 topics will be included. All students in this course will write the Canadian Mathematics Competition Pascal Contest. A scientific calculator is required.

### **VENTURE FOUNDATIONS OF PRE-CALCULUS MATHEMATICS 10 (MFMP-10DC2)**

Prerequisite: Venture Mathematics 9 or Mathematics 9 with teacher recommendation.

This course is the preparatory course for the International Baccalaureate Program and is strongly recommended for those intending to apply for IB. As such, students will complete all topics from Mathematics 10 but to a greater depth. As time permits, extra study in pre-IB topics will be included. Students not intending to enter the IB program but who wish enrichment may also enroll in Venture Mathematics 10, provided space exists.

All students in this course will write the Canadian Mathematics Competition's Cayley Exam for Grade 10. A scientific calculator is required.



### **VENTURE FRENCH 8 (MFR--08DC2)**

This course is intended for students who have already had some French at the elementary level and who also feel the need for a challenge with the Venture Program.

French 8 Enriched stresses oral communication as well as written and comprehension activities. This course encourages open mindedness about French culture and language. Students will talk to one another in French, listen to spoken French language and songs, watch short French videos, and read and write short texts in French.

### **VENTURE FRENCH 9 (MFR--09DC2)**

Prerequisite: Venture French 8 or teacher recommendation.

Those students who are considering entering the IB program in grade 11 are encouraged to enroll in this course. French 9 Enriched offers students a greater challenge than the regular course, in particular if the student has had some French in elementary school. The students learn to speak, write, and understand French by using the language in the classroom in authentic situations. The course encourages students to take risks and have fun.

### **VENTURE FRENCH 10 (MFR--10DC2)**

Prerequisite: Venture French 9 or teacher recommendation.

This course is the preparatory course for the International Baccalaureate program and is strongly recommended for those intending to apply to the program. Students not intending to enroll in the IB program but who wish enrichment are also encouraged to take this course.

French 10 Enriched is designed to challenge students. It therefore offers a more extensive and varied course, which includes an expanded vocabulary and increased listening/speaking participation and written communication.

### **VENTURE MANDARIN 9 (MMAN-09DC2)**

This is an introductory course designed for students with little or no experience with the spoken or written Mandarin language. This course emphasizes all four language skills: listening, speaking, reading and writing. It is expected that students who enroll in this course will be able to express ideas, greetings and introductions, numbers and counting, nationalities, family, dates, time and routine. This course is perfect for students with a penchant for exploring the complexity and richness of Chinese history and culture. Students are strongly encouraged to be active participants in class, to benefit from the fun and to maximize their learning.

### **VENTURE MANDARIN 10 (MMAN-10DC2)**

This course is ideal for students who desire enrichment in Mandarin language. It is also designed to prepare students for the International Baccalaureate program and is encouraged for those with an intention of pursuing IB studies in grade 11. A communicative style of language teaching is adopted that is intended to expose enrolling students to the Mandarin language used in authentic situations. Some of the themes covered in the Venture Mandarin 10 curriculum include: vacations and holidays, daily routines, the house, clothing and colours, socializing and hobbies, the weather, school subjects and school life.

# INTERNATIONAL BACCALAUREATE

The International Baccalaureate program is an internationally recognized academic program designed for students who intend to continue their education at college or university. The Diploma program emphasizes critical writing skills and creative thinking. Some course content is at first-year university level. Candidates will write IB examinations in late April and beginning of May of their grade 12 year. IB courses are considered equivalent to the corresponding Ministry course. IB exam results are valid for scholarship consideration and for university admission. International Baccalaureate courses can be taken in preparation for the IB Diploma or as enrichment courses for which IB Certificates are awarded. IB courses are offered over two years.

Students wishing to take IB courses must apply through the IB Coordinator.

## **IB ENGLISH A: LITERATURE A 11**

### **Standard Level (IELM-11) Higher Level (IELS-11)**

The IB English program introduces students to a sophisticated approach to literary interpretation through written and oral assignments. IB English A: Literature is a two-year course studying a range of works written in and translated into English.

In grade 11, the focus is on culture and context and how they are embedded within literature. Students study works across a variety of genres, geographical regions and time periods seeking to understand how each work is deeply influenced by its time, place, language, and social structure. Students will complete a Learner Portfolio, along with in-class essays and oral presentations. Formative assessment for the IB will include a 1,500 Written Assignment developed from one of the in-class essays, and an Individual Oral Presentation.

## **IB ENGLISH A: LITERATURE 12 Standard Level (IELM-12) Higher Level (IELS-12)**

Prerequisite: IB English A: Literature 11

Students study works across a variety of genres, geographical regions and time periods seeking to understand how each work is deeply influenced by its time, place, language, and social structure. In grade 12, students continue to develop their appreciation of literature through a detailed study of poetry, drama, fiction, and non-fiction, in preparation for the IB Internal Assessments and written exams. The focus of this year will be to interpret and comment on a variety of works, with an emphasis on voice, style, diction, structure, and literary analysis. Students will continue their Learner Portfolio, along with completing oral presentations, commentaries and essays.

## **THEORY OF KNOWLEDGE 11 (ITK--11) & 12 (ITK--12)**

The purpose of Theory of Knowledge is to stimulate critical reflection on the origins, methods, validity and value of beliefs and knowledge gained within and outside the classroom. It provides a unifying mechanism for the overall course of studies in IB and encourages students to reflect upon the various systems of knowledge that are part of the IB learning experience. It is a two-year course that is a requirement for all Diploma candidates. Evaluation will be based on oral participation and written assignments.

While priority will be given to Diploma students, other students may take Theory of Knowledge 11 for credit as a ministry-recognized course subject to teacher approval and space.

### **IB HISTORY 11 Higher Level (IHIH-11) Standard Level (IHIS-11)**

Prerequisite: Social Studies 10 Pre-IB or approval of the department. Students who would like to take this course, instead of Social Studies 11 may do so with permission of the teacher. This is the first year of a two-year sequence designed to prepare students for the Higher Level exam in History.

Using historical concepts such as perspective and change and continuity as lenses, students will contextualize and analyze primary and secondary sources for two case studies in expansionism and nationalism in the 1930s: Japan; Germany and Italy. Students will continue to develop their historical thinking competencies while investigating the emergence of authoritarian states in the 20<sup>th</sup> century, and the causes and effects of 20<sup>th</sup> century wars. Examples of case studies include leaders such as Hitler and Mao; and wars such as WWI, WWII, the Spanish Civil War, and the Chinese Civil War.

### **IB HISTORY 12 Higher Level (IHIH-2A) Standard Level (IHIS-12)**

This is the second year of the IB History program (Higher Level).

Using historical concepts such as significance and cause and consequence as lenses, students will investigate European conflict and diplomacy from 1871 to 1945. Students will study international relations between many countries including policies, peace settlements and strategies, power struggles, and war, in addition to domestic developments and issues.

### **IB MATHEMATICS ANALYSIS AND APPROACHES 11 STANDARD LEVEL (IAAS-11)**

This is the first year of the two-year IB Mathematics program. The course includes topics such as trigonometry, function theory and calculus. A graphics calculator is required for this course. Students may require to write the University of Waterloo's Fermat Contest.

### **IB MATHEMATICS ANALYSIS AND APPROACHES 11 HIGHER LEVEL (IAAH-11)**

This is the first year of the two-year IB Mathematics program. The course includes topics such as trigonometry, function theory and calculus studied more rigorously than at the SL level. A graphics calculator is required for this course. Students may require to write the University of Waterloo's Fermat Contest. Students are expected to have strong algebraic skills and the ability to understand simple proof. These will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

### **IB MATHEMATICS ANALYSIS AND APPROACHES 12 STANDARD LEVEL (IAAS-12)**

Prerequisite: IB Mathematics Analysis and Approaches SL 11

This course is a continuation of IB Mathematics 11. The course will cover statistics and probability and review topics from IB Math 11 to prepare students for the IB exam in May. Students will also be required to complete a mathematical investigation on a topic of their choice for the internal assessment portion of this course. A graphics calculator is required for this course.

## **IB MATHEMATICS ANALYSIS AND APPROACHES 12 HIGHER LEVEL (IAAH-12)**

Prerequisite: IB Mathematics Analysis and Approaches HL 11

This is a continuation of IB Mathematics 11 at the Higher Level. The course will cover all topics from IB Math Standard Level as well as extensions into topics such as complex numbers and vectors (including lines and planes in vector form), probability and calculus (including area, volume, and the solution of simple differential equations). A graphics calculator is required for this course. Students have the option of writing the University of Waterloo's Euclid Contest.

## **IB BIOLOGY 11 Standard Level (IBIS-11) Higher Level (IBIH-11)**

Prerequisite: Venture Science 10 or Science 10.

Biology 11 IB is the first year of the two-year IB Biology course. Topics to be investigated include Cell Structure, Genetics, Plant Science, Ecology, Evolution, Chemistry of Life, Nucleic Acids and Proteins. An acceptable laboratory notebook is an IB requirement. In addition to quizzes, tests and lab reports, students will be evaluated on in-class debates, discussions, presentations, and project work. All students must participate in the "Group 4 Project" as required by IB.

## **IB BIOLOGY 12 Standard Level (IBIS-12) Higher Level (IBIH-2A)**

Prerequisite: Biology 11 IB

This is the second year of a two-year program. Most of the provincial curriculum will be completed and expanded to include Immunology, Muscles, Cell Respiration and Photosynthesis. The laboratory notebook will be continued from Biology 11 IB Evaluation is the same as for Biology 11 IB. Students will need to complete an Individual Investigation as required for IB Internal Assessment.

## **IB CHEMISTRY 11 Standard Level (IGCH-11) Higher Level (ICHH-11)**

Prerequisite: Science 10 Pre-IB or Science 10.

The Higher Level IB Chemistry course is designed for the student who will eventually pursue more advanced Chemistry at the university level. Laboratory work will form an integral part of the course. The Provincial curriculum for Chemistry 11 will be expanded to include studies in chemical bonding, the gas laws, and shapes of molecules, chemical thermodynamics, atomic structure, electron configurations, organic chemistry, and environmental chemistry. All students must participate in the "Group 4 Project" as required by IB.

## **IB CHEMISTRY 12 Standard Level (IGCH-12) Higher Level (ICHH-2A)**

Prerequisite: Chemistry 11 IB

This is the second year of a two-year program. The provincial curriculum will be completed and expanded to include Carbon Chemistry, Transition Elements, Fuels and Energy with an emphasis on advanced laboratory work.

### **IB PHYSICS 11 Standard Level (IPHS-11)**

This is the first year of a two-year program. The course covers the entire Provincial Physics 11 curriculum.

This course will emphasize fundamental Physics principles in four general areas:

- Mechanics
- Wave Motion and Light
- Electricity
- Models and Properties of Atoms.

The laboratory component of the course will require students to demonstrate critical thinking skills through clear communication of objectives and results. Strong problem-solving skills are an asset to those students who enroll. In addition, all students must participate in the "Group 4 Project" as required by IB.

### **IB PHYSICS 12 Standard Level (IPHS-12)**

This is the second year of a two-year program. The course covers the entire provincial Physics 12 curriculum. Topics include:

- Vector Kinematics
- Vector Dynamics
- Energy, Work and Power
- Vector Momentum
- Circular Motion
- Electricity (static and current)
- Electromagnetism.

Additional IB topics include atomic properties and thermodynamics. Topics are generally covered in greater depth than in Physics 11 IB. The emphasis on experimental work continues from Physics 11 IB.

### **IB FRENCH 11 Standard Level (IFRS-11)**

Prerequisite: French 10 Pre-IB or teacher recommendation

French 11 IB is the first year of the two-year program in Language B, which is required of all students aspiring to earn the IB diploma or certificate. The primary language of instruction is French and the students are expected to work on the development of comprehension, oral competency, and use of the language in a variety of situations. This course is arranged around five themes which will be covered over the two-year period: identities, experiences, human ingenuity, social organization, and sharing the planet.

### **IB FRENCH 12 Standard Level (IFRS-2A)**

Prerequisite: IB French 11

French 12 IB is the second year of the two-year program in Language B, which is required by all students aspiring to earn the IB diploma or certificate.

Students will continue to develop skills so that they may undertake various types of activities:

- read articles, short stories, recipes
- present scenarios, debates, role plays

- listen to radio, music
- watch and comment on video clips

This course is arranged around the remainder of 5 themes explored in IB French 11 (identities, experiences, human ingenuity, social organization, and sharing the planet); they will all be covered by the end of the two-year program. Students are expected to communicate in French, as an oral internal assessment is conducted by the classroom teacher during the year worth 25% of the overall mark. The remaining 75% of the mark is assessed externally through the IB examination in May, and includes a combination of assessments in writing, listening and reading skills.

### **IB MANDARIN 11 Higher Level (IMNH-11)**

Mandarin 11 IB HL is the first of a two-year program. The course is designed for students who welcome an enriched curriculum and appreciate literary work. The lessons will introduce skills to examine literary work and further focus on the four language skills. Students explore a variety of themes that enable them to effectively discuss literature, and participate in authentic communicative experiences. Topics may encompass: identities, experiences, human ingenuity, social organization, and sharing the planet.

### **IB MANDARIN 11 Standard Level (IMNS-11)**

Mandarin 11 IB is the first of a two-year program. The course is designed for students who welcome an enriched curriculum. The lessons further develop the four skills of listening, speaking, reading and writing. Students explore a variety of themes that enable them to effectively communicate through letter and journal writing. Topics may encompass: identities, experiences, human ingenuity, social organization, and sharing the planet.

### **IB MANDARIN 12 Higher Level (IMNH-2A)**

Prerequisite: IB Mandarin 11

Mandarin 12 IB HL is the final levels of this two-year program. It involves a more detailed study on skills and topics introduced in Mandarin 11 IB HL. Students have the opportunity to analyze literary work in depth, participate in group discussions and read and write articles to enhance their language skills. Topics may encompass: identities, experiences, human ingenuity, social organization, and sharing the planet. Students are required to finish reading two literature works in Chinese over G11 and G12. Oral assessment will be based on analyzing these literature works.

Students sit for an external written exam in May, while oral proficiency is assessed formally during the school year.

### **IB MANDARIN 12 Standard Level (IMNS-12)**

Prerequisite: IB Mandarin 11

Mandarin 12 IB is the final level of this two-year program. It involves a more detailed study of the Mandarin language through a variety of course materials focusing on the skills of listening, speaking, reading, and writing. Students have many opportunities to work on group discussions and individual presentations that include themes such as identities, experiences, human ingenuity, social organization, and sharing the planet.

Students sit for an external written exam in May, while oral proficiency is assessed formally during the school year.

## **IB MUSIC 11 AND 12**

### **Standard Level (IMCS-11) Higher Level (IMCH-11)**

### **Standard Level (IMCS-12) Higher Level (IMCH-2A)**

IB Music 11/12 is a two-year course designed for students who are excited to engage in an eclectic range of music from a variety of genres from around the world through creativity, performance, research, and analysis. Students will develop critical listening skills and think about musical elements including form and structure, notation, musical terminology, and context to help them gain a deeper understanding. Through the course of study, students become aware of how musicians work and communicate.

#### **Grade 11**

The first-year course is based on exploring, experimenting, creating, and performing music from a variety of contexts (personal, local, and global) and with different intentions. Throughout the first year, students will regularly reflect on their process in a Music Journal which will inform and support the portfolio requirements in their second year. Classes will involve short, guided assignments and mini-projects, presentations, class discussion, sharing, and analysis of familiar and unfamiliar music through which students will experience working in three different roles: researcher, creator, and performer.

#### **Grade 12**

In the second year, students focus on their own independent studies to complete 3 portfolio components in SL or 4 components in HL. Two of the portfolio components: Exploring Music in Context (due in November) and Presenting Music (due in April) will be examined externally by IB, while the Experimenting with Music and The Contemporary Music Maker (HL only) components are assessed internally by the music teacher. It is expected that students will have spent the summer planning how they will execute each of the components so that they are prepared to discuss, reflect, and adapt their work for their portfolio submissions as classes begin in September.

## **IB VISUAL ARTS**

### **Standard Level (IARS-11) Higher Level (IARH-11)**

### **Standard Level (IARS-12) Higher Level (IARH-2A)**

This two-year Visual Arts course is designed for students who desire to engage in both independent critical investigation and practical exploration leading to artistic production. Throughout the course, students will integrate theory with practice.

This course provides the opportunity for students to experiment with and challenge themselves in various media as well as to focus on art forms, skills, and concepts of interest to each individual student. Students will continuously research international art styles, movements, and artists, as well as synthesize their own cultures with their investigations and studio pieces. The exploration and critical analysis of visual qualities, ideas, themes, and issues, both in written and visual forms, will be presented in their Process Journals (PJs). Students will integrate and communicate their findings, understandings, and ideas into their studio works.

**Grade 11**

The first year course is based on in-depth art media examination and studying art-related concepts, art history, and art criticism in depth. The year will begin with several guided projects leading up to more independent projects where students will be given the chance to explore and examine the roles of various art media to reflect themes of personal and cultural significance. The course is project-based and in Grade 11, comparative study work, process portfolios and studio work will be assessed internally according to the criteria designed by IB. The minimum requirement is 11 studio projects in the first year and over the summers, and 4 in the second accompanied by supporting comparative study and process portfolio work.

**Grade 12**

In the second year, students focus on their own independent study. Ultimately, the Comparative Study and the Process Portfolio are examined externally by IB and the Exhibition is examined internally by the teacher. The final exhibition is a celebration of the students' accomplishments and takes place in early April each year.



## **ENGLISH LANGUAGE LEARNING (ELL)**

Britannia Secondary School currently offers two levels of core English language courses (Beginner and Advanced) to students who are new English Language Learners.

### **ENGLISH 1 AND ELC1 & ENGLISH 2 AND ELC2**

Core English classes provide instruction and practice in the skill areas of listening, speaking, reading and writing. Language structures are related to a range of basic language functions and thinking skills, using a variety of teaching strategies.

In addition to English classes, ELL students also take ELL Social Studies, where they develop knowledge of subject-specific facts, processes, and language that facilitate transition to regular classes. Students are enrolled in grade-appropriate Physical Education, Science and Math classes.

The progress of ELL students in all language areas is continually evaluated (class work, teacher-made tests, standardized measures). Movement to regular English classes is made when ELL students have achieved an advanced level of language skills.

# FINE ARTS

## ART

### **ART 8 (MAE--08)**

The aim of the program is to develop the student's potential to express him/herself visually through a variety of mediums. Students will be led through a series of projects that will further develop their imagery drawn from personal experiences. Students are introduced to the visual literacy foundations of line, shape, form, texture, colour, and space. Projects focus on developing their competency to use and develop these concepts into their assignments.

### **ART 9 (MAE--09)**

Art Design 9 enables students to continue to develop curiosity, interest and enjoyment in their own creativity and that of others. They will be encouraged to take risks in their artistic expression. This course explores a variety of techniques and materials. Possible units for exploration may include drawing, painting, printmaking, and ceramics. Students will develop language introduced in Grade 8 by further examining the elements and principles of design. Images are central to the Visual Arts program. Students will perceive, respond to, create and communicate through imagery. Students will respond to images in the way they reflect personal, social, cultural, and historical contexts. Students are expected to show evidence of their learning through the ongoing compilation of an art journal and/or portfolio. Emphasis will be on working with a broad range of materials and techniques.

### **ART 10: ART STUDIO GENERAL (MVA10)**

This course is a continuation of and focusing in on student's ability to produce meaningful work in the visual arts. Students will have ample opportunity to explore and develop a deeper understanding of art media and techniques while taking risks that extend their understanding of their own art practices. There will be a particular emphasis on the role of Art in their own lives and in surrounding communities. Possible units include mural painting, mixed media, and sculpture in addition to drawing and painting.

### **ART STUDIO 11 (MVA11)**

Prerequisite: None

Art Studio 11 involves a more in-depth study of 2-D and 3-D art forms. Students will be developing their personal imagery through gallery visits and examples from famous artists. An emphasis will be placed on the use of the various elements of art and principles of design to further each student's individual style. A wide range of mediums will also be used at this level. Students will be given the opportunity to develop their own direction for their art practices and use class time as studio time for their self-directed projects.

### **ART STUDIO 12 (MVA12)**

Prerequisite: Art Studio 11

Part of the Art Studio 12 course will involve having the students plan individualized projects in consultation with the teacher. Individualized projects will include work in at least four of the following visual expression areas: drawing, painting, ceramics, textiles, sculpturing and printmaking. The other portion of the curriculum will include gallery visits, a study of art history and art criticism as a means of developing individual imagery. It is expected that a visual journal

and art portfolio will be developed, and work will be shown in an exhibition at the end of the year as a final.

### **VISUAL ARTS 9 & 10: SCULPTURE (MVA--09CR1 & MVASC10)**

This course is designed for students interested in exploring materials that lend themselves to 3-D Art Projects. The focus will be primarily on clay as a foundational media, but not limited to clay as many materials lend themselves 3-D sculpture and manipulation. Students will learn basic hand-building techniques of slab, coil and pinch construction as well as have the opportunity to learn how to throw on the wheel. Some decorative ceramic techniques include wax resist, glazing, slip trailing, image transfer, texture, inlay and scraffito.

### **STUDIO ARTS 3D 11 (MVAC-11)**

Students continue their investigations into materials and processes working with clay as their primary media. Opportunities to further understand how creating in 3-Dimensional space differs from 2-D Art are offered as well as extensions into mixed media. Wheel throwing and more advanced decorating techniques are explored.

### **STUDIO ARTS 3D 12 (MVAC-12)**

Senior students who have taken MVAC 11 (previously MSACS11) are invited to extend their understanding and exploration of both hand-building and wheel thrown designs. Students are expected to propose projects and engage in the design process with their acquired knowledge of clay as a sculptural media. Sometime will be spent on becoming familiar with influential potters and ceramic artists both locally and internationally.

### **MEDIA ARTS 9 (MADMA09)**

Media Arts 9 enables students to create projects through exploration with emerging technologies. Students will work primarily with the Adobe Creative Cloud platform, which includes Photoshop, Illustrator, Lightroom, InDesign, and Premiere Pro to create their portfolio of work and develop competency within those applications. There will also be an emphasis on skills that are transferable beyond the media arts classroom to develop an understanding of responsible practices related to the creative process. Students will develop the skills necessary to create their own design work as well as interpret designs of other artists. There will be an emphasis of the influences of digital media in society.

### **MEDIA ARTS 10 (MVAM-10)**

This course gives students the opportunity to continue their exploration into emerging technologies related to the arts with an emphasis on creating projects that demonstrate competency in communicating ideas through design and action. Students will gain confidence in both digital platforms such as Illustrator, Photoshop and Adobe Premiere and hands on studio practices such as silk screening and printmaking while responding to contemporary design issues and ideas.

Students who take Media Arts 10 will have an excellent foundation to move into Media Arts 11/12, Photography 11/12, and New Media 11.

### **MEDIA ARTS 11 (MVAMT11)**

A continuation of concepts learned in Media Arts 10 with an emphasis on building confidence in designing larger projects. Students will consider site specific Media Design, study designers who have made a difference in communication and move towards a broader repertoire of processes available to Graphic Designers. Students exercise more choice in projects they wish to pursue than

in the previous year. Students in the senior grades will be responsible for logo design for grad ware and B-Eastside magazine publication through In Design. Students could also concentrate on Film Production for a term in this course to participate in the District film Festival in May.

### **MEDIA ARTS 12 (MVAMT12)**

Students work focus on their role as a media design student in a broader context; how their responsibility shifts from consumer to producer. This course is designed for students who are interested in how media design influences and manipulates the general public and their role in this process as designers. Students will work thematically throughout each semester, creating design challenges that cover a number of Design processes such as print making, drawing, collaging, Photo manipulation (Photoshop), Illustration (Illustrator) and Publication (IN Design.) Students who take this course can also spend second term developing their competency in film Production, learning Adobe Premiere Pro to plan, film and produce their own short film for the District Film Festival in May.

### **JEWELRY ART AND DESIGN 9 (MADM-9-JL) 10 (YIA--0A), JEWELRY 11 (YIA--1A), ART METAL & JEWELRY 12 (MTAMJ12)**

Jewelry is a creative/artistic medium that offers students design and build opportunities in an innovative, project-based learning environment. Students will engage the design process to ideate, prototype and create items of value that reflect personal design aesthetics. Students will gain the knowledge, skill and understanding to employ various processes of Jewelry fabrication, while developing hand-eye coordination, patience, time management, problem solving, creative and critical thinking.

The course will include cross curricular elements that will focus on the social, ethical and sustainability considerations of design and manufacture. Emphasis will be put on creating items of value that consider the design for life cycle: social and environmental impacts of materials, the expected useable life of items and methods of reuse or recycling of component materials.

### **PHOTOGRAPHY 9 (MVA--09PH1) and 10 (MVAPH10)**

With an emphasis on creating dynamic, thoughtful, and well-designed images, students are led through a series of both analogue and digital projects that emphasize good studio practices. Students are encouraged to think like a photographer, noticing their surroundings and documenting their experiences. Starting with developing film and learning dark room technology, students work up to digital media, primarily using Photoshop and Illustrator, finally combining skills to produce projects that include alternative processes.

### **PHOTOGRAPHY 11(MVAPH11)**

Working on larger theme based projects, students who have completed Photography 10 or have permission from the teacher can choose to concentrate on digital or analogue platforms to complete projects. A continued focus on good studio practices and building skills to create excellent images is key to success as Photography advances. Students have more freedom to access studio resources and propose projects that are curtailed to their specific interests.

### **PHOTOGRAPHY 12 (MVAPH12)**

Photography 12 works towards an open studio concept where students are creating a portfolio of work throughout the year for exposition and/or personal exploration. Independent self-motivated

learners will excel with this teacher facilitated model of instruction and learning. Students will be expected to present work regularly for critique and assessment. With the skills built from Photography 10 and 11, students should be ready to launch into either a digital or analogue platform, or both, to create projects that center around big themes and important issue.

## **YEARBOOK 9 -12**

### **(MADMA09CO1) 10 (YCCT-0C) 11(YCCT-1C) & YEARBOOK 12(YCCT-2C)**

The goal of this course is to produce the school's Annual Yearbook. The yearbook will be produced on computers. In this combined course, students will:

1. Become familiar with a variety of computer publishing programs.
2. Learn elements of graphic design.
3. Acquire skills in photography, page layout, presentation, etc.
4. Improve their written and oral communication skills.
5. Practice their organizational and leadership skills, as they plan and carry out the various activities associated with producing a yearbook.

Editors and section heads will form the core of leaders who, in turn, will work with a large number of other students outside class time in order to complete the yearbook on time and on budget.

This course is designed for students who are self-starters and who are independent and responsible workers. Students who take this course will acquire skills which will be invaluable for entering the workforce or going on to post-secondary education. The course meets both the Fine Arts and Applied Skills requirement.

## **MUSIC**

The Music Program at Britannia gives students the opportunity to get involved in community and school events through music-making. Students will develop their confidence as musicians and experience making music as a part of an ensemble. Student evaluation in music courses is based on improvement in terms of technique, tonal quality, reading level, sight-reading ability, range of skills learned, and participation in public performances. All music classes are performance-centred and attendance is required.

### **CONCERT BANDS**

#### **BEGINNER BAND 8-10**

- |            |   |
|------------|---|
| MMU--08BA1 | MUSIC 8 BAND BEGINNERS                        |
| MMU--09BA1 | MUSIC 9 BAND BEGINNERS                        |
| MMUCB10--1 | INSTRUMENTAL MUSIC: CONCERT BAND 10 BEGINNERS |

This course is intended for students who are interested in learning how to play a band instrument such as flute, trumpet, clarinet, etc. and have little experience playing a band instrument. Students will learn how to read music, proper technique, care for their instrument, tone quality, and performance skills. Participation in public performances both during and outside of school hours are a part of the course requirements.

## **INTERMEDIATE CONCERT BAND 9-12**

MMU--09BA3	BAND 9 INTERMEDIATE
MMUCB10--3	CONCERT BAND 10 INTERMEDIATE
MIMCB11	INSTRUMENTAL MUSIC 11: CONCERT BAND 11 INTERMEDIATE
MIMCB12	INSTRUMENTAL MUSIC 12: CONCERT BAND 12 INTERMEDIATE

This course is intended for students who have completed a year (or more) of training on a band instrument and are comfortable reading standard music notation written for their instrument of choice. Students will play music from a variety of genres including rock, pop, and more traditional concert band repertoire. Public performances are a part of the course requirements and will include at least 2 school concerts and as well as participation in district events. This is a touring ensemble in which students will have the opportunity to travel other parts of the world to participate in music festivals in which they can further develop their skills.

## **JAZZ BAND**

### **INSTRUMENTAL MUSIC: JAZZ BAND 10 (MMUJB10)**

Prerequisite: at least one year of experience on their instrument or Band 8/9

This is a course which explores jazz, rock and concert band repertoire, emphasizing ensemble-style playing, some improvisation and the playing of Big Band music from the 1930's to the present. Students will participate in the district festival and other events. Public performances are part of the course requirements. This course may be off-timetable and attendance at all rehearsals is essential to student success and progress.

### **INSTRUMENTAL MUSIC 11-12: JAZZ BAND (MIMJB11, MIMJB12)**

Prerequisite: Band 9/10 or permission of the teacher

This is a course which explores jazz, rock and concert band repertoire, emphasizing ensemble-style playing, some improvisation and the playing of Big Band music from the 1930's to the present. Students will participate in the district festival and other events. Public performances are part of the course requirements. This course may be off-timetable and attendance at all rehearsals is essential to student success and progress.

## **ROCKBAND**

### **ROCKBAND 9 (MMU--09BA2) & 10 (MMUCM10)**

In this class students will explore contemporary music (pop, rock, folk, indie, hip hop, movie soundtracks, etc.) in an ensemble setting made up primarily of marimbas. Students will have the opportunity to adapt and arrange music not originally intended for marimba (popular songs) to create unique arrangements based on the instrument's capabilities. Students in this class will have opportunities for individual creativity, improvisation, and collaboration. All students in the marimba ensemble will work together to make music that is created through reflection, perseverance, and resilience which will culminate in a performance at the end of each term. Everyone who has an interest in playing marimba is welcome to take this course!

## **ROCK BAND 11-12 (MMUCM11, MMUCM12)**

In this class students will explore contemporary music (pop, rock, folk, indie, hip hop, movie soundtracks, etc.) in an ensemble setting made up primarily of marimbas. Students will have the opportunity to adapt and arrange music not originally intended for marimba (popular songs) to create unique arrangements based on the instrument's capabilities. Students in this class will have opportunities for individual creativity, improvisation, and collaboration. All students in the marimba ensemble will work together to make music that is created through reflection, perseverance, and resilience which will culminate in a performance at the end of each term. Everyone who has an interest in playing marimba is welcome to take this course!

## **CHOIR**

### **CONCERT CHOIR 9 & 10 (MMUCC09) (MMUCC10)**

Concert Choir 9/10 is for students interested in singing in an ensemble. Students will have the opportunity to sing music from a variety of genres and styles in 3-part harmony. Repertoire will include popular music, a cappella arrangements in the style of Pentatonix, and more traditional repertoire suited for school-wide assemblies. Emphasis will be on developing proper vocal technique, posture, breathing, and music-reading abilities. This class is performance-centred and attendance at school-based and extra-curricular concerts is required.

### **CONCERT CHOIR 11-12 (MCMCC11) (MCMCC12)**

Concert Choir 11-12 is for students with two or more years of experience singing in an ensemble. Students will have the opportunity to sing music from a variety of genres and styles in 3 and 4 part harmony. Repertoire will include popular music, a cappella arrangements in the style of Pentatonix, and more traditional repertoire suited for school-wide assemblies. Emphasis will be on developing proper vocal technique, posture, breathing, and music-reading abilities. In this class, students will be given the opportunity to audition for solos. This class is performance-centred and attendance at school-based and extra-curricular concerts is required.

## **VOCAL JAZZ**

### **VOCAL JAZZ ENSEMBLE 10/11/12 (MMUVJ10, MCMJV11, MCMJV12)**

Vocal Jazz is an enhancement course for experienced singers. In this auditioned group (auditions held in early February) students will develop musicianship as they work through a variety of repertoire with an emphasis on jazz and pop. There will be opportunities for students to work in small ensembles, solo, and use handheld microphones with proper technique. The Vocal Jazz Ensemble is performance-centred and would perform frequently within the school and community. Attendance at all performances is a requirement for this course. Depending on timetable constraints, this course may be off-timetable.

## **BEGINNER GUITAR/UKULELE 9 (MMU--09GR1) & 10 (MMUGT10--1)**

This course is designed for the absolute beginner who wants to learn guitar or ukulele but has never learned. Emphasis will be on learning how to play chords, read TAB, reading, and playing a variety of strum patterns, and proper technique. Students will learn a variety of songs from many genres including rock, pop, folk, and classical. Students will also have the opportunity to complete an independent project in which they will choose their own repertoire and work through it with the support of a teacher mentor.

## **INTERMEDIATE GUITAR/UKULELE 10, 11, 12 (MMUGT10--3, MIMG-11, MIMG-12)**

Prerequisite: at least one year of experience playing the guitar or permission of instructor

This course is designed for students who have been playing guitar or ukulele for a year or more. Emphasis will be on playing songs with more challenging chord progressions, playing finger style songs by reading TAB, reading music for guitar written in traditional music notation, playing more complex strum patterns, and using proper technique. Students will learn a variety of songs from many genres including rock, pop, folk, and classical. Students will also have the opportunity to complete an independent project in which they will choose their own repertoire and work through it with the support of a teacher mentor. Performance is an integral part of this course. Students will participate in a winter showcase as well as an "open mic" style event at the end of the year.

## **DRAMA**

Drama programs at Britannia are broken into two categories:

- 1) On-timetable courses that focus on the skills of drama and developing the Core Competencies through learning studio skills and collaborating on projects for small in class, in community performances. Courses offered in this category are: Drama 8, Drama 9, Drama 10, Drama 11, Drama 12
- 2) Off-timetable courses: This program runs after school from September to June and students receive credits towards graduation for participating in the school production. These courses focus on all the elements that go into making a play: acting, directing, designing, marketing, front of house, backstage, and performance. Courses offered in this category: Theatre Company 10, 11, & 12 (with permission students in Grades 8 & 9 may join and receive credits for these classes) Theatre Production 10, 11, & 12.

### **DRAMA 8 (MDR—08)**

In Drama, there will be an emphasis on trust, movement, mime, concentration, and co-operation. Students will be expected to work in groups to create short scenes and to participate in theatre exercises and games. Emphasis will be placed on positive interaction in a variety of settings and with a variety of students.

### **DRAMA 9 (MDR--09)**

Drama 9 is an exploration course that allows students who have an interest in Drama to continue discovering their inner performing artist. Students will expand on their Drama repertoire by continuing their learning about character, time, place, plot, tension, mood, and other themes. Throughout the semester students can expect assignments based in group and solo performances. Most of all, Drama 9 is about learning to take risks and have fun!



**DRAMA 10 (MDRM-10)**

Emphasis will be on building skills developed in Dramatic Arts 8: co-operation, trust, risk, generosity, basic stage presentation and ensemble work. Students will be introduced to character development, monologues, and scene work. This is a course designed for the serious drama student who wants to learn about the finer points of working in Theatre.

**DRAMA 11 – (MDRM-11)**

Students will be introduced to the history of theatre. Through performance of different genres, students will show their understanding of theatre through the ages. Emphasis in Theatre Performance 11 will be on script work. Forms studied will include Greek theatre (masks and choral work), Commedia dell'arte (clown and stock character), Absurdist theatre (Ionesco), Shakespeare and various contemporary scripts. Drama 11 focuses less on public performances and instead on in-class scenes and skits. Drama 11 is for students who wish to take Drama without the stress of Theatre Company.

**DRAMA 12 - (MDRM-12)**

Building on the skills and lessons from Drama 11, students will continue to explore the history of theatre through performance. Students will engage in writing scenes, taking risks in class, and creating a community that allows students to explore their identity. Drama 12 is recommended for students who wish to focus less on public performance and instead focus on building their skills in Drama.

## MODERN LANGUAGES

Britannia's Modern Languages Department is committed to providing an interactive, communicative language learning environment, with the aim of helping students become confident, effective speakers of French and/or Mandarin. Our departmental policy of promoting language acquisition within a cultural and historical context complements our school's multicultural setting and student population. **A language course at the grade 11 level is required by many post-secondary institutions for admissions. The courses are designed to be taken sequentially starting in grade 8 for French and grade 9 for Mandarin.**

### **FRENCH 8 (MFR--08)**

French 8 is an introductory course for students with little or no experience in French. This course stresses oral communication and actual use of the language in everyday situations, such as meeting and talking with friends and school life in Canada, France and the francophone world. Students will talk to one another in French, listen to spoken French language and songs, watch short French videos, and read short texts in French. Written activities are also introduced. Generally, all Grade 8 students in the province of B.C. are required to take French 8. However, some students may be exempt from this policy due to specific learning needs.

### **FRENCH 9 (MFR--09)**

French 9 builds on the language skills students have learned in grade 8. In French 9 emphasis is on oral communication and reading but more structured written communication is introduced. This is a very enjoyable course where students learn the language through the study of such topics as music, friendships, sports and favorite pastimes, and French culture.

### **FRENCH 10 (MFR--10)**

Prerequisite: French 9 or teacher recommendation.

French 10 continues an emphasis on oral communication. Topics introduced include music, life at home and abroad. At this level, students are challenged with more sophisticated oral, reading and writing activities. Students have many opportunities to explore different aspects of contemporary French culture.

### **FRENCH 11 (MFR--11)**

Prerequisite: French 10 or teacher recommendation.

This course makes communicating in French a realistic and enriching experience by developing life skills and expanding general knowledge. Units of themes studied are based on topics of interest to students, such as film, music, gastronomy and technology in the Francophone world. Students are expected to work on reading and oral comprehension and to use French in both written and oral activities, in a variety of situations. A language course at the grade 11 level is required by many post-secondary institutions.

## **FRENCH 12 (MFR--12)**

Prerequisite: French 11 or teacher recommendation.

French 12 continues with communicating in French, understanding the Francophone world, and experiencing a realistic and enriching development of life skills while expanding general knowledge. French 12 focuses on themes such as travel, film, music, media and cultural diversity. Join us and have fantastic year while communicating with peers and friends *en français!*

## **MANDARIN 9 (MMAN-09)**

Mandarin 9 is an introductory course designed for students with little or no experience with the spoken and written Mandarin language. It emphasizes all four language skills: listening, speaking, reading, and writing. Conversational Mandarin and simplified characters are introduced continuously through a variety of topics including greetings and introductions, numbers and counting, nationalities, family, dates, time and routine.

## **MANDARIN 10 (MMAN-10)**

Mandarin 10 is the second of a four-level Mandarin Chinese curriculum. It complements the grade 9 program by continuing with an emphasis on developing student confidence in conversational Mandarin. This more in-depth study of the Mandarin language introduces students to vocabulary related to some of these topics: vacations and holidays, daily routines, the house, clothing and colours, socializing and hobbies, the weather, school subjects and school life.

## **MANDARIN 11 (MMAN-11)**

Mandarin 11 involves a more detailed study of the Mandarin language — its tonal, written, and grammatical structures. Students are given opportunities to practice both their oral and written Mandarin in the form of situational dialogues: letter, journal entry and short story writing. Continued emphasis is placed on Chinese written characters, as well as providing students with opportunities to research and explore the vast history and culture of China. Topics may include: menu and eating out, health and leisure, shopping and currency, appearances and health and houses and living surroundings.

## **MANDARIN 12 (MMAN-12)**

Prerequisite: Mandarin 11, teacher recommendation or credit obtained from VSB Challenge Exam

Mandarin 12 is the most advanced level of Mandarin offered at the high school level. This course continues to place emphasis on all four language skills: listening, speaking, reading, and writing. Students are introduced to idiomatic language in Mandarin and given writing assignments in class in an effort to improve their proficiency in writing. Topics may include interpersonal relations, global issues, science and technology, health and leisure, and customs and traditions.

# MATHEMATICS

You may be excited by the power and beauty of this subject and need no other reason to read these descriptions thoroughly and choose your courses wisely. However, if you are yet to find an area of mathematics which grabs your attention let you be inspired by the power of logical thought. Whether you wish to explain why you should be hired for your dream job or convince your current employer you need a raise or you just want to make a healthy choice at the grocery store, a sound argument is vital. Mathematics exercises the brain and within these courses you will be challenged to communicate your thinking clearly and to reason logically thus strengthening your ability to argue effectively.

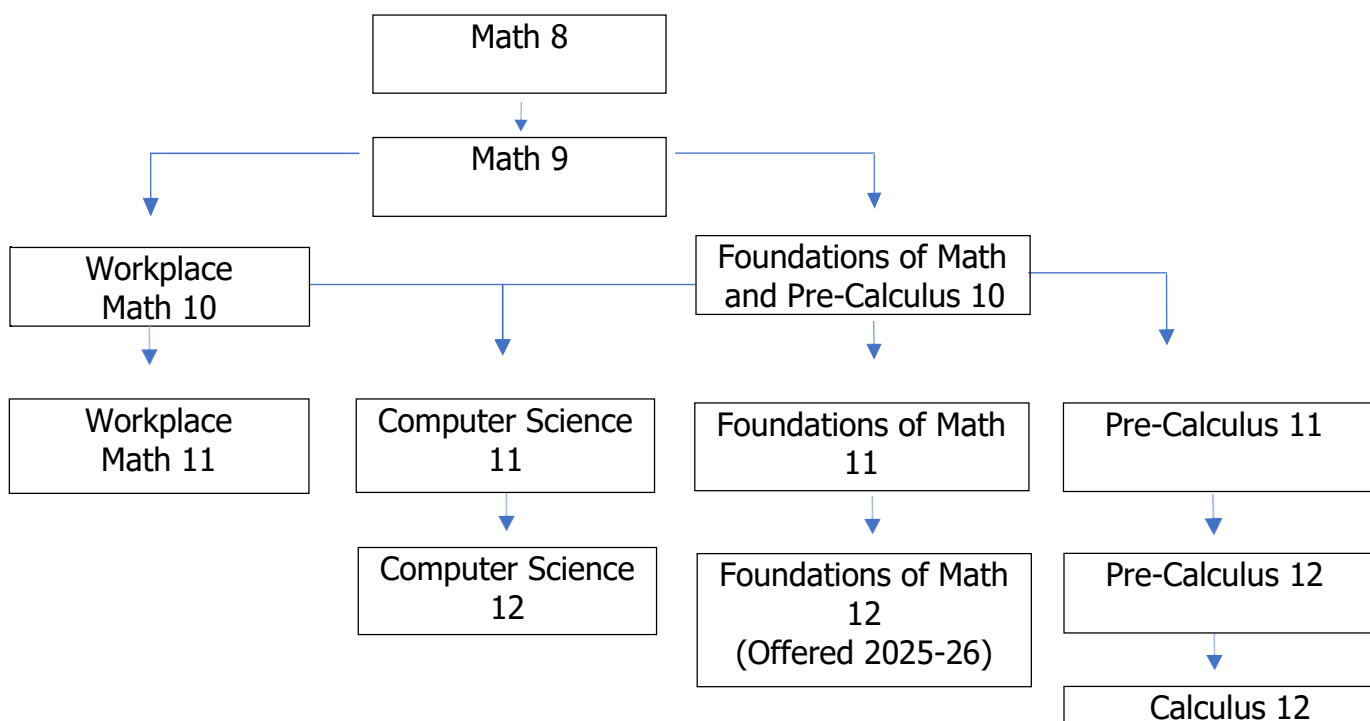
There are currently 3 main streams of mathematics to choose from:

**Apprenticeship and Workplace** – Designed to provide students with mathematical understandings and critical thinking skills identified for entry into the majority of trades, via a technical college or trade school, and for direct entry into the work force.

**Foundations** – Designed to provide students with the mathematical understandings and critical thinking skills identified for entry into a post-secondary program which does not require the study of theoretical calculus (social science, humanities or fine arts for example).

**Pre-Calculus/Calculus** – Designed to provide students with the mathematical understandings and critical thinking skills identified for post-secondary studies in programs that require the study of theoretical calculus (math, science, engineering, medicine or commerce for example).

In addition to these streams there are topic specific courses at the grade 11 and 12 level, namely History of Mathematics, Statistics, Geometry and Computer Science. This year we are offering Computer Science at both the grade 11 and 12 level.



A change in stream is possible although prerequisites should be met as these streams differ significantly in design and content. If a student finds later that they require courses from another stream for a college or university program this can be acquired at college or an adult education center.

### **MATHEMATICS 8 (MMA--08)**

This course is a rich extension of math 7 with an emphasis on multiplicative reasoning applied to mathematical objects such as integers, fractions, and percent. Ratios and rates, surface areas and volumes, linear relations, and data analysis are among the key concepts explored in this course.

\*\* Some students may receive an additional block of Math Support based on teacher recommendation. This extra block is designed to help build stronger foundational skills and provide a greater chance of success in future math courses.

Big Ideas:

- Numbers
- Computational Fluency
- Discrete Linear Relationships
- 3D Objects
- Data

### **MATHEMATICS 9 (MMA--09)**

Prerequisite – MMA08

This course is designed to consolidate and extend mathematical concepts and numeracy skills. Reasoning and foundational algebraic concepts such as linear equations are the focus of this course.

\*\* Some students may receive an additional block of Math Support based on teacher recommendation. This extra block is designed to help build stronger foundational skills and provide a greater chance of success in future math courses.

Big Ideas:

- Numbers
- Computational Fluency
- Continuous Linear Relationships
- Proportional Relationships
- Data

### **WORKPLACE MATHEMATICS 10 (MWPM-10)**

Prerequisite – MMA09

This course is designed to provide students with mathematical understanding and critical thinking skills identified for entry into the majority of trades, via a technical college or trade school, and for direct entry into the work force. There will be a focus on developing understanding of operations, making proportional comparisons, analyzing data and modelling relationships.

Topics include:

- Puzzles and Games
- Trigonometry
- Graphs
- Measurement and Conversions
- Surface Area and Volume
- Angle Relationships
- Central Tendency
- Experimental Probability
- Financial Literacy

## **FOUNDATIONS OF MATHEMATICS AND PRE-CALCULUS 10 (MFMP-10)**

Prerequisite – MMA09

This course is designed to provide students with the mathematical understanding and critical thinking skills identified for entry into post-secondary programs. It can lead into either the Foundations of Mathematics stream or the Pre-calculus Mathematics stream. There will be a focus on developing proportional and algebraic reasoning, computational fluency, analyzing data and linear relationships.

Topics include:

- Trigonometry
- Polynomials
- Powers with Integral Exponents
- Relationships among Data, Graphs and Situations
- Linear Relations
- Systems of Linear Equations
- Experimental Probability
- Financial Literacy

## **WORKPLACE MATHEMATICS 11 (MWPM-11)**

Prerequisite – MWPM10

This course is a continuation of Workplace Mathematics 10, designed to provide students with mathematical understandings and critical thinking skills identified for entry into the majority of trades, via a technical college or trade school, and for direct entry into the work force. There will be a focus on developing spatial sense, number sense and algebraic and statistical reasoning throughout.

Topics include:

- Slope and Rate of Change
- Graphical Representations
- Measurement
- Scale Representations
- Finance
- Geometry

## **COMPUTER SCIENCE 11 (MMACS11)**

This course is designed to provide students with the mathematical understanding and critical thinking skills involved in computer programming. Students will learn to how to decompose problems and use computational thinking to create algorithms that can be used to solve real-world problems.

Topics include:

- Representation of Basic Data Types
- Basic Programming Concepts
- Constructing and Evaluating Logical Statements
- Control Flow to Manipulate Program Execution
- Development of Algorithms
- Techniques for Operations and Searching
- Problem Decomposition through Modularity
- Computing for Financial Analysis

## **FOUNDATIONS OF MATH 11 (MFOM-11)**

Prerequisite – MFMP10

This course is designed to provide students with the mathematical understandings and critical thinking skills identified for entry into a post-secondary program which does not require the study of theoretical calculus (social science, humanities or fine arts for example). There is not a significant overlap with Pre-calculus 11, you may wish to take both courses. As well as the topics listed below students will partake in a mathematical research project to develop an appreciation of the role of mathematics in society.

Topics include:

- Logical Reasoning
- Relations and Functions
- Statistics
- Geometry
- Measurement

## **PRE-CALCULUS 11 (MPREC11)**

Prerequisite – MFMP10

This course is designed to provide students with the mathematical understandings and critical thinking skills identified for post-secondary studies in programs that require the study of theoretical calculus (math, science, engineering, medicine, or commerce for example). There is not a significant overlap with Foundations of Mathematics 11, you may wish to take both courses. There will be a focus on developing algebraic, trigonometric, and graphical reasoning as well as number sense.

Topics include:

- Sequences and Series
- Absolute Value and Reciprocal Equations
- Radical Expressions and Equations
- Rational Expressions and Equations

## **COMPUTER SCIENCE 12 (MMACS12)**

Computer Science 12 expands coding skills in Python. Students will create and use arrays which incorporate dictionaries, both looping and for lists, object-orientated programming with methods and inheritance of different classes and subclasses. Students will continue to explore and create algorithms using instance, object, attributes to create more sophisticated functions and programs.

Topics include:

- Access variables and data structures in memory
- Applications of multidimensional arrays
- Classical algorithms, including sorting and searching
- Use of Big-O notation to help predict run-time performance
- Recursive problem solving
- Persistent memory
- Encapsulation of data
- Modelling mathematical problem

## **FOUNDATIONS OF MATHEMATICS 12 - MFOM12 (Offered 2025-26)**

Prerequisite – MFMP10

This course is designed to provide students with the mathematical understandings and critical thinking skills identified for entry into a post-secondary program which does not require the study of theoretical calculus (social science, humanities or fine arts for example). There is not a significant overlap with Pre-calculus 11, you may wish to take both courses. As well as the topics listed below students will partake in a mathematical research project to develop an appreciation of the role of mathematics in society.

Topics include:

- Logical Reasoning
- Relations and Functions
- Geometry
- Statistics
- Measurement

## **PRE-CALCULUS 12 (MPREC12)**

Prerequisite – MPREC11

This course is a continuation of Pre-calculus Mathematics 11, designed to provide students with the mathematical understandings and critical thinking skills identified for post-secondary studies in programs that require the study of theoretical calculus (math, science, engineering, medicine or commerce for example). There will be a focus on algebraic, graphical and trigonometric reasoning.

Topics include:

- Polynomial Expressions and Functions
- Radical and Rational Functions
- Logarithmic Expressions
- Exponential and Logarithmic Functions and Equations
- Trigonometric Functions
- Trigonometric Equations and Identities
- Transformations of Relations and Functions
- Conics

## **CALCULUS 12 (MCALC12)**

Prerequisite – MPREC12 (May be taken concurrently with Pre-Calculus 12)

This course covers the basic concepts of Calculus. Although it is intended to be taken *after* completion of Pre-calculus 12 it is possible to take both of these courses at the same time. This course is highly recommended for those intending to enter into post-secondary studies in programs that require the study of theoretical calculus (math, science, engineering, medicine or commerce for example).

Topics include:

- History of Calculus
- Functions and their Limits
- Differentiation
- Anti-differentiation



# PHYSICAL EDUCATION

The goal of the Physical and Health Education Department is to provide students with the skills and knowledge to participate in group and individual activities, make informed wellness decisions, and demonstrate personal and socially responsible behaviour to ensure they become lifelong physically active individuals who value a healthy lifestyle.

## **PHYSICAL and HEALTH EDUCATION 8 (MPHE-08)**

Course Enhancement Activity Fee: \$20

Physical and Health Education 8 is an introductory course that aims to develop and enhance students' self-worth by challenging them physically and mentally. Students will be introduced to active living, fitness, and games through a variety of enjoyable physical activities. Students will learn movement skills and principles, ways to improve personal fitness and physical competence, and safety and injury prevention. There is also an emphasis on social and community health and mental well-being throughout the course.

Students will have the opportunity to participate in many activities during the school year including the following team and individual activities: fitness, soccer, flag football, basketball, rugby, volleyball, dance, invasion games, racquet sports, minor games, softball, ultimate, lacrosse, aquatics and skating.

## **PHYSICAL and HEALTH EDUCATION 9 (MPHE-09)**

Course Enhancement Activity Fee: \$20

Physical and Health Education 9 offers students the opportunity to learn more about themselves and enables them to make informed decisions about healthy active living throughout their lives. PHE 9 makes it possible for each student to achieve a healthy level of personal wellness, while developing the basic skills used in both recreational and competitive sports. Students who do their best will be satisfied with their achievements in Physical and Health Education 9. Similar to PHE 8, there is an emphasis on social and community health and mental well-being throughout the school year.

Students will have the opportunity to participate in many activities during the school year including the following team and individual activities: fitness, soccer, flag football, basketball, rugby, volleyball, dance, invasion games, racquet sports, minor games, softball, ultimate, lacrosse, aquatics and skating.

## **PHYSICAL and HEALTH EDUCATION 10 (MPHE10)**

Course Enhancement Activity Fee: \$20

Physical and Health Education 10 is a comprehensive course that aims to develop and enhance students' self-worth by challenging them physically and mentally. Regular participation in a variety of enjoyable physical activities will promote lifelong healthy active living. Student learning will include movement principles and skills in a team and individual setting, fitness and health related issues, goal setting, decision-making and social interaction. Through Physical and Health Education 10 students will achieve a positive attitude towards lifelong physical activity,

while gaining a better understanding of themselves in the world of sports, active recreation and health.

Students will have the opportunity to participate in many activities during the school year including the following team and individual activities: volleyball, ultimate, basketball, racquet sports, dance, archery, active health, CPR, minor games, lacrosse, softball, soccer, football, aquatics and skating.

### **ACTIVE LIVING 11 (MACLV11)**

Course Enhancement Activity Fee: \$60

The Active Living 11 program is an elective course that fosters a positive attitude towards lifelong physical activity. Students will be equipped with the skills and knowledge to participate in group and individual activities, make informed decisions and demonstrate personal and socially responsible behaviour.

Students will participate in a variety of learning activities including team games (flag football, soccer, floor hockey, basketball, handball, volleyball, softball, lacrosse, ultimate) and individual activities (badminton, table tennis, weight training/fitness, ice skating, golf, tennis). Active Living 11 students may be required to complete 10 hours of volunteer service outside of class time (preferably at Britannia Secondary School in the area of sport). Students will also have opportunities to participate in various course enhancement activities throughout the school year. Activities may include rock climbing, golf, indoor soccer, skating, aquatics, laser tag, and billiards.

### **ACTIVE LIVING 12 (MACLV12)**

Course Enhancement Activity Fee: \$60

The Active Living 12 program is an elective course that aims to help students by preparing them for an active and energetic life after high school. A positive attitude towards lifelong physical activity is extensively emphasized throughout this course.

Students will participate in a variety of learning activities, including team games (football, soccer, floor hockey, basketball, volleyball, softball, lacrosse, ultimate) and individual activities (badminton, aquatics, table tennis, weight training/fitness, ice skating, golf, tennis, first aid). Active Living 12 students may be required to complete 20 hours of volunteer service (preferably at Britannia Secondary School in the area of sport). Students will also have opportunities to participate in various course enhancement activities throughout the school year. Activities may include rock climbing, golf, indoor soccer, skating, aquatics, laser tag, and billiards.

### **LEADERSHIP 11 (YHRA-1A) & LEADERSHIP 12 (YHRA-2A)**

Leadership 11 and Leadership 12 are courses designed to improve the leadership, cooperative and facilitative capabilities of Britannia students. Leadership students will be expected to take a leading role in all aspects of school life. This will include organizing and participating in peer tutoring, athletic tournaments, intramurals, parent nights, elementary school visits, assemblies, special events and field trips.

## **FITNESS AND CONDITIONING 11 (MFTCD11) & FITNESS AND CONDITIONING 12 (MFTCD12)** Course Enhancement Activity Fee: \$40

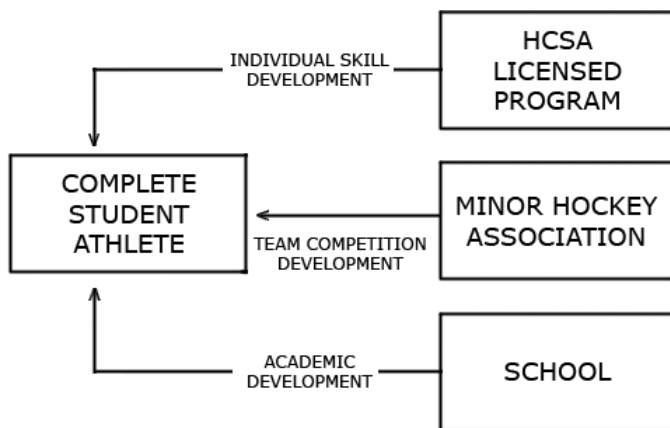
These courses are specifically designed for students who are motivated to continue with Physical Education at the Senior Level through participation in fitness activities. Students will learn techniques, theories and concepts of various training methods for general and/or sport-specific activities. Students will use this knowledge to design, implement and refine a fitness program that is specific to their needs, demonstrating improvements in the various components of fitness throughout the year.

Throughout the school year, students may participate in the following activities: Swimming, Walking/Running, Circuit Training, Yoga, Weight Training, Tabata, Sparta, Zumba, Step Class and Pilates. Regular use of the Britannia Community Centre facilities and off-campus activities will enhance this course. The theory component from these courses will provide a solid foundation for students interested in pursuing a career in the area of Fitness/Personal Training. Fitness and Conditioning 12 students are expected to complete project work as part of their course work.

## **Britannia Hockey Academy (BHA)**

### **HOCKEY ACADEMY 8, 9 (MPHE-08DC1, MPHE-09DC1) HOCKEY SKILLS 10, 11, 12 (YLRA-0C, YLRA-1B, YLRA-2B)**

As a licensed Hockey Canada Skills Academy, the BHA aims to develop individual player skills with a minor focus on team tactics. Student-athletes will learn the importance of balancing this hockey training with their high school academic curriculums and personal endeavors.



Each BHA student will embark on a journey along their Bruin's Road path with the support of instructors aiming to enhance students' ice hockey skills, fitness and knowledge. Extra-curricular activities such as rock climbing, small area game competitions, hiking, skiing/snowboarding, etc are an integral part of the program.

# SCIENCE

## **SCIENCE 8 (MSC--08)**

Science 8 begins with the concepts of lab safety, science application and process skills. Course topics include Cells, Immune System, Matter and Atomic Theory, Kinetic Molecular Theory, Light Energy, Plate Tectonics and Layers of the Earth. Emphasis throughout the course is on developing personal and social skills and thinking abilities and communication skills. Using an investigative approach, a wide variety of activities will be explored.

## **SCIENCE 9 (MSC--09)**

Science 9 continues to develop personal and social skills, thinking abilities and communication skills. This course is divided into 4 units: Cell Division, Periodic Table and Compounds, Electric Circuits, and Interconnection of Earth's Spheres. Lab skills will continue to be developed.

## **SCIENCE 10 (MSC--10)**

This course prepares students for entry into the grade 11 sciences. An experimental approach will be used to investigate the following topics: DNA, Inheritance Patterns, Chemical Reactions, Energy Changes, Energy Transformations, Radiation and Formations of the Universe. In addition, lab safety, the scientific method, scientific literacy, ethical behaviour, co-operative skills, application of scientific principles and science related technology will be practiced.

## **BIOLOGY 11 – LIFE SCIENCE (MLFSC11)**

For the student interested in pursuing the science of Biology. Students in this course will learn about classification, diversity, ecology and structure and function of living things found on Earth, from the most basic to the most complex. This course is laboratory-oriented and includes microscopic examinations.

## **BIOLOGY 12 – ANATOMY AND PHYSIOLOGY (MATPH12)**

The course first examines cell structure and function, followed by an in-depth look at human physiology. The organ systems that we will explore include Digestive, Respiratory, Circulatory, Nervous, Excretory and Reproductive systems. Experimental work will be used to emphasize selected concepts.

### **CHEMISTRY 11 (MCH--11)**

Chemistry 11 deals with the description, classification, and the theory of matter. In addition, the mole concept, gases, stoichiometry, atomic theory, ionic equations, the electrical nature of matter, the periodic table, nuclear and organic chemistry are covered. The course includes several experiments and extensive use of arithmetical skills (approximate answers, scientific notation, problem solving and significant figures).

### **CHEMISTRY 12 (MCH--12)**

This course involves in-depth coverage of Rates of Chemical Reactions, Equilibrium Solubility, Acid-Base Chemistry, and Electrochemistry. Emphasis is placed on experiments. Students should have a good grasp of mathematical principles.

### **PHYSICS 11 (MPH--11)**

Physics 11 explores the big ideas of motion, forces, energy and waves.

Units include:

- Kinematics (uniformly accelerated horizontal motion, projectile motion)
- Dynamics (forces, Newton's Laws of Motion, forces in systems)
- Work, Energy, Power & Efficiency
- Electric Circuits
- Waves (properties and behaviours, sound)

### **PHYSICS 12 (MPH--12)**

Physics 12 continues the exploration of the big ideas in Physics 11 (linear motion, forces, and energy) and investigates the big ideas of momentum, frames of reference, force fields and circular motion.

Units include:

- Kinematics & Dynamics (Physics 11 topics plus momentum and impulse)
- Equilibrium (static, dynamic, and rotational)
- Uniform Circular Motion
- Electrostatic Dynamics
- Electric Fields, Electric Force, Magnetic Fields, Magnetic Force
- Electromagnetism
- Gravitational Fields, Newton's Law of Universal Gravitation, Gravitational Dynamics
- Special Relativity

### **EARTH SCIENCES 11 (MESC-11)**

This course investigates the science behind space, the creation of Solar Systems, the interconnection between Atmospheric and Oceanographic systems and their impacts on current and future environments on Earth.

# SOCIAL STUDIES

## **SOCIAL STUDIES 8 (MSS--08)**

This course offers students an opportunity to explore world history during the time period of the 7<sup>th</sup> century to 1750. Students will use historical and geographical thinking concepts such as cause and consequence, and patterns and trends to frame their study of the innovations, political systems, cultural shifts, migrations, exchanges, and explorations (to name a few) of many cultures. Topics of study may include the Barbarian invasion and the Dark Ages, European Feudalism and the Crusades and the Black Plague, the Islamic and Ottoman Empire expansion, Golden Age of China-Tang Dynasty, Feudal Japan-Edo Period, and Renaissance and Reformation. Current events will also be discussed regularly to develop critical and political thinking competencies.

## **SOCIAL STUDIES 9 (MSS--09)**

This course offers an in-depth study of significant events, developments, places, and people in the years 1750 to the lead up to WWI in the early 20<sup>th</sup> century in Canada and around the world. Students will investigate a wide variety of topics that may include British Imperialism and the early colonization of Canada including the impact of the fur trade; discriminatory policies and historical wrongs in Canada, such as Residential Schools, the Komagata Maru, the Chinese Head Tax, and discrimination toward refugees fleeing persecution and ; revolutions and conflicts (for example: the French Revolution, American Revolution, Industrial Revolution, the Gold Rush / Chilcotin War in British Columbia); and case studies of nationalism, such as Japan. Topics about Canada that stretch beyond this time period may include Canada's physiographic features and the consequences of colonialism on Indigenous people and their successful efforts to self-govern. Students will continue to develop historical and geographical competencies learned in grade 8.

## **SOCIAL STUDIES (MSS--10)**

This course examines significant global and Canadian events, developments, people, and places beginning with WWI through the lenses of historical and geographical thinking competencies. Students will investigate topics of interest up to present day that may include Canadian identity, autonomy, economy, and governance; discriminatory policies and injustices in Canada, such as Residential schools and internments; First Peoples' governance in Canada; Truth and reconciliation in Canada; case studies of international and domestic conflict and cooperation (for example: WWI, WWII, NAFTA, the Quiet revolution, the Oka crisis; the League of Nations, NATO); climate change; and urbanization.

## **LAW STUDIES 12 (MLST-12)**

Students in grades 11 or 12 may take Law Studies 12. This course examines the rights and responsibilities of citizens, and the Canadian legal system and its heritage. Topics may include the Constitution Act, the Person's Case, the Oka crisis, missing and murdered women of the downtown eastside, the Canadian legal framework, law as a force of change, law in relation to societal values and worldviews, and law in relation to the spirit of Truth and Reconciliation with regards to federal, provincial, and indigenous legal and societal issues. Curricular Competencies (such as significance, perspective, and ethical judgement), projects, presentations, group work and field studies to the Provincial Law Courts are just some of the elements of this interesting course!

## **INDIGENOUS STUDIES 12 (MINST12)**

Students in grades 11 or 12 may take Contemporary Indigenous Studies 12. This course is dynamic, comprehensive and delves into the rich and diverse cultures, histories, and contemporary issues facing Indigenous peoples in Canada. It is designed to provide students with an in-depth understanding of the contributions, resilience, and challenges experienced by Indigenous communities, fostering appreciation for their profound cultural heritage and knowledge. Students will explore the intersection of colonialism and Indigenous Peoples in a global context and function in juxtaposition to the Canadian historical landscape. Colonialism has understandably become an important topic to deconstruct, as students will learn about Indigenous Peoples and culture from around the world. In addition to deconstructing, students will investigate the idea of reconciliation and conceptualize how truth and balance can be restored. Students will engage in critical discussions, exploration of Indigenous perspectives, and examination of key issues to foster meaningful connections and promote and engage in truth and reconciliation.

## **SOCIAL JUSTICE 12 (MSJ--12)**

Students in grades 11 or 12 may take Social Justice 12. This course will focus on the study of social injustice in Canada and around the world. Racial discrimination, poverty and classism, the fight for equity for marginalized groups, and the struggle for upholding human rights are some of the topics that may be discussed. We will explore these social justice topics and more through the use of film, videos, social media, articles, and examples of successful social movements that have created positive changes. Action-oriented projects and guest speakers may be included. We will examine the important human rights tools that are used in the fight for social justice, including the United Nations Declaration of Human Rights, UN Convention on the Rights of the Child, UN Declaration on the Rights of Indigenous Peoples, the Canadian Charter of Rights and Freedoms. The goal of Social Justice 12 is to promote the pursuit of social justice and encourage students to develop the abilities to work toward a more just society. Students will develop a deeper understanding of justice, learn about advocacy and activism, and apply their critical and creative thinking skills to create social action plans to solve some of the ongoing social challenges. The goal of this course is to understand how to act and advocate in a socially responsible way, and to empower students to become agents of social change.



# APPLIED DESIGN, SKILLS & TECHNOLOGY EXPLORATION

Applied Design, Skills & Technology Education provides an opportunity to “actively” apply technical knowledge in a practical manner while developing as informed creators and consumers for a better future. Students may explore industry career paths, specialty areas of interest, and garner practical skills to be used over a lifetime. Including Technology Education as part of any course provides concrete foundations for lifelong learning, and for some a base for entry into a variety of careers. We foster an approach to “hands-on” learning to develop industrial problem solvers, hands-on innovators, and skilled tradespeople who can contribute to solving problems not yet anticipated with processes and technologies not yet imagined.

## Applied Design, Skills, and Technology Curriculum

The Applied Design, Skills, and Technologies curriculum builds on students’ natural curiosity, inventiveness, and desire to create and work in practical ways. It harnesses the power of learning by doing and provides the challenging fun that inspires students to dig deeper, work with big ideas, and adapt to a changing world. It provides learning opportunities through which students can discover their interests in practical and purposeful ways.

### **Q. What is Applied Design, Skills and Technologies (ADST) and why is it being introduced?**

Applied Design, Skills, and Technologies is the new name for Applied Skills, better capturing the scope and nature of this area of learning. It includes an expansion of curriculum into Grades K–7. It maintains the values of applied learning, and hands-on designing and making in the disciplines of Business Education, Home Economics, Information Technology, and Technology Education.

#### **#Maker-space exploring options**

Several courses in the Technology Education department offer opportunities for including cross-curricular projects that integrate digital technology across multiple learning curriculums. These courses are identified with “#Maker-space exploring options”

#### **#STEM integration options**

STEM stands for Science, Technology, Engineering and Math.

Several courses in the Technology Education department offer STEM education to integrate concepts that are usually taught as separate subjects in different classes. STEM connects the application of evidence-based knowledge to real-life situations. These are identified with “#STEM integration options.”

### **APPLIED DESIGN, SKILLS AND TECHNOLOGY 8 (MADGE08)**

This course is designed to introduce students to the different aspects of technology education through “makerspace” and industrial workspaces. This course explores skilled practices such as wood working, metal working, art metal, electronics/robotics and design & drafting. This provides a strong foundation for further technology studies and careers. Major topics include basic hands-on industrial projects, industry measurement standards, and small fabrication equipment safety practices.



# WOODWORK/CARPENTRY

## ADST WOODWORK 9 (MADW-09)

This course is designed to introduce you to some of the very basic principles of fine wood craft. In this course, you will explore basic woodworking techniques and joinery as well as larger industrial applications of carpentry as it relates to construction of various projects agreed upon by both students and teachers. This is a hands-on skill development course that will teach real world connections.

**Activities:** Activities may include student designed projects such as speaker amplifiers, rocket cars, band-saw boxes, cutting boards, jawbreaker towers, piggy banks

**Evaluation:** Hands-on project work, equipment safety tests, woodwork technology theory (quiz/tests/assignments).

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for grade 9 ADST.

#Maker-space exploring options

## WOODWORK 10 (MWWK-10)

Woodworking 10 serves to introduce students to Wood Technology. Students plan their own learning experiences through individually designed projects. An emphasis is placed on effective wood design as it applies to traditional techniques. Classroom theory involves safety, machine shop practices, and design awareness. The majority of time will be spent on project work.

**Activities:** Activities may include student designed projects such as jewelry boxes, beautiful cutting boards, rocket cars, and more.

**Evaluation:** Hands-on project work, equipment safety tests, woodworking technology theory (quiz/tests/assignments).

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for Applied Skills

# Maker-space exploring options

## WOODWORK 11 (MWWK-11)

In this course, students will learn skills through project-based learning. The course is a hands-on course where students apply woodworking skills to develop techniques that are used in industry. Students will learn proper hand tool usage, portable power tools, and various other industrial machines to build a combination of student designed and teacher selected projects. Students will be expected to use spatial reasoning to solve design and construction problems, as well as fabricate projects using wood and wood composites.

**Activities:** Students will apply the acquired skills in the design and construction of teacher/student selected projects from a long list of available plans

**Evaluation:** Hands-on project work, equipment safety tests, woodworking technology theory (quiz/tests/assignments).

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for Applied Skills.

# STEM integration options

## **WOODWORK 12 (MWWK-12)**

This course is a hands-on course in which the students apply woodworking skills with project-based learning and industry standards. Woodworking hand tools, portable power tools, and machines are used to build student designed and/or teacher selected projects. Students will be expected to solve design and construction problems, calculate material amounts and costs, and fabricate projects using wood and wood composites.

**Activities:** Students will apply the acquired skills in the design and construction of teacher/student selected projects.

**Evaluation:** Hands-on project work, equipment safety tests, woodworking technology theory (quiz/tests/assignments).

**Recommendations:** Woodwork 11

\* This course fulfills a graduation requirement for Applied Skills.

# STEM integration options

## **FURNITURE AND CABINERY 12 – Furniture Construction and Woodcrafts (MTFAC12)**

With an effective project work-plan, students will construct a piece of furniture using the acquired skills of machining, joining, and finishing. Students will also be expected to identify and use an appropriate selection of hardware, fasteners, and adhesives in the assembly of the project. Some areas which may be covered include: free form, relief, and Native carving, wood sculpting, wood burning, inlay and Intarsia. Specific hand and machine tool processes will be employed to fabricate a variety of projects.

**Activities:** Large and small projects, shop maintenance, and jig production

**Evaluation:** Hands-on project work, equipment safety tests, woodworking technology theory (quiz/tests/assignments).

**Recommendations:** Woodwork 12

## **POWER TECHNOLOGY AND AUTOMOTIVE**

### **ADST POWER TECHNOLOGY AND AUTOMOTIVE 9 (MADPT09)**

If you plan to take an automotive course later on to learn facts about cars, this course is strongly recommended. An introductory course providing students with a general overview of today's technology. This course will be beneficial whether you choose to follow a related career in this field, or to just expand your knowledge and skills for general interest. This course is designed to prepare you for the future. It is designed to build skills, self-confidence and the ability and desire to learn new information. Although we will concentrate on today's technology and small gasoline engines, the knowledge and skills you acquire can be transferred to a wide range of mechanical situations.

**Evaluation:** Hands-on project work, equipment safety tests, technology theory (quiz/tests/assignments).

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for grade 9 ADST.

## **POWER TECHNOLOGY AND AUTOMOTIVE 10 (MTPOW10)**

If you plan to take an automotive course later on to learn facts about cars, this course is strongly recommended. In the first part of the course, you will become familiar with the 4- and 2-stroke engine. You will be actually dismantling and re-assembling a 4-stroke single cylinder go-cart engine in the shop. Next, you will learn the operations and workings of basic vehicle care and inspection. Although we will concentrate on today's technology and small gasoline engines, the knowledge and skills you acquire can be transferred to a wide range of mechanical situations.

**Evaluation:** Hands-on project work, equipment safety tests, technology theory (quiz/tests/assignments).

**Recommendations:** None. This is an exploratory course.

## **AUTOMOTIVE 11 (MTAUT11)**

This course is designed as an introduction to the basic automobile mechanics. It covers the automobile chassis and running gear, i.e. engines, fuel systems, ignition systems, clutches, transmissions, differentials, brakes, suspension and steering. Students interested in automotive technology or entering the automotive trade, e.g. Youth Train in Trades\*\* program, will find this course very informative.

**Evaluation:** Hands-on project work, equipment safety tests, automotive technology theory (quiz/tests/assignments).

**Recommendations:** None. This is an exploratory course.

## **AUTOMOTIVE 12 (MTAUT12)**

This course is designed to advance your basic skills. It covers the next level automobile chassis and running gear, i.e. engines, fuel systems, ignition systems, clutches, transmissions, differentials, brakes, suspension and steering. Students interested in automotive technology or entering the automotive trade, e.g. Youth Train in Trades\*\* program, will find this course very informative.

\*\*Britannia offers a district program, **Youth Train in Trades** in Automotive Service Technician program in semester 2. Please see Mr. Or, if you are interested in this program.

**Evaluation:** Hands-on project work, equipment safety tests, automotive technology theory (quiz/tests/assignments).

**Recommendations:** Automotive 11

## **AUTOMOTIVE TECHNOLOGY 12: ENGINE AND DRIVE TRAIN (MTEAD12)**

Prerequisite - Automotive 12

These two senior courses will cover topics such as engines, drive trains, brakes, electronics, and automotive on-board computer systems. The major portion of the course will be hands-on practical training in the auto shop, working on shop vehicles, customers' vehicles or the students' own vehicles.

# ELECTRONICS/ROBOTICS/ENGINEERING

## ADST ROBOTICS AND ELECTRONICS MAKERSPACE 9 (MADER09)

This course is designed to introduce you to some of the very basic principles of design engineering with electrical circuits, coding, 3D printing, and robotic programming. Students will learn theories such as Ohm's law and apply them to various prototype projects. Students will also construct various robotic projects that will complete challenges and have specific functions.

**Activities:** Projects may include a 3D printing design and manufacturing, "Audrino" prototyping, "raspberry Pi" coding and programming, Lego EV3 robotic programming, micro-hockey robot, a L.E.D. blinker circuit, a Snoop Tube sound amplifier, and a variety of other circuits. **Evaluation:** Hands-on project work, equipment safety tests, robotic technology theory (quiz/tests/assignments), robotic projects and competitions.

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for grade 9 ADST. # Maker-space exploring options

## ROBOTICS AND ELECTRONICS 10 (MTEAR10)

This course introduces the study of electricity and electronics through experiments, theory, and hands-on building projects. Students will explore basic electron theory, industrial prototyping boards, digital multi-meters, electronic component identification, soldering techniques, electronic symbols, and schematic diagram drawings. Students will build a number of projects that they will have the opportunity to take home (some require a small fee for cost of materials.)

**Activities:** Projects may include a 3d printing design and manufacturing, "Audrino" prototyping, "raspberry pi" coding and programming, Lego EV3 robotic programming, micro-hockey robot, a love meter, a L.E.D. blinker circuit, a Snoop Tube sound amplifier, and a variety of other circuits. **Evaluation:** Electronic prototyping (labs,) electronic projects, robotic projects and competitions, electronic fundamental theory (tests,) basic equipment safety tests

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for Applied Skills # Maker-space exploring options

## ROBOTICS 11 (MTROB11)

Students will focus on robotics and industrial materials to design, innovate and create products to improve human interaction. Students will follow an industrial design process to research, design, draw, and construct their projects using a variety of tools and materials. This course will help students acquire the skills and knowledge needed to pursue post-secondary training as technologists, technicians, engineers, and industrial designers.

**Activities:** Projects may include a 3d printing design and manufacturing, "Audrino" prototyping, "raspberry pi" coding and programming, EV3 robotic programming, micro-hockey robot, VEX programing/coding/design and competitions.

**Evaluation:** prototyping (labs,) robotic projects, electronic fundamental theory (tests,) industrial equipment safety tests.

**Recommendations:** None. This is an exploratory course.

\* This course fulfills a graduation requirement for Applied Skills. # STEM integration options # Maker-space exploring options

## **ROBOTICS 12 (MTROB12)**

Students will learn about a variety of engineering topics and use this knowledge to solve real-world problems with Robotics. This course is similar to Robotics 11 with an emphasis on larger, more complex design challenges. 3d Printing, Computer Assisted Manufacturing (CAM) and Computer Numeric Control (CNC) will support the development of advance robotics. This course will help students acquire the skills and knowledge needed to pursue post-secondary training as technologists, technicians, architects, engineers, and industrial designers.

**Activities:** Projects may include a 3d printing design and manufacturing, "Audrino" prototyping, "raspberry Pi" coding and programming, Lego Mindstorms robotic programming, micro-hockey robot, VEX programing/coding/design and competitions.

**Evaluation:** prototyping (labs,) robotic projects, electronic fundamental theory (tests,) equipment safety tests.

**Recommendations:** Robotics 11

\* This course fulfills a graduation requirement for Applied Skills.

# STEM integration options

# Maker-space exploring options

## **FOOD STUDIES/HOME ECONOMICS**

**HOME ECONOMICS** is an ADST course (Applied Design, Skills and Technology) that promotes the understanding of nutrition and health, food safety and food production. Students will develop the knowledge and skills to healthy meal planning that promotes the important skills of organization, effective communication and teamwork.

### **ADST - HOME EC 8 (MADFS08)**

The ADST - Home Economics program offers an introduction to Food Studies and Textiles. Food Studies promotes the understanding of nutrition and health. Students will learn basic cooking and baking skills by making a variety of snacks. In textiles, students will learn hand and machine sewing skills. Emphasis in this course is on the development of basic skills and the use, care, and safe operation of cooking and sewing equipment.

### **ADST – Textiles 9-12 (MADT-09; MTXT-10; MTXT-11; MTXT-12)**

In the Applied Design Textiles (ADST) program students will be learning about fabrics & fibre arts, clothing design and development from introductory to advance level. They will learn to apply a range of amazing design and sewing techniques, learn to use a serger and sewing machine. Through learning how to design, select and interpret patterns, students will be able to design and develop their own stunning projects that they would be proud to wear! There will be lots of design fun that leads to amazing finished projects such as garment bags, PJs, vests, tops, pants, summer dresses and shorts to jackets. Students may visit interesting places from clothing, fabric and design stores where they would be purchasing amazing patterns and supplies and attend fashion shows. This course is open to all grades 9-12.

### **ADST - FOOD STUDIES 9 MADFS09:**

Studies is an ADST course (Applied Design, Skills and Technology) that promotes the understanding of nutrition and health. In this course you will learn how to navigate in the Foods lab, by developing hands on skills in food preparation, using different

equipment, understand different functions of ingredients and learn about our food system and its impact to the environment. Students will be making a variety of nutritious and appetizing snacks and meals related to festivals, holidays, First Peoples food protocols, and celebrations around the world.

### **ADST - FOODS 10 (MFDN-10)**

In this Applied Design – Food Studies (ADST) program students will be engaging in inquiry-based learning that will not only help you survive in the kitchen; you will develop an appreciation for exploring a variety of foods and learn different methods of food preparation. Students will explore the relationship between eating practices, food trends and how they affect food choices, the environment and our health. Students will make a variety of nutritious and appetizing snacks and meals related to festivals, holidays, First Peoples food protocols, and celebrations around the world.

### **ADST - FOODS 11 (MFDN-11)**

In this Applied Design – Food Studies (ADST) program students will experience recipes and flavours influenced by different cultures. Awareness to global influences and practices of safe food preparation that promotes the understanding of nutrition and health will be explored. You will be engaging in inquiry-based learning about causes and impacts of food systems as it relates to our well-being as individuals and as a community. Students will enjoy a variety of foods and learn different methods of food preparations.

### **ADST - FOODS 12 (MFDN-12)**

This course is for students who would like to experience a variety of flavours influenced from different cultures and acquire more knowledge and skills around food preparation, food products and presentation. You will explore a variety of different flavours and profiles to develop your taste palette. Awareness to health and diet needs and how it impacts you and the food system. This is a hands-on and theory-based course. The goal is to develop the fearless cook in you.

### **ADST – CULINARY ARTS - CAFETERIA TRAINING (MCAFT11) - Level 1 (MCAFT12)**

Cafeteria Training gives students the opportunity to work in the Britannia commercial kitchen and develop restaurant food preparation and service skills. The kitchen is the classroom! Students also learn and practice restaurant product receiving, storing and catering. Professional Staff work in the school's commercial kitchen, so students get to work and learn from a red seal chef, cook and baker. Customer Service Skills are taught to students and students get to use them when serving breakfast, lunch and at catering events. Students will also learn how to use a point of sales (POS) cash register and retail scanning equipment.

Food Safe Level 1 course is taught by the teacher, so students can get Food Safe Level 1 certified. Food Safe regulations are practiced in the kitchen daily.

This is a hands-on practical training course for students to experience working in a commercial kitchen. Students will be able to add Culinary Arts experience in their resume; Students get entry level job training that is suitable for career development in the food, hospitality and tourism industries.

## **YOUTH TRAIN in TRADES AUTOMOTIVE SERVICE TECHNICIAN PROGRAM AT BRITANNIA**

Britannia offers a district program, **Youth Train in Trades** Automotive Service Technician program. Please see your counsellor and Mr. Or for more information and visit <http://youth.itabc.ca/programs/train/>  
<http://youth.itabc.ca/trade/automotive-service-technician/>

### **WHAT YOU LEARN!**

- How to inspect, diagnose and service cars and light trucks
- How to repair engines, steering systems, braking systems, vehicle suspensions, electrical systems and more
- How to use computerized diagnostic equipment to test and adjust key vehicle components
- How to perform preventative maintenance, including wheel alignments, oil changes and tune ups

### **WHO CAN YOU WORK FOR:**

As an Automotive Service Technician, you can work for a motor vehicle manufacturing company, a motor vehicle dealer, or anywhere where motor vehicles are serviced, like an automotive specialty shop or a service station.

### **TYPES OF WORKPLACES**

- Auto Shops
- Municipalities
- Vehicle Rental Agencies

### **WHO YOU'LL WORK WITH:**

You will be paired with a Red Seal Mechanic who will ensure that you have a solid mechanical foundation and will help you develop your skills in servicing and repairing all automobile components—from the suspension, through the drive-train, and even the electrical systems.



# CAREER PROGRAMS

## YOUTH TRAIN IN TRADES PROGRAMS:

The Vancouver School Board offers district programs for students to pursue industry certification or the foundation level of a trade program. These programs save time and money (free tuition) and offer a huge jump start for students.

The benefits include:

- Dual credit with post-secondary institution (most programs)
- Head start with Foundation program training
- Registration with the Industry Training Authority (ITA)
- Potential direct lead into an apprenticeship
- Work experience in the trade

For more information and an application form, please visit the VSB Career Programs website: [careerprograms.vsb.bc.ca](http://careerprograms.vsb.bc.ca) links to Youth TRAIN in Trades, a pdf brochure for each program, and the application package. Also visit the Industry Training Authority website: [www.itabc.ca](http://www.itabc.ca). All students *applying* for Youth TRAIN in Trades programs should register at their home school with a full course load. Schools will be asked to modify a student's timetable if the student is accepted into a Youth TRAIN program.

Certification: successful completion of program will lead either to Level 1 technical training credit or a Certificate of Qualification from the Industry Training Authority.

See next page for list of programs





Program	Where the program is taught	Credits towards graduation program	Timetable	Application Due	Month program begins
<b>Aircraft Maintenance Engineer</b>	BCIT	16 credits	Monday - Friday	March 1	August
<b>Auto collision and Refinishing</b>	VCC	32 credits	Monday - Thursday 8:00 am - 3:00 pm	November 30 March 1	February September
<b>Auto Service Technician</b>	Britannia	20 credits	Semester 2	March 1	September
<b>Baking and Pastry Arts</b>	VCC	24 credits	Monday - Thursday 1:00 pm - 7:15 pm	November 30	August
<b>Carpentry</b>	BCIT	20 credits	February - June Monday - Friday	March 1	February
<b>Cook</b>	Sir Charles Tupper (priority to SCT students)	24 credits	Semester 2	March 1	September
<b>Cook</b>	David Thompson	24 credits	Semester 2	March 1	September
<b>**Electrical</b>	BCIT	24 credits	Monday – Friday	March 1	August
<b>Hairdressing</b>	VCC	44 credits	Monday - Friday	March 1	September
<b>** Heavy Mechanical Trades</b>	VCC	28 credits	Monday – Thursday 36 weeks	March 1	September
<b>Plumbing</b>	Piping Industry College of BC	4 credits	Mid-June to late July	March 1	June
<b>Painting</b>	Finishing Trades Institute of BC	4 credits	Mid-June to late July	March 1	June
<b>** Millwright</b>	BCIT	20 credits	Monday - Friday	March 1	February
<b>** Motorcycle &amp; Power Equipment</b>	BCIT	20 credits	Monday - Friday	March 1	February
<b>** Metal Fabrication</b>	BCIT	20 credits	Monday - Friday	March 1	February

- \* Limited spots available – must contact Career Programs office in the school year prior to program



## **DUAL CREDIT PROGRAMS:**

These programs, in partnership with post-secondary institutions, provide the opportunity for students to get a head start on their certification programs. Students save money (free tuition) and earn high school and post-secondary credits at the same time.

### **HEALTHCARE ASSISTANT (Grade 12)**

Students will prepare to work as frontline caregivers in home support, adult day care, assisted living, and complex care (including special care units).

- 28 weeks (September to March)
- 28 graduation credits
- Vancouver Community College

Additional information and application form can be found on the VSB Career Programs website at: [careerprograms.vsb.bc.ca/](http://careerprograms.vsb.bc.ca/) → Our Programs → Healthcare Assistant

Application Due Date: November 30

### **YOUTH WORK IN TRADES - Apprenticeship**

Students with the skills and connections can start an apprenticeship in high school. Students who are already working in an apprenticeable trade can formalize the apprenticeship relationship with their employer. There are 4 courses (16 credits) available to these students when they have a formal ITA agreement arranged through the VSB District Apprenticeship Facilitator. Information and application forms are available on the VSB website: [careerprograms.vsb.bc.ca/](http://careerprograms.vsb.bc.ca/) → Our Programs → Youth WORK in Trades

## **SCHOOL-BASED PROGRAMS:**

### **FASHION DESIGN AND TECHNOLOGY – ERIC HAMBER SECONDARY**

Students will enhance their construction skills; study history of costume, fashion merchandising; practice tailoring techniques and pattern drafting. Basic computer assisted design and fashion illustration will be practiced. In year 2, students will complete the graduation collection and portfolio needed for post-secondary entrance. Students may have the opportunity to participate in dual credit opportunities with a Fashion Design Program at a local post-secondary institute.

- Two-year cohort program: grade 11 & 12

Additional information and application form can be found on the VSB Career Programs website at: [careerprograms.vsb.bc.ca/](http://careerprograms.vsb.bc.ca/) → Our Programs → Fashion Design & Technology

## **IT AND CISCO NETWORKING PROGRAM – KILLARNEY SECONDARY**

Students will diversify and enhance their computer knowledge by building a computer, installing software and connecting the computer to networks and to the internet.

- Semester 2
- One-year cohort program, up to 12 credits
- Hands-on, laboratory courses
- Prepare for industry-recognized certification

Additional information and application form can be found on the VSB Career Programs website at: [careerprograms.vsb.bc.ca/](http://careerprograms.vsb.bc.ca/) → Our Programs → CISCO

Application Due Date: \_\_\_\_\_ March 1

## **TUPPER TECH - SKILLED TRADES PROGRAM AT SIR CHARLES TUPPER SECONDARY**

Designed for academic and career-focused Grade 12 students wishing to pursue an apprenticeship. A program for students who are not sure which trade is right for them

- Semester 2
- 24 graduation credits
- Grade 12 program

For more information on Tupper's program, contact Mr. R. Evans ([rtevens@vsb.bc.ca](mailto:rtevens@vsb.bc.ca)) or visit our Program website: [careerprograms.vsb.bc.ca/](http://careerprograms.vsb.bc.ca/) → Our Programs → Tupper Tech

Application Due Date: \_\_\_\_\_ March 1

## **ENHANCED TRADES – KILLARNEY SECONDARY**

A program designed as an introduction to a variety of trades courses which include Automotive Technology 11, Drafting 11, Metalwork 11 and Carpentry & Joinery 11.

- Semester 2
- 12 to 16 credits
- Grade 11 program

Additional information and application form can be found on the VSB Career Programs website at: [careerprograms.vsb.bc.ca/](http://careerprograms.vsb.bc.ca/) → Our Programs → Enhanced Trades

Application Due Date: \_\_\_\_\_ March 1