

## **HS Course Descriptions & Info for Website**

### **Grade 10**

#### **Drafting 10**

Drafting & CAD 10 is an introductory design course meant for students interested in exploring engineering. This course must be completed over one semester.

#### **ELA A10**

Students will study plays, poetry, novels, and short stories while reflecting on themselves and the world around them. The course focuses on life challenges, decisions, and mystery in the past, present and beyond.

##### **Materials Needed:**

- *The Hunger Games* by Suzanne Collins (Novel)
- *The Miracle Worker* by William Gibson (Long Play)
- *The Hunger Games* (Film)
- *The Boy Who Harnessed the Wind* by William Kamkwamba (Non-Fiction Novel)

#### **ELA B 10**

Students will study plays, novels, short stories, and poems in a manner that reflects internally and externally to the world around them. The course focuses on justice, diversity, community, fairness, and the individual.

##### **Materials Needed:**

- *All Creatures Great and Small* by James Herriot (Memoir)
- *MacBeth* by William Shakespeare (Long Play)
- *Jurassic Park* by Michael Crichton (Novel)
- *Ender's Game* by Orson Scott Card (Novel)
- *A Raisin in the Sun* by Lorraine Hansberry (Long Play)

#### **French 10**

Learn about being an informed consumer and about driving, all while practicing your oral and written French. You will learn grammatical concepts and give an oral presentation. Some previous French knowledge is required.

#### **Hairstyling & Esthetics 10**

Hairstyling and Esthetics 10 is an introductory course that will provide students with hands-on technical knowledge and skills and an understanding of what it takes to be a professional hairstylist and esthetician who works on hair, nails, skin, and makeup. You will also learn the importance of safety for you as a technician and for the client: appropriate sanitation, disinfection, and sterilization of equipment. The elements of art and the principles of design have influenced this industry and will help guide you in your creativity in this course.

#### **History 10**

The History 10 course goes through historical events in the 18th, 19th, and 20th centuries. It encompasses beliefs and governances from the feudal paradigm to Europe in 1914. We discuss major events such as: the French Revolution, Industrial Revolution, different ideologies that affect us today, imperialism and why WWI started.

### **Information Processing 10**

Information processing is the acquisition, recording, organization, retrieval, display, and dissemination of information related to computer-based operations. In Information Processing 10, you will learn about task management, information processing in the workplace, digital citizenship, digital communication, digital law, keyboarding, word processing, computer technology, operating systems, spreadsheets, databases, graphic design, and presentation design. You will take a deeper dive into refining your computer skills to be prepared for the workplace and to ensure that you are using technology properly.

### **Math 11**

Math 11 is the Modified Grade 10 course. Registration must be approved by the student, parents, teacher, and principal before the start of the course. Students in Math 11 will learn about data collection, measurement, angles, trigonometry, proportional reasoning, income, and budgeting.

### **Math Foundations & Pre-Calculus 10**

Students will learn about different systems of measurement, the Pythagorean Theorem, how to calculate surface area and volume for different objects, about trigonometric ratios, and how to factor numbers and polynomials. They will also learn about radicals, exponents, relations, functions, linear functions, equations of linear functions, and systems of linear equations.

### **Math Workplace & Apprenticeship 10**

Students will learn about measurements and conversions, Pythagorean theorem and trigonometric functions, polygons, angles, and money. Problem solving and analyzing games is a concept that is distributed throughout the course.

### **Photography 10**

The purpose of Photography 10 is to provide students with opportunities to acquire knowledge and develop skills used in photography and to become familiar with career opportunities within the industry. In addition to becoming familiar with some famous photographers and photographs, students will have opportunities to do the following:

- develop technical skills in the use of cameras
- analyze and utilize the principles of composition and design
- develop image manipulation skills to create aesthetically satisfying pictures, and
- explore various occupations available in the ever-broadening field of photography.

#### **Required equipment:**

- A manual camera with P (Programmed), Tv (time value/shutter priority), Av (aperture value/aperture priority) settings

- Access to Photoshop or free editing software like GIMP is also required.
- A tripod and some DIY materials are recommended.
- A limited number of cameras are available to rent from the school.

### **Science 10**

Science 10 will cover climate, ecosystems, chemical reactions, forces and motion, as well as a career exploration. Materials needed for the course are: litmus paper (store bought or homemade), vinegar, baking soda, thermometer, measuring tape, and a stopwatch.

### **Visual Arts 10**

In Visual Art 10, you will learn about the elements of art, explore design principles, shading and various drawing techniques. You will also express your ideas and thoughts by creating your own blog that will delve deeper into thinking about art as an artist. Some of the art mediums you will practice with are a variety of pencil drawings, charcoal, watercolour, acrylic painting and impasto painting, and sculpting techniques- masks and soap carvings.

### **Wellness 10**

This course helps students become aware of, assess, and balance the five dimensions of wellness including: physical, psychological, social, spiritual, and environmental. Emphasis is placed on becoming active, self inquiry, community service, and how each dimension affects the others to create well-being.

### **Grade 11**

#### **Creative Writing 20**

Creative Writing allows you to 'make things up'. You will use your imagination and invent the impossible and go places you never thought you would go.

#### **ELA 20**

ELA 20 explores personal identity and growth, covering themes like how our past shapes our present, the role of family in identity and belonging, how obstacles and challenges lead to personal growth, and life's inevitable passage of time through which we evolve and change. Students will study and reflect on these themes through novels, a play, short stories, and essays as they develop skills in creative writing, essay research and writing, and oral speaking through performances of their written work.

**Prerequisites:** ELA A10, ELA B10

#### **Materials Needed:**

- *To Kill a Mockingbird* by Harper Lee (novel)
- *Someday* by Drew Hayden Taylor (long play)
- *Something for Joey* by Richard Beck (novel)
- *Keeper'n Me* by Richard Wagamese (novel)
- *I Am Hutterite* by Mary-Ann Kirby (novel)

## **Environmental Science 20**

Environmental Science 20 studies the impact humans have on the environment and how we can move towards a more sustainable future, both personally and collectively. Topics covered through the course are the atmosphere and its impact on human health, aquatic ecosystems, and terrestrial ecosystems. Students will conduct experiments, write lab reports, do independent research, and show their learning through visual presentations, as well as create a final project of their choice.

**Prerequisite:** Science 10

### **Materials Needed:**

- **Filtration Mask Experiment:** ½ cup flour, household items to make a filtration mask (these will depend on the type of mask the student chooses to make based on the internet instructions they find)
- **Clean-up Simulation:** cooking oil and one from each list:
  1. Coffee filter, shirt, pantyhose, or other cloth
  2. Dish soap, laundry detergent, hand soap, or shampoo
  3. Sawdust, sand, or cat litter
- **Water Quality Testing:** water quality testing kit (can be purchased at a hardware store)
- **Ecosystem In a Jar:**
  - large glass jar with lid that seals tightly
  - pebbles or stones (enough to fill 1-2 inches of the jar)
  - ½ cup charcoal
  - potting soil (enough to cover your plants' roots)
  - one to three plants (depending on the size of your jar)

## **Financial Literacy 20**

This course is an introduction to the basics of financial decision making, including information on earning, saving, spending, borrowing, sharing, investing, and protecting financial interests. It will help to prepare students for financial situations they may face as they move into the world of adulthood.

## **French 20**

Learn how to plan a trip and learn about yourself and others, all while practicing your oral and written French. You will learn grammatical concepts and give an oral presentation.

**Prerequisite:** French 10

## **Health Science 20**

Health Science 20 explores the origins of Western medicine and compares it with traditional medicine, asking students to consider how both approaches can be combined to provide holistic healthcare. Other topics include medical ethics, the human body, and nutrition; as well, students will complete an in-depth study on a disease of their choosing.

**Prerequisite:** Science 10

## **History 20**

We start out History 20 studies with World War I, its causes, major battles, weapons development, important political outcomes, famous people. We end our study with the global implications of the major battles and the need for world peace and human rights.

## **Life Transitions 20**

In Life Transitions 20, you will learn about life transitions, personal self-knowledge, relationships, time management, career self-knowledge, life balance, and much more. You will set goals and make Action Plans to achieve your goals. You will need to have at least one person who can be your mentor for your action plans.

## **Math 21**

Math 21 is the Modified Grade 11 course. Registration must be approved by the student, parents, teacher, and principal before the start of the course. Students in Math 21 will learn about formulas, measurements of central tendency, slope, angles and liens, trigonometry, proportional reasoning, budgets, financial institutions and credit.

**Prerequisite:** Math 11

## **Math Foundations 20**

Students will learn about inductive and deductive reasoning, properties of angles and triangles, trigonometry, statistical reasoning, systems of linear inequalities, quadratic functions (parabolas), and proportional reasoning. Problem solving and analyzing puzzles and games is a concept that is distributed throughout the course. Students will also research and create a presentation on a topic of interest to them that incorporates primary and secondary data and makes use of methods of data analyses. Math

**Prerequisite:** Math Foundations & Pre-Calculus 10

## **Math Pre-Calculus 20**

Students will learn about sequences and series, trigonometry, quadratic functions and equations, inequalities, radical expressions, rational expressions, absolute value functions and reciprocal functions.

**Prerequisite:** Math Foundations & Pre-Calculus 10

## **Math Workplace & Apprenticeship 20**

Students will learn about slope, graphs, measurement, trigonometry, scale representations and money. Problem solving and analyzing games is a concept that is distributed throughout the course. Students will complete two projects.

**Prerequisite:** Math Workplace & Apprenticeship 10

## **Photography 20**

The purpose of Photography 20 is to provide students with opportunities to build upon their understandings and accomplishments from Photography 10. Students will increase their technical expertise and will add photographs to their portfolios that exhibit a more competent awareness of composition, lighting, setting, and planning.

**Prerequisite:** Photography 10

**Required equipment:**

- A manual camera with P (Programmed), Tv (time value/shutter priority), and Av (aperture value/aperture priority) settings is required.
- Access to Photoshop (fee to be paid by the student) or free editing software like GIMP is also required.
- A tripod and some DIY materials are recommended.
- A limited number of cameras are available to rent from the school.

### **Physical Science 20**

Physical Science 20 will cover heat, chemistry basics, waves, a career study, as well as a student directed project.

**Prerequisite:** Science 10

**Materials Needed:** food colouring, powdered drink mix, 5% iodine, laundry starch, and 500mg vitamin C tablets.

### **Psychology 20**

This course is based on Social Psychology and helps students how their social world influences their views and feelings about themselves. It also introduces students to research methods, and major theoretical perspectives in Social Psychology.

### **Grade 12**

#### **Biology 30**

Biology 30 will cover evolution, taxonomy, cells, genetics, biotechnologies, as well as a student directed project.

**Prerequisite:** Health Science 20 or Environmental Science 20

**Materials Needed:** Foldscope or microscope, toothpicks, onion, methylene blue, iodine, if using a microscope – glass slides and slide covers, yeast, sugar, and a ruler/meter stick.

#### **Chemistry 30**

Chemistry 30 will cover chemical bonds and materials, chemical equilibria, electrochemistry, as well as a student directed project.

**Prerequisite:** Physical Science 20

**Materials Needed:** salt, sugar, magnifying glass or microscope, thermometer, scale, and litmus paper (store bought or homemade).

#### **ELA A30**

The goal of ELA A30 is to help students understand and appreciate language, and to use it confidently and competently in a variety of situations for learning, communication, work, life, and personal satisfaction. The course involves themes focusing upon Canadian literature and society and the Canadian experience, using various contemporary and traditional grade-appropriate texts in a variety of forms (oral, print, and other media) from First Nations, Métis, and other cultures.

**Prerequisite:** ELA 20

**Materials Needed:**

- The Secret Lives of Sergeant John Wilson by Lois Simmie (non-fiction)
- Billy Bishop Goes to War by John MacLachlan Gray and Eric Peterson (play)
- The Stone Angel by Margaret Laurence (novel)
- Tamarind Mem by Anita Rau (novel)

**ELA B30**

The goal of ELA B30 is to help students understand and appreciate language, and to use it confidently and competently in a variety of situations for learning, communication, work, life, and personal satisfaction. The course involves themes focusing upon human concerns in a global society, using various contemporary and traditional grade-appropriate texts in a variety of forms (oral, print, and other media) to provide a global perspective.

**Prerequisite:** ELA 20

**Materials Needed:**

- Hamlet by William Shakespeare (play)
- Death of a Salesman by Arthur Miller (play)
- Wouldn't Take Nothing for My Journey Now by Maya Angelou (non-fiction essays)
- Nectar in a Sieve by Kamala Markandaya (novel)

**Entrepreneurship 30**

The course provides an introduction to business theory and concept and provides a focus on creating a business idea and business plan. You will have an opportunity to explore what characteristics, skills and knowledge entrepreneurs require to be successful. This course must be completed over one semester.

**Financial Literacy 30**

This course is a more in-depth look into the world of personal finance. It covers topics such as home ownership; debt management, including bankruptcy; purchasing and leasing property including vehicles; and planning for the future (e.g., retirement planning), all of which contribute to strong lifelong financial wellbeing.

**Food Studies 30**

Food Studies 30 is all about practical and essential understanding of food and nutrition. Students will engage in the importance of making healthy food choice to promote the well-being of individuals and families through written and practical components.

**French 30**

Learn about racism and discrimination, and about the media, all while practicing your oral and written French. You will learn grammatical concepts and give an oral presentation.

**Prerequisite:** French 20

**History 30**

History 30 consists of 4 units of study intended to provide students an understanding of important events that impacted Canada during the 20th Century: First Nations Societies, The Fur Trade, War and Conquest, and Rebellion in Canada.

### **Interior Design and Decorating 30**

Students will explore the creative, client-focused nature of solving interior design and interior decorating problems while learning about how to apply elements and principles of design to solve client problems in residential and commercial settings.

### **Life Transitions 30**

In Life Transitions 30, you will learn about life roles, health self-care, conflict in relationships, money management, career planning, independent living, parenting, and searching for a job. You will set goals and make Action Plans to achieve your goals. You will need to have at least one person who can be your mentor for your action plans.

### **Math Foundations 30**

Students will learn about simple and compound interest, investment portfolios, loans, set theory, logic, combinations, permutations, probability, and many different types of functions (polynomial, exponential, logarithmic, and sinusoidal). Students will need to write the Departmental Exam and, to write the exam, they will require silent, hand-held calculating devices that have graphing and financial application capabilities (for example, a TI-83 or TI-84 graphing calculator) or devices that can be restricted so that users are limited to a single graphing or financial application with similar functionality to an approved graphing calculator.

**Prerequisite:** Math Foundations 20

### **Math Pre-Calculus 30**

Students will learn about transformations of functions, radical functions, polynomial functions, trigonometry and the unit circle, exponential and logarithmic functions, rational functions, functions operations and permutations and combinations. Students will need to write the Departmental Exam and, to write the exam, they will require silent, hand-held calculating devices that have graphing and financial application capabilities (for example, a TI-83 or TI-84 graphing calculator) or devices that can be restricted so that users are limited to a single graphing or financial application with similar functionality to an approved graphing calculator.

**Prerequisite:** Math Pre-Calculus 20

### **Math Workplace & Apprenticeship 30**

Students will learn about linear relations, measurements, measures of central tendency, probability, geometric figures, transformations, trigonometry, and business math. Problem solving and analyzing games is a concept that is distributed throughout the course. Students will complete three projects. Students will need to write the Departmental Exam and, to write the exam, they will require silent, hand-held



calculating devices that have graphing and financial application capabilities (for example, a TI-83 or TI-84 graphing calculator) or devices that can be restricted so that users are limited to a single graphing or financial application with similar functionality to an approved graphing calculator.

**Prerequisite:** Math Workplace & Apprenticeship 20

### **Physics 30**

Physics 30 explores modern physics; forces and motion; Conservation Laws; electric, magnetic, and gravitational fields, as well as a student-directed study of their choosing. Physics 30 requires critical thinking and problem-solving skills as students work through theoretical and hands-on inquiry.

**Prerequisite:** Physical Science 20

### **Psychology 30**

This course is based on Developmental Psychology, and helps students understand how and why humans develop as they do. It also investigates the stages of development from infancy through childhood, adolescence, adulthood, and old age.

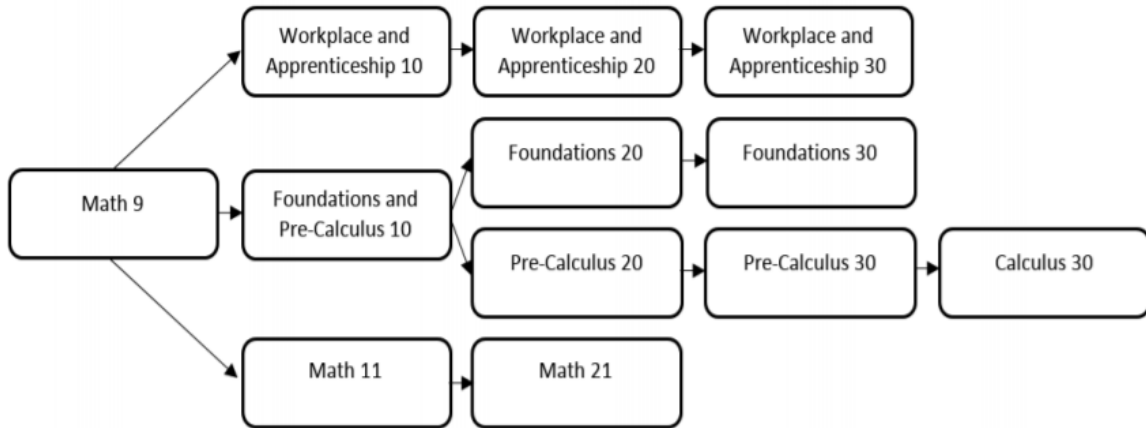
### **Other Credits**

**Special Credit Projects** are student-initiated and designed to encourage the pursuit of learning in an area of personal interest that is not related to a specific school subject, for example: 4-H, Lifeguarding, Royal Conservatory Music. One special credit project may be completed a year (Special Project 10, Special Project 20, Special Project 30).

**Apprenticeship Credits** may be applied for in Grade 11 and 12 if a student is employed with a registered Journeyperson in a certified SK trade and completes 100 hours of work. There are four Apprenticeship Credits available: Apprenticeship A20, Apprenticeship B20, Apprenticeship A30, and Apprenticeship B30.

The **Duke of Edinburgh Award** must be applied for through the Duke of Edinburgh website. Once the student has been approved for their Award, Flex ED students will meet weekly to plan their Outdoor Adventure challenge. This course requires a minimum of 26 weeks commitment.

## MATHEMATICS



## Science Pathways Framework

