### ÉCOLE SECONDAIRE KELVIN HIGH SCHOOL





### STUDENT COURSE HANDBOOK 2021-2022

### ÉCOLE SECONDAIRE KELVIN HIGH SCHOOL COURSE HANDBOOK TABLE OF CONTENTS



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# ÉCOLE SECONDAIRE KELVIN HIGH SCHOOL

We welcome both new and returning students to our school community. At Kelvin, we see ourselves as part of a caring team who work with students and their families to encourage the academic and personal development of all learners. As Kelvin administrators, we are seeking to build a positive school environment where every student is valued and challenged.



Our school has a population of approximately 1250 students. We are very proud to offer an academic English Program, a French Immersion Program and an International Baccalaureate Diploma Programme. In addition to our compulsory courses, we offer a wide variety of options to suit the varied interests and talents of each student.

Our school also provides a strong extracurricular program including student leadership, athletic teams, performing arts, special interest clubs, and opportunities to be part of groups and projects which promote social awareness and responsibility such as Youth in Philanthropy. In our quest to improve our school and meet the evolving needs and interests of our students, we have added certificates in the Performing Arts and Fine Arts which students will receive upon graduation. In this handbook, you will find information about our school and the services we provide as well as a comprehensive guide to program planning and course selection. At Kelvin, we value ongoing communication with families to ensure that students are supported throughout their years with us. Please do not hesitate to contact us with your thoughts, ideas and concerns.

We are looking forward to working with you and your families.

Maria Silva Principal

## **SCHOOL INFORMATION**

### **TEACHER ADVISOR**

Teacher Advisors are assigned to every student upon enrollment. Students in Grades 10, 11 and 12 will have the same teacher advisor throughout their years at Kelvin. Students meet with their teacher advisor at the beginning of each semester and at set times throughout the year. Grade 9 students will have their first period (A slot) class teacher as an advisor for their first year at Kelvin.

### **PREPARATION PERIODS**

Grade 9 students are fully timetabled while most students in Grades 10, 11, and 12 will have some unassigned time in their timetables. During preparation periods a student can choose to go to the library, resource room or the school's cafeteria.

### ATTENDANCE

École secondaire Kelvin High School believes that attendance is one of the most important components of academic success. Whenever students are absent from class parents need to contact Safe Arrival at 1-833-288-7010, (or download the SchoolMessenger app from the Apple or Google store) to report the absence or late. An automated calling system will contact the home every time a student is absent unless a parent/ guardian verifies the absence. In addition to this, parents/ guardians will receive one notification email for the first course where a student reaches 5 absences. The school will also contact parents/guardians when a student accumulates 7 absences in a course. Parents/guardians are encouraged to contact their child's teacher at any time. At 10 absences students will meet with an administrator to discuss and to develop a success plan. Parent/guardian involvement is important and the plan requires a parent/guardian signature. At any time in this process parents are encouraged to contact the appropriate grade administrator. If there are special circumstances which require students to be away for an extended period of time, please contact the school. More information about Safe Arrival may be found on the school website.

**Extended Absence Request** forms are required for personal trips, medical reasons and sports/event related trips that are non-school related (3 days or longer). These forms are available from either the main or student offices. Parents/guardians, teachers and an administrator must sign the form and parent/ guardians must register the absence via Safe Arrival.

### CAFETERIA

The school's cafeteria provides hot and cold snacks and meals at reasonable prices. Students are expected to display respectful behaviour at all times and are reminded to place refuse in garbage bins, recyclables into the boxes provided and food waste in compost bins.

### COMPUTER USE POLICY / MEDIA RELEASE FORM

At École secondaire Kelvin High School, we provide students with the necessary tools to develop appropriate technological skills, including access to the Internet. An Application Permissions form is attached to each new student application which must be signed by students and parents prior to the student gaining access to the Internet.

At certain times throughout the year, the media may visit the school to report on student events and activities. The Informed Consent-Students form gives permission for photos and/or interviews to be taken/conducted for use in Division and non-Division publication(s).

#### **SMOKING AND VAPING**

The Winnipeg School Division was declared completely smoke free as of September, 2007. Students are not permitted to smoke anywhere on school grounds. This includes chewing tobacco (all tobacco products), e-cigarettes and vapes.

### LOCKERS

Lockers and locks are assigned, free of charge, by teacher advisors at the beginning of the school year. The school reserves the right to enter any locker at any time. A reminder to students that personal locks will be removed if brought into the school. Students are also advised not to bring valuables to school.

### TELEPHONE

There is a pay phone near the office that is available for student use. If urgent, students may approach the student office staff to use a phone. Please note, **the use of cell phones is not permitted in classrooms**, unless permitted by teacher.

#### PARENT COUNCIL

This is an active and interested group of parents who assist the staff at École secondaire Kelvin High School in their efforts to deliver excellent educational programs. The council meets on a monthly basis and parents are encouraged to take an active role in the process. Further information may be obtained by contacting the school directly at 204-474-1492 or by visiting the school's website at www.winnipegsd.ca/schools/kelvin.

## STUDENT SERVICES

### COUNSELLING

School counsellors are available to meet with students and/or guardians to provide assistance of a general or personal nature. Support is provided in a wide variety of areas such as:

- career counselling, post-secondary education and scholarship information
- academic programming and course selection
- personal/social and mental health issues that affect the student's social, emotional, and physical well being
- Counsellors also function in a consultative capacity to students, parents and teachers.
- consultation with Clinical Support Services team and formal referrals when required

Students can be assured that personal concerns will be discussed in a caring, confidential and supportive atmosphere.

Students are invited to make an appointment by contacting our Guidance secretary directly at 204-474-1156 or by emailing the counsellor directly.

### RESOURCE

Students referred to the Resource Department receive assistance primarily in compulsory courses. Services can be accessed by selfreferral, teacher referral, or parental referral. Intervention may be in the form of one to one, small group instruction or indirect classroom support through consultation and collaboration with the classroom teacher, special education teacher, resource teacher and student services team.

### TUTORING

Peer tutors may be arranged to provide individualized academic support. Students requiring a tutor should go to Room 23 and fill out an application. Tutoring often takes place before school, at lunch, during spares or after school.



### **BEYOND THE CLASSROOM**

The wide range of extra-curricular activities available at École secondaire Kelvin High School is truly unique. It is strongly recommended that students take advantage of these opportunities to further enrich their school experience. There is something for everyone...from the athlete to the singer, the environmentalist to the writer; there is an opportunity for everyone to explore their interests. We encourage all students to get involved. Daily announcements and posters provide details on how to join the various activities.

### STUDENT COUNCIL

Student Council provides a wonderful and varied way for students to become involved in school activities. It also provides opportunities to develop and take on leadership roles. Every year we hold elections to select co-presidents. Other executive positions such as secretary and treasurer are appointed. Open council meetings are held once a week at lunch hour and anyone interested is encouraged to attend. Executive meetings are also conducted weekly. Council assumes a variety of roles in the Kelvin community. They plan events as varied as Spirit Week, barbeques, fundraisers for charities, and Halloween.

Members participate in committees organized by the Board of Trustees in which they are afforded the opportunity to have a voice in issues that are common throughout the school division. Council is often the catalyst for change in the building and a conduit through which concerns can be brought up. Anyone with an idea, enthusiasm, or curiosity is more than welcome to participate. Sometimes it's about fun, sometimes it's about work, but always it's about stepping up and trying to make a difference.

# STUDENT ACTIVITIES

### ATHLETICS AND ATHLETIC CLUBS

### "Home of the Clippers"

Kelvin has a long and successful history of involvement in athletic activities. Some sports are organized as school teams for competition with other high schools in the province. Other sports are organized as clubs and are more oriented to recreation, although there may also be a competitive component. The school teams are organized into Grade 9, Junior Varsity, and Varsity for both boys and girls.



Our sports program includes:

- Badminton
- Basketball
- Cheerleading
- Cross country
- Curling
- Football
- Golf
- Hockey
- Indoor/Outdoor track
- Rugby
- Soccer (Indoor/Outdoor)
- Ultimate
- Volleyball
- Water polo

The formation of clubs and teams may vary from year to year dependent on both student interest and the availability of staff supervisors.

### SPECIAL INTEREST CLUBS

Among these are:

- Bike Repair Club
- Creative Writing Club
- E.A.C. (Environmental Action Committee)
- E-sports
- Electronics Club
- Ethics Bowl
- · Festival théâtre jeunesse
- Gaming Club (board games)
- Improv
- Indigenous Student Group
- Indigenous Youth Leadership Group
- Paper Clip (school newspaper)
- Reach for the Top
- Rocky Mountain Club
- Spectrum (Gay Straight Alliance)
- Woodworking Club
- Youth in Philanthropy (YIP)

Every school club must be supervised by a teacher and authorized by administration.

# STUDENT ACTIVITIES

### **VISUAL AND PERFORMING ARTS**

Each year École secondaire Kelvin High School provides many opportunities for student involvement in the arts. Courses are offered in drama, choral and instrumental music, the visual arts, music history and theory, photography, and musical theatre.



Work done in the visual arts culminates at the Spring Arts Festival at the beginning of June. For the performance artist, whether a budding actor, singer or instrumentalist, as well as those with more of an interest in the technical side of things (lighting, sound etc) there are many opportunities throughout the year to become involved.





Some opportunities include:

- Choral retreat
- ChoralFest Manitoba
- Musical Theatre recent productions: Wizard of Oz, Happy Days, Dirty Rotten Scoundrels, Into the Woods, Little Shop of Horrors, Anything Goes, Sweeney Todd, Cinderella, Clue the Musical and Putnam County Spelling Bee.
- Theatre recent productions: Proof, Waiting for Godot, Top Girls, The Crucible
- Improv competes in the High School Improv League with the chance of competing nationally.
- Winter choir and band concerts.
- Class Act Kelvin's fabulous pre-winter break variety show (every second year).
- Coffee House evening variety show.
- Optimist Band Festival
- Winnipeg Music Festival
- Spring Choir & Band Tours in the past few years, Banff, Calgary, Edmonton, Vancouver, Chicago, Minneapolis, St. Louis and New York City
- Arts Festival (January and June)
- Festival Théâtre Jeunesse a provincial immersion and francophone drama festival in early May at Cercle Molière

# SCHOOL PROGRAMS

### **ENGLISH ACADEMIC PROGRAM**

The English Academic program is the standard high school program as outlined by Manitoba Education and Training. This program follows the provincial credit system, from grades 9 through to grade 12 and it prepares students to pursue studies at the post-secondary level.



### FRENCH IMMERSION PROGRAM

The French Immersion Program promotes functional bilingualism, requiring strong student commitment. To enter this program, students must have completed the Junior High Immersion Program (early or late) or its equivalent. To graduate with a Winnipeg School Division French Immersion Diploma, students must successfully complete at least 15 credits in French and an oral exam in their grade 12 year. To achieve this goal, the French language must be used exclusively in all French Immersion courses.



### INTERNATIONAL BACCALAUREATE PROGRAMME

International in perspective and designed for the talented student interested in education for its own sake, this challenging, comprehensive, integrated and highly academic program has practical benefits as well. The IB Programme is internationally recognized as students follow the same course of studies world-wide.

This is a Winnipeg School Division sponsored program, where students enter at the Grade 10 level. All students applying to the IB Programme must have a grade 9 French course. The application process is explained to all interested Grade 9 students and parents at an orientation meeting held each February.

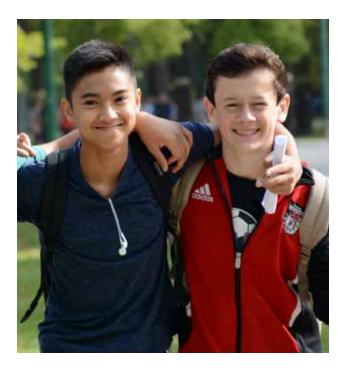
\*French Immersion and English program students are able to enrol in the IB Programme in grades 10 or 11 to earn IB course results. (please see page 24 for more details)

### PLANNING YOUR HIGH SCHOOL PROC

Your high school program should be planned very carefully based on many different pieces of information. What are your academic strengths and weaknesses? What are your long term plans beyond high school? Take special care in considering your compulsory courses and your options. You may contact a school guidance counsellor for assistance.







### **REGISTRATION PROCEDURES**

Current Winnipeg School Division students must complete an on-line registration and **have it signed** by a parent/guardian. All other students must submit a paper application form. Please ensure that all information is accurate and complete to prevent delays in your registration.

Under the Schools of Choice policy, priority must be given to École secondaire Kelvin High School catchment area students. **New students must submit a copy of their most recent report card along with their application form.** In addition to this, if you are registering in the Winnipeg School Division for the first time, please include confirmation of residency (driver's license, utility bill, etc).

NOTE: It is important that applications be submitted by the deadline indicated on the application form. Students who submit these applications past the deadline will be scheduled into courses only where space is available.

### MANITOBA EDUCATION HIGH SCHOOL PROGRAMS

### HIGH SCHOOL ACADEMIC REQUIREMENTS

Manitoba Education requires that students accumulate a minimum of 30 credits to graduate. At École secondaire Kelvin High School students are required to take the compulsory courses as listed below. In addition to these, students may select courses based on their personal interests and future academic needs.

GRADE 9	GRADE 10	GRADE 11	GRADE 12
ELA 10F	ELA 20F	ELA 30S	ELA 40S (2 CREDITS)
MATH 10F	MATH 20S	MATH 30S	MATH 40S
SCIENCE 10F	SCIENCE 20F	SCIENCE 30S	2 ADDITIONAL 40
SOCIAL STUDIES 10F	GEOGRAPHY 20F	HISTORY 30S	LEVEL COURSES FOR GRADUATION*
PHYS. ED. 10F	PHYS. ED. 20F	PHYS. ED. 30F	PHYS. ED. 40F

\*Requirements for university entrance vary. Please check with a counsellor to verify.

### FRENCH IMMERSION DIPLOMA

In order to receive an immersion diploma from École secondaire Kelvin High School, a minimum of 15 out of the 30 credits for graduation must be taken in French.

9E ANNÉE	10E ANNÉE	11E ANNÉE	12E ANNÉE
FRANÇAIS 10F	FRANÇAIS 20F	FRANÇAIS 30S	FRANÇAIS 40S
ELA 10F	ELA 20F	ELA 30S	ELA 40S (2 CREDITS)
MATHÉMATIQUES 10F	MATHÉMATIQUES 20S	MATHÉMATIQUES 30S	MATHÉMATIQUES 40S
SCIENCES 10F	SCIENCES 20F	SCIENCES 30S	ED. PHYS. 40F
SCIENCES HU- MAINES 10F	GÉOGRAPHIE 20F	HISTOIRE 30S	2 ADDITIONAL 40 LEVEL COURSES
ED. PHYS. 10F	ED. PHYS. 20F	ED. PHYS. 30F	FOR GRADUATION*

\*Requirements for university entrance vary. Please check with a counsellor to verify.

### ENGLISH

The study of English Language Arts enables each student to understand and appreciate language and to use it competently and confidently in a variety of situations for communication and personal satisfaction. In English class, students develop as learners and individuals through the language arts and through a diverse and rewarding selection of literature.

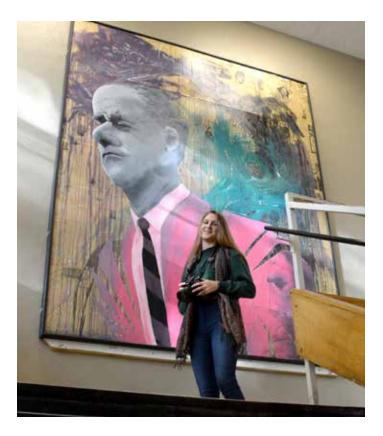


Kelvin's English program explores all aspects of the Manitoba English Language Arts curriculum, and places emphasis on the study of literature, independent reading, and the creation of thoughtful annotations and marginalia. Students are asked to bring self-selected reading material to every class, and they are asked to read with a pen or a pencil in hand.

When children read for pleasure, when they get "hooked on books," they acquire, involuntarily and without conscious effort, nearly all of the so-called language skills many people are so concerned about: they will become adequate readers, acquire a large vocabulary, develop the ability to understand and use complex grammatical constructions, develop a good writing style, and become good (but not necessarily perfect) spellers.

- Stephen D. Krashen





### **ENGLISH 9**

Students must complete **two full semesters of English 9** for their *compulsory* English 9 credit. One exception is that students enrolled in **Kelvin's French Immersion program** will take English 9 for only one semester. Thus, when completing the application form, students select ONE of the following:

### English 9 – ENGR1F

English 9 is a course that challenges students to become more mature and more competent in their use of the language arts of reading, writing, listening, speaking, viewing and representing. The course will include a variety of Transactional forms, which focus on pragmatics and communication, as well as Literary forms, which focus on aesthetic pleasure and artistry. At Kelvin, English classes emphasize developing strong habits of mind through the study of literature, independent reading, and the creation of thoughtful annotations and marginalia (writing in the margins).

### English 9 Enriched – ENGE1F

This course is for students who are interested in the study of literature. Students will study literary genres, such as the novel, the short story, poetry, drama (including Shakespearean drama) and non-fiction. Works are selected so that students experience well-crafted literature from different time periods and, possibly, from a variety of backgrounds. Enrichment is to be found in every English class at Kelvin. This course is good preparation for the International Baccalaureate Program English and Literacy courses Grades 11 & 12.

### English 9 Immersion – ENGF1F

This course is identical to the regular English 9 course with the exception that students in Kelvin's French Immersion program take English for one semester.



### **ENGLISH 10**

English 10 – ENGR2F Prerequisite: English 9

Grade 10 English continues to promote competent and confident reading, writing, listening, speaking, viewing and representing. In addition to offering a variety of language experiences and a variety of works, the purpose of English 10 is to have students develop literary awareness and critical thinking, as well as written and oral communication skills in preparation for both Literary and Transactional options in grade 11.

### BRIDGING

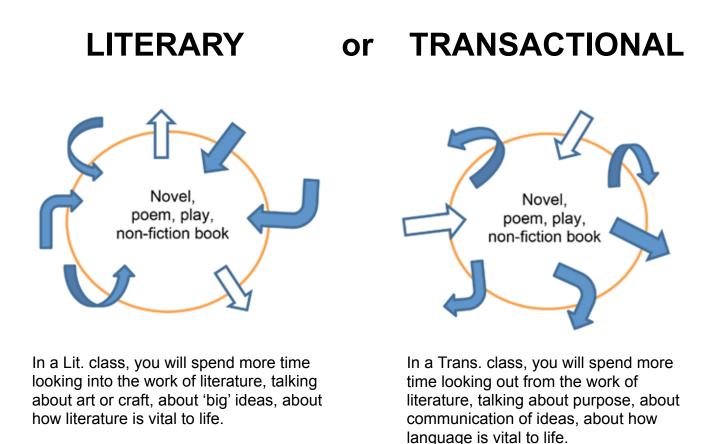
### English 10/11 E - ENGR2E/ENGR3E

The English "E" credit is a course for students with developing literacy skills as determined by Kelvin's formal language assessment process. Emphasis is on listening, speaking, reading, writing, viewing, and representing in a variety of combinations and through a wide range of relevant texts. In addition, some language study and exposure to culture may be components of the curriculum. The course is delivered by the English Department and is a prerequisite to grade 10 or 11 regular English courses so that students can be more successful in the regular English program.

École secondaire Kelvin High School recommends strongly that EAL learners take this course.

### ENGLISH 11 and 12

At Kelvin, students select Literary or Transactional courses for grade11 and grade 12. In both courses students will be expected to read extensively and to write extensively. The following diagram may assist parents and students in understanding the "Lit – Trans" distinction.



**BOTH** require equal amounts of reading and writing.

### ENGLISH 11

### **English 11 Literary focus – ENGL3S** Prerequisite: English 10

In the **Literary** focus, students study traditional literature (novels, short stories, poetry and drama, including Shakespeare) and some non-fictional material. Though literary and transactional approaches are part of the curriculum, in the **Literary** courses, assignments place more emphasis on the aesthetic aspects of language and literature.

### **English 11 Transactional focus – ENGT3S** Prerequisite: English 10

In the **Transactional** focus, students study traditional literature (novels, short stories, poetry and drama, including Shakespeare) as well as non-fictional material. Though transactional and literary approaches are part of the curriculum, in the **Transactional** courses, assignments place more emphasis on the pragmatic aspects of language and literature.

NOTE: students may take both courses, though only one credit is needed at the grade 11 level.

### ENGLISH 12

Students are required to take TWO credits of English 12:

Language and Literary Forms 12 and English 12 Literary Focus

### OR

Language and Transactional Forms 12 and English 12 Transactional Focus



### First semester: September - January

Language and Literary forms – ENLS4S Prerequisite: English 11 Literary or Transactional

The course is an advanced study of language and literature. All forms of writing and responding to materials are designed to allow students to develop insight into and enjoyment of literature.

#### Language and Transactional forms – ENTS4S Prerequisite: English 11 Literary or Transactional

The course is an advanced study of language and transactional materials. All forms of writing and responding to materials are designed to

allow students to gain insight into and experience with transactional forms and styles of language.



### Second semester: February - June

### English Literary focus – ENGL4S

Prerequisite: English 12 Language and Literary forms

This course is designed for students who enjoy working with traditional literature (novels, short stories, poetry and plays, including Shakespeare) and non-fictional, transactional materials. Assignments will include both literary and transactional approaches with a focus on aesthetic texts and writing. Students will write the English 12 Provincial Standards Test as the final exam for this course.

### English Transactional focus – ENGT4S

Prerequisite: English 12 Language and Transactional forms

This course is designed for students who want to work with an emphasis on non-fictional material (e.g. feature articles, news reports, editorials, proposals) and traditional literature (novels, plays, short stories, poetry). Assignments will include both transactional and literary approaches. The focus is on pragmatic texts and writing. Students will write the English 12 Provincial Standards Test as the final exam for this course.

### **ENGLISH 12**

The Major Paper or Major Individual Paper (MIP)

As part of the grade 12 English program at École secondaire Kelvin High School, students must complete a major paper as part of the **two** mandatory credits.



**Timeline** – the process and product will be explained before the end of the first semester (the end of January), and the paper will be complete before the end of March (before Spring Break).

**Value** – the major paper is worth 30% of a student's final grade. The 30% is divided between the process and the product. The individual teacher has discretion regarding the portion of the 30% that belongs to each semester and credit.



**Switching sections** – though never ideal, there are occasions when a student needs to switch sections and/or teachers at the end of the first semester; when this occurs, the student must complete the major paper with the teacher who began the process. In other words, the first semester teacher is the mentor and the marker for a student's major paper.

### MATHEMATICS

All students must obtain a credit in Grade 9 math before proceeding to any other math courses. The courses beyond Grade 9 are at Grade 10, 11, and 12 levels and are separated into three possible graduation streams: Applied, Essential and Pre-Calculus. The intent of each of these streams is described below:

### A scientific calculator is needed for the Grade 9 Mathematics course.

### Mathematics Foundations 9 – MATR1F

This course is the continuation of the grade 8 Mathematics Foundations course. The central focus of this course is problem solving to understand mathematical concepts and skills. Reasoning, communicating, visualizing, estimating and making connections between mathematical ideas are all emphasized. The topics included are: Rational Numbers, Powers and Exponents, Polynomials, Linear Relations, Equations and Inequations, and Statistics and Probability. This is a full-year course, taken every day.

### **Enriched Mathematics Foundations 9 – MATE1F**

This course will cover the same material described in the Mathematics Foundations 10F course, but will encourage deeper understanding of math concepts and their connections. Enriched, group work, critical thinking, and more challenging problem-solving will be consistent within the course. This is a good preparation course for the International Baccalaureate Program and for those pursuing higher level courses, but is not a prerequisite. A minimum mark of 90% in Grade 8 mathematics is highly recommended and there is a selection process in place for this Grade 9 course. This is a full year course, taken every day.



### Intro to Applied and Pre-Calculus Mathematics 10 – IAPR2S

(mark of at least 70% in MATR1F highly recommended)

This course is intended for students considering post-secondary studies that require a math prerequisite. This course provides students with the mathematical understanding and criticalthinking skills that are required for specific postsecondary programs. Topics are both context driven and algebraic in nature, and include Linear Functions, Trigonometry, Roots and Powers, Polynomials and Factoring. Students will engage in experiments and activities that include the use of technology, problem solving, mental mathematics, and theoretical mathematics to promote the development of mathematical skills. This course is a prerequisite for both the Applied and Pre-Calculus streams.

### **Essential Mathematics 10 – ESMR2S**

This course is intended for students whose postsecondary planning does not include a focus on mathematics and science-related fields. This course emphasizes consumer applications, problem solving, decision making and spatial sense. Topics include: 2-D Geometry, Measurement, Personal Finance, Trigonometry, Consumer Decisions, Transformations, Angle Construction, Analysis of Games and Numbers. This course is a prerequisite for Grade 11 Essential Mathematics.

### MATHEMATICS STREAMS

Check with the Guidance department to ensure prerequisites are met for your chosen postsecondary program. Note that some faculties require a minimum grade in the Pre-Calculus Mathematics 12 course for admission.

### **ESSENTIAL MATHEMATICS 11/12**

This stream is for students who are not intending to pursue further math-related studies after graduation. These courses meet the requirements for high school graduation and for general admission at any Manitoban university. Note that out-of-province universities may not recognize this stream for admission.

### **APPLIED 11/12**

This stream stresses applications of mathematics and uses graphing calculators, computers and other smart devices to support learning. Students will build on foundations learned in the Intro to Applied and Pre-Calculus 10 course by placing theory in a real-world context. While this stream is not as theoretical as the Pre-Calculus stream, it can still be demanding. A smart phone or tablet is strongly recommended for use in this course as apps will be used throughout. Note: The Applied Math stream is accepted for university admission in many faculties but not for programs requiring the study of calculus.

### PRE-CALCULUS 11/12

This advanced stream is for students intending to pursue post-secondary studies what will require the study of theoretical calculus or other higher-level math courses. It is accepted by all universities and colleges for admittance to all faculties. Good work habits and a solid understanding of math topics up to grade 10 are crucial for success in this stream.



### **Essential Mathematics 11 – ESMR3S**

Grade 11 Essential Mathematics builds on knowledge and skills of Grade 10 Essential Mathematics. Topics include: Analysis of Games and Numbers, Interest and Credit, 3-D Geometry, Statistics, Managing Money, Relations and Patterns, Trigonometry and Design Modelling.

### Applied Mathematics 11 – APMR3S

This course is intended for students considering post-secondary studies that do not require a study of theoretical calculus. It is context driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us. Grade 11 Applied Mathematics builds upon the foundation knowledge and skills from Grade 10 Introduction to Applied and Pre-Calculus Mathematics. Technology is an integral part of both learning and assessment in Applied Mathematics. A smart phone or tablet is strongly recommended for use in this course as apps will be used throughout. Topics include: Measurement, Geometry, Logical Reasoning, Statistics, Relations and Functions.

### Pre-Calculus Mathematics 11 – PCMR3S (mark of at least 70% in IAPR2S highly

recommended) This advanced course is designed for students who intend to study calculus and related mathematics as part of post-secondary education. This course is a high-level study of theoretical mathematics with an emphasis on problem solving and mental mathematics. Topics include: Quadratic Functions and Equations, Trigonometry, Rational Expressions and Equations, Radical Expressions and Equations, and Sequences and Series.

### MATHEMATICS

### **Essential Mathematics 12 – ESMR4S**

This course is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. Students are expected to work both individually and in small groups on mathematical concepts and skills encountered in everyday life in a technological society. Topics include: Analysis of Games and Numbers, Vehicle and Home Finance, Statistics, Geometry and Trigonometry, Precision Measurement, Business Finance, Career Life, and Probability.

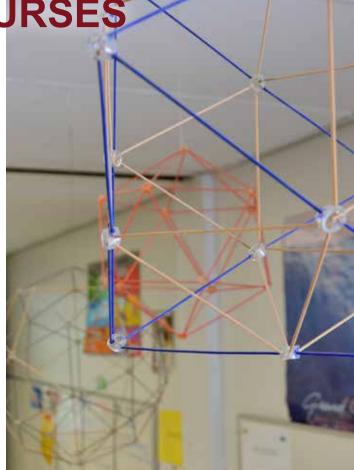
### Applied Mathematics 12 – APMR4S

This course is intended for students considering post-secondary studies that do not require a study of theoretical calculus. Technology is an integral part of both learning and assessment in Applied Mathematics. A smart phone or tablet is strongly recommended for use in this course as apps will be used throughout. Topics include: Financial Mathematics, Logical Reasoning, Probability, Relations and Functions, and Design and Measurement.

### Pre-Calculus Mathematics 12 – PCMR4S

(mark of at least 70% in PCMR3S highly recommended)

This advanced course is designed for students who intend to study calculus and related mathematics as part of post-secondary education. It builds on topics studied in Pre-Calculus Mathematics 11 and provides background knowledge and skills for the study of calculus. Topics include: Transformations and Functions, Trigonometric Functions, Exponential Functions, Logarithmic Functions, Polynomial Functions, Radical Functions, Rational Functions, and the Bionomial Theorem. A scientific calculator is required. A graphing calculator is not permitted on tests and exams.



#### Advanced Mathematics/Calculus 12 – ADMR4S/CALR4S Prerequisite: PCMR4S

Prerequisite: PCMR4S This course combines Advanced Mathematics 45S (ADMR4S) and Calculus 45S (CALR4S) which will appear as two half credits on the report card. This course is highly recommended for students who are particularly interested in mathematics and intend to specialize in mathrelated fields such as calculus at university. Topics may include functions, limits, derivatives, integrals, and the Fundamental Theorem of Calculus. This course is not a required prerequisite for university mathematics studies in Manitoba, but will help students with the transition to university mathematics, and may be required in other provinces. This course prepares students for high-level math contests such as the Euclid contest.

## **MATHEMATICS INFORMATION**

### USE OF CALCULATOR IN UNIVERSITY CALCULUS

Be aware that most universities do not allow calculators to be used on any of their tests or exams (University of Manitoba, for example). You would be advised to prepare yourself in your Grade 10, 11 and 12 Pre-Calculus courses by practicing problems that do not involve calculator use. Such problems have answers that are exact or purely symbolic.





### MATHEMATICS CONTESTS

The math department provides opportunities for mathematically talented students to participate in the following math competitions:

- Canadian Senior Mathematics Contest (Gr. 12) (November) – University of Waterloo
- Canadian Intermediate Mathematics Contest (Gr. 9 & 10) (November) – University of Waterloo
- Pascal (Gr. 9), Cayley (Gr. 10), Fermat (Gr. 11) (February) – University of Waterloo
- University of Manitoba (Gr. 12) (February)
- Euclid (Gr. 12) (April) University of Waterloo
- Fryer (Gr. 9), Galois (Gr. 10), Hypatia (Gr. 11) (April) – University of Waterloo

### MATHEMATICS INFORMATION

One math credit is required at each grade level from 9 to 12. Other credits obtained are complementary. Use of a scientific calculator is allowed in all Mathematics courses, but calculator use may be limited in the Pre-Calculus stream. Calculators with statistics functions and graphing capabilities are especially useful in the Applied Courses.

In order to be successful in mathematics, daily revision of previous notes, assignments and tests is necessary. Students are responsible for all missed notes and assignments and for standard supplies such as suitable calculators, geometry sets and writing materials.

### SCIENCES

### Science 9 – SCIR1F

This course is an introduction to four branches of science: biology, chemistry, physics and astronomy. By studying reproduction, the atom and elements, electricity and the universe, students will experience these diverse areas of science, preparing them for the Grade 10 Science program. Development of laboratory skills and an understanding of the processes of science are desired outcomes of this course.

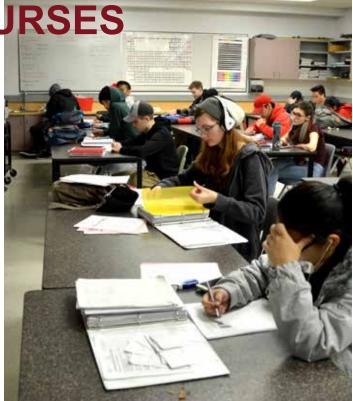
### Science 10 – SCIR2F

This course continues the study of biology (sustaining ecosystems), chemistry (chemical reactions), and physics (motion) and also introduces environmental science with a unit on weather dynamics. This program prepares students to make informed science course selections at the Grade 11 and 12 levels. Further development of laboratory skills and an understanding of the role of science in daily life are also fostered in this course.

### Current Topics in Science 11 – CTSR3S

Recommended prerequisite: Science 20F

Current Topics in Science deals with Science from an issues – based perspective. Rather than focus on a specific science discipline (Biology, Chemistry or Physics), this course integrates a variety of science disciplines in order to examine current science – related issues, trends, innovations and perspectives in an engaging and relevant manner. This Student-directed course emphasizes a more hands on, project based approach and is recommended for Grade 10 and 11 students looking to enrich their knowledge in current and relevant scientific issues.





### **Biology 11 – BIOR3S**

Biology 30S deals with human anatomy and physiology, wellness and homeostasis. The core topics include the biochemistry of nutrition and the circulatory, respiratory, digestive and nervous systems. Using a variety of practical activities, students investigate aspects of health and lifestyle related to human biology.

### **Biology 12 – BIOR4S**

The core of this course deals with genetics and heredity, evolution, biodiversity and classification. Students will learn about related societal issues and applications to daily life. Completion of BIOR3S is strongly recommended.

#### Chemistry 11 – CHER3S

Recommended prerequisite: Introduction to Applied & Pre-Calculus Mathematics 10

This course builds on the foundation of chemistry from Grade 9 and 10 Science with an emphasis on problem solving and quantitative analysis. The curriculum stresses the basic principle that the properties of matter are the consequence of the structure of matter. Topics studied include: properties of matter, chemical reactions, organic chemistry, gases and solutions.

#### Chemistry 12 – CHER4S

Recommended prerequisites: Chemistry 11 and either Applied Math or Pre-Calculus Math

Through participation in co-operative experiments and other classroom experiences, students will develop skills for the safe handling of materials, careful observation and measurement, effective problem solving and precise communication. This course is designed to prepare students for further study in chemistry at the university level and to develop the attitudes and abilities that enable students to become informed decision makers who are knowledgeable about the role of chemistry in the world around them. Topics covered in the course include: atomic structure, equilibrium, acids and bases, electrochemistry and aqueous reactions.



#### Physics 11 – PHYR3S

Recommended prerequisite: Introduction to Applied & Pre-Calculus Mathematics 10

This course will appeal to students who enjoy applying problem-solving to real world situations. Topics studied in-depth include measurement and linear motion. Wave theory will be introduced through the study of light and sound. The field concept is explored in electric, magnetic and gravitational contexts. At this level students will need a strong background in equation solving and trigonometry.

#### Physics 12 – PHYR4S

Recommended prerequisite: Physics 11 and either Applied or Pre-Calculus Mathematics

In this course, students complete their study of mechanics with the following topics: dynamics of circular motion, projectile motion, momentum and energy. This is followed by a detailed analysis of electricity and magnetism and an introduction to modern physics, through topics applicable to medical physics.

### SOCIAL STUDIES

Social studies courses are compulsory for grade 9 Social Studies, grade 10 Geography and grade 11 Canadian history. All other social studies courses are electives.



### Social Studies 9 – SOSR1F

This course is a contemporary study of issues affecting Canada today. The course examines themes including: diversity, pluralism, democracy and governance, Canada and the global context, and opportunities and challenges for our country. The course content will range from historical events to contemporary issues using classroom strategies such as mock parliament, a criminal trial, various hands-on activities, research and presentations. This is a semestered course.

### Geography 10 – GEOR2F

The course takes a national look at North America and moves toward a local study of Canada and its role in the global community. The areas of focus are: geographic literacy, natural resources, food from the land, industry and trade, and urban places. The course begins with basic geographical skills and ends with a look at the various industries and their impact economically and environmentally.



### History 11 – HISR3F

Canadian History is taught chronologically. Subjects that are covered are: Native peoples and immigration, colonial societies, government, Confederation, industrialization, Western Canada, and Canada's place in the world. Shaping Canada, the textbook, is both a political and social history. Some topics will relate to present day situations and concerns in Canada such as: separatism in Quebec, regionalization, and Indigenous self-government.

### PHYSICAL EDUCATION

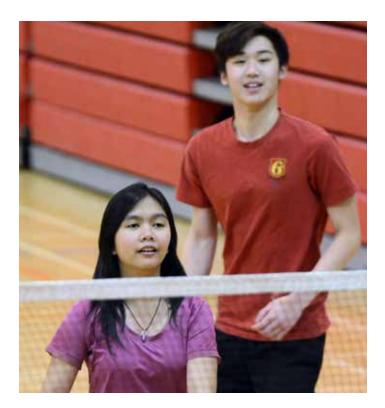
### **Physical Education 9– PHER1F**

Grade 9 Physical Education is a full year course with students attending PE every second day. The aim of the curriculum is to provide students with planned and balanced programming to develop the knowledge, skills, and attitudes for physically active and healthy lifestyles.

Physical Education activities include team and individual activities and there is a strong emphasis on individual fitness development. Health related topics include: fitness planning, addictions awareness, healthy relationships and reproductive health.

### Physical Education 10 – PHER2F

This compulsory full-credit course is designed to help youth explore a wide range of activities that include both individual and team concepts. Students will be given the opportunity to identify activities that they would enjoy and incorporate into an active lifestyle in their futures. Students will study topics related to fitness management and planning, nutrition, first aid, substance use and abuse prevention, reproductive health and social issues in sport.





### Active Healthy Lifestyles (General) 11 – PHER3F

This compulsory full-credit course is designed to help youth take greater ownership of their own physical fitness, to encourage them to seek out activities that interest them, and to engage in active lifestyles now and in the future. Students will study topics related to fitness management, mental health, substance use and abuse prevention, and the social impact of sport. The focus of this content will be on health and personal planning. These topics will make up the core 25% in-class component of the course content. For the remaining 75% of the course, students will be required to develop and implement, on their own time, a personal physical activity plan as part of a physical activity practicum. Students will be introduced to safety and risk management planning to minimize the associated risks of the activities they have chosen. As part of earning a credit for this course, students will be required to submit a personal fitness portfolio containing elements such as a fitness plan, physical activity log, and journal entries. Students will be graded for completion of the course with a Complete or Incomplete designation.

NOTE: Parents/guardians will be required to review and verify their child's physical activity plan and sign a **Parent Declaration and Consent Form** acknowledging their approval of the chosen activities and acceptance of the responsibility for risk management, safety, and supervision.

### Active Healthy Lifestyles (Personal Fitness) 12 – PHER4F

This compulsory full-credit course is an extension of the 30F Active Healthy Lifestyle course designed to help youth take greater ownership of their own physical fitness, to encourage them to seek out activities that interest them, and to engage in active lifestyles now and in the future. Students will study topics related to fitness management, nutrition, sexual health, social/emotional health, and personal development. The focus of this content will be on health and personal planning. These topics will make up the core 25% in-class component of the course content.

For the remaining 75% of the course, students will be required to develop and implement, on their own time, a personal physical activity plan as part of a physical activity practicum. Students will be introduced to safety and risk management planning to minimize the associated risks of the activities they have chosen.







As part of earning a credit for this course, students will be required to submit a personal fitness portfolio containing elements such as a fitness plan, physical activity log, and journal entries. Students will be graded for completion of the course with a Complete or Incomplete designation.

NOTE: Parents/guardians will be required to review and verify their child's physical activity plan and sign a **Parent Declaration and Consent Form** acknowledging their approval of the chosen activities and acceptance of the responsibility for risk management, safety, and supervision.

### FRENCH IMMERSION DIPLOMA PROGRAM

The French Immersion program provides students with an on-going challenge to learn French, not only as a language but also as a tool for learning. All teachers in the Immersion program are language teachers as well as content area teachers. Therefore, the student's task becomes learning the subject matter as well as the language needed to function in that area.

### **OUR PRIORITIES**

All French Immersion teachers believe that oral literacy is a priority. A major outcome of the program is to be functionally bilingual at the end of high school. With this in mind, the teachers have put in place a number of initiatives to encourage the use of French within the classroom.

### LANGUAGE CONTRACT

All students and parents will sign a contract at school start indicating their commitment to speaking French in class with their teachers and peers. We all understand that students are committing to the exclusive use of French, the target language, in all Immersion classes.



### ORAL ASSESSMENT

Immersion students will participate in our oral language assessment program. Each grade 10 student will have an interview with two Immersion teachers to practice and discuss their oral proficiency. This is to be a formative assessment for the purpose of providing feedback to the students on their areas of strength and the areas where growth is needed. Grade 11 students will continue to focus on improving their oral skills and will be assessed during a round table discussion. A final, summative assessment will take place during the grade12 year.

We hope to help students improve their proficiency in their second language and take pride in their achievement. We also feel that ongoing feedback is important to help students reach a high level of fluency and to develop their bilingual identity.

### **PROGRAM CHOICES (Grades 10-12)**

Students are able to obtain the French Immersion Diploma while taking **International Baccalaureate** courses. For students who may be considering the IB programme after Grade 9, staying in the French Immersion program until the end of Grade 9 is beneficial as it offers students more confidence in IB French courses. French Immersion students who remain in the French Immersion program may choose to take IB courses in Grades 11-12 to earn IB course results.

## LE PROGRAMME D'IMMERSION

Le programme d'immersion à l'École secondaire Kelvin existe depuis 1978. Aujourd'hui, notre programme bat son plein avec une bonne inscription en immersion courte et immersion longue. Cours préparatoire: le cours d'immersion pré-secondaire longue ou courte ou son équivalent. Les cours d'immersion sont offerts aux élèves voulant améliorer leurs compétences en français et désirant développer davantage leur niveau de bilinguisme.

On doit remarquer que:

- i. tout élève doit réussir un minimum de 15 crédits en français afin d'atteindre le diplôme bilingue; toutefois, on peut choisir jusqu'à 21 cours.
- ii. les élèves de 10e et de 11e suivent une session d'entraînement à l'expression orale et reçoivent une rétroaction de leurs enseignants en immersion.
- iii. un élève peut choisir de suivre 70% de ses cours au secondaire en français.
- iv. étant donné l'objectif linguistique du programme, tout élève s'engage à utiliser uniquement le français à l'intérieur de ses classes. L'élève entrant dans le programme d'immersion aura ses cours obligatoires livrés en français.
- v. puisque les activités culturelles font partie d'un programme d'acquisition de la langue, on s'attend à ce que les élèves aident à défrayer les coûts de ces activités. Celles-ci permettent aux élèves de développer une conscience et une appréciation de la culture francophone et leur donnent l'occasion d'utiliser la langue dans un contexte non-académique.

9E ANNÉE	10E ANNÉE	11E ANNÉE	12E ANNÉE
FRANÇAIS	FRANÇAIS	FRANÇAIS	FRANÇAIS
MATHÉMATIQUES	MATHÉMATIQUES	MATHÉMATIQUES	MATHÉMATIQUES
SCIENCES	SCIENCES	SCIENCES	SCIENCES
PHYS. ED.	PHYS. ED.	PHYS. ED.	PHYS. ED.
SCIENCES HUMAINES	GÉOGRAPHIE	HISTOIRE	PLUS 2 COURS AU NIVEAU 40 POUR ÊTRE DIPLÔMÉ

### NOTEZ : les élèves de 11e et 12e année doivent avoir un minimum de 3 crédits en français au niveau 30 et 40.

Cours facultatifs : Biologie 11, 12 Chimie 11, 12 Physique 11, 12 Histoire 12 Problèmes mondiaux 12

N.B. Un minimum de 18 inscriptions est nécessaire pour offrir ces cours. Ces cours offrent aux élèves la possibilité d'élargir et d'approfondir leurs habiletés en compréhension orale et écrite ainsi qu'en production orale et écrite, tout en accordant une attention particulière aux caractéristiques de la communication médiatique.

Deux crédits de français sont nécessaires en 9e année.

## FRENCH IMMERSION PROGRAM

**French Immersion** at the Secondary Level continues to provide a challenging program of studies for students who wish to further develop their bilingual abilities. The program first began at Kelvin in 1978. The first group graduated with an average of seven high school credits. Since then, the number of students and courses offered in French has increased noticeably.

Students entering the French Immersion program at Kelvin must be aware of the following:

- i. a minimum of 15 credits in French must be successfully completed in order to receive the Provincial French Immersion Diploma as prescribed by the government of Manitoba.
- ii. grade 10 and grade 11 students take a coaching session to improve their French oral skills and they get feedback from their French immersion teachers.
- iii. the opportunity exists to complete up to 70% of their Secondary Program in French.
- iv. in view of the linguistic objectives of the program, students must commit themselves to the exclusive use of French in **all** Immersion classes.
- v. given that an important part of the language acquisition is exposure to and participation in out-ofschool activities in the target language, we ask students to contribute towards the cost of the cultural activities program. Not only are these activities an extension of the français courses, but they allow students to develop an awareness and appreciation of the culture of French-speaking people and provide opportunities for students to enrich their linguistic skills in a non-academic context.

9E ANNÉE	10E ANNÉE	11E ANNÉE	12E ANNÉE
FRANÇAIS	FRANÇAIS	FRANÇAIS	FRANÇAIS
MATHÉMATIQUES	MATHÉMATIQUES	MATHÉMATIQUES	MATHÉMATIQUES
SCIENCES	SCIENCES	SCIENCES	SCIENCES
PHYS. ED.	PHYS. ED.	PHYS. ED.	PHYS. ED.
SCIENCES HUMAINES	GÉOGRAPHIE	HISTOIRE	2 ADDITIONAL 40 LEVEL COURSES FOR GRADUATION*

Please note: Students must have a minimum of 3 credits in French at the Grade 11 and 12 levels.

Options: Biologie 11, 12 Chimie 11, 12 Physique 11, 12 Histoire 12 Problèmes mondiaux 12

Note: A minimum of 18 students is necessary to offer these courses. These courses offer students the possibility to expand their skills in oral and written comprehension as well as in oral and written production with a special focus on media as a means of communication.

The two French language course credits are compulsory in grade 9.

### Français 9 – FILF1F/FICF1F (semestre 1)

Les élèves seront capables d'interagir avec une gamme de textes, tels que des contes, des faits divers, des lettres, des chansons, des poèmes, des publicités et des romans, selon une double perspective : analyse du fonctionnement textuel et réaction critique.

This course will expose students to a number of different kinds of texts, including folk tales, news items, letters, songs, poetry, advertisements and novels. Students will be introduced to textual analysis and critical thinking.

### Français en situation 9 – FESY1G (semestre 2)

Ce cours offre un programme

d'approfondissement permettant aux élèves d'appliquer ce qu'ils ont appris dans l'élaboration de projets ouverts. Le travail autonome et coopératif sera valorisé dans le but d'encourager les élèves à accepter le défi de ce cours axé sur la créativité.

This course complements semester 1 français, allowing students to apply what they have learned and to use those skills in a series of open-ended projects. Students are encouraged to work autonomously and cooperatively and to challenge themselves in this more creative course.



### Français 10 – FRAF2F

Les élèves seront capables d'analyser divers textes tels que des pièces de théâtres, nouvelles, courts articles, lettres ou textes d'opinion. Les élèves seront capables de distinguer les faits, les opinions, les hypothèses dans des textes oraux. Ils seront également capables de rédiger des textes pour transmettre de l'information selon son intention de communication ou pour satisfaire un besoin esthétique.

This course is designed to develop second language skills through the study of literary as well as non-literary works. Students will study the various aspects of communication in oral and written activities. They will continue to learn how to use the language to report, to persuade, to analyze, to express opinions, and to be creative.

### Français 11 – FRAF3S

Les élèves seront capables d'interagir avec une gamme de textes, tels que des reportages, des textes analytiques, des textes argumentatifs, des films, des pièces de théâtre, des romans, selon une double perspective: analyse du fonctionnement textuel et réaction critique. Les élèves seront par ailleurs capables, entre autres, de présenter et de défendre leur point de vue avec efficacité et de saisir l'essentiel du contenu d'un texte.

In this course, students will study both literary and non-literary works, such as reports, analytical and argumentative texts, films, plays, and novels. They will be taught to present and defend their point of view and to write with precision.

### Français 12 – FRAF4S

Les élèves seront capables d'interagir avec une gamme de textes, tels que des reportages, des entrevues, des documentaires, des textes analytiques, des textes argumentatifs, des dossiers, des films, des pièces de théâtre, des chansons, des nouvelles littéraires, des romans et des textes poétiques selon une double perspective: analyse du fonctionnement textuel et réaction critique s'appuyant sur les éléments pertinents du texte. Les élèves seront par ailleurs capables de créer des effets dans leurs productions orales et écrites, de faire une présentation orale à caractère formel, soutenue par des moyens techniques, de rédiger des textes argumentatifs et/ou analytiques.

This course will expose students to a variety of different kinds of texts, including reports, interviews, documentaries, analytical and argumentative texts, portfolios, films, plays, songs, short stories, novels and poetry. Students will be required to make formal oral presentations and to write in a variety of styles and forms.

### Création et production théâtrale - DAMF2S

Ce cours s'adresse aux élèves de la 10e à la 12e année en immersion française intéressés à la création et à la production théâtrale. Il permet à l'apprenant de vivre un processus de création tout en explorant les différents rôles/ tâches qui mènent à une production théâtrale. Il sert de tremplin et d'orientation à ceux et celles qui participent au Festival théâtre jeunesse. Le cours est aussi aux élèves du programme Français Communication et Culture qui ont des compétences exceptionnelles en français.

This course is open to French immersion students from grades 10, 11 & 12 who are interested in theatrical creation and production. Students will experience all aspects of theatre from playwriting to production while furthering their French language skills. Their efforts culminate in the performance of their play at the Cercle Molière's Festival Théâtre Jeunesse, Western Canada's largest youth French language theatre festival in May. This course is also open to French Communication and Culture students with exceptional French skills.

### Sciences humaines 9 – SCHF1F

Le programme d'étude est intitulé « Le Canada dans le monde contemporain ». Il comprend une étude du Canada actuel, et les questions qui l'affectent aujourd'hui, ainsi que ses rôles variés dans le monde contemporain. L'élève examinera les thèmes tels que la diversité et le pluralisme dans notre société, la démocratie et notre gouvernement, le droit, la consommation, la mondialisation, et les défis pour l'avenir du Canada.

A contemporary study of issues affecting Canada today, as well as its changing role in today's world. The course examines themes including diversity, multiculturalism, democracy, law and government, globalization and challenges facing Canada today and in the future.

### Géographie 10 – GEOF2F

Ce cours représente une étude des questions et des enjeux géographiques au XXIe siècle affectant non seulement le Canada mais la planète entière. Le but est d'examiner les relations entre les humains et leur environnement, comme l'on peut retrouver dans les villes, les industries et les zones agricoles. On développera les principes de base de la géographie.

This course is the study of 21st century geographic issues affecting the planet and Canada in particular. The objectives are to examine the relationship between humans and their environment with respect to urban, industrial and agricultural practices. Basic geographical principles will be developed.

### Histoire 11 – HISF3S

Ce cours est un survol de l'histoire du Canada, de la préhistoire jusqu'à l'époque moderne. Le cours comprend plusieurs thèmes, dont

- 1) les Autochtones
- 2) l'héritage colonial
- 3) les relations franco-anglaises
- 4) l'Ouest
- 5) le rôle international du Canada
- 6) la justice sociale

Chaque thème est exploré depuis ses origines jusqu'à l'époque contemporaine.

This is a survey course in Canadian history which covers everything from neolithic times to the present. A chronological approach is used to study topics such as:

- 1) The Aboriginal peoples
- 2) Canada's colonial origins
- 3) French/English relations
- 4) The West
- 5) Canada's global role
- 6) Social Justice

Each aspect of Canadian History is examined as it changes over time.

### Histoire 12 – HICF4S

(Questions mondiales)

On étudiera les grands courants de la pensée contemporaine, d'inclus le capitalisme, le communisme, l'environnementalisme, l'impact de l'ère nucléaire et la mondialisation. L'étude sera portée sur les situations politique, économique et sociale après la Première guerre mondiale.

This course examines major trends in contemporary political, economic and social thought, with an emphasis on history after the First World War.

#### Problèmes mondiaux 12 – GLIF4S

Les élèves devront acquérir une meilleure compréhension des enjeux mondiaux tels que la mondialisation, les relations internationales, le rôle des médias et les droits de la personne. Ils auront aussi l'occasion d'analyser les répercussions des problèmes mondiaux sur la qualité de vie en développant des opinions éclaircies et informées des actualités courantes. Ce cours est au niveau d'entrée universitaire et donne une excellente occasion de développer la pensée critique et d'acquérir un plus grand sens des problèmes mondiaux.

This course covers a variety of topics and focuses on current and past issues facing the world. Topics include political ideologies, globalization, international relationships, the role of the media, and human rights. Students will have the opportunity to pursue special interests and participate in class discussions. The course is at the university entrance level and offers an excellent opportunity to develop critical thinking skills and acquire a greater understanding of global issues.

### Mathématiques 9 – MATF1F

Ce cours est la suite du cours de Mathématiques 8. Le but central de ce cours est la resolution de problèmes pour comprendre les concepts et les habiletés mathématiques. On mettra l'emphase sur le raisonnement, la communication, la visualisation, l'estimation et établir des liens entre les idées mathématiques. Les sujets inclus sont: les nombres rationnels, les puissances, les polynômes, les relations linéaires, les equations et les inéquations, la statistique et la probabilité. Ceci est un cours à l'année longue, pris à chaque jour.

This course is the continuation of the grade 8 Mathematics Foundations course. The central focus of this course is problem solving to understand mathematical concepts and skills. Reasoning, communicating, visualizing, estimating and making connections between mathematical ideas are all emphasized. The topics included are: Rational Numbers, Powers and Exponents, Polynomials, Linear Relations, Equations and Inequations, and Statistics and Probability.

#### Mathématiques enrichies 9 – MAEF1F

Ce cours couvrira tous les mêmes concepts décris dans le cours de Mathématiques 9, mais encouragera une comprehension plus approfondie des concepts mathématiques et leurs liens. Le travail de groupe enrichi, la pensée critique et la résolution de problèmes plus complexes seront constants dans le cours. Ceci est un bon cours de préparation au programme de Baccalauréat International, mais n'est pas un cours préalable. Une note minimum de 90% dans le cours de mathématiques 8e année est fortement suggérée pour ce cours de 9e année ardueux et valorisant. Ceci est un cours à l'année longue, pris à chaque jour.

This course will cover the same material described in the Mathematics Foundations 9 course, but will encourage deeper understanding of math concepts and their connections. Enriched, group work, critical thinking, and more challenging problem-solving will be consistent within the course. This is a good preparation course for the International Baccalaureate Program, but is not a prerequisite. A minimum mark of 90% in Grade 8 mathematics is highly recommended for this challenging Grade 9 course.

### Mathématiques au quotidien 10 - MAQF2S

Ce cours est conçu pour des élèves dont les études post-secondaires ne nécessiteront pas une étude approfondie des mathématiques et des domaines scientifiques. Ce cours met l'accent sur des applications de consommation, la résolution de problèmes, la prise de décision et le sens spatial. Les sujets incluent: la géométrie 2-D, la mesure, finances personnelles, trigonométrie, les decisions du consommateur, les transformations, les angles, et l'analyse des jeux.

This course is intended for students whose post- secondary planning does not include a focus on mathematics and science-related fields. This course emphasizes consumer applications, problem solving, decision making and spatial sense. Topics include: 2-D Geometry, Measurement, Personal Finance, Trigonometry, Consumer Decisions, Transformations, Angle Construction, Analysis of Games and Numbers.

#### Mathématiques au quotidien 11 – MAQF3S

Le cours de mathématiques au quotidien 30S a été conçu pour des élèves dont les études postsecondaires ne nécessiteront pas une étude approfondie des mathématiques. Ce cours se fonde sur les habilités et connaissances acquises durant le cours de mathématiques au quotidien de 10e année. Les sujets abordés mettent l'accent sur des applications de consommation, la prise de décision et le sens spatial. Les sujets incluent: l'analyse des jeux, le credit et l'intérêt, la géométrie 3-D, la statistique, la gestion de l'argent, les relations et les régularités, la trigonométrie, et le design et mesure.

This course is intended for students whose postsecondary planning does not include a focus on mathematics and science-related fields. Grade 11 Essential Mathematics builds on knowledge and skills of Grade 10 Essential Mathematics. Topics include: Analysis of Games and Numbers, Interest and Credit, 3-D Geometry, Statistics, Managing Money, Relations and Patterns, Trigonometry and Design Modelling.

#### Mathématiques au quotidien 12 – MAQF4S

Ce cours est visé pour les élèves qui ne planifient pas poursuivre des études postsecondaires en mathématiques ou dans le domaine des sciences. Il est attendu que les élèves travaillent indépendamment ou en petits groupes sur des concepts et habilités mathématiques quotidiennes. Les sujets incluent l'analyse des jeux, financement d'une voiture, finances immobilières, les statistiques, la géométrie et la trigonométrie, la mesure et la précision, les finances d'une entreprise et la probabilité.

This course is intended for students whose post- secondary planning does not include a focus on mathematics and science-related fields. Students are expected to work both individually and in small groups on mathematical concepts and skills encountered in everyday life in a technological society. Topics include: Analysis of Games and Numbers, Vehicle and Home Finance, Statistics, Geometry and Trigonometry, Precision Measurement, Business Finance, Career Life, and Probability.

### Introduction aux mathématiques appliquées et pré-calcul 10 – IAPF2S

(note d'au moins 70% en MATF1F fortement suggéré)

Ce cours est concu pour les élèves qui envisagent de poursuivre des études postsecondaires nécessitant une étude plus approfondie des mathématiques. Cette voie fournit aux élèves les connaissances mathématiques et les habiletés de pensée critique qui sont nécessaires pour certains programmes post-secondaires. Les sujets abordés sont contextualizés et abstraits, et incluent les fonctions linéaires, la trigonométrie, les radicaux et les puissances, les polynômes et la factorisation. Les élèves mèneront des expériences et poursuivront des activités qui incluent l'utilisation de la technologie, de la résolution de problèmes, du calcul mental et de la théorie pour promouvoir le développement d'habiletés mathématiques. Ce cours est préalable aux voies de précalcul et d'appliqué.

(mark of at least 70% in MATF1F highly recommended)

This course is intended for students considering post-secondary studies that require a math prerequisite. This course provides students with the mathematical understanding and criticalthinking skills that are required for specific postsecondary programs. Topics are both context driven and algebraic in nature, and include Linear Functions, Trigonometry, Roots and Powers, Polynomials and Factoring. Students will engage in experiments and activities that include the use of technology, problem solving, mental mathematics, and theoretical mathematics to promote the development of mathematical skills. This course is a prerequisite for both the Applied and Pre-Calculus streams.

#### Mathématiques appliquées 30S - MAPF3S

Ce cours est suggéré pour les élèves qui planifient poursuivre des études post-secondaires qui ne demandent pas l'étude des mathématiques théoriques. Ce cours demand d'apprendre des habilités de résoudre des problèmes contextuels géométriques et numériques. Le cours bâti sur les connaissances antérieures qui sont enseignées dans le cours introduction aux mathématiques appliquées et précalcul 10 (IAPFS). La technologie est une partie intégrale du cours et sera constamment évaluée et appris à travers du cours. Une tablette ou téléphone intelligent est fortement suggéré pour la participation au cours. Les sujets inclus sont : les mesures, la géométrie, le raisonnement logique, les statistiques et les relations et les fonctions.

This course is intended for students considering postsecondary studies that do not require a study of theoretical calculus. It is context driven and promotes the learning of numerical and geometrical problem-solving techniques as they relate to the world around us. Grade 11 Applied Mathematics builds upon the foundation knowledge and skills from Grade 10 Introduction to Applied and Pre-Calculus Mathematics. Technology is an integral part of both learning and assessment in Applied Mathematics. A smart phone or tablet is strongly recommended for use in this course as apps will be used throughout. Topics include : Measurement, Geometry, Logical Reasoning, Statistics, Relations and Functions.

#### Mathématiques appliquées 40S - MAPF4S

Ce cours est suggéré pour les élèves qui planifient poursuivre des études post-secondaires qui ne demandent pas l'étude des mathématiques théoriques. Ce cours demande d'apprendre des habilités de résoudre des problèmes contextuels géométriques et numériques. La technologie est une partie intégrale du cours et sera constamment évaluée et appris à travers du cours. Les tableurs, les programmes graphiques et autres logiciels seront utilisées durant le cours. Les sujets inclus sont : les mathématiques financières, le raisonnement logique, la probabilité, les relations et les fonctions, la mesure et les projets stylistiques.

This course is intended for students considering postsecondary studies that do not require a study of theoretical calculus. Technology is an integral part of both learning and assessment in Applied Mathematics. Graphing calculators, spreadsheets or other computer software will be used by students. Topics include : Financial Mathematics, Logical Reasoning, Probability, Relations and Functions, and Design and Measurement.

### Mathématiques pré-calcul 11 – PCMF3S

(note d'au moins 70% en IAPF2S fortement suggéré)

Ce cours avancé a été conçu pour des élèves qui envisagent d'étudier le calcul et de poursuivre des études post-secondaires qui nécessiteront l'étude de calcul. Le cours comprend un haut niveau d'études de mathématiques théoriques, et il est divisé en trois domaines : l'algèbre et le nombre, la trigonomètrie, et les relations et les fonctions. Les sujets incluent les fonctions et les équations quadratiques, la trigonométrie, les expressions et les équations rationnelles, les expressions et les équations radicales, et les suites et séries.

(mark of at least 70% in IAPR2S highly recommended)

This advanced course is designed for students who intend to study calculus and related mathematics as part of post-secondary education. This course comprises a high-level study of theoretical mathematics with an emphasis on problem solving and mental mathematics. Topics include: Quadratic Functions and Equations, Trigonometry, Rational Expressions and Equations, Radical Expressions and Equations, and Sequences and Series.

### Mathématiques du pré-calcul 12 – PCMF4S

(une note d'au moins 70% en PCMF3S est fortement suggéré)

Ce cours est destiné aux élèves qui planifient étudiér le calcul et les matières reliées à ce sujet dans leurs études post-secondaires. Les sujets étudiés élaborent les sujets enseignés en pré- calcul 30S et développent leur compréhension du calcul. Les sujets inclus sont: les transformations, les fonctions trigonométriques, les fonctions exponentielles, les fonctions logarithmiques, les fonctions polynomiales, les fonctions radicales et rationnelles et le théorème du binôme. Une calculatrice scientifique est nécessaire pour le cours.

This course is designed for students who intend to study calculus and related mathematics as part of post-secondary education. It builds on topics studied in Pre-Calculus 30S and provides background knowledge and skills for the study of calculus. Topics include: Transformations and Functions, Trigonometric Functions, Exponential Functions, Logarithmic Functions, Polynomial Functions, Radical Functions, Rational Functions, and the Bionomial Theorem. A scientific calculator is required.

### Sciences naturelles 9 – SCIF1F

Ce cours est une introduction à quatre branches de la science: La biologie, la chimie, la physique, et l'astronomie. En étudiant la reproduction, l'atome et les éléments, l'électricité et l'univers, les élèves vont être exposés aux domaines diverses de la science, tout en leur préparant pour le cours de sciences naturelles de 10e année. Le développement des habilités de laboratoire et une connaissance des processus de la science sont les résultats d'apprentissages désirés de ce cours.

This course is an introduction to four branches of science: biology, chemistry, physics and astronomy. By studying reproduction, the atom and elements, electricity and the universe, students will experience these diverse areas of science, preparing them for the Grade 10 Science program. Development of laboratory skills and an understanding of the processes of science are desired outcomes of this course.

### Sciences naturelles 10 – SCIF2F

Ce cours continue l'étude de la biologie (la dynamique des écosystèmes), la chimie (les réactions chimiques), la physique (le mouvement et l'automobile) et présente aussi la science environnementale (la dynamique des phénomènes météorologiques). Ce programme prépare les élèves à faire leurs choix des cours de sciences aux niveaux des 11e et 12e années. Un développement continu des habilités de laboratoire et une compréhension du rôle de la science dans la vie quotidienne sont aussi stimulés lors de ce cours.

This course continues the study of biology (sustaining ecosystems), chemistry (chemical reactions), physics (motion) and also introduces environmental science with a unit on weather dynamics. This program prepares students to make informed science course selections in Grade 11 and 12. Further development of laboratory skills and an understanding of the role of science in daily life are also fostered in this course.

### Biologie 11 – BIOF3S

Le cours de Biologie 30S traite l'anatomie et la physiologie humaine, le bien-être et l'homéostasie. Les sujets principaux incluent la biochimie de la nutrition et les systèmes circulatoire, respiratoire, digestif et nerveux. A l'aide d'une variété d'activités pratiques, les élèves font une investigation dans les aspects de la santé, et du style de vie, liés à la biologie humaine.

Biology 11 deals with human anatomy and physiology, wellness and homeostasis. The core topics include the biochemistry of nutrition and the circulatory, respiratory, digestive and nervous systems. Using a variety of practical activities, students investigate aspects of health and lifestyle related to human biology.

### Biologie 12 - BIOF4S

Ce cours traite la génétique et l'hérédité, l'évolution, la biodiversité et la classification des organismes. Les élèves apprendront au sujet des enjeux sociaux et les applications de la matière étudiée à la vie quotidienne. La possession d'un crédit en BIOF3S est fortement suggéré.

The core of this course deals with genetics and heredity, evolution, biodiversity and classification. Students will learn about related societal issues and applications to daily life.

### Chimie 11 – CHEF3S

Cours préalable suggéré: Introduction aux mathématiques appliquées et pré-calcul 10

Ce cours se construit à partir des fondements de la chimie présentés en science 9e et 10e tout en accentuant la résolution de problème et l'analyse quantitative. Le programme d'études adhère au principe de base qui affirme que les propriétés de la matière découlent de sa structure. La matière à l'étude comprend les propriétés de la matière, les réactions chimiques, la chimie organique, les gaz et atmosphère et les solutions.

Recommended prerequisite: Intro to Applied and Pre-Calculus Mathematics 10

This course builds on the foundations of chemistry from Grade 9 and 10 Science with an emphasis on problem solving and quantitative analysis. The curriculum stresses the basic principle that the properties of matter are the consequence of the structure of matter. Topics studied include: properties of matter, chemical reactions, organic chemistry, gases and solutions.



### Chimie 12 – CHEF4S

Cours préalable suggéré: Chimie 11 et mathématiques appliqués ou mathématiques pré-calcul

Grâce à la participation aux expériences coopératives et à d'autres expériences en salle de classe, les élèves développeront les habiletés nécessaires pour manipuler en sécurité des matériaux chimiques, pour faire des observations et mesures soignées, pour faire la résolution des problèmes efficace et pour communiquer d'une manière précise. Ce cours est conçu pour préparer les élèves pour l'étude en chimie au niveau universitaire et aidera aux élèves à développer les attitudes et habiletés nécessaires pour devenir décideur bien renseigné qui est au courant du rôle de la chimie dans la vie quotidienne. Les matières étudiées sont: la structure atomique, l'équilibre, les acides et les bases. l'électrochimie et les réactions en milieu aqueux.

Recommended prerequisites: Chemistry 11 and either Applied or Pre-Calculus Mathematics

Through participation in co-operative experiments and other classroom experiences, students will develop skills for the safe handling of materials, careful observation and measurement, effective problem solving and precise communication. This course is designed to prepare students for further study in chemistry at the university level and to develop the attitudes and abilities that enable students to become informed decision makers who are knowledgeable about the role of chemistry in the world around them. Topics covered in the course include: atomic structure, equilibrium, acids and bases, electrochemistry and aqueous reactions.

### Physique 11 – PHYF3S

Cours préalable suggéré: Introduction aux mathématiques appliquées at pré-calcul 10

Ce cours plaira aux élèves qui aiment faire l'application de la résolution des problèmes aux scénarios tirés de la vie quotidienne. Les sujets étudiés incluent la mesure et le mouvement linéaire. La théorie du mouvement des ondes sera présentée à travers l'étude de la lumière et du son. Le concept du champ est exploré en contextes électriques, magnétiques et gravitationnels. A ce niveau, les élèves ont besoin d'une bonne compréhension de la résolution des équations et de la trigonométrie.

Recommended prerequisite: Introduction to Applied & Pre-Calculus Mathematics 10

This course will appeal to students who enjoy applying problem-solving to real world situations. Topics studied in-depth include measurement and linear motion. Wave theory will be introduced through the study of light and sound. The field concept is explored in electric, magnetic and gravitational contexts. At this level students will need a strong background in equation solving and trigonometry.



### Physique 12 – PHYF4S

Cours préalable suggérés: Physique 11 et mathématiques appliquées ou pré-calcul

Dans ce cours, les élèves mettront le point sur l'étude de la mécanique avec les sujets suivants: La dynamique du mouvement circulaire, le mouvement projectile, la quantité du mouvement et l'énergie. Ceux-là sont suivis d'une analyse détaillée de l'électricité et du magnétisme et d'une introduction à la physique moderne, à travers les domaines de la physique médicale.

Recommended prerequisites: Physics 11 and either Applied or Pre-Calculus Mathematics

In this course, students complete their study of mechanics with the following topics: dynamics of circular motion, projectile motion, momentum and energy. This is followed by a detailed analysis of electricity and magnetism and an introduction to modern physics, through topics applicable to medical physics.

### **GRADE 9 SPECIAL IN TEREST COURSES**

After selecting your compulsory courses, you may select from the following electives.

**REMINDER**: Students considering the International Baccalaureate (IB) Programme for Grade 10 - 12 must take French in Grade 9.





### French: Communication and Culture 9 – FRER1F

The primary purpose of French as an option course is to teach French as a means of communication. The program is designed to have students become as proficient as possible. This program gives students a solid foundation in French and an appreciation of Francophone cultures.

By talking about their lives in the classroom and by making personal connections to learning French, students are able to go out in the world and communicate in French in real and meaningful ways.

From Grades 9 to 12 students can carry out acts of communication such as:

- · describing main features of a person or thing
- talking about the past
- expressing a feeling or opinion
- giving advice
- making predictions
- justifying a viewpoint
- talking about the future

Themes explored:

- adolescence and adulthood
- leisure activities
- arts and culture
- social trends

This course is a follow-up to the course given at the middle years level. It is intended to provide students with the oral and written skills they need to further their studies at a senior level. This course is offered all year, every other day.

To help cater to the needs of each student, we have divided the course into three different sections. (Note that all sections cover the same material.) Please sign up according to the description that best describes your experience:

- Beginner: 0-2 years of basic French
- Intermediate: 3+ years of basic French
- Advanced: 2+ years of French in an Immersion program (early or late)

# **GRADE 9 SPECIAL IN TEREST COUR**

#### **GRADE 9**

#### Band Concert 9 – MCBR1S

This course is designed for students who already play a band instrument. The program is based on playing and performing a varied repertoire with an emphasis on playing skills and theory. It will be offered as a Grade 9 option during the regular timetable. This is a full year course offered every other day.

#### Visual Arts 9 (0.5 credit) – VAHB1S

This half credit Visual Art course focuses on developing students artistic and creative imagination through explorations in a wide variety of art mediums including, but not limited to, pencil, charcoal, watercolour, ink and sculpture. Although skill development plays an integral part in this course, students need no previous experience in Visual Art to enroll. Students will be taught to use tools and materials while also learning to interpret the visual world and express themselves. The course will culminate in an art show celebrating the wrap up of our creative year.

#### Advanced Science 9 (0.5 credit) – LWEH1S

This half-credit laboratory based option course is a complement to science 10F. The course is designed to promote the development of practical skills and scientific reasoning. Students will gain experience in data acquisition and interpretation while learning concepts in the physical sciences. This course is open to any student who desires a new scientific challenge and is recommended for those students who plan to apply for the International Baccalaureate Program.



### Textile Arts & Design 15G (0.5 credit) – TDHR1S

Grade 9 Textile Arts and Design explores the basic knowledge and skills required to design and create textile products. Students will explore the impact that fashion has on consumer choices and its influence on relationships. The course will introduce the student to citizenship and sustainability through knowledge, action, and projects. Students will also become aware of issues in the textile industry and their impact on the environment and people through social justice and clothing security challenges. This course also provides a brief introduction to the study of environmental design.

#### Dance 9 (0.5 credit) - DNHB1S

This course is designed to provide students with the opportunity to learn to dance, express emotions and feelings through music and movement and to provide a positive and meaningful dance experience. It is offered from beginner to advanced levels. Students will learn to act as members of a group and to grow and develop individual performance skills. Through active participation, students will experience a deeper understanding of the discipline, becoming a confident performer. The foundation of the program is Jazz and Hip-Hop. No experience necessary.

# **GRADE 9 SPECIAL IN TEREST COURSES**

#### Digital Design & Animation - Comprehensive Technology - Gr9 (0.5 credit) – CTHR1G

Design then animate ... it's as simple as that! Students will develop vector drawing skills while working on short animated cartoons featuring characters and environments that they create. Students increase their computer skills while learning animation techniques through fun hands-on projects. Students learn about digital image manipulation using industry standard software like Adobe Animate and Photoshop. If you want to get a great introduction to the field of digital graphics while learning how to use the premier tools of the trade, this is the course that will get you started. **\*This course is eligible for the Kelvin Visual Arts Certificate credit.** 

#### Dramatic Art 9 (0.5 credit) – DAHB1S

Theatre provides a means to experience the world in many different ways, and to develop an understanding of the perspectives of a wide range of people, from a variety of backgrounds. Actors are encouraged to experiment with fundamental concepts such as developing a character, making strong acting choices, and developing their physical and vocal technique. The goal of this introductory course is to increase student confidence, and to develop the skill of working as part of a team.

#### Electronics 9 (0.5 credit) - ELHR1G

Have you ever wondered about how circuit boards are made and what goes into making all of our electronics devices work? Well then this is the course for you! This course is completely project based. As a result, you will be given the opportunity to build and construct electronic circuit boards, and learn what why the electronics devices we use everyday work the way that they do.



#### Introduction to Foods 9 (0.5 credit) - FOHR1S

Students will be exposed to basic cooking techniques in the Foods lab. Emphasis will be placed on measurement, following recipes, safety and sanitation and basic food preparation techniques. Theory will focus on the Canada Food Guide.

#### Family Studies 9 (0.5 credit) – FAHR1S

Grade 9 Family Studies explores adolescent development from the perspective of the adolescent student. Topics include building skills and knowledge in developing positive relationships to enhance personal health and wellness within the context of their own family dynamics and the community in which they live.

# **GRADE 9 SPECIAL IN**

#### Graphic Design 9 (0.5 credit) – GRHR1G

Students are introduced to all areas of design. Skills are developed in many areas such as screen printing, airbrushing, design and layout, photography, and typography. The course emphasis is on digital image creation, editing, and software applications. **\*This course is eligible for the Kelvin Visual Arts Certificate.** 

#### Applying Information and Communications Technology 9 – Level 1 (0.5 credit) – ICTA1F

In this course, students will develop an understanding of computer programming through gaming and app development. Students will learn about randomization, objects, control structures, events, conditional statements, loops, functions, game design, collections, and app design. Students will produce content with the focus on user experience. The course uses a variety of block code based software such as MIT App Inventor 2. Students will also communicate ideas and analyse information using a variety of tech based media.

#### Applying Information and Communications Technology 9 – Level 2 (0.5 credit) – ICTB1F

This course will help students develop skills in creating digital content. Topics include: designing and creating graphics, creating multimedia presentations, and creating websites. Students will study the foundations of HTML and CSS. They will also apply different design principles to their various projects. Students will also communicate ideas and analyze information using a variety of technology-based media.

#### Music 1 Special Interest (0.5 credit) – MU1H1S

This music class looks at communication through music. We study how stories are told through music by looking at the language of music, musicals, the importance of lyrics, social issues expressed with music and the connection between music and emotion. We also work on developing musical literacy and vocal skills.



#### Spanish 9 (0.5 credit) - SPHR1G

This course is designed as an introduction to the Spanish language. Students participate in a variety of games and activities to help enhance their comprehension of new vocabulary and verb forms. Students are also exposed to various elements of both Spanish and Latin American culture.

\*This program is designed for students who are acquiring Spanish as an additional language. Students who are fluent in the language are encouraged to write the special language exam to earn the equivalent credit.

#### Musical Theatre 9 – DMTR1S

Musical Theatre consists of two major areas of study: Performance and Production. Performance consists of vocal production, movement and acting and areas of development will include vocal technique, choreography, character development and interpretation, and stage presence. Production includes stage management, sound, lighting, sets, costumes, hair and make up and props. Learning will be centered on the preparation and performance of a musical, and open auditions will be held. You may register for this course to indicate interest but the class list will be determined by a successful audition. Classes are generally held on Tuesdays and Thursdays from 3:45-5:30, with some Saturdays and increased rehearsal time closer to the performance dates.

#### Outdoor Education 9 (0.5 credit) - ODHY1G

Grade 9 Outdoor Education is a half credit course aimed toward highly active students who enjoy being outdoors in all weather: sun & snow. The focus of the course is on environmental stewardship and safe, sustainable outdoor activities. Students who complete this course will develop an understanding of the multitude of benefits of being active outdoors and will have the opportunity to explore and participate in a variety of outdoor activities. These may include canoeing, hiking, outdoor survival skills, wilderness first aid, emergency shelter building, cross-country skiing, snowshoeing, orienteering, knot tying, rock climbing, cycling, and leaveno-trace camping practices. The activities are subject to change on a yearly basis based on availability, weather and level of student interest. No previous experience is required, but a willingness to try new activities is necessary. Swimming proficiency is highly recommended.

Students who choose this option must be prepared to be outside every day and must come prepared for class with appropriate outerwear. In support of the course content, Outdoor Education students attend mandatory field trips. Students should be prepared for these out-ofschool activities and understand that some outof-school time will be required (departure before school hours/arrival after school hours).

Disclaimer: Field trips are subject to Covid-19 protocols and may be cancelled depending on public health orders. Attached to this course is an additional fee to cover the expense of the field trips.

#### Woodworking 9 (0.5 credit) - WOHR1G

This course will expose students to the full range of woodworking from drafting and design, reading of their plans, machine knowledge and safe usage of tools. Combining these new skills and knowledge, students will personally design a split-turn leg table to dimensions of their choosing.



#### Concert Choir 9 – MCCR1S

The choir is made up of students from grades 9 to 12. This performance based group rehearses at 8:00 am and at noon hour, and works towards concerts, festivals and a spring tour. We study a variety of musical styles from around the world, including classical, jazz, pop, folk, and Broadway. Through the repertoire studied, we work towards musical literacy.

#### Truth and Reconciliation (0.5 credit) – TRHY1G

This is a full or half credit course intended for Grade 9 students, which will provide the opportunity for students to explore the relationship between Indigenous and Non-Indigenous peoples in Canada. The course will examine how the foundation of our nation was formed and will explore the relationship through the Truth and Reconciliation Commission (TRC) Calls to Action, in ways that bring healing and reconciliation.

#### Japanese Language 9 – JAPR1G

This course provides instruction in spoken as well as written Japanese (hiragona and kata-kona). Full credit may be granted upon completion of the Manitoba Heritage Language Exam. This after school class will be taken once a week and will be offered at various levels depending on proficiency, teacher availability, as well as student demand. A fee will be charged to cover the cost of staff and course materials.

#### SOCIAL SCIENCE ELECTIVES

#### Current Topics in Indigenous Studies 12 – ABSR4S

This is a full-credit course intended for Grade 12 students, which examines Indigenous realities within contemporary and historic Canadian and global settings. The course is inclusive of the traditional values and worldviews of First Nations, Métis, and Inuit peoples. The objective of this course is to provide both Indigenous and non-Indigenous students with knowledge of Indigenous cultures and traditions, and to encourage Indigenous students to take pride in the accomplishments of their peoples.





#### Current Topics in Science 11 – CTSR3S

Recommended prerequisite: Science 20F

Current Topics in Science deals with Science from an issues – based perspective. Rather than focus on a specific science discipline (Biology, Chemistry or Physics), this course integrates a variety of science disciplines in order to examine current science – related issues, trends, innovations and perspectives in an engaging and relevant manner. This Student-directed course emphasizes a more hands on, project based approach and is recommended for Grade 10 and 11 students looking to enrich their knowledge in current and relevant scientific issues.

#### **Economics 12 – ECPR4S**

Economists find inspiration from the real world. This real world is about making choices regarding efficient use of society's scarce resources. Students will study the principles of economics and study the world in a rational and objective way. Students will be able to talk about economic issues with relative comfort, and will have a better idea about how the economy works.

#### Geography 12 – GEOR4S

Prerequisite: Geography 10

Geography 40S deals with the inter-relationships of humans and their worldwide environment. Topics covered: history of human beings on Earth, population, food and food production, resources, industrialization and urbanization. These topics will be considered from economic, sociological, political and ecological viewpoints.



### Global Issues / Citizenship and Sustainability 12 – GLIR4S

Students conduct inquiry into the social, political, environmental, and economic impact of contemporary and emerging global issues. Students focus on questions of quality of life locally, nationally and globally. Based on the principles of active democratic citizenship, ecological literacy, critical media literacy, and ethical decision-making to empower students as agents of change for a sustainable and equitable future. A mandatory component: students plan and implement a community-based actionresearch project.



#### History 10 – HISR2G

This course is designed to study themes in American History that have defined the American experience from the colonial period to the present day. The following topics will be studied: colonial period, American Revolution, Western migration, The Civil War, World Wars I and II, and the civil rights movement. Current events will also be studied as a part of this course.

#### History 12 – HISR4S

The History 40S course covers European history from the decline of feudalism to the aftermath of World War II. It is taught chronologically but examines history through economic, social and political themes. This course is intended to prepare students for entry into university level history courses.

## **GRADE 10-12 SPECIAL**

#### Law 12 - LAWR4S

Laws govern many aspects of our daily living. These laws deal with crime, property, work and moral issues. This course is an introduction to Canadian law, surveying the fundamentals of the legal system, covering such topics as the Charter of Rights and Freedoms, criminal law, civil law, contract law, and family law.



**Psychology 12 – PSYR4S** Open to students in Grades 11 and 12

Psychology is the scientific study of behaviour and mental processes. This course is designed to provide students with an introduction to the field of Psychology with a focus on explaining behavior using Psychological terms and concepts. Units covered include Educational Psychology, Schools of Thoughts and Modern Approaches, Biopsychology (the role the body and the brain plays in behavior), Abnormal Psychology and Social Psychology. Psychology 40S provided students who are planning to study Psychology in University with a comprehensive introduction to the discipline with emphasis on critical thinking and discussion. This course will look at issues that are of interest and relevance to high school students.

#### Theory of Knowledge 12 – THKB4S

Theory of Knowledge (ToK) is a course in critical thinking about the interconnectedness of knowledge that includes considering the validity of support for what we claim to know, awareness of strengths and weaknesses in argument, and openness to diverse perspectives. Though not a Philosophy course in the sense of studying classic works and ideas, philosophical ideas and approaches are a part of the course. Assessment is based mostly on class discussion, though students also complete one formal presentation and one paper. The course began as an IB (International Baccalaureate) course, and is now recognized by the Province of Manitoba as a half-credit option.

### GRADE 10-12 SPECIAL INT

#### **TECHNOLOGY EDUCATION**

Technology Education provides students with opportunities for solving problems, designing, making and doing, and addressing current trends and issues. Students use and study technology to create practical solutions to problems – individually or in groups – to develop technical skills, knowledge and attitudes.

Technology Education enables students to explore their ideas, gain practical experiences, and work through thinking processes in a safe and supportive environment. The ability to adapt to a changing technological society and to accept social responsibility is paramount to all Manitobans in the pursuit of new careers and lifestyles. Technology Education allows learners to evaluate their strengths and interests in career choices. It also reflects rapid changes in the workplace and allows students to make informed decisions about their future.

http://www.edu.gov.mb.ca/k12/cur/teched/index.html

#### **COMPUTER STUDIES**

**Computer Science 10 – COSR2S** Open to all students

This is a practical course in computer programming. Students will learn how to create software for data processing, mathematical, and recreational purposes. It is an excellent course for anyone considering a career in accounting, computer studies, economics, engineering, management, mathematics, science, or any field requiring problem solving skills. Topics to be covered include: Building a Graphical User Interface, Variables and Constants, Data Types, Strings, Control Structures, Data Structures, Procedures, and Graphics. The programming language to be used will be Visual Basic in the Visual Studio IDE.



#### **Computer Science 11 – COSR3S** Prerequisite: COSR2S

This is an intermediate-level course in computer programming and software development. Topics include: Systems Design, Computer Organization, Networks, Concurrency, Abstract Data Structures, Algorithms Analysis, Object-Oriented Programming, Control Structures, Resource Management, and Databases. The programming language which will be used is Java in the NetBeans IDE. Students will also be preparing for a large-scale software solution project.

#### **Computer Science (IB) 11 – CSSB3S** Prerequisite: registered in the IB Programme

This is the first of two computer science courses following the IB curriculum. Topics include: Systems Design, Computer Organization, Networks, Concurrency, Abstract Data Structures, Algorithms Analysis, Object-Oriented Programming, Control Structures, Resource Management, and Databases. The programming language which will be used is Java in the NetBeans IDE. Students will also be preparing for a cross-subject collaborative group project as a part of the IB Diploma.

#### **Computer Science 12 – COSR4S** Prerequisite: Computer Science 30S

This is a continuation of advanced computer programming and software development; it is recommended for students considering post-secondary education and/or careers in computer science. Topics include: Abstract Data Structures (Linked Lists, Stacks, and Queues), Binary Trees, Recursive Algorithms, Systems Design, Computer Organization, Networks, Concurrency, Abstract Data Structures, Recursion, Object-Oriented Programming, Control Structures, Resource Management, Databases, and Random Access Files. The programming language which will be used is Java in the NetBeans IDE. Students will also be completing a large-scale software application.





#### **Computer Science (IB) 12 – CSSB4S** Prerequisite: Computer Science (IB) 32S

This is the second of two computer science courses following the IB curriculum. Topics include: Abstract Data Structures (Linked Lists, Stacks and Queues), Binary Trees, Recursive Algorithms, Systems Design, Computer Organization, Networks, Concurrency, Abstract Data Structures, Recursion, Object-Oriented Programming, Control Structures, Resource Management, Databases, and Random Access Files. The programming language which will be used is Java in the NetBeans IDE. Students will also be completing a large-scale software application and participate in the G4 crosssubject collaborative group project.

### APPLIED COMMERCE TECHNOLOGY EDUCATION CERTIFICATE PROGRAM (ACE)

Applied Commerce Education (ACE) (formerly known as Business and Technology Education) consists of an optional cluster of courses for high school students interested in pursuing a career in a commerce related field, such as economics, entrepreneurship, business, marketing, technology, or finance. Each of the individual courses is an excellent option for any student wanting to understand more about their role in our global economy. These course offerings in the ACE area allow students to develop the skills needed to be effective business leaders, innovators, citizens, consumers, and employees.

http://www.edu.gov.mb.ca/k12/cur/teched/ace\_framework/index.html

Courses Offered in 2021/22	Grade	Department	Credit
ICT 1	9	Computer Sciences	.5
ICT 2	9	Computer Sciences	.5
Digital Design & Animation Level 1	9	Industrial Arts	.5
Graphic Design	9	Industrial Arts	.5
Graphic Design	10	Industrial Arts	1
Entrepreneurship	10	Applied Commerce	1
Digital Pictures/Desktop Publishing (Yearbook)	10/11	Industrial Arts	.5/.5
Digital Design & Animation Level 2	11	Industrial Arts	1
Digital Design & Animation Level 3	12	Industrial Arts	1
Drafting Design	11	Industrial Arts	1
Drafting Design	12	Industrial Arts	1
Interactive Websites	11	Computer Sciences	.5
Web Design	11	Computer Sciences	.5
Retailing Perspectives (school store)	11	Applied Commerce	1
Accounting Essentials	11	Applied Commerce	1
Accounting Systems	12	Applied Commerce	1
Economics	12	Social Studies	1
Law	12	Social Studies	1
Marketing and Digital Commerce	12	Applied Commerce	1
Career Development (Grade 11 & 12)	11 & 12	Applied Commerce	2
Community Service Credit (volunteer credit)	11/12	Applied Commerce	1
Credit for Employment	11/12	Applied Commerce	1

Take any combination of the following courses with a minimum of 8 credit hours, to qualify for the **Applied Commerce Technology Education Certificate**.

**Skills you need for your Future of Work** business, academics, everyday life, and employment such as: problem solving, critical thinking, creativity/innovation, collaboration, communication, independent thinking, professional behaviour and comportment. Develop skills and knowledge that will help you be competitive in the global economy. Prepare for post-secondary in Business.

## **GRADE 10-12 SPECIAL INTEREST**

#### **Accounting Courses:**

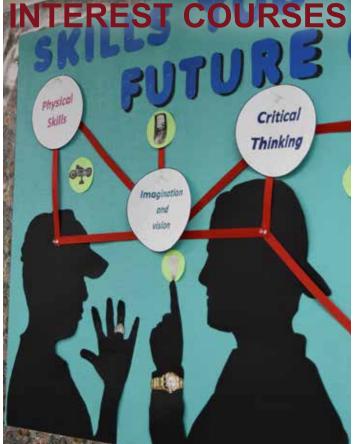
#### Accounting Principles 11 – AESR3S

Open to students in Grades 10, 11, 12

Accounting Essentials helps students gain an understanding of basic accounting. With an emphasis on accounting for a service business, students will apply their knowledge and skills to complete the stages of the accounting cycle. Accounting Essentials provides the fundamentals of accounting and is a good choice for students who plan to further their finance studies in Accounting Systems. Students interested in pursuing post-secondary studies in any business discipline will benefit considerably by completing this course.

This course is designed to help students develop the skills required to meet the challenges found tin the changing world of finance. It provides an awareness of a wide variety of accounting and technology careers and lays the foundation for continued study and lifelong learning in accounting. Students will gain valuable information about managing personal finances and practices used in Business. Some Excel Spreadsheet will be used.

Follow-up course: Accounting Systems 12



#### Accounting Systems 12 – ASYR4S

Open to students in Grades 11, 12

Accounting Systems is an extension of Accounting Essentials. It includes an introduction to financial analysis and corporate accounting. With an emphasis on accounting for a merchandising business, students will apply their knowledge and skills to complete the stages of the accounting cycle. The skills acquired in this course are not only useful when pursuing a career in business or accounting, but essential for everyday life. Computerized accounting software will be used extensively in this course. The University of Winnipeg accepts this an option course for admission for entrance scholarships.

Accounting Systems is designed to help students develop the skills required to meet the challenges found in the world of accounting by building on principles and concepts introduced in Grade 11 Accounting Principles. Students are taught how to read and analyze financial statements to help businesses improve their profits. SAGE and Excel Spreadsheets will be used.

#### **Entrepreneurship - ENTR2S**

Open to students in Grade 10, 11 and 12

Entrepreneurship focuses on developing the foundational skills and ideas needed to plan and develop a business. This course is relevant to high school students since many are already involved in their communities, and are starting to recognize various needs and opportunities in their areas. Students begin by evaluating innovation, inventions, and innovative ideas. They learn the process of planning, marketing, and implementing a venture. This course is designed for students interested in business principles related to the ownership and management of a business. The final project consist of the student running their own businesses.

Follow-up course: Retailing and Marketing

#### Marketing and Digital Commerce – MDCR4S

Open to students in Grade 11 and 12

Marketing and Digital Commerce helps students develop an understanding of marketing activities from both a theoretical and a practical approach. The course focuses on applying marketing concepts, principles, and strategies in making decisions related to product, price, place, and promotion. Students will apply these concepts and their own creativity through hands-on applications and the creation of a marketing plan. This course is designed for students interested in a variety of business opportunities, as well as those who are looking to further expand their business knowledge. The course is of interest to a wide range of students, since it teaches skills that are fundamental to all consumers.

### Retailing Perspectives (the school store) – RTPR3S

Open to students in Grade 10, 11 & 12

No work experience? No references? No problem! Learn practical retail experience by operating and managing the school store, Kelvin Clipper Korner. This course runs at lunch time. This experience is great to add to a resume to help obtain jobs in the retailing or service sectors. Students will learn inventory management, how to use a cash register, balancing a float, etc.

Follow-up course: Marketing and Digital Commerce

#### Career Development Grade 11 & 12 (Two credits offered together slot D&E) – LWBR3S & LWTR4S

Open to all Grade 11 and 12 students

Career development courses are designed to connect school learning with workplace and labour market realities. These courses assist students in making a transition from school to postsecondary and/or the workplace by providing opportunities and experience to help better prepare them. These courses are part of the provincial government's framework of learning outcomes for Career Development. Students will begin in the classroom where they will learn skills that will lead to a community work experience, which is mandatory for all students. These courses will be offered together in the afternoon SLOT D & E (students must take both together).

The following two courses are outside of school hours. Please read the criteria carefully to see if you can earn these credit:

### Credit for Employment 11/12 – CFER3G / CFER4G

Open to students in Grade 11 & 12

Students can gain valuable skills development and experience through on-the-job work experience. The Credit for Employment (CFE) credit can enrich students' understanding of the relevance of education and the importance of developing career readiness. Is a set of guidelines for educators who wish to offer students an opportunity to earn a credit through CFE.

Students must obtain a Career Development Credit in order to register for the Credit for Employment.

More information at: http://www.edu.gov.mb.ca/ k12/cur/cardev/cfe/docs/full\_doc.pdf



#### The Community Service Student Initiated Project (Volunteer Credit) – CSVZ4G

Open to students in Grade 9, 10, 11 & 12

Did you know that you can earn a high school credit just for doing volunteer work? That's right, you can get an extra credit on your transcript just for doing work that you love; no class time, homework, or stress required! You need to complete 110 hours of volunteer hours to earn this credit – during your time in high school. You get 4 years to complete the 110 hours – you keep track of the hours! Students can only earn one Community Service Credit.

For more information, visit: https://www.volunteermanitoba.ca/high-school-credit

#### HUMAN ECOLOGY

#### Textile Arts & Design 10 – TADR2S

Grade 10 Textile Arts and Design examines the broader knowledge and skills required to design and create textile products. Students will examine the basics of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals within their community. The impact of fashion on consumer choices and its influence on relationships are explored in more depth. The course will focus on student citizenship and product sustainability through knowledge, action, and projects. Students will be challenged to address issues within the textile industry and their impact on the environment, in addition to social justice and clothing security challenges. This course also provides a brief introduction to the study of environmental design.

#### Textile Arts & Design 11 – TADR3S

Grade 11 Textile Arts and Design focuses on enhanced knowledge and skill development in textile design and construction. Students will examine the areas of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals and communities. This course will follow the fashion industry through design and illustration, marketing, and merchandising while acknowledging the environmental and social justice influences on local communities.

#### Textile Arts & Design 12 – TADR4S

Grade 12 Textile Arts and Design focuses on advanced knowledge and skill development in textile design and construction. Students will examine in depth the areas of creative costuming, cultural fashion design, and consumer practices that have an impact on individuals and communities. This course will follow the fashion industry through design and illustration, marketing, and merchandising while acknowledging the environmental and social justice influences on global communities.

#### FAMILY STUDIES, GRADES 10 to 12

Family Studies explores the importance of the family to individual members and society as a whole. Each course has some common concepts; communication, conflict resolution, functions of the family, self-esteem, values and decision making. There is no prerequisite for any of the Family Studies courses.



#### Family Studies 10 – FSTR2S

Grade 10 Family Studies focuses on the skills and knowledge parents and caregivers need, with emphasis on maternal health, pregnancy, birth, and the early years of human development. Students will learn about the developmental needs, effective care, and guidance of young children. The development of these skills and knowledge will enhance their overall wellbeing now as adolescents and in the future as parents and caregivers.

#### Family Studies 11 – FSTR3S

Grade 11 Family Studies focuses on children's and adolescents' relationships within their families. Students will learn about developmental needs, effective care, and positive interactions with children/ adolescents. The skills and knowledge that students gain will provide them the opportunity to make informed decisions related to parenting, relationships, and families.

#### Family Studies 12 – FSTR4S

Grade 12 Family Studies emphasizes the transition from adolescence to adulthood with the ability to examine and practise skills that help develop healthy interpersonal relationships. The skills and knowledge will provide the opportunity for students to make informed and responsible life management choices now and in the future.

#### Food as a Part of Healthy Living 10 – FNUR2S

Students will explore how food plays a part of a healthy lifestyle. Nutrients, healthy eating, Canada's Food Guide will be discussed with an emphasis on health issues and healthy weights. Basic as well as more advanced cooking techniques will be practiced.

#### Foods Around the World 11 – FNUR3S

In addition to health issues, global food issues will make up a major part of this course. Cooking techniques and food dishes from around the world will be introduced.

#### Foods & Nutrition 12 – FNUR4S

Students will approach food as a consumer. The emphasis will be planning meals that are both healthy, and fit the resources available, both time and money. Students will be exposed to career opportunities as well.

## GRADE 10-12 SPECIAL

#### **INDUSTRIAL ARTS**

#### Digital Media Production 10/11 – VA1R2S/VA1R3S

Open to all Grade 10-12 students. Students should have basic computer skills and the ability to be self-directed. Students who have a keen interest in digital media creation and/ or the technology behind how it all comes together should enroll for this credit. Digital Media Production offers real-life, project based video assignments. Students will learn the fundamentals of video production and be introduced to basic shooting techniques. Students will learn editing workflow and work with industry standard editing software. This course operates outside of regular school hours and students will need to be available to capture digital media of school events. Students must complete 110 hours to receive credit.

#### **Electronics 10 – ELER2G**

The 20G program is a continuation of the 15G program designed to build upon previous taught skills and further your curiosity. In this course students will be introduced in to the world of house wiring, advanced circuit board building and robotics.

#### **Electronics 11 – ELER3G**

This course is designed for students will further their curiosity in Electronics. Students will be introduced to the world of computer programming through the study of robotics. We will also further investigate the world of house wiring. Students will be given the opportunity to construct and program state of the art robots using industry standard software. Using infrared detection, light sensors, and tactile switches, students will compete with each other in robotic competitions. Pre-Engineering concepts will be explored and implemented in the program.



#### Electronics/Applied Technology 12 – ELER4S

Have you ever wanted to build a hovercraft? Well this is the course for you! This course is designed to explore Pre-Engineering concepts while furthering students' interest in house wiring, study alternative energy resources, and design and construct a RC hover craft. Through the study of alternative energy resources students will compete in a wind turbine competition to see who can produce the most electricity! Following this, students will compete to see who can design and construct the fastest RC hover craft!

#### Graphic Design 10 – GRAR2G

This course is a continuation of the Grade 9 Graphic Design course. However, the grade 9 level is not a prerequisite. Skills are developed and refined in areas that include: advertising art, vector illustration, raster (bitmap) editing, screen printing, vinyl cutting, airbrushing, print layout, and publication. Students planning a career in architecture, interior design, engineering, graphic arts, and fine arts are encouraged to enroll in this course. **\*This course is eligible for the Kelvin Visual Arts Certificate.** 

## **GRADE 10-12 SPECIAL**

#### Graphics – Digital Design & Animation – Level 2 – GRAR3G

This course is ideal for students who wish to explore the world of digital graphic design and animation. It draws from the grade 9 level Digital Design & Animation course however is offered as an introductory course. Through simple design projects and critiques, students learn foundations in vector drawing, frame by frame and "tweened" animation, character design and animation, image editing and 3D modelling. Students will have an introduction to industry standard software such as Adobe Animate, Photoshop and Maxon Cinema 4D. Digital Design Level 2 is a hands-on, fun way to learn about digital media production. \*This grade 11 option course is open to all grade 10-12 students. It can be found listed under the grade 11 optional section of the online registration. \*This course is eligible for the Kelvin Visual Arts Certificate.

#### Graphics – Digital Design & Animation – Level 3 – GRAR4S

Recommended Prerequisite: Digital Design & Animation – Level 2

Put your creativity and imagination to work. Continuing on the core of Digital Design Level 2, this course provides students with an opportunity to expand on the techniques and philosophy of digital graphic and new media design. Students will further their experiences in motion graphics and image manipulation with a strong focus on 3D modelling and animation. The art and science of 3D printing will be explored where students will be able to design and 3D print their own creations. Digital Design Level 3 is a must for anyone interested in a career in digital media. \*This grade 12 option course is open to all grade 11 and 12 students. It can be found listed under the grade 12 optional section of the online registration. \*This course is eligible for the Kelvin Visual Arts Certificate.



#### Drafting & Design 11 – Level I – DRAR3G

This course is designed for students interested in drafting and 3D modeling. Career interests in Engineering, Interior Design, Industrial Design, Architecture, and building construction are an asset. Students will cover the basics of 2D and 3D sketching, 3D modeling, architectural design, and model building. Final projects will include a full residential 3D model, a physical model, and a presentation design board. \*This course is eligible for the Kelvin Visual Arts Certificate.

#### Drafting & Design 12 – Level II – DRAR4S

This course builds on skills learned in Drafting & Design Level I. A focus on residential building design and structural mechanics are the mainstay of the Level II course. The successful student will complete a full framing model of a residential building project. **\*This course is eligible for the Kelvin Visual Arts Certificate.** 

#### Woodworking 10 – WOOR2G

This class will introduce students to all the steps involved in building a beautiful nightstand out of wood. It will include calculating material costs and cover everything from milling lumber and cutting tapered legs – to joining nightstand pieces together with simple, strong joinery. Students even learn how to create their own beautiful tabletops, add a shelf, and even tackle a professional oil finish with ease. Emphasis will be on learning a systematic approach to building that flows smoothly, following a logical path that enhances accuracy and speed.



#### Woodworking 11 – WOOR3G

Explore the finer points of woodworking while building an elegant project. Don't be fooled by this class, this course packs a big punch when it comes to furniture construction. Learn fast and efficient dovetail construction while building the project. Focus of the class will be on combining machine and handwork with classic construction techniques to produce the highest quality in the most efficient manner.

#### Woodworking/Applied Technology 12 – WOOR4S

Explore the finer points of woodworking while designing and building an elegant project. This course will stretch the limit when it comes to furniture design. More focus will be placed on the use of and construction of jigs and templates as used in mass production and fine furniture making to create and produce the developed designs.



#### Yearbook – Journalism and Production – DPHR2S/3S

Open to all Grade 10 -12 students

This course is designed for students who have a keen interest in graphic design, digital art, and journalism. Students must be independent workers as well as team players, energetic, organized and possess good communication skills. Students will develop abilities in gathering information, writing copy and captions, understanding components of guality photography and copy editing skills. Emphasis is placed on developing skills in layout and design, and graphics. Students must be available outside of school hours to capture media of Kelvin events. Students looking for an advanced yearbook credit and to be eligible for a yearbook scholarship may obtain additional credits in yearbook by special arrangement with the instructor. These students looking for a second credit in yearbook will take on the responsibilities of a student editor.

\*The yearbook credit is a combination of two half credits. The grade 10 DPHR2S (half credit) must be taken with the grade 11 DPHR3S (half credit). Please register for both credits found in their respective grade's optional sections of the online registration.

#### LANGUAGES

#### FRENCH: COMMUNICATION AND CULTURE

#### **GRADES 10 – 12**

(formerly known as Basic French)

The goals of the course French: Communication and Culture are to give students the opportunity to acquire the necessary language skills to communicate in French, to value the learning of French as a tool for personal, intellectual, and social growth, to demonstrate an appreciation of francophone cultures and to further develop intercultural communication skills that are essential to all global citizens. We use a balanced literacy approach focusing on:

- oral communication
- reading
- writing
- culture

Themes explored:

- adolescence and adulthood
- leisure activities
- arts and culture
- social trends

#### French 10 – FRER2F

Prerequisite: French 9: FRER1F or equivalent

Using an interactive, communicative approach, students will further develop their French language skills and be able to express more complex ideas.



### French 11 – FRER3S

Prerequisite: French 10: FRER2F or equivalent

Using the same approach as in 20F, students in this course will also be expected to become more independent language learners seeking information, expressing themselves, and selfediting for content and grammar.

#### French 12 – FRER4S

Prerequisite: French 11: FRER3S

This course uses the same approach as the prerequisite courses. Students will be expected to be independent language learners, using a variety of references to find the information they need to complete their work. As well, they will be exposed to literary excerpts and public speaking.

#### JAPANESE Japanese Language – JAPR1G

This after school class will be taken once a week and will be offered at various levels depending on proficiency, enrollment numbers and teacher availability. (There will be a fee.) As languages reflect cultures, we believe the study of Japanese is extremely important in raising awareness about Japan.

#### **SPANISH GRADES 10 - 12**

The primary purpose of the Spanish program is the acquisition of Spanish as an additional language. Students will know and use various strategies to maximize the effectiveness of learning and communication in this language. Beginning at a Grade 9 level, students develop their proficiency in Spanish and build on their communication skills both orally and in writing.

\*This program is designed for students who are acquiring Spanish as an additional language. Students who are fluent in the language are encouraged to write the special language exam to earn the equivalent credit.

#### Spanish 10 - SPAR2G

This course serves both as a continuation from Spanish 9, as well as an introductory course for students who are keen to learn the language. Students develop both comprehension and communication skills in the language, and are encouraged to speak in Spanish as much as possible through class discussions, partner and group work, and presentations.



#### Spanish 11/12 – SPAR3S/4S Prerequisite: Spanish 10 or equivalent

This combined class is conducted almost entirely in Spanish. This immersion setting allows students to further their skills in Spanish as an additional language. Students will continue to build on their proficiency through various activities and study of text, plays, class discussions, group work and presentations. Previous experience with the language is strongly recommended.

#### **Special Credit for Languages**

Students may claim special credit for languages not included in the regular high school program. One credit for each language may be granted at each level. The Guidance department will set up testing sessions for students in languages such as Filipino, German, Hebrew, Italian, Latin, Polish, Portuguese, Ukrainian and First Nations languages. Courses are curriculum based and are designated as regular credits. Examples of languages for which special credit has also been given include Icelandic, Cree, Chinese, Saulteaux, Greek, Danish and Norwegian. A maximum of four special language credits may be counted towards graduation.

### GRADE 10-12 SPECIAL INTEREST

#### **VISUAL AND PERFORMING ARTS**

#### Visual Arts 10/11/12 - VIAR2S/3S/4S

At all grade levels, the Visual Arts progam focuses on further developing technical art skills while also enhancing art appreciation and visual literacy. This course aims to explore a variety of art media in drawing, painting, sculpting, mixed media, photography and print making. Students will develop risk taking and problem-solving skills while increasing confidence in their own creative process and artistic expression. All art students will participate in an art show where work from their semester will be showcased.

No prerequisites are required at any level. This course is for anyone willing to explore their creativity. Students may only be enrolled in one Art course per academic school year.

\*This course is part of the Kelvin Visual Arts Certificate Program. See certificate information in this booklet for more information.

#### Photography: VAPR3S

This course offers students the unique opportunity to discover the art of visual communication through photography. Students will learn and develop technical competence with a digital camera, refine composition and imaging skills, as well as explore both artistic and journalistic photography. Students will learn to use post-production photography programs such as Lightroom and Photoshop. The history of the photograph and its place in contemporary media will also be studied. Students are encouraged to have access to a digital camera, but there will be limited school cameras available.

\*This course is part of the Kelvin Visual Arts Certificate Program. See Kelvin Visual Arts pages in this booklet for more information.

#### Drama 10 - Acting – DAMR2S

Theatre provides a means to experience the world in many different ways, and to develop an understanding of the perspectives of a wide range of people, from a variety of backgrounds. Actors are encouraged to examine the unique individuals and circumstances presented in a wide range of plays, and to experiment with creating characters and playing a variety of different roles. The performance of scripted works will comprise a significant portion of this course.



#### Drama 11 – DAMR3S

The 30S drama course is specifically designed to expose students to a greater range of theatre styles including realism, absurdism, surrealism, Brecht, Greek, and Commedia Dell'Arte, and to continue to introduce students to a diverse range of playwrights. Building on the skills learned in DMAR2S, the performance of scripted works will continue to comprise a significant portion of the course. Practice auditions will also be scheduled to help prepare students for auditions and job interviews.

#### Drama 12 – DAMR4S

Prerequisite Drama 10 (DAMR2S) or 11 (DAMR3S) or other experience recommended.

Grade 12 students will be expected to take on a leadership role in class, developing and leading class warm-ups, and contributing to the decisions that affect the goals of the course. Students will perform increasingly longer scenes with more complex characters, and the year usually culminates in the performance of a full length play.

#### KELVIN DANCE COLLECTIVE K.D.C. Dance 1 Special Interest - DN1R1S/2S/3S/4S

K.D.C. is a performance based course providing numerous opportunities for the group to represent the school at festivals, competitions, and other community events. A variety of different styles and genres of dance will be studied. Open auditions will be held at the beginning and end of the school year. Students will be selected to participate in this course. In addition to rehearsals and performances, the course also consists of independent study units and written tests and assignments. The foundation of the program is Jazz and Hip-Hop.

#### Concert Choir 10/11/12 - MCCR2S/3S/4S

The choir is made up of students from grades 9 to 12. This performance based group rehearses at 8:00 AM and over the lunch hour, and works towards concerts, festivals and a spring tour. We study a variety of musical styles from around the world, including classical, jazz, pop, folk and Broadway. Through the repertoire studied, we work towards musical literacy.

#### Chamber Choir 10/11/12 – MCER2S/3S/4S

This course offers the student an opportunity to sing more challenging choral literature, much of it unaccompanied. As much of the music will be relatively difficult, students will be required to demonstrate musical competence through an audition. The choir will perform on a number of occasions through the year. Members of the choir must also be registered in Concert Choir 10/11/12.

#### Music Special Interest – MU1R3S

This music class will combine aspects of music history and theory with ways we interact with music daily. The music theory and history is designed to prepare students for performance in school ensembles such as choir and band, and also for university music entrance exams. Other topics may include music in the media and marketing, film soundtracks, music's effect on the brain, the power of lyrics, analysis of popular music, song writing, and multimedia productions.



#### Concert Band 10 – MCBR2S

This course is designed for those students that wish to continue their studies in band. The focus will be on medium-difficulty repertoire of various styles. Band 10G is a prerequisite for this course.

#### Concert Band 11/12 - MCBR3S/4S

This course is designed for students who already play an instrument at a high level and wish to participate in the wind ensemble. The program is based on playing and performing a varied repertoire with an emphasis on instrumental skills. This course carries one full credit, and will be scheduled before school and during noon hours to avoid conflict with other courses.

#### Musical Theatre 10/11/12 - DMTR2S/3S/4S

Musical Theatre consists of two major areas of study: Performance and Production. Performance consists of vocal production, movement and acting and areas of development will include vocal technique, choreography, character development and interpretation, and stage presence. Production includes stage management, sound, lighting, sets, costumes, hair and make up and props. Learning will be centered on the preparation and performance of a musical, and open auditions will be held. You may register for this course to indicate interest but the class list will be determined by a successful audition. Classes are generally held on Tuesdays and Thursdays from 3:45-5:30, with some Saturdays and increased rehearsal time closer to the performance dates.

## PERFORMING ARTS CERTIFICATE PROGRAM

The skills gained in a performing arts program are all highly valued employability skills; it teaches one to communicate beyond the spoken word. The ability to display confidence, poise, creativity, and self-discipline will allow these young adults of the 21st century a greater chance to compete with a diversity of skills that are much needed in today's work environment.

Due to the importance of a performing arts background for our future student leaders, Kelvin offers a Performing Arts Certificate which began in 2009.



Course	Course Code
Grade 9	
Band Concert 9	MCBR1S
Concert Choir 9	MCCR1S
Dramatic Art 9	DAHB1S
Dance 9	DNHB1S
Jazz Band 9	MJBR1S
Music Special Interest	MU1H1S
Musical Theatre	DMTR1S
Grade 10/11/12	
Chamber Choir 10/11/12	MCER2S/MCER3S/MCER4S
Concert Band 10/11/12	MCBR2S/MCBR3S/MCBR4S
Concert Choir 10/11/12	MCER2S/MCER3S/MCER4S
Drama 10/11/12	DAMR2S/DAMR3S/DAMR4S
IB Music 11/12	MUSB3S/MUSB4S
Jazz Band 10/11/12	MJBR2S/3S/4S
Kelvin Dance Collective	DN1R1S/2S/3S/4S
Music Special Interest 11	MU1R3S
Musical Theatre	DMTR2S/3S/4S





### Performing Arts Certificate Program Requirements

A minimum of 10 performing arts credits with an average of 85% or greater is required to earn the Performing Arts Certificate.

These credits should be earned over a 4 year period, but may be completed over the course of 3.

Private options, such as private music lessons, are not eligible for this certificate.

## VISUAL ARTS CERTIFICATE PROGRAM

#### "Tomorrow is our permanent address"

- Marshall McLuhan, media pioneer, and École secondaire Kelvin High School Alumnus

Kelvin's Visual Arts Certificate Program provides the motivated and creative student a full spectrum of experiences in the visual disciplines. Following in the true spirit of Marshall McLuhan, and his catchphrase: "The Medium is the Message", our program balances opportunities to study traditional art education along with graphic design, architecture, digital design, animation, video, and digital photography. Students in the program will have access to field trips within Winnipeg, and curriculum based school trips to immerse and study art, architecture and media. Dedicated staff have collaborated to create an innovative and well-rounded program that encourages resourceful and creative problem solving skills, as well as the foundation for further education in the visual arts.

The creative mind is one that is highly sought after by all factions of industry, business and education. The Kelvin Visual Arts Certificate Program offers students a supportive setting where imagination and vision can flourish.



#### QUALIFICATION

In order to qualify for the Kelvin Visual Arts Certificate, students must have **completed the required number of courses in the three complementary visual art areas** (see below) while maintaining a minimum of **80%** in those courses. Successful qualification also requires that students acquire a minimum of **two credits at the grade 10, 11 and 12** levels from any of the areas.

ART	GRAPHICS/DRAFTING	DIGITAL DESIGN
(3 COURSES)	(2 COURSES)	(2 COURSES)
Visual Arts 9 (VAHB1S) Visual Arts 10 (VIAR2S) Visual Arts 11 (VIAR3S) Visual Arts 12 (VIAR4S) Visual Arts IB 11 (VIAB3S) Visual Arts IB 12 (VIAB4S) Photography 11 (VAPR3S)	Graphic Design 9 (GRHR1G) Graphic Design 10 (GRAR2G) Design Drafting (DRAR3G) Design Drafting (DRAR4S)	Digital Design 1 (CTHR1G) Digital Design 2 (GRAR3G) Digital Design 3 (GRAR4S)

Digital Media Production 10/11 – VA1R2S/VA1R3S (Special Interest Course) and/or Yearbook – DPHR2S/3S may be substituted for one of the above courses upon review.

The IB programme is a comprehensive and rigorous program of studies that prepares students for examinations administered worldwide. The standing which students obtain on these examinations and on their IB supervised internal assessed coursework determine their IB grades, which are recognized by universities throughout the world. IB graduates are well prepared for post-secondary education. Many universities grant first year standing for courses in which students have achieved a certain level on their IB courses.

IB offers all of its examinations at two levels -Higher and Standard. The Diploma requires that students study six subjects, representing at least five subject areas, and write six examinations, three at the Higher Level and three at the Standard Level or four at the Higher Level and two at the Standard Level. In addition to which, Diploma candidates must complete a major



research project called the Extended Essay, they must participate in extra-curricular and social service activities (CAS) and they must complete a course called Theory of Knowledge (ToK).

The table below shows the International Baccalaureate Organization (IBO) course groupings with the specific subjects that Kelvin offers as of the current school year:

Group	Subject	Course and Level
One	Studies in language and literature	English HL
Two	Language acquisition	French HL or SL
Three	Individuals and societies	Economics HL; History HL
Four	Sciences	Biology HL; Chemistry SL; Physics HL; Computer Science HL or SL
Five	Mathematics	Mathematics SL
Six	The arts	Music HL or SL; Visual Arts HL or SL

GRADE 10 YEAR	GRADE 11 YEAR	GRADE 12 YEAR
ENGB2F – ENGLISH 20F	ENGB3S – ENGLISH 32S (STUDENTS WRITE GRADE 12 PROVINCIAL EXAM)	ENGB4S – ENGLISH 42S
FRSB2F – FRENCH 20G FREB2F – FRANÇAIS 20F	FRSB3S – FRENCH 32S FRHB3S – FRANÇAIS 32S	FRSB4S – FRENCH 42S FRHB4S – FRANÇAIS 42S
GEOB2F - GEOGRAPHY 20F	ECOB3S-ECONOMICS 32S	ECOB4S - ECONOMICS 42S
HISB3F - HISTORY 30S	HISB4S - HISTORY IB 40S	HIHB4S - HISTORY 42S
SCIB2F – SCIENCE 20F	BIHB3S – BIOLOGY 40S	BIHB4S – BIOLOGY 42S
PHYB3S – PHYSICS 32S	PHYE4S – PHYSICS 40S	PHYB4S – PHYSICS 42S
CHEB3S – CHEMISTRY 32S	CHEB4S – CHEMISTRY 42S (STUDENTS WRITE SL IB EXAM)	
IAPB2S – INTRO TO APPLIED AND PRE-CAL MATH 20S 1ST SEMESTER PCMB3S – PRE-CAL MATH 30S 2ND SEMESTER	PCMB4S – PRE-CALCULUS 40S (STUDENTS WRITE GRADE 12 PROVINCIAL EXAM)	MASB4S – MATHEMATICS 42S
Not Applicable	THKB3S – THEORY OF KNOWLEDGE 32S	THKB4S – THEORY OF KNOWLEDGE 42S
PHEB2F – PHYS. ED. 20F	PHER3F – PHYS. ED. 30F	PHER4F – PHYS. ED. 40F
Not Applicable	OTHER COURSES: CSSB3S – COMPUTER SCIENCE 32S MUSB3S – MUSIC 32S VIAB3S – VISUAL ARTS 32S (with sufficient registration) or others as they fit into the I.B. timetable	OTHER COURSES: CSSB4S- COMPUTER SCIENCE 42S MUSB4S – MUSIC 42S VIAB4S – VISUAL ARTS 42S (with sufficient registration) or others as they fit into the I.B. timetable

While IB is designed to be a two-year curriculum for the final two years of high school, most North American schools find it necessary to have preliminary studies in order to enrich and accelerate the studies of prospective IB students. A preparatory IB year aims to raise students' entry level skills and knowledge.



École secondaire Kelvin High School offers an IB preparatory year for Grade 10 students. Grade 10 students follow a curriculum that prepares them for future IB Diploma studies. In this preparatory year, students will study two languages - English and French, two Social Science courses – Geography and History, three Science courses – Biology, Chemistry and Physics, two mathematics courses – Grade 10 Introduction to Applied and Pre-Calculus and Grade 11 Pre-Calculus, and Physical Education.

Students decide between Higher Level (HL) and Standard Level (SL) courses in early fall of their Grade 12 year when they are registered for their IB final examination papers. IBO allows students to attempt an examination at the Standard Level in May of their Grade 11 year. This is called Anticipated status. Kelvin students are registered as Anticipated Candidates in Chemistry SL. They write the IB Chemistry exam in May of their Grade 11 year. For all subjects, students are awarded percentage grades and course credits by Kelvin High School according to the standards determined by Education Manitoba. In addition, students writing IB exams are awarded International Baccalaureate grades in July of their Grade 12 year after the IB examinations are assessed throughout the world.

#### GROUP 1 - STUDIES IN LANGUAGE AND LITERATURE - ENGLISH

#### English IB 10 - ENGB2F

Kelvin's English 10 IB course is designed for students who are interested in English literature and language, and who are willing to do a significant amount of challenging reading and writing. By taking this course, students earn the compulsory grade 10 English credit required by the province of Manitoba, and they are introduced to material and activities that will prepare them for the International Baccalaureate (IB) English Programme offered at Kelvin High School in Grades 11 and 12.

#### English IB 11/12 – ENGB3S/4S Prerequisite: English IB 10

IB English is a two-year course covering a variety of themes, styles and forms of literature in greater depth than in the regular program. Poems, essays, plays and novels are studied in the context of selected topics. Literature in translation is a special feature. Students' oral and written work is assessed, both internally and externally, over two years. Students write the English 12 Provincial Standards Test in June of their Grade 11 year, as well as the Higher Level IB exams in May of their Grade 12 year.



### GROUP 2 - LANGUAGE ACQUISITION - FRENCH

The French courses in the International Baccalaureate Programme offer two levels of study: Standard and Higher Level. Starting in Grade 10, students are placed in one of these levels according to their middle years experience. The Standard level courses are intended for students who have studied French in the regular program. Higher level French is geared to students who have immersion experience, or exceptional abilities in the language.

The objectives of the Language B course, at both Higher and Standard levels, are language acquisition and intercultural awareness. The course curriculum areas of study are: Identities, Experiences, Human Ingenuity, Social Organisation, and Sharing the Planet. At Higher level only, students will study Francophone literature.

Students must be prepared, in their grade 12 year at both Standard and Higher levels, to do an oral exam in January. They will also sit the oral comprehension, written comprehension and composition exams in May.

### GROUP 2 - LANGUAGE ACQUISITION - FRENCH

In all IB French courses, students will discuss, read, and write aspects of Francophone economic, social, and cultural life.

#### STANDARD LEVEL

#### French SL IB 10 – FRSB2F

This course is designed to develop vocabulary and improve pronunciation and communication skills. It also aims to provide students with a thorough understanding in French structures, with a view to preparing them for the oral and written assessment demands of Grades 11 and 12.

#### French SL IB 11/12 – FRSB3S/FRSB4S

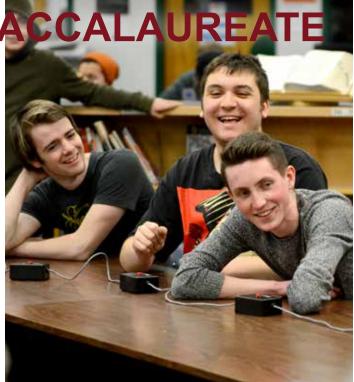
This course, using the communicative approach, covers fully all that is required for the Manitoba S4 French Communication and Culture credit.

In addition, students are expected to make a conscious effort to broaden their vocabulary (see theme content on pg. 62) and to be attentive to French idiom, preparing themselves for the oral and written IB exams. As well, students are expected to be able to read and write different types of texts and to listen to authentic audio recordings and to answer specific questions.

#### **HIGHER LEVEL**

#### French HL IB 10 – FREB2F

This course is designed to reinforce grammatical structures and communication skills, and to promote the development of accurate idiomatic expression. Students are also introduced to literary analysis by studying a variety of literary texts, novels, and films.





#### French HL IB 11/12 – FRHB3S/FRHB4S

The Language B French curriculum adopts a communicative approach, based on thematic units while maintaining an emphasis on literary works (see theme content on pg. 62). A wide variety of texts will be selected with a view to developing all four language skills, listening, reading, speaking and writing. Accurate use of the language is expected. Emphasis is also placed on the literary essay and the commentary. Students prepare for their oral exam by making presentations in class and by listening to and discussing a wide variety of audio samples.

#### **GROUP 3 - INDIVIDUALS AND SOCIETIES**

#### Geography IB 10 – GEOB2F

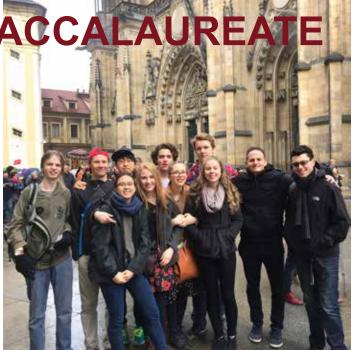
The course is a study of North America, with a focus on Canada and its role in the global community. The course will study geographic literacy, natural resources, food from the land, industry and trade, and urban places. Students will be engaged in various topics connecting the physical geography with the human geography. Students will also be required to research various topics throughout the course and present their findings to the class.

#### History IB 11 – HISB3F

The Grade 10 IB History course fulfills the Manitoba requirement that all students study Canadian History. Students will be expected to complete more reading, research and writing than in the regular program. The course is thematically organized. It surveys First Nations' history, French-English relations, Canadian-American relations, economic and social history, immigration, and foreign affairs.

#### History IB - Europe -12 - HISB4S

The Grade 11 IB History course will begin with an analysis of the French Revolution and its consequences - Napoleon and the Concert of Europe. Nationalism as a dominant force in this century will be looked at in terms of Italian and German unification. As well, the major intellectual developments of the second half of the 19th century will be studied, including liberalism and socialism. The course will conclude with a look at the social, political and diplomatic origins of WWI. This course must be chosen by those wishing to do Higher Level History as part of their IB studies.



#### History IB - 20th Century - 12 - HIHB4S

The Grade 12 IB History course, offered at Kelvin High School, studies historical change in the 20th century, focusing on certain themes: colonialism, war, revolutionary change and decolonization. The course is Euro-centered but it also looks at 20th century history in a global context. Thus, the Americas (Argentina, Mexico, Cuba), Asia (China) and selected European countries are studied according to the themes listed above. The course is set up according to IB requirements governing both the Higher and Standard levels of study. For both levels. great emphasis is placed on writing skills, the reading of documents and the historiography of the subject. Each student is required to write a research report on a selected topic for submission to IB examiners.

#### Economics IB 11/12 - ECOB3S/ECOB4S

Economics introduces the student to the basic tools of economic reasoning, offering an understanding of current problems while encouraging students to employ economic analysis in various situations. Course content includes: Economic thought, Microeconomics, Macroeconomics, International Trade, and Economic Development. The course is studied over two years and is deemed a sound introduction for university-bound students interested in Economics, Law, Commerce and Business Administration.

#### **GROUP 4 - SCIENCES**

Grade 10 IB students take three credits in Science. At the end of the year, they will have a credit in Grade 10 Science, Grade 11 Chemistry and Grade 11 Physics. This science program is designed to give students a strong background in science and it is suitable preparation for the IB examinations and university study.

#### Science IB 10 – SCIB2F

Science IB 20F introduces students to the study of science in the IB programme. This course begins with the application of statistics to problems in science. Topics also studied include cellular structure, human physiology, ecology and a brief introduction to physics concepts. This course provides students with a deeper understanding of the human body and how humans fit into the natural world.

#### Biology IB 11 – BIHB3S

This course is designed for the IB student considering future enrolment in the IB Biology HL course. This fast paced course introduces students to the fundamentals in the study of biology. Topics covered include molecular genetics, inheritance, evolution and biodiversity.

#### Biology IB 12 – BIHB4S

The IB Biology course provides a solid foundation in the concepts of biology, as students learn about themselves and the natural world around them. The course includes human anatomy and physiology, cellular biology, ecology, evolution and genetics. This is an enriched biology course, which includes in depth studies in topics such as neurobiology, biochemistry, biotechnology and conservation. Emphasis will be placed on practical work and research in accordance with the IB curriculum. This course prepares students to write the IB Biology HL exam.



#### Chemistry IB 11/12 - CHEB3S/4S

The IB Chemistry course provides a solid foundation in the chemical concepts of atomic theory, stoichiometry, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, redox and organic chemistry. This is an enriched Chemistry course which includes options such as medicinal chemistry, spectroscopy, and environmental chemistry. A strong emphasis is placed on practical work and the development of laboratory skills. During the second year, students will have the opportunity to design and implement their own experiment. This course prepares students to write the Chemistry Standard Level IB exam in May of their Grade 11 year.

#### **GROUP 4 - SCIENCES**

#### Physics IB 11/12 – PHYE4S/PHYB4S

The IB Physics course provides a solid foundation in classical physics including mechanics, optics, waves, thermodynamics and electromagnetism. In addition, students enrolled in IB Physics will study topics in modern physics, including atomic and nuclear physics with an introduction to quantum theory and an option for the study of special and general relativity. Students will continue their study of environmentally relevant topics like future energy sources and socially relevant topics like digital technology. Reflecting the nature of this experimental science, the IB physics curriculum demands a large practical component and an interdisciplinary group project in conjunction with IB Chemistry. Students who follow this course of study are generally very well prepared to take university physics and engineering programs. IB Physics is offered at both Standard and Higher Levels.

#### Computer Science IB 11 – CSSB3S

This is the first of two computer science courses following the IB curriculum. Topics include: Systems Design, Computer Organization, Networks, Concurrency, Abstract Data Structures, Algorithms Analysis, Object-Oriented Programming, Control Structures, Resource Management, and Databases. Students will develop an understanding of utilizing programming control structures and a variety of problem solving skills/strategies. The programming language which will be used is Java in the NetBeans IDE.



#### Computer Science IB 12 – CSSB4S

This is the second of two computer science courses following the IB curriculum. Topics include: Abstract Data Structures (Linked Lists, Stacks and Queues), Binary Trees, Recursive Algorithms, Systems Design, Computer Organization, Networks, Concurrency, Abstract Data Structures, Recursion, Object-Oriented Programming, Control Structures, Resource Management, Databases, and Random Access Files. The programming language which will be used is Java in the NetBeans IDE. Students will also be completing a large-scale software application and participate in the G4 crosssubject collaborative group project.

#### **GROUP 5 - MATHEMATICS**

#### Intro to Applied and Pre-Calculus Mathematics IB 10 – IAPB2S

This course is taken in Semester I of the Grade 10 year. Students should be willing to work hard to master concepts. Students will develop spatial sense and proportional reasoning through measurement, algebraic reasoning and number sense, and algebraic and graphical reasoning through the study of relations and functions. Students will engage in activities that include problem solving, mental mathematics, and theoretical mathematics. A scientific calculator is required.

#### Pre-Calculus Mathematics IB 11 – PCMB3S

This course is taken in Semester II of the Grade 10 year. This course comprises a highlevel study of theoretical mathematics with an emphasis on problem solving and mental mathematics. Topics include algebra, quadratic functions, reciprocal functions and trigonometry. A scientific calculator is required. At the end of Grade 10, IB students will have obtained two credits in Math.

#### Pre-Calculus Mathematics IB 12 – PCMB4S

This course is taken for the entire Grade 11 year. It builds on topics studied in Pre-Calculus 10 & 11 and provides background knowledge and skills for the study of calculus. Topics include: transformations of functions, trigonometric functions, exponential functions, logarithmic functions, polynomial functions, radical functions, rational functions, and the binomial theorem. A scientific calculator is required. Students write the Math 12 Provincial Standards Test in June of their Grade 11 year.



### Mathematics IB - Analysis and Approaches - 12 – MASB4S

This course is taken for the entire Grade 12 year. Topics include number and algebra, functions, geometry and trigonometry, statistics and probability, and calculus. Emphasis is placed on problem-solving, reasoning and inquiry approaches to real-world applications. A mathematical exploration investigating various areas of mathematics is assigned for the IB Internal Assessment. A graphing calculator is required. Students write the IB Mathematics Standard Level examination in May of their Grade 12 year.

## INTERNATIONAL BAC PROGRAMME (IB)

#### **GROUP 6 - THE ARTS**

\*\*A minimum of ten students required to offer these courses\*\*

#### Music IB 11/12 - MUSB3S/4S

#### Open to all students

This is a music program for students with a strong background and interest in music. The components of the course include history of western music, study of non-western music, musical literacy, performance, theory and music analysis.

#### Visual Arts 11/12 - VIAB3S/4S

This is an art program designed for the student with a strong motivation and interest in art. This is, in effect, a two-year program:

Year 1 - This course is available to IB as well as non-IB students on the recommendation of an art teacher. The first year of this course focuses mainly on developing both research and media skills for art making. A deeply intense examination of the artistic and creative process includes gallery visits, workshops with artists, and an expectation of commitment to research, sketchbook work and studio work throughout the year.

Year 2 - The majority of class time will be devoted to individual studio work and art-related visits and excursions. IB students wishing a Higher Level credit in Visual Arts must complete both studio and sketchbook options. Standard Level students choose primarily either studio or sketchbook work to be examined externally.



#### CORE REQUIREMENTS

### Theory of Knowledge 11/12 (two half credits) – THKB3S/THKB4S

This is a full course taken over a two-year period. The purpose of this course is to stimulate critical reflection upon students' knowledge and experience both in and outside the classroom. Students examine what they and others know through analyzing concepts, arguments and value judgments.

#### Extended Essay (non-credit) – EXEY4G

Independent research and written essay in a subject area chosen by the student.

#### CAS - Creativity Activity Service (non-credit) - CSHB4G

Volunteer component outside of the classroom/ academics.

# KELVIN HIGH SCHOO

### Hours: Monday to Friday, 8:30 am to 4:00 pm during the school year

The Library is closed during the school's Winter, Spring and Summer breaks.

#### What does Kelvin's Library contain?

- Kelvin High School Library contains a comprehensive collection of materials in a wide variety of print and electronic formats:
- Books, magazines, reference materials including network and Internet based resources;



- WSD library search engine providing access to all books, audio-visual media on offer in the Library and direct access to Internet resources, including comprehensive on-line platforms such as EBSCOhost, CBC's Curio collection, Discovery Education and Newspaper Archive;
- Many of these platforms are available to staff and students via their home computers please ask at the Library's Circulation Desk for the school user ID and password;
- Visit the Kelvin High School Library Page by clicking on the link under Student Resources from the Kelvin website, or directly through the following link: http://bit.ly/kelvinlibrary;
- Additionally, Kelvin's Library contains a large collection of Kelvin High School yearbooks, dating from the school's earliest years to the present. These are available for viewing on site only.

#### Who staffs Kelvin High School Library?

• Our Library is staffed by a teacher-librarian and full time library support clerk.

#### What instructional supports does the Library provide?

- The Library is a centre for resource-based learning: classes are frequently scheduled for shortand long-term assignments on a variety of information and literacy activities;
- Kelvin's Library contains an extensive fiction collection, supporting both leisure reading and their studies ;
- Additionally, students are welcomed to the Library throughout the day for class based projects, quiet study, and leisure reading.

#### Do students need a library card to borrow items?

• YES - In September, along with school photos, students receive a picture ID card (the Winnipeg Transit "GO" card). Kelvin students must present the "GO" card when borrowing Library materials.

#### How many items may be borrowed and how long can they be kept on loan?

- Up to 3 items may be borrowed at any given time. Items are due in two weeks and may be renewed, if no other requests have been placed on the item;
- Loan privileges are suspended until overdue items are returned. Please remember that all Library materials are school property and that students are responsible for vandalism, loss and/or serious damage to items borrowed.

Students using Library computer search stations must abide by the terms of Kelvin High School's Responsible Use Policy for computer hardware and software. Please remember that computer search stations are provided for research and completion of assignments.



ÉCOLE SECONDAIRE KELVIN HIGH SCHOOL

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