A COMMUNITY OF LEARNERS EMPOWERED FOR LIFE

Oilfields School

Oilfields High School Course Registration Guide Grades 10-12

2025-2026

511 3RD STREET SW
PO BOX 430
DIAMOND VALLEY, AB
T0L 0H0

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COUNSELLING AND STUDENT SERVICES

Oilfields High School provides various counseling and student services to assist students in obtaining maximum benefit from a school experience and to develop their potential to the fullest. All students, parents, and teachers are invited to make use of the personnel and materials available.

- **Academic Advising:** Help is given to students to plan their school program so that a meaningful and worthwhile selection of courses are taken based on students' needs, interests, and abilities.
- **Personal Counselling:** To assist students in learning to cope with the demands in their lives, managing stress, getting along with their peers, or other social/emotional needs.
- **Behavioural Coaching:** As part of positive behaviour supports, students learn to build strategies and competencies for success.
- **Career Advising:** Students are assisted in developing their awareness of the wide range of careers available to them or the different ways of reaching career goals.
- **Learning Coach**: Provides support to foster an inclusive learning environment within our school, providing targeted and individualized support for students to help meet their individual academic needs. They help teachers meet the learning needs of students in their classrooms, including students on Individual Learning Plans (ILPs).
- **Post-Secondary Advising:** Our Advisor has the latest information from universities, technical schools, colleges and other institutions across Canada, the United States, and around the world.
- **Finances:** Information is available for the many forms of financial assistance that students may apply for to attend post-secondary schools. Scholarships and bursary opportunities are regularly advertised.
- **Off-Campus/Dual Credit Advising:** Our Off-Campus Coordinator provides up-to-date information about dual-credit courses, RAP, Work Experience, and Green Certificate courses.
- **Group Counselling:** Students having similar needs may be scheduled to work on these needs in a group setting.

SCHEDULING AND TIMETABLE CHANGES

- Students are timetabled for the next school year during the spring of each year.
- Oilfields School does not always have the resources to provide a second opportunity for students to retake a course after receiving a grade that is below passing (50%,) or to improve a passing mark. Students are encouraged to retake the course in summer school.
- Three years are allocated for students to complete high school, and we encourage students to take this time to plan carefully and choose a program pathway to ensure success in each course, requiring no timetable changes.
- Once a class has been in session for two weeks, changes may be made only after the student has provided reasons acceptable to the school and after the parent or guardian has agreed to the requested change.
- Timetable changes can be requested by submitting a course change form.
- Grade 11 may have one spare if they are on track to meet graduation requirements, and students in Grade 12 may have one spare in each semester if they are on track to meet graduation requirements.

10-12 COURSE REGISTRATION INFORMATION

General information is included for course offerings at Oilfields High School. If you need more information, please contact the Administration or our Academic and Career Advisor.

A minimum entry mark of 50% is necessary to go on to the next level in any course or program. In many cases, an entry mark of 65% or higher is recommended to provide the best chance of success at the next level. Transfers to a lower-level course may occur with lower marks. Students will be directed to the level/program offering the best chance of success and satisfaction.

ALBERTA HIGH SCHOOL DIPLOMA: GRADUATION REQUIREMENTS (ENGLISH)
The requirements indicated in this chart are the minimum requirements for a student to attain an Alberta High School Diploma. The requirements for entry into post-secondary institutions and workplaces may require additional and/or specific courses.
100 CREDITS including the following:
ENGLISH LANGUAGE ARTS – 30 LEVEL (English Language Arts 30-1 or 30-2)
SOCIAL STUDIES – 30 LEVEL (Social Studies 30-1 or 30-2)
MATHEMATICS – 20 LEVEL (Mathematics 20-1, Mathematics 20-2 or Mathematics 20-3)
SCIENCE – 20 LEVEL ❶ (Science 20, Science 24, Biology 20, Chemistry 20 or Physics 20)
PHYSICAL EDUCATION 10 (3 CREDITS) ❷
CAREER AND LIFE MANAGEMENT (3 CREDITS) ❸
10 CREDITS IN ANY COMBINATION FROM: ➢ Career and Technology Studies (CTS) courses ➢ Fine Arts courses ➢ Second Languages ❹ courses ➢ Physical Education 20 and/or 30 ➢ Knowledge and Employability courses ➢ Registered Apprenticeship Program courses ➢ Locally developed/acquired and authorized courses in CTS, fine arts, second languages or Knowledge and Employability occupational courses ❺

10 CREDITS IN ANY 30-LEVEL COURSE
(IN ADDITION TO A 30-LEVEL ENGLISH LANGUAGE ARTS AND A 30-LEVEL SOCIAL STUDIES COURSE AS SPECIFIED ABOVE) 6

These courses may include:

- 30-level locally developed/acquired and authorized courses
- Advanced level (3000 series) in Career and Technology Studies courses
- 30-level Work Experience courses 7
- 30-level Knowledge and Employability courses
- 30-level Registered Apprenticeship Program courses
- 30-level Green Certificate Specialization courses ➢ Special Projects 30

1 The science requirement—Science 20 or 24, Biology 20, Chemistry 20 or Physics 20—may also be met with the 10-credit combination of Science 14 and Science 10.

2 See information on exemption from the physical education requirement.

3 See information on exemption from the CALM requirement.

4 Students may earn any number of credits in the study of second languages, but only a maximum of 25 language credits may be used to meet the 100-credit requirement for the Alberta High School Diploma.

5 Integrated Occupational Program (IOP) occupational courses may be used in place of Knowledge and Employability occupational courses to fulfill this requirement.

6 30-level English language arts or 30-level social studies courses from a different course sequence may not be used to meet the 30-level course requirement.

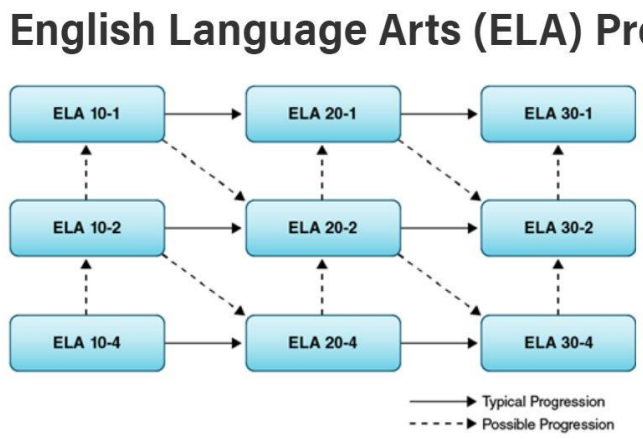
7 Students may earn a maximum of 30 credits in Work Experience, but only 15 credits may be used to meet the 100-credit requirement for the Alberta High School Diploma.

Further Notes:

- For 30-level courses that have a diploma examination, the final course mark consists of a blend of the school-awarded mark (70%) and the diploma examination mark (30%).
- Mature students should consult the Mature Students section of the Guide to Education for applicable requirements.

ENGLISH LANGUAGE ARTS (ELA)

At Oilfields, there are two streams of English at the High School level: English 10-1, 20-1, 30-1 and English 10-2, 20-2, 30-2. Performance in the Grade 9 English Language Arts course determines the Senior High course choices.



(Each course is 5 credits.)

ENGLISH 10-1 (5 Credits)

Recommended Entry: 65% from Gr. 9 Language Arts

English 10-1 is a general academic course to provide students with exposure to all facets of language and literature. Novels, short stories, essays, poetry, Shakespearean and/or modern drama are studied in-depth. Analysis and evaluation of each aspect of literature is essential to the development of student ability to relate literature to present and past societal development. Appreciation of the value of correctness in the use of the spoken and written language, with an understanding of the differing levels of language, is also to be cultivated.

Students will complete written and oral assignments dealing with all aspects of the course and a high standard of performance throughout is required. Writing will be an integral part of the course arising from in-class readings and viewing.

ENGLISH 10-2 (5 Credits)

Recommended for students who scored less than 65% in Gr. 9 Language Arts

This course is intended to provide students with basic skills required for correct and appropriate communication, both written and oral.

Literature and its relationship to society will be explored while reading, and study of selections will be largely for the purpose of engaging student interest. Emphasis on the techniques of literary form will be minimal, but students must be aware of some standards by which to judge quality rather than rely solely upon their immediate personal reaction to material presented to them. Writing will be an integral part of the course arising from in-class readings and viewing.

ENGLISH 20-1 (5 Credits)

Recommended Entry: 65% from English 10-1

This course will continue to develop previously acquired knowledge and skills in both oral and written English by encouraging the student to strive for a deeper appreciation of the scope and significance of the various forms of literature - essay, short story, novel, poetry, modern and Shakespearean drama. As well, the students will increase their ability to analyze critically, think independently and evaluate intelligently while recognizing that the study of literature can broaden students' understanding of mankind's values, customs and traits. Also, oral and written work will be utilized to stress themes of the various units. A functional approach to grammar will be utilized.

ENGLISH 20-2 (5 Credits)

Required Entry: 50% from English 10-1 or English 10-2

This course is intended to provide students with basic skills required for appropriate communication in writing and speaking.

Students will be instructed in language technicalities to enable them to avoid common errors in grammar, spelling, and punctuation. The ability to write in a clear, correct, and well-organized form will be stressed. Literature and its relationship to society will be explored through the study of selected essays, short stories, novels, poems, drama, and media.

ENGLISH 30-1 (5 Credits)

Recommended Entry: 65% from English 20-1

This course will further develop acquired knowledge and skills in both oral and written English by encouraging the student to strive for a deeper appreciation of the scope and significance of the various forms of literature - essay, short story, novel, poetry, modern and Shakespearean drama.

As well, students will increase their ability to analyze critically, think independently and evaluate intelligently while recognizing that the study of literature can broaden their understanding of mankind's values, customs and traits. Oral and written work will be utilized to stress themes of the various units. A functional approach to grammar will be utilized.

This course is subject to a provincial diploma exam which determines 30% of the final mark.

ENGLISH 30-2 (5 Credits)

Required Entry: 50% from English 20-1 or English 20-2

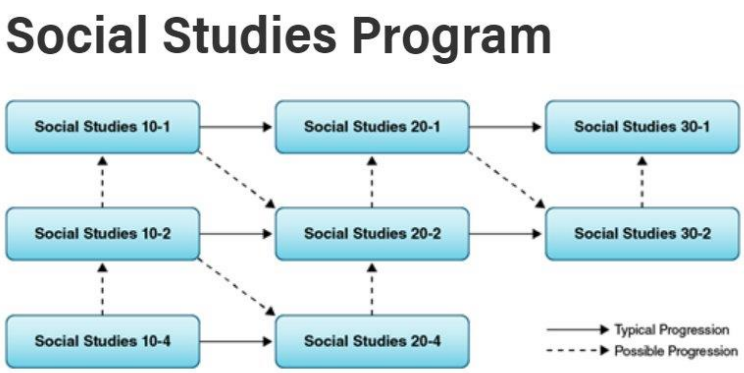
This course is designed to provide continuing practice in the basic skills of reading, writing, and speaking. As is the case in English 10-2 and English 20-2, students will be encouraged to express themselves in a clear, concise, and well-organized manner. A greater degree of sophistication will be expected of the English 30-2 student regarding communication skills.

Literature and its relationship to society will continue to be explored through a study of appropriate essays, short stories, novels, poetry, drama and media.

This course is subject to a provincial diploma exam which determines 30% of the final mark.

SOCIAL STUDIES

At Oilfields, there are two streams of Social Studies at the High School level: Social 10-1, 20-1, 30-1 and Social 10-2, 20-2, 30-2. Performance in the Grade 9 Social Studies course determines the Senior High course choices.



(Each course is 5 credits.)

SOCIAL STUDIES 10-1 Perspectives on Globalization (5 Credits)

Recommended Entry: 65% from Social Studies 9

Students will explore multiple perspectives on origins of globalization and the local, national and international impacts of globalization on lands, cultures, economies, human rights and quality of life. They will examine the relationships among globalization, citizenship and identity to enhance skills for citizenship in a globalizing world. The infusion of multiple perspectives will allow students to examine the effects of globalization on peoples in Canada and throughout the world, including the impact on Indigenous and Francophone communities.

SOCIAL STUDIES 10-2 Living in a Globalizing World (5 Credits)

Recommended for students who scored less than 65% in Social Studies 9

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

SOCIAL STUDIES 20-1 Perspectives on Nationalism (5 Credits)

Recommended Entry: 65% from Social Studies 10-1

Students will explore the complexities of nationalism in Canadian and international contexts. They will study the origins of nationalism and the influence of nationalism on regional, international and global relations. The infusion of multiple perspectives will allow students to develop understandings of nationalism and how nationalism contributes to the citizenship and identities of peoples in Canada. For more specific information, you are encouraged to go to the web address: http://education.alberta.ca/teachers/core/socialstudies/programs/aspx

SOCIAL STUDIES 20-2 Understandings of Nationalism (5 Credits)

Required Entry: 50% from Social Studies 10-1 or Social Studies 10-2

Students will examine historical and contemporary understandings of nationalism in Canada and the world. They will explore the origins of nationalism as well as the impacts of nationalism on individuals and communities in Canada and other locations. Examples of nationalism, ultranationalism, supranationalism and internationalism will be examined from multiple perspectives. Students will develop personal and civic responses to emergent issues related to nationalism. For more specific information, you are encouraged to go to the following web address: http://education.alberta.ca/teachers/core/socialstudies/programs/aspx

SOCIAL STUDIES 30-1 Perspectives on Ideology (5 Credits)

Recommended Entry: 65% from Social Studies 20-1

Students will explore the origins and complexities of ideologies and examine multiple perspectives regarding principles of classical and modern liberalism. An analysis of various political and economic systems will allow students to assess the viability of the principles of liberalism. Developing understandings of roles and responsibilities associated with citizenship will encourage students to respond to emergent global issues.

This course is subject to a provincial diploma exam which determines 30% of the final mark.

SOCIAL STUDIES 30-2 Understandings of Ideologies (5 Credits)

Required Entry: 50% from Social Studies 20-1 or Social Studies 20-2

Students will examine the origins, values and components of competing ideologies. They will explore multiple perspectives regarding relationships among individualism, liberalism, common good and collectivism. An examination of various political and economic systems will allow students to determine the viability of the values of liberalism. Developing understandings of the roles and responsibilities associated with citizenship will encourage students to respond to emergent global issues.

This course is subject to a provincial diploma exam which determines 30% of the final mark.

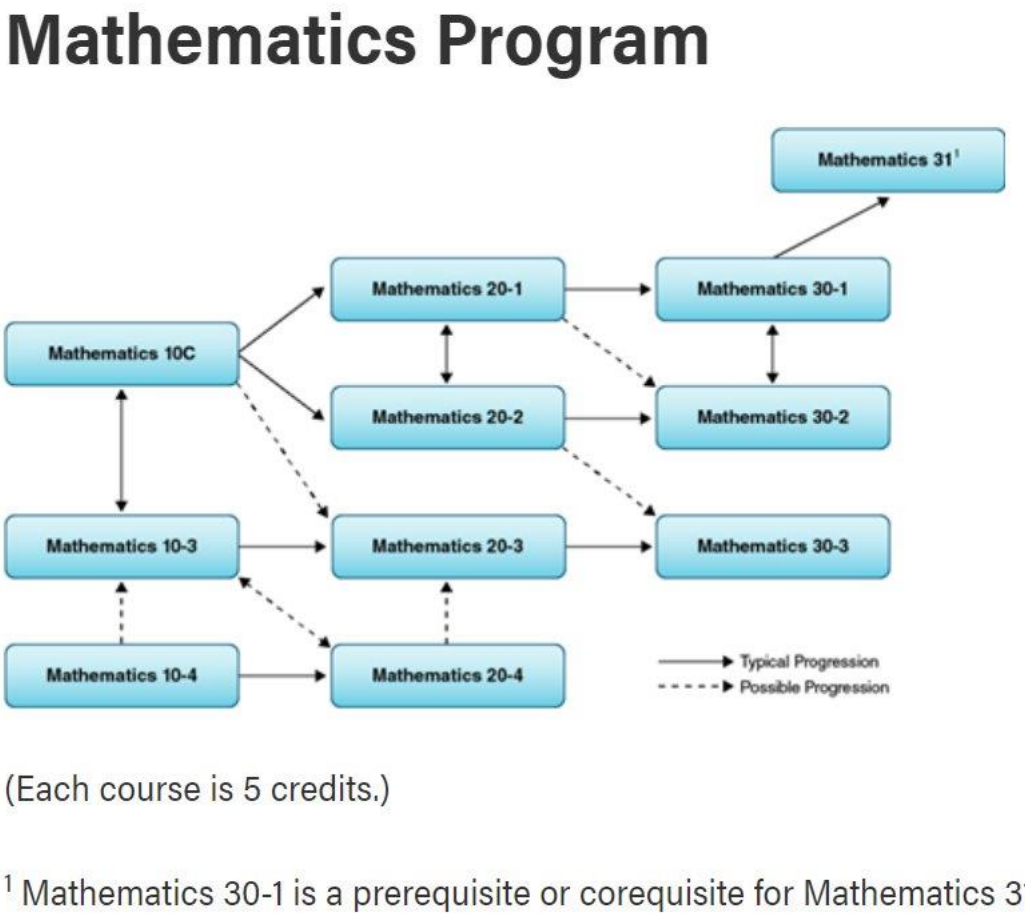
MATHEMATICS

SENIOR HIGH MATH – Choosing the Right Sequence

- **Grade 10:** Math 10 Combined (Math 10C), Math 10-3 Apprenticeship & Workplace
- **Grade 11:** Math 20-1 – Pre--Calculus; Math 20-2 – Foundations, Math 20-3 Apprenticeship & Workplace
- **Grade 12:** Math 30-1 – Pre--Calculus; Math 30-2 – Foundations; Math 30-3 Apprenticeship & Workplace; Math 31 – Calculus

The Grades 10-12 Mathematics Program of Studies includes a combined Grade 10 course, Mathematics 10C, that is the starting point for the -1 and -2 course sequences (see diagram below). This will allow Mathematics 10C students to delay choosing a mathematics course sequence until Grade 11. Upon successful completion of 10C, students will choose a path of 20-1 or 20-2 depending on their post-secondary aspirations and mark achieved in Math 10C.

If a student has struggled in grade 9 Math, or failed grade 9 Math, Math 10-3 is the stream of mathematics that leads towards trades and apprenticeships. It is the more hands-on aspect of mathematics which reviews many of the skills from Junior High while applying them in new situations.



Course Sequences: http://www.education.alberta.ca/teachers/program/math/parents.aspx

Mathematics – 1 Pre-Calculus course sequence	Mathematics – 2 Foundations course sequence	Mathematics - 3 Apprenticeship and Workplace course Sequence
This course sequence is designed to provide students with the mathematical understandings and critical thinking skills **identified for entry into post-secondary programs that require the study of calculus** (e.g. Engineering, Mathematics, Sciences, Business). Topics include algebra and number, measurement, relations and functions, trigonometry, permutations, combinations, and binomial theorem.	This course sequence is designed to provide students with the mathematical understandings and critical thinking skills **identified for post-secondary studies in programs that do not require the study of calculus** (e.g. Arts, Civil Engineering Technology, Medical Technology, Nursing). This course is designed for students pursuing careers in a wide variety of areas, thus filling the needs of most students. It provides a high degree of flexibility in terms of changing course sequences, at both the Grade 11 and Grade 12 levels, if the student's interests change. Topics include geometry, trigonometry measurement; number sense, logical reasoning, relations and functions, statistics and probability. This stream also has a focus on research and application that the -1 curriculum does not include.	This course sequence is designed to prepare students with the mathematical understandings and critical thinking skills **identified for entry into an apprenticeship, the trades, and to prepare for life on their own.** Topics include algebra, trigonometry, money management, taxes, geometry, measurement, number, statistics, and probability.

The following link may be helpful when determining which stream of mathematics is right for you.

High School Math Requirements for Post-Secondary Admission: http://alis.alberta.ca/ps/ep/aas/ta/mathreq.html

COMPETENCIES IN MATH 15 (3 credits)

Recommended Entry: Below 65% in Math 9

This prep course aims to build the mathematical skills and confidence necessary for students to be successful in Math 10C. This course is recommended for students who demonstrate basic achievement of Grade 9 Math curricular outcomes but have found Algebra, Exponents, Fractions & Problem Solving to be challenging.

This is a Locally Developed Course, and as such does not count as three credits in Mathematics, but rather as a 3-credit elective course.

MATHEMATICS 10 Combined (MATH 10C) (5 credits)

Recommended Entry: 65% in Math 9

This course is designed for students who plan to take -1 (Pre-Calculus) or -2 (Foundations) course sequence, or students who want to continue with post-secondary education. Topics include relations and functions, trigonometry, measurement, linear relations, systems of equations, and polynomials.

Students are required to purchase a graphing calculator (TI-83 Plus, TI-84 Plus or TI-84 Plus Silver is recommended)

MATHEMATICS 10-3 Apprenticeship and Workplace (5 credits)

Recommended for students who scored less than 65% or struggled in Math 9

This course is designed for students who wish to go into the trades and many college programs, or to simply graduate high school. Topics include trigonometry, earning and income, taxes, and linear and area measurement

Students are required to purchase a simple calculator, preferably one with the ability to convert between fractions and decimals.

MATHEMATICS 20-1 Pre-Calculus (5 credits)

Recommended Entry: 65% in Math 10C

This course is designed to provide students with the mathematical understandings and critical thinking skills identified for entry into post-secondary programs that require the study of calculus. Topics in this sequence include sequences and series, trigonometry, quadratics, absolute value, radicals, inequalities, systems of equations, inequalities, rational numbers and reciprocals.

Students need to purchase a graphing calculator (TI-83 Plus, TI-84 Plus or TI-84 Plus Silver are recommended.)

MATHEMATICS 20-2 Foundations (5 credits)

Required Entry: 50% in Math 10C

This course is designed to provide students with the mathematical understandings and critical thinking skills identified for post-secondary studies in programs that do not require the study of calculus. Topics in this sequence include rates, statistics, logical reasoning, quadratics, radicals, geometry and trigonometry.

Students are required to purchase a graphing calculator (TI-83 Plus, TI-84 Plus or TI-84 Plus Silver are recommended.)

MATHEMATICS 20-3 Apprenticeship and Workplace (5 credits)

Required Entry: 50% in Math 10-3

This course is designed for students who wish to go into the trades and many college programs, or to simply graduate high school. Topics include 3D Trigonometry, volume, capacity and surface area measurement, scale and modelling, budgeting, graphing and rates of change.

Students are required to purchase a simple calculator, preferably one with the ability to convert between fractions and decimals.

MATHEMATICS 30-1 Pre-Calculus (5 credits)

Recommended Entry: 65% in Math 20-1

This course is designed to provide students with the mathematical understandings and critical thinking skills identified for entry into post-secondary programs that require the study of calculus. Topics in this sequence include trigonometry, polynomials, exponents and logarithms, transformations, functions, permutations, combinations and the binomial theorem.

Students are required to purchase a graphing calculator (TI-83 Plus, TI-84 Plus or TI-84 Plus Silver are recommended.)

This course is subject to a provincial diploma exam which determines 30% of the final mark.

MATHEMATICS 30-2 Foundations (5 credits)

Required Entry: 50% in Math 20-2 Recommended entry: 50-59% in Math 20-1

This course is designed to provide students with the mathematical understandings and critical-thinking skills identified for post-secondary studies in programs that do not require the study of calculus. Topics in this sequence include rational numbers, exponents and logarithms, sinusoidal functions, polynomials, probability and set theory.

Students are required to purchase a graphing calculator (TI-83 Plus, TI-84 Plus or TI-84 Plus Silver are recommended.)

This course is subject to a provincial diploma exam which determines 30% of the final mark.

MATHEMATICS 30-3 Apprenticeship and Workplace (5 credits)

Required Entry: 50% in Math 20-3 Recommended Entry: 60% in 20-3

This course sequence is designed for students who wish to go into the trades and many college programs, or to simply graduate high school. Topics include trigonometry, accuracy and precision, owning a business, probability, statistics and linear relations.

Students are required to purchase a simple calculator, preferably one with the ability to convert between fractions and decimals.

This course does not have a provincial diploma exam.

MATHEMATICS 31 Calculus (5 credits)

Required Entry: You must already have, or be working toward Math 30-1 Recommended Entry: 60% in Math 30-1 or 20-1

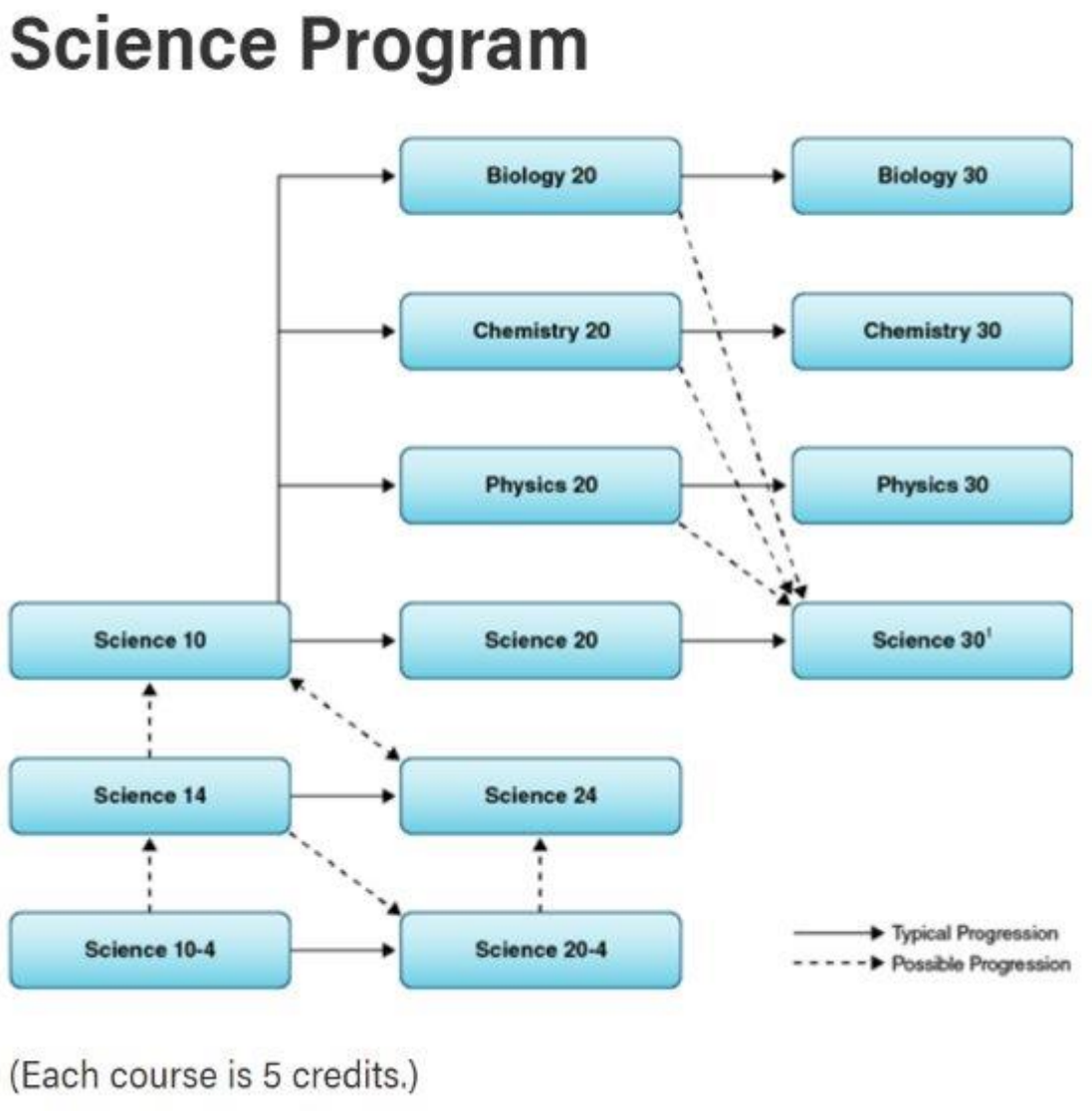
Math 31 is an introductory course in the study of Calculus. Calculus has two branches of study: differential calculus and integral calculus. Differential calculus deals with instantaneous rates of change. Integral calculus is concerned with finding a quality by knowing the rate of change. Students who are considering further studies in the Sciences, Engineering, or Commerce and Economics should consider taking this course.

This course does not have a provincial diploma exam.

SCIENCE

As science plays such a large role in our lives, it is a basic part of every student's education. The Alberta Curriculum emphasizes six themes throughout Junior and Senior High school: energy, matter, change, systems, diversity, and equilibrium. These themes form the link between different science disciplines and courses.

Science students must master factual information, laboratory and research skills, and information processing skills appropriate to their grade level and subject area. In addition, they must understand and use the six themes to connect individual topics with big ideas and to explain how science, technology, and social issues relate to each other.



SPECIFIC DEPARTMENT GUIDELINES

Excellent attendance is critical to maximize success in all science courses. Classroom work not only delivers content but also develops the learning skills and laboratory procedures necessary to make practical application of knowledge. Reading, review and home-study, aside from specific assignments, are vital for steady growth in learning.

SCIENCE 10 (5 Credits)

Recommended Entry: 65% in Science 9.

Science 10 is the prerequisite for Science 20, Biology 20, Chemistry 20 and Physics 20

- Unit 1: Matter and Energy in Chemical Change—Investigates basic particles, formation of chemical compounds, and the nature and documentation of chemical changes.
- Unit 2: Energy Flow in Technological Systems—Covers the principles of thermodynamics and how they are used to predict energy transformation.
- Unit 3: Cycling of Matter in Living Systems—Studies plant and animal cells, their structures and their role in life processes and specialized structures.
- Unit 4: Energy Flow in Global Systems—Discusses transfers of energy and how these systems and environmental factors affect the earth and the climate.

SCIENCE 14 (5 Credits)

Recommended for students who scored less than 50% in Science 9

In Science 14 students will apply scientific knowledge and skills to everyday experiences. This course does lead to an Alberta High School Diploma. The Science 14 program is designed to emphasize the interrelationships between science, technology and society. These courses are suitable for students entering the workforce and some trades programs.

SCIENCE 24 (5 Credits)

Required entry: 50% in Science 14

In Science 24 students will continue to apply scientific knowledge and skills to everyday experiences. These courses will satisfy the requirements for an Alberta High School Diploma. The Science 24 program is designed to emphasize the interrelationships between science, technology and society. These courses are suitable for students entering the workforce and some trades programs.

BIOLOGY 20 (5 Credits)

Recommended Entry: 65% from Science 10

Biology 20 consists of four units of study:

- Unit A: Energy and Matter in the Biosphere - the flow of energy and the cycling of matter is examined in relation to the biogeochemical cycles.
- Unit B: Ecosystems and Population Change - the biotic and abiotic characteristics of ecosystems are studied in relation to populations and the process of natural selection.
- Unit C: Photosynthesis and Cellular Respiration - students look at the process of converting sunlight into glucose in the process of photosynthesis and the conversion of carbohydrates into usable energy in the process of cellular respiration.
- Unit D: Human Systems - the exchange of energy and matter in human systems is examined through study of gas exchange, circulation, digestion, excretion and muscle systems.

BIOLOGY 30 (5 Credits)

Recommended Entry: 65% from Biology 20

The major science concepts developed in this course are change, diversity, equilibrium and systems.

Biology 30 consists of four units of study:

- Unit A: Nervous and Endocrine Systems - examines biological processes that mediate the interactions between humans and their environment to maintain homeostasis
- Unit B: Reproduction and Development - investigates the human reproductive system and how it relates to propagating and perpetuating the species. Focus is on reproduction, development and the influences of hormones.
- Unit C: Cells Division, Genetics and Molecular Biology - examines cell division (mitosis and meiosis), chromosomes and inheritance, DNA, protein synthesis and genetics.
- Unit D: Populations and Community Dynamics - examines population change over time through the study of population genetics and population growth. The focus is based on the interactions between individuals, populations and communities in the ecosystem.

This course is subject to a provincial diploma exam which determines 30% of the final mark

CHEMISTRY 20 (5 Credits)

Recommended Entry: 65% from Science 10

Chemistry 20 consists of four units of study:

- Unit A: The Diversity of Matter and Chemical Bonding—focuses on theories about bonding and structures of matter with regards to scientific models.
- Unit B: Forms of Matter: Gases - expands on the nature of matter through the investigation of the properties and behaviours of gases.
- Unit C: Matter as Solutions, Acids and Bases - dives into the nature of matter through an investigation of change in the context of solutions, acids and bases.
- Unit D: Quantitative Relationships in Chemical Changes - explores quantitative relationships in the balanced chemical equation and uses mathematical principles to predict quantities of substances consumed or produced in a chemical reaction system.

CHEMISTRY 30 (5 Credits)

Recommended Entry: 65% from Chemistry 20

Chemistry 30 consists of four units of study:

- Unit A: Thermochemical Changes - studies energy as it relates to chemical changes and quantifies the energy involved in thermochemical systems.
- Unit B: Electrochemical Changes - examines electrochemical change and analyzes the matter and energy changes within a system.
- Unit C: Chemical Changes of Organic Compounds - investigates common organic compounds and describes their properties and reactions through technological applications.

- Unit D: Chemical Equilibrium Focusing on Acid-Base Systems - expands on the idea of chemical change and equilibrium, and then focuses on the quantitative treatment of reaction systems involving acid-base solutions.

This course is subject to a provincial diploma exam which determines 30% of the final mark

PHYSICS 20 (5 Credits)

Recommended Entry: 65% from Science 10 and 65% in Math 10C

- Unit A: Kinematics - investigation of change in position and velocity of objects and systems.
- Unit B: Dynamics - investigation of causes of change in the position and velocity of objects and systems in a study of dynamics and gravitation. The concept of fields is introduced in the explanation of gravitational effects.
- Unit C: Circular Motion, Work and Energy - extended study of kinematics and dynamics to uniform circular motion and to mechanical energy, work and power
- Unit D: Oscillatory Motion and Mechanical Waves - investigation of simple harmonic motion and mechanical waves.

PHYSICS 30 (5 Credits)

Recommended Entry: 65% from Physics 20 and 65% in Math 20-1

The Diversity of Matter and Energy are the predominant themes of the Physics 30 course. Physics 30 consists of four units of study:

- Unit A: Momentum and Impulse - Newton's second law of motion is linked to the concepts of momentum and impulse
- Unit B: Forces and Fields - Students investigate electrical and magnetic forces and fields and their applications in technological devices.
- Unit C: Electromagnetic Radiation - In this unit, students study the nature and characteristics of electromagnetic radiation (EMR), using the wave and photon models of light.
- Unit D: Atomic Structure - In this unit, students study the development and modification of models of the structure of matter.

PHYSICAL EDUCATION

The adolescent years are a critical time for the development of positive lifestyle choices, and the encouragement of physical activity throughout one's life. At OHS, we encourage students to take ownership for their own personal physical and psychological development.

Note: Non-marking indoor shoes and gym strip are required. Students may bring their own gym strip or can purchase school gym strip. There may be additional fees associated with off-site activities.

PHYSICAL EDUCATION (PE) 10 (3 OR 5 Credits)

Physical Education 10 is a required course for graduation.

The aim of this program is to enable individuals to develop knowledge, skills and attitudes necessary to lead an active, healthy lifestyle. Physical Education 10 is a participation-based class which has been designed to have students experience a variety of individual and team-based activities. Students are very fortunate to have access to a gymnasium, outdoor field, curling club, ice rink, and fitness center. Our program is intended to build upon current skill sets and game play knowledge, with a heavy focus on character and leadership development. Our goal is to develop physically literate students who will pursue a physically activity lifestyle. If students have a positive attitude about physical activity and try their best in each activity, they will do well in this course.

PHYSICAL EDUCATION (PE) 20/30 (3 or 5 Credits)

Required Entry: 50% in PE 10 for PE 20 *Required Entry: 50% in PE 20 for PE 30.*

Physical Education 20 and Physical Education 30 courses are designed to promote lifelong physical activity and enjoyment through various sports and recreational activities. Students develop the knowledge, skills and attitudes necessary to lead an active, healthy lifestyle. Emphasis will be placed on the attitude, effort, participation, and leadership components of the course. Skill and knowledge will be assessed through active involvement in a lower-competitive environment. Physical Education provides equitable opportunities for all students to realize the benefits of participation in physical activity. These courses often involve off-campus trips to local venues for activities.

CAREER AND LIFE MANAGEMENT (CALM) (3 credits)

CALM is a requirement for graduation. The CALM class will be offered to Grade 10 students during the academic year.

Career and Life Management (CALM) is the CORE course for health literacy at the Senior High level in Alberta. The aim of this course is to enable students to make well informed, considered decisions and choices in all aspects of their lives, and to develop behaviours and attitudes that contribute to the well-being and respect of self and others, now and in the future. The units of study are:

- **Personal Choices—**Students will apply an understanding of the emotional/psychological, intellectual, social, spiritual and physical dimensions of health, as well as the dynamic interplay of these factors in managing personal well-being.
- **Resource Choices—**Students will make responsible decisions in the use of finances and other resources that reflect personal values and goals and demonstrate commitment to self and others.
- **Career and Life Choices—**Students will develop and apply processes for managing personal, lifelong career development.

ELECTIVE COURSES

CAREER TECHNOLOGY STUDIES (CTS), FINE ARTS, SECOND LANGUAGES, SOCIAL SCIENCES AND INDIGENOUS STUDIES

Exploring the various electives in high school allows students to find and follow their passions, discover new interests, and plan for future career pathways. Electives are part of high school graduation requirements.

AGRICULTURE (3 to 5 credits)

The topics covered in this course include sustainable cattle ranching techniques, plant propagation, and agriculture safety. During the warm season the students will plan, maintain, and harvest the school's garden. When the weather turns cold the students will explore techniques of sustainable cattle ranching with a focus on the benefits of preserving the foothills fescue grassland ecosystem. They will also develop their skills in indoor plant propagation techniques including aquaponics (raising fish and food plants), and seedling cultivation for use in the garden. Mushroom cultivation, equine science (horses), and agricultural careers are other aspects of this program.

ART

The Art program encourages and develops personal expression through artistic activities. Art students learn to appreciate, understand, create, critique and, most of all, enjoy the products of their own making. Art enhances the core senior high school experiences and cultivates well-rounded individuals.

Art is primarily a studio-based program emphasizing a variety of media. Students can explore visual expression and establish the groundwork for artistic skills. The program consists of three general areas of visual learning:

- drawings: how visual information is seen and presented; developing technical and critical skills
- compositions: how images are designed; creating meaning visually
- encounters: how visual images evoke responses and interpretation; exploring art across history and tradition.

ART 10 (3 to 5 Credits)

Students in Art 10 will complete a Drawing Portfolio, a Visual Journal and two Art Projects. These projects include Ceramics, Painting, Printmaking, Jewellery-making and many others. Students are encouraged to explore their own sense of the world, to learn to express themselves in mature ways and to develop their core skills through drawing and painting, composition and encounters with the history of art.

ART 20 (3 to 5 Credits)

Prerequisite: 50% in Art 10

Art 20 students continue their journey of artistic skills development, understanding the history of art and working through art projects that allow them to meet their expressive potential. Students are provided with many choices and are encouraged to explore a variety of media.

ART 30 (3 to 5 Credits)

Prerequisite: 50% in Art 20

Students in Art 30 will focus on the development of a portfolio of work based on their own interests. At this level students are expected to be highly motivated and mostly self-directed as they explore personal themes and media that they find conducive to their own artistic experience.

BAND: INSTRUMENTAL MUSIC 10, 20 & 30 (3 to 5 Credits)

The purpose of the senior high band program is to engage students musically. This is facilitated through opportunities to continue to develop musicianship, and to refine one's qualities and abilities as a musician through things like performances, exposure to diverse and quality literature, aural and listening activities, and valuing and appreciating a variety of music, through the study and performance of a variety of repertoire. Further, it aims to equip students with the skills needed to continue with music in their post-secondary studies following high school.

BUSINESS & MARKETING STUDIES (3 OR 5 CREDITS)

This multi-grade course introduces students to the essential elements of running a business, including financial management, marketing, entrepreneurship, and business management. Students will complete at least 3 modules: MAM1010 (Marketing & Management), FIN1010 (Personal Finance Information), and ENT1010 (Challenge & Opportunity).

COMMUNICATIONS TECHNOLOGY (ComTech) (3 or 5 credits)

ComTech is a technology course designed to equip students with a variety of digital skills that will enable them to utilize technology for productivity and expression. This course provides engaging and meaningful technology-related experiences and empowers students to improve in all areas of their education in preparation for future professional careers. There are several paths that students can explore including graphic design, video and audio production, web site design, and animation. ComTech is all about flexibility and student choice, but you must also be willing to learn independently and try new things. Take a step into the world of digital creative freedom and expression in Communication Technology.

DRAMA (Acting and Performing) (3 to 5 credits)

Students will explore the community skills of drama through workshopping scenes via planned, scripted and spontaneous improvisational group skill development. Introduction of character analysis and intermediate character work in a workshop setting. Improvisation, directing elements, and playwriting are included to help create a more personalized learning experience for the individual actor. Students will also assist with Tech Theatre elements such as props, costumes, and set.

DRAMA 10

Drama 10 is the foundational course for drama at the high school level. Students will be challenged to foster a positive self-concept by encouragement to explore life through the assumption of roles as they develop their skills and take positive risks in a setting that encourages teamwork and cultivates confidence.

DRAMA 20

Prerequisite: 50% in Drama 10

Drama 20 will invite students to delve deeper into the study of voice, movement, improvisation, theatre history and technical theatre. Students will also explore the art of script writing, story creation, acting and the development of characterization skills. Drama 20 involved writing, casting, and directing small performances. is the foundational course for drama at the high school level. Students will be challenged to do their best as they develop their skills and take positive risks in a setting that encourages teamwork and cultivates confidence.

DRAMA 30

Prerequisite: 50% in Drama 20

Drama 30, students will become producers, directors, actors, and scene designers. Students will make further connections with the professional theatre community and learn about the various employment opportunities in the dramatic arts. Students will reflect on and participate in the various creative stages of production. There will be substantial collaboration with peers through dramatic exploration.

FOODS (3 TO 5 CREDITS)

Students prepare recipes and enjoy their own creations in this hands-on cooking class. Students in 3-credit cook once to twice a week, and students in 5-credit cook a minimum of 3 times a week. Some of the units, depending on the grade level, are food safety, sanitation, baking, meal planning, international cuisine, Canadian heritage, fruits and vegetables, and food presentation. Students are able to sharpen their skills by enrolling in the course in grades 10, 11, and 12. For 5-credit students, they plan and execute a food truck as well as participate in a number of community and school events like the concession, Winter Market, and Seniors Tea. 3-credit students showcase their skills by planning and preparing a meal for their family at home.

HOCKEY

The Method Hockey Program focuses on skill development and includes regular ice time as well as dryland training and some classroom components. Students are expected to have a proficient level of skating ability, be currently playing on a team, and can provide their own equipment. This course may be offered depending on interest and availability. There will be additional fees associated with this program.

INDIGENOUS STUDIES (3 CREDITS)

Indigenous Studies is based on perspectives and worldviews of Indigenous peoples. It includes the study of traditions and history of Indigenous peoples in Canada, and particularly in Alberta. Student learning outcomes provide opportunities to examine such topics as governmental structures, literature, the arts and the sciences. The Circle of Courage is used as a framework, is based on the medicine wheel, and is intended to help youth live a resilient and healthy lifestyle. There are four quadrants in the circle: Belonging, Mastery, Generosity, and Independence. Activities in the course are designed to help students from all backgrounds learn in a safe and fun environment.

OUTDOOR EDUCATION (3 TO 5 CREDITS)

Outdoor and Environmental Education provides students with skills for safe and successful participation in outdoor activities in Kananaskis Country. Activities will include hiking, cross-country skiing, fishing, shelter building, wilderness navigation, wilderness first aid, outdoor cooking knife use, fire starting and outdoor games/initiative tasks. There will be 4 field trips within school hours.

Each year follows a different theme in a 3-year cycle (Water, Earth, Biodiversity). Next year will be Earth themed and will focus on the unique geology, geography, and paleontology of Alberta, including a trip to the Tyrrell Museum. The second year will be Water themed and will include an opportunity for students to participate in a Discover SCUBA lesson, the use of watercraft (canoe/kayak/stand up paddle board,) and an opportunity to obtain their pleasure craft operator card (boat license). The third year will be Biodiversity themed where students explore the diversity of marine and terrestrial life in British Columbia and Alberta and visit biodiversity hotspots such as Frank Lake, Plateau Mountain, and complete a course in Bowhunting. This ensures that students who take this course each year will encounter new material.

PHOTOGRAPHY (3 TO 5 CREDITS)

Learn about exposure and composition and transform your snapshots into works of photographic art. Then refine and add to your repertoire as you go up the grades. No experience or personal camera is necessary; however, this course is designed for those with a serious interest in photography as a hobby or career. This course consists of 5 modules that are worth 1 credit each. Subjects include Black and White Photography, Portrait, Colour, Outdoor, Digital Editing, Printing and many more!

GENERAL PSYCHOLOGY 20 (3 CREDITS)

General Psychology 20 is a 3-credit course designed to provide students with a general background in psychology, including the history of psychology and the principles of learning and thinking. Students will learn about stress and aggression, sensation and perception, consciousness, and careers in psychology. Through investigating behavior disorders and their causes including anxiety, mood disorders, psychosis and neurosis, students will leave General Psychology with a broad-based account of psychology and its founding principles. Other psychology courses may be added.

SHOP (INDUSTRIAL EDUCATION: WOODS AND METALS) (3 TO 5 CREDITS)

In Industrial Ed, students in Level 1 will gain an in-depth understanding of safe and effective woodworking practices to build furniture from solid wood. Students will become proficient in operating a wide variety of woodworking equipment and know basic wood joinery. In Level 2, students will further implement woodworking techniques to wood forming, joinery, and cabinet making. There is also opportunity to choose to learn basic metal fabrication/welding principles in level 20 or 30. In Industrial Ed 30, students learn leg and rail furniture techniques, surface enhancement, tool maintenance, and often can make something of their own design/choosing. Throughout each course/level, students will develop understanding of construction, manufacturing, industry, technology, and trades-based careers.

SPANISH (5 CREDITS)

The learning of Spanish, as any other language, develops awareness of, and sensitivity to, cultural and linguistic diversity. This fact, in addition to preserving cultural identity, is also a means of cultural enrichment and is the best means of fostering understanding and solidarity among peoples and countries. Furthermore, it gives individuals the opportunity to identify, question and challenge their own cultural assumptions, values, and perspectives and to contribute positively to

society. There is also significant evidence to suggest that learning another language contributes to the development of increased grammatical abilities in the first language and enhances cognitive functioning. Learning a second language increases the ability to conceptualize and to think abstractly; and it fosters more cognitive flexibility, greater divergent thinking, creativity, and metalinguistic competence. Students will develop skills in listening, speaking, reading, and writing. The course stresses oral language skills and presents vocabulary likely to be needed by travel.

SPORTS MEDICINE 10 (3 TO 5 CREDITS)

Sports Medicine 10 is made up of three modules in which we explore the mechanical functions of the human body, the prevention and care of sports injuries, emergency management, and basic taping and wrapping. Additional credits may be available for first aid certification and practicum experience.

- HCS 1050 - Musculoskeletal System: Students explore the structure and function of the musculoskeletal system, gain an understanding of conditions of the musculoskeletal system, and an appreciation for the benefits of practising a healthy lifestyle as it pertains to the individual, family, peers, and community.
- HSS 1010 - Health Services Foundations: Students examine fundamental attitudes, knowledge, and skills to prepare for further study in career pathways in health, recreation, and community services. Concepts related to the determinants of health, the dimensions of wellness, basic principles of anatomy, physiology, and disease, and basic safety and reporting protocols for providing care to individuals in health, recreation, volunteer, and community support settings are reviewed.
- REC 1020 - Injury Management 1: Students learn prevention, assessment, and management techniques related to injuries that may occur during recreation and sporting events and activities.
- REC 1030 - Technical Foundations for Injury Management: Students explain basic taping and wrapping fundamentals, explore the role of the athletic therapist, identify first aid supplies, describe common injuries, and apply basic taping and wrapping techniques to various body regions.

SPORTS LEADERSHIP (3 TO 5 CREDITS)

Sport Leadership is designed to provide students with an understanding of the principles and practices of coaching, as well as the psychological aspects of sport. Through a combination of theoretical knowledge and practical application, students will explore the key components of effective leadership in sports settings. Topics include coaching strategies, team dynamics, film study, motivation, communication skills, and the mental factors that influence athletic performance.

SPORTS PERFORMANCE (3 to 5 credits)

The Sports Performance Program has been developed to allow students with an interest in training for athletic competition the opportunity to do so in a school setting. Students will be expected to demonstrate outcomes as they relate to the study of current training principles, performance enhancement and evaluation, sports studies, and personal development. Other topics of study include muscular and skeletal anatomy, injury management, and nutrition for sports and wellness. The course will take place in two locations: in the classroom where we will learn the theories and principles behind training for athletic competition, and in the weight room where these theories and principles will be put into place.

TEXTILES: (3 TO 5 CREDITS)

Textiles combine several different textile skills including sewing, knitting, crochet, macrame, and embroidery. Students develop these skills to apply to a larger project. At the grade 10 level students begin with sewing fundamentals using basic seams and stitches, sewing equipment and tools, and fabric identification. Students also can learn about creating accessories, up-cycling materials, textiles art, and a choice project. At the grade 11 level, students sharpen their skills by learning more about accessories, specialty fabrics, surface embellishments, textiles art 2, and a choice project. At the grade 12 level students further their skills by delving into wearable art, specialty fabrics 2, textile art 3, and two choice projects.

VERTICAL FARMING (3 CREDITS)

Through the Vertical Farm Initiative, students are given hands on, practical experience with operating an enclosed farming system to support the growing demand for food security in changing societal and environmental factors. With this opportunity, students will work collaboratively to find solutions to challenges they may face with operating a Vertical Farm. Students can select courses that align with their interests within the five components of this project: Marketing and Sales, Facility Operation, Organic Production, Community Involvement, and Communication. As a result, they will develop transferable knowledge and skills that apply to many opportunities through inquiry, research, and problem-solving.

ELECTIVE COURSE FEES

Fees for most senior high electives begin at $15.00 for 3 credit classes and increase up to $35.00. Some, particularly those listed below, are considerably more.

- Senior Outdoor Education
    - The fee of $150.00 is used to cover trip transportation, guest teachers, provincial park passes, equipment, maintenance and repairs and other supplies.
- Standard First Aid
    - Some students will be given the option of completing this course. The fee of $35.00 will include registration along with supplies required for the course.
- Band Instrument Rental
    - Foothills School Division mandates a $150.00 yearlong musical instrument rental fee for all instruments including percussion. If a student has their own instrument and does not need to rent, then this charge will be removed. Money generated by this fee is used for to repair and replace instruments each year.
- Method Hockey Program
    - Fees for this program will range from $600 to $1000

OFF-CAMPUS EDUCATION PROGRAMS

Off-campus education programming provides opportunities for students to explore and expand their career interests, skills and knowledge related to work and other life roles. Senior high school students gain practical experience as they apply and expand their knowledge, skills and attitudes in contexts that will assist them in making wise decisions regarding their future education, training and employment upon leaving senior high school and allow for the smooth transition from school to work and/or post-secondary institutions.

Note: Students must be 15 years of age and in high school. Before beginning an Off-campus program, students must pass any prerequisite courses. All Off-campus programs require contracts, including parental/guardian signatures and a yearly site visit if to be conducted. To participate in these programs, students must meet with our Academic and Career Advisor and Off-campus Facilitator.

WORK EXPERIENCE 15, 25 and 35 (3 to 15 CREDITS)

Prerequisite: HCS 3000 (Workplace Safety)

Work Experience is a high school course where students spend time in the workforce doing meaningful work. Students may work at a large variety of work sites where the opportunity to learn new skills will be available. This can be paid or volunteer work.

Students may earn from 3 to 15 credits toward their Alberta High School Diploma. One credit earned = 25 hours of work experience (minimum 75 hours required.)

GREEN CERTIFICATE (5 to 16 CREDITS)

Prerequisite: AG 3000 (Agriculture Safety)

This program is operated by Alberta Agriculture, Alberta Education and the farming industry (cow-calf, field crop, feedlot beef, irrigated crop, dairy, sheep, swine, bee keeping, and equine).

Participation in the program will provide students with opportunities to enter a variety of agriculture-related, structured learning pathways as part of their senior high school program and to earn up to 16 high school credits.

Once registered, students are required to attend an online induction meeting. There are three rounds of testing, and each discipline consists of three, 30-level courses. Testing takes place several times throughout the school year in person at Lethbridge Polytechnic with the possibility of a more local location. Students must do one test within the first year of registration in the Green Certificate Program.

REGISTERED APPRENTICESHIP PROGRAM (RAP) (5 to 40 CREDITS)

Prerequisite: HCS 3000 (Workplace Safety Systems) Recommended: HCS 3010 (Workplace Safety Practices)

This program is a modified apprenticeship program that permits high school students to become an apprentice in one of approximately 50 trades while attending high school. Students can register for up to 8 RAP courses. Each course is worth 5 credits and requires 125 hours on the job learning. Students MUST be paid for their work.

DUAL CREDIT COURSES

Dual Credit courses offer students an opportunity to take post-secondary courses while they are in high school, earning post-secondary and high school credit at the same time. Some courses are offered on campus while some are online. Tuition is paid for by the school division, but students are responsible for any additional cost (textbooks and materials, Personal Protective Equipment, transportation, parking, etc.)

Students must apply to be considered for these courses. For details including list of colleges, courses currently being offered, and application information, speak to our Academic and Career Advisor.