

# IMMANUEL CHRISTIAN SECONDARY SCHOOL



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"Immanuel Christian Secondary School seeks to foster, promote, and provide Christ-centered education for those who embrace an integrated Biblical worldview as summarized in our Statement of Faith and Philosophy of Christian Education, existing as an Alternative Christian School Program in partnership with Lethbridge School Division."

## Senior High Course Registration Guide

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## VISION

Immanuel Christian Secondary School is a community that celebrates the Lordship of Christ. We envision a partnership with the home and church that nurtures and equips students to serve Christ and impact the world for Him. In all things we are guided by the Word of God.

## STATEMENT OF PRINCIPLES

**CREATION:** that man, the world, and its purpose, is to be understood only in relation to God, the Creator and to Jesus Christ the Redeemer.

**SIN:** that man's disobedience to his Creator has broken the relationship with his Maker and has caused God's curse on life.

**REDEMPTION:** that Christ, the Word Incarnate, is the only Redeemer and Renewer of life, in that He restores the relationship between God and creation.

**HUMAN LIFE:** that human life in its entirety, which includes the field of learning and teaching, unfolds itself as service either to God as He reveals Himself in the Scriptures, or to an idol.

**KNOWLEDGE:** that true knowledge is made possible only by means of a true faith in Jesus Christ, and finds its source in the Word of God, through the assurance of the Holy Spirit.

**THE CHILD AND THE SCHOOL:** by virtue of the covenant of grace we look upon our children as belonging to Christ our King, and the school as a training center to prepare them to serve the Lord in His domain here below.

**LEARNING AND TEACHING:** that all learning and teaching pursued in faithful obedience to God's command to subdue the earth can proceed only in the light of God's redeeming Word.

## ICS Mission Statement

To provide a Christian environment in which  
God calls His children to develop and use their gifts  
in joyful service in His Kingdom

**WELCOME TO IMMANUEL CHRISTIAN SECONDARY SCHOOL!** The purpose of this *Student Registration Guide* is to help students and parents make informed decisions regarding course requests for the upcoming school year. As students, you will spend at least three years earning your high school diploma. If you are to get the most out of the many opportunities our school offers, you need to plan a program that considers each of these years. Read the information carefully and follow the steps below. Aim to get as much as possible out of these three years, and you will increase your chances of success in your personal development and your chosen career.

At ICSS, we offer a wide range of programs:

- Academic
- Career and Technology Studies (CTS)
- Knowledge and Employability Program (K & E)
- Registered Apprenticeship Program (RAP)
- Special Education

If there are questions regarding our programs or courses, please call the school at 403-328-4783 and ask to speak to a school administrator or counsellor.

## Planning Your Program

### Step One Self-Reflection

This information is designed to assist you in selecting the high school program that best suits you. However, you first must do some serious thinking.

- What are your interests?
- What are your aptitudes or abilities?
- What are your achievements?
- Where would you like to be in 3 years? In 5 years? In 10 years?
- How much effort are you willing to spend to get there?

Consider your past record. Is it a good indication of your interests, aptitude, abilities, and total possible effort?

- What is your educational goal? Where do you want to obtain it?
- What courses are required to get there?
- How much time is required? (school training / other training)
- How much work or effort is required?
- To what extent are you willing to meet all of these requirements?

You are encouraged to discuss this first and foremost with your parents. As well, our Guidance Team (Teacher Counsellor, Off Campus Education) is a good place to discuss your plans with. They have access to a wide variety of information that can help you make informed choices.

Success in job application and admission to post-secondary institutions will often be determined by the courses you have selected, the level of difficulty you have maintained, and the marks you have received. In other words, a high school diploma is not in itself the key that opens the door to acceptable employment or further education.

Above all, you should recognize that God has granted you talents and gifts and has given you the responsibility to use them to the utmost of your ability in obedience to His Word.

## Step Two

## Understand Graduation Requirements

The Alberta High School Diploma is an official document issued by Alberta Education and certifies the holder has completed a prescribed program of instruction at a high school or through other formats under the direction and supervision of Alberta Education. The requirements indicated in the chart below 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. You are advised to check the calendars of post-secondary institutions for specific admission requirements

To obtain an Alberta High School Diploma, you need to:

1. Earn a minimum of 100 credits
2. Complete and meet the standards of the following specified courses:
  - English Language Arts 30 level (either English Language Arts 30-1 or 30-2)
  - Social Studies 30 level (either Social Studies 30-1 or 30-2)
  - Mathematics 20 level (either Math 20-1 or 20-2 or 20-3)
  - Science 20 level (either Science 20 or Science 24 or Biology 20 or Chemistry 20 or Physics 20)
  - Physical Education 10 (3 credits)
  - Career and Life Management (CALM) (3 credits)
3. Complete and meet the following additional standards:
  - 10 credits in any combination from: Career and Technology Studies (CTS), Fine Arts, Second Languages, Physical Education 20 and/or 30, or Registered Apprenticeship Program (RAP).
  - 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)

4. Students at ICSS are also expected to complete and the meet the standards of the following specified courses:
- Religious Meanings 20 (3 credits)
  - Sociology 30 (3 credits)

If you would like to access more information on High School curriculum, you should consult the following Web site: <http://education.alberta.ca/parents/resources/handbook.aspx> or <http://education.alberta.ca>

### **GRADE 12 DIPLOMA COURSES**

There are provincial examinations in ELA 30-1 and 30-2, Math 30-1 and 30-2, Biology 30, Chemistry 30, Physics 30, and Social Studies 30-1 and 30-2. Students taking these courses must write the diploma exam, which counts for 30% of the final mark in that course.

## **Step Three**

### **Understand Course Names, Codes, and Sequences**

#### **Dash 1 (-1) Sequence**

Courses numbered 10-1, 20-1, 30-1, or 31, are primarily designed for students planning on entering a university or specific programs in colleges and technical schools.

#### **Dash 2 (-2) Sequence**

Courses numbered 10-2, 20-2, or 30-2, are primarily designed for students planning or entering some programs in colleges, polytechnic schools, or entering the workforce.

#### **Dash 3 (-3) Sequence**

Courses numbered 10-3 (14) or 20-3 (24) are primarily designed for students whose success in Math and Science has been limited. Students taking these courses may be eligible for non-technical programs at post-secondary institutions.

#### **Dash 4 (-4) Sequence**

Courses numbered 10-4, 20-4, or 30-4, are primarily designed for students planning on entering the workforce upon completion of a certificate of High School Achievement.

You may find yourself registered in different course sequences depending on the subject as well as your prior levels of achievement, work habits and other qualities.

**GRADE 10 COURSE ENTRANCE CRITERIA**

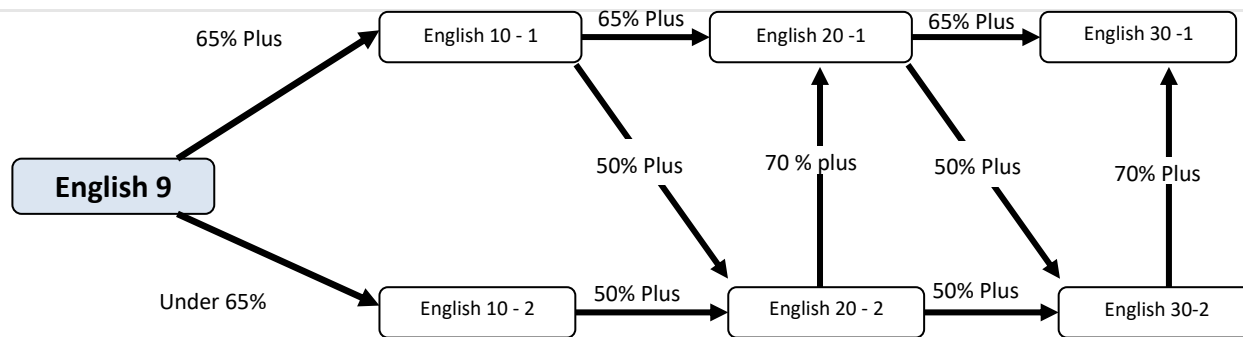
High School programs recognize and accommodate the wide range of developmental needs, abilities, and differences that exist among students. In order to be successful in high school, we recommend that Grade 9 students meet the criteria outlined below.

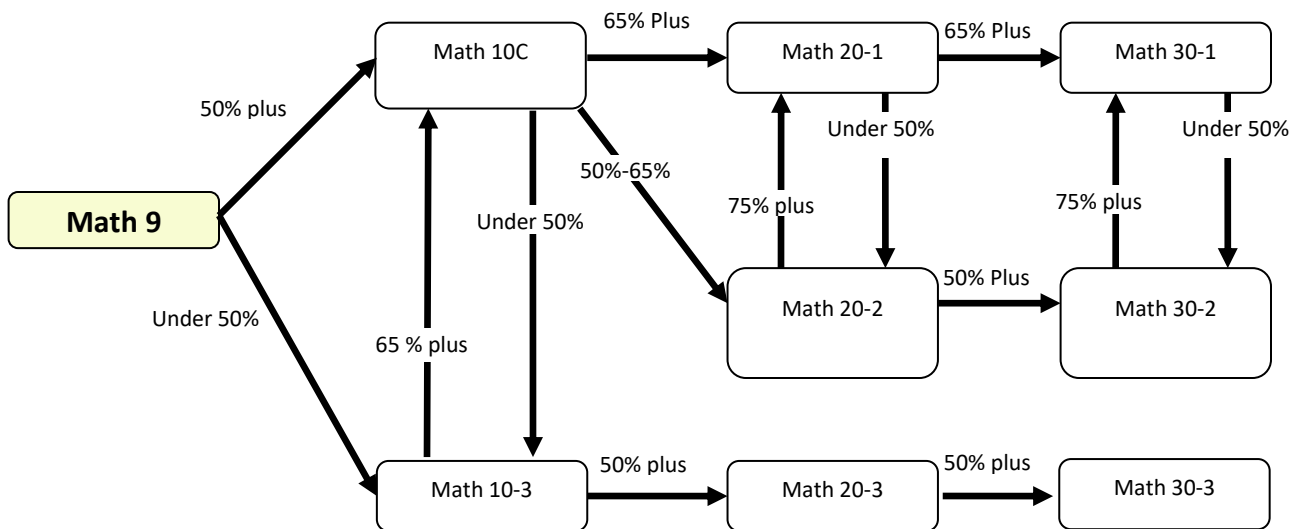
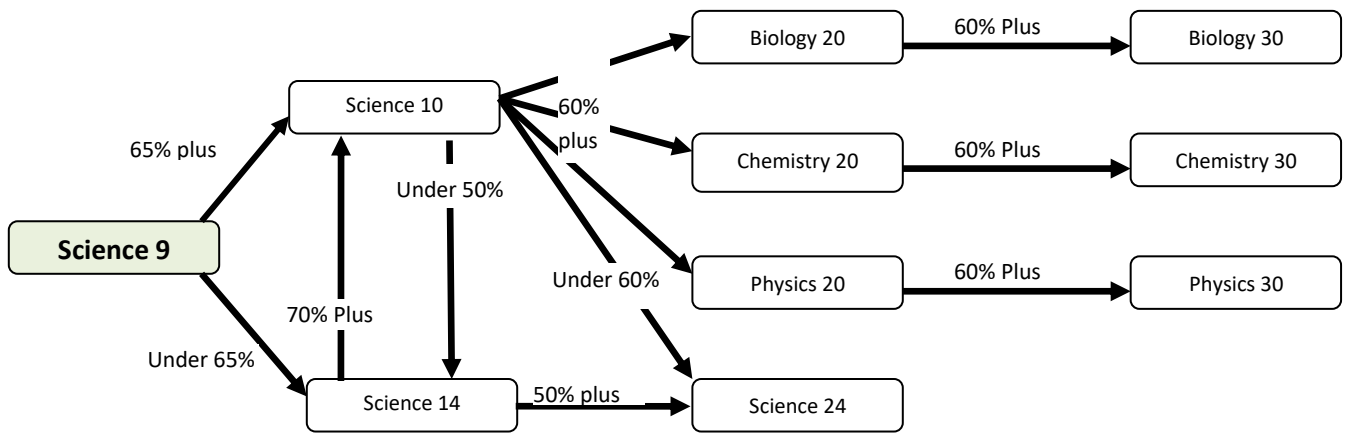
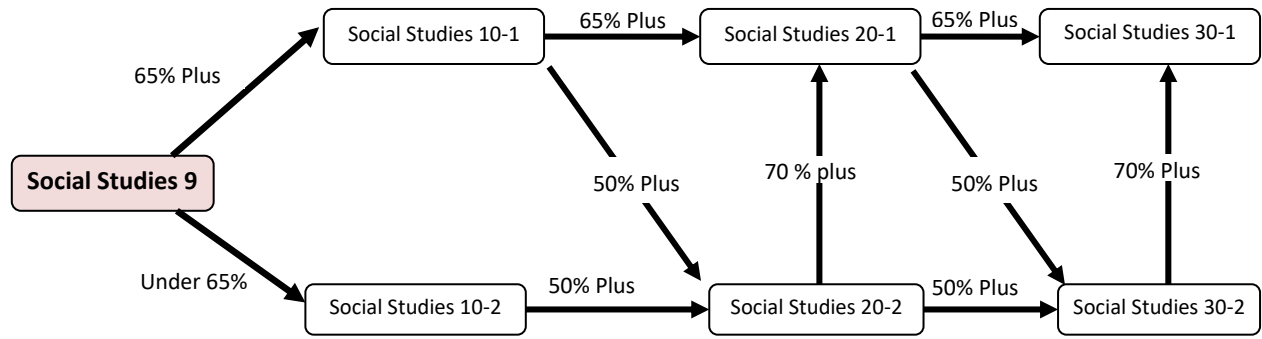
GRADE 9 COURSE	GRADE 9 MARK	HIGH SCHOOL COURSE
English Language Arts 9	less than 65%	English Language Arts 10-2
	65% or greater	English Language Arts 10-1
Math 9	less than 50%	Math 10-3
	50% or greater	Math 10C
Social Studies 9	less than 65%	Social Studies 10-2
	65% or greater	Social Studies 10-1
Science 9	less than 65%	Science 14
	65% or greater	Science 10

**COURSE SEQUENCE PREREQUISITES**

Courses are arranged in sequences such as Social 10, 20, 30. Ordinarily, a student must achieve a mark of 50% or higher in order to take the next course in a sequence. However, you need to be aware that in most cases in the 10-1, 20-1, 30-1 sequence, our school policy is that a 65% or better is needed to move to the next course level.

All of this is spelled out in more detail:





Prerequisite requirements may be waived by the principal, under special circumstances, and/or in response to an appeal from a student and his/her parents. These judgments will be made on an individual basis upon application by the student and the parent.

Each course has an assigned credit value determined by the number of hours of instruction. One credit is awarded per 25 hours of instruction. Full courses (125 hours) award 5 credits upon completion; half courses (62.5 hours) award 3 credits upon completion. Career and Technology Studies (CTS) courses consist of single credit modules but are typically packaged in 3 or 5 credit bundles. Students can receive credit in a course only once.

**RETROACTIVE CREDITS**

Students who achieve a mark less than 50% in the dash one (-1) stream may be able to continue at the next grade level in the dash two (-2) stream. In these cases, students who successfully complete the next grade level course will earn credit for the course taken and for its normal dash two (-2) prerequisite.

For example: A student receives a 43% in Social 20-1. He would register in Social 30-2. If he passes Social 30-2, he may apply to receive credit in Social 20-2 in addition to the credit in Social 30-2.

Retroactive credits can be earned in English, Math, Social Studies, French and Science. Application must be made to the school Principal or Vice Principal.

**COURSE CHALLENGES**

A student is eligible to challenge a course under these guidelines:

- the student feels he/she has the skills needed in that course to enable him/her to go on to the next level
- the student has not failed the course to be challenged
- the student is not currently registered in the course
- the student is prepared to undertake a comprehensive evaluation which may include the following components: written, oral, lab, portfolio or others as deemed necessary

Students who are interested in challenging a course should discuss this further with the Principal or Vice Principal.



**REGISTERED APPRENTICESHIP PROGRAM**

The Registered Apprenticeship Program (RAP) is an apprenticeship program for high school students. Traditionally, apprenticeships in Alberta began after students graduated from high school. However, some students identify their career interests at an earlier age and are ready to get started learning and practicing their future trade while in high school. RAP is an ideal program for these students.

RAP students divide their time between an approved work site and their high school. They take regular courses, such as English language arts, social studies, science and mathematics in order to earn their Alberta High School Diploma. RAP students are both full-time students and registered apprentices.

RAP is designed to:

- improve the transition between school and the workplace
- encourage students to stay in school
- enable students to obtain on-the-job training that is recognized by employers.

More information can be found at: <http://education.alberta.ca/media/618629/rapinfoman.pdf>

**WORK EXPERIENCE**

Work Experience 15–25–35 are separate courses for credit that provide experiential learning activities undertaken by a student as an integral part of a planned school program under the cooperative supervision of a teacher–coordinator and employer.

Work Experience 15–25–35 courses are components of an off-campus education program. These courses, like other off-campus education courses and course components, provide opportunities for students to:

- apply, in the workplace, knowledge, skills and attitudes acquired through other course work
- discover their career interests and aptitudes in meaningful work activities, situated in community-based work stations and work sites in business, industry, government and community service.

Work Experience 15–25–35 courses, at each level, may be offered for 3, 4, 5, 6, 7, 8, 9 or 10 credits. Each course is time based; i.e., 25 hours per credit, and a student may enroll in Work Experience 35 without having completed Work Experience 15 and/or Work Experience 25.

ICSS has developed specific guidelines for the work experience program. Students who are interested should discuss this with our **Off-Campus Education Coordinator**: Andrew Krul ([andrew.krul@lethsd.ab.ca](mailto:andrew.krul@lethsd.ab.ca))

## GREEN CERTIFICATE

The Green Certificate Program is administered by Alberta Agriculture, Food and Rural Development. Alberta senior high school students, 15 years of age or older, can register in any one of the eight specializations available. Each specialization can be studied at three levels of increasing knowledge and proficiency.

The program is delivered off-campus, and students may earn credits for successfully completing a Green Certificate Program by enrolling in courses in any of the eight available Green Certificate Specializations: Cow–Calf Beef Production, Dairy Production, Feedlot Beef Production, Field Crop Production, Irrigated Field Crop Production, Sheep Production, Swine Production and Bee Keeper Production.

More information about the above programs can be obtained from our Off-Campus Education Coordinator.

## Step Six Course Registration

You will receive a Course Registration Package in May. There you will find more information about how to complete the registration process.

### COURSE LOAD POLICY

When selecting courses, you need to take note of the following:

- Grade 10 students are expected to fill their day with a full course load.
- Grade 11 students are expected to register for a minimum of 35 credits of on-campus courses.
- Grade 12 students are expected to register for a minimum of 35 credits of on-campus courses.

There are at least three reasons why ICSS has a course load policy. The first reason – and the most important – has to do with our philosophy of education. We believe that God has granted us a wide variety of talents and gifts and calls us to develop those talents and gifts. While attending a Christian school, our students should be encouraged to take a wide variety of courses as one of the means to develop their talents and gifts. The second reason has to do with the way in which our school is funded by the Alberta government. The second reason has to do with students having too much spare time. It has been our experience that students with a lighter course load tend to spend their free time ‘hanging around’ the school with nothing to do.

There may be good reasons for not taking a full course load at ICSS and therefore exceptions to this policy may be granted upon application to the Principal or Vice Principal.

All course selections are subject to final approval by the school. We reserve the right to cancel courses for which enrolment is too low or no instructor is available.

## Course Descriptions



## RELIGIOUS STUDIES

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### **CAREER AND LIFE MANAGEMENT (CALM) – GRADE 10**

**3 CREDITS**

The aim of Career and Life Management (CALM) is to enable students to make well-informed, considered decisions and choices in all aspects of their lives and to develop behaviours and attitudes that contribute to the well-being and respect of self and others, now and in the future. The course seeks to allow students to think to the future while exploring biblical principles linked to personal, resource and career choices.

### **RELIGIOUS MEANINGS 20 – GRADE 11**

**3 CREDITS**

Accepting the idea that one of human's basic needs is the need to search for meaning in life, the course will present various ways man has and is searching. Various North American cults and world religions will be examined in contrast with the Christian faith.

### **APPLIED SOCIOLOGY 30 – GRADE 12**

**3 CREDITS**

This course seeks to assist students in articulating their Christian worldview so that they may be further equipped to live a life of Christian discipleship within contemporary society. To do that, this course will help them to:

1. Articulate their Christian worldview
2. Understand today's current worldviews
3. Develop Biblical responses to today's cultural issues.



## ENGLISH LANGUAGE ARTS

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### ENGLISH 10-1

5 CREDITS

The basic course for high school English deals with concepts of reading, writing, listening, viewing, speaking and representing. There is a strong emphasis on writing, and students begin to form the analysis skills they will build upon in later English courses. They will build strong comprehension skills by reading increasingly complex texts including novels, Shakespearean drama, film, and poetry. In this course, students aim to respond to texts and communicate abstract ideas with depth, detail, and clarity.

### ENGLISH 10-2

5 CREDITS

Many of the basic elements present in English 10-1 are also present in English 10-2, though 10-2 has a greater focus on concrete ideas, rather than abstract. This course emphasizes practical skills, such as comprehension and clarity. In this course, students aim to clearly and accurately respond to novels, Shakespearean drama, film and poetry.

### ENGLISH 20-1

5 CREDITS

English 20-1 builds on the skills formed in English 10-1 with a much stronger emphasis on analysis and depth of thought. Students aim to communicate their interpretation of drama, poetry, film, and novels through detailed, well-supported writing. They will communicate abstract ideas with clarity, and reflect the complexity of the studied texts in their own responses. Student work is expected to 'read between the lines', considering context and literary techniques, to analyze the message of a piece of literature.

### ENGLISH 20-2

5 CREDITS

This course is a continuation of English 10-2. Though some of the types of literature are studied, there is more of an emphasis on practical interpretation of the material. Some novels and essays are read and discussed as is a unit on drama. While practical writing is emphasized, some interpretive writing is expected. Basic understanding of the material is demonstrated.

### ENGLISH 30-1

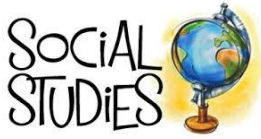
5 CREDITS

This course, the final stage in the high school English curriculum, stresses the interpretive aspect of literature through the study of short stories, novels, drama, film and poetry. It is expected that greater maturity will bring greater emphasis on analytical skills, and greater depth and clarity when communicating abstract ideas. Analytical writing is a major focus of this course, in which students will demonstrate a high degree of detail, complexity, and artistry. The course concludes with a government exam that requires students to demonstrate their creative and analytical writing skills, as well as their comprehension of complex texts.

### ENGLISH 30-2

5 CREDITS

This is the grade 12 continuation of the English 10-2, 20-2 stream. At the conclusion of this course, a government examination is given to ensure that the quality and level of material is consistent with provincial regulations. Practical writing, such as resumes and job-related communication is stressed and discussed. While literature is also emphasized, there is a recreational reading focus to much of the work. The report, novel, poetry and drama are all read and discussed



## SOCIAL STUDIES

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Social Studies provides opportunities for students to develop the attitudes, skills and knowledge that will enable them to become engaged, active, informed and responsible citizens. As Christians, we have opportunities and responsibilities to engage as active and responsible citizens in the setting in which God has placed us. These courses allow us to evaluate societal issues from a Christian perspective and worldview.

The -1 classes allow for the development of analytical and critical thinking skills while addressing the key issues for each class, whereas the -2 classes allow for a more concrete approach to exploring the key issues in each class.

### SOCIAL STUDIES 10-1

5 CREDITS

*(Perspectives on Globalization)* Globalization, the process by which the world's citizens are becoming increasingly connected and interdependent, demands that students explore responsibilities associated with local and global citizenship and formulate individual responses to emergent issues related to globalization. Recognizing and appreciating the influence of globalization will lead students to develop individual and collective responses to emergent issues. The key issue for the course is "To what extent should Christians embrace globalization?"

#### Related Issues:

1. To what extent should globalization shape identity?
2. To what extent should contemporary society respond to the legacies of historical globalization?
3. To what extent does globalization contribute to sustainable prosperity for all people?
4. To what extent should I, as a citizen, respond to globalization?

### SOCIAL STUDIES 10-2

5 CREDITS

*(Living in a Globalizing World)* By examining opportunities and challenges associated with globalization, the process by which the world is becoming increasingly connected and interdependent, students will develop awareness of the impacts of globalization. Recognizing and appreciating the influence of globalization will lead students to examine their roles as responsible and active citizens in a globalizing world.

#### Related Issues:

1. Should globalization shape identity?
2. Should people in Canada respond to the legacies of historical globalization?
3. Does globalization contribute to sustainable prosperity for all people?
4. Should I, as a Christian, respond to globalization?

### SOCIAL STUDIES 20-1

5 CREDITS

*(Perspectives on Nationalism)* While nationalism has historically examined the relationship of the citizen to the state, contemporary understandings of nationalism include evolving individual, collective, national and state realities. Exploring the complexities of nationalism will contribute to an understanding and appreciation of the interrelationships among nation, nationalism, internationalism, globalization, and citizenship and identity. Developing understandings of the various points of view associated with nationalism as well as an appreciation for the perspectives of others will encourage students

to develop personal and civic responses to emergent issues related to nationalism and at the same time recognize their responsibilities as citizens in the Kingdom of Heaven.

**Related Issues:**

1. To what extent should nation be the foundation of identity?
2. To what extent should national interest be pursued?
3. To what extent should internationalism be pursued?
4. To what extent should individuals and groups in Canada embrace a national identity?

**SOCIAL STUDIES 20-2**

**5 CREDITS**

*(Understandings of Nationalism)* As perspectives on personal identity continue to evolve, so do understandings of nationalism and what it means to be a member of a collective, community, state, and nation. This evolution is significant in the Canadian context as nationalism continues to shape visions of identity and nation. Understanding the significance of nationalism contributes to an appreciation and awareness of the interrelationships among nationalism, internationalism, citizenship and identity.

**Related Issues:**

1. Should nation be the foundation of identity?
2. Should nations pursue national interests?
3. Should internationalism be pursued?
4. Should individuals and groups in Canada embrace a national identity?

**SOCIAL STUDIES 30-1**

**5 CREDITS**

*(Perspectives on Ideology)* Students will explore the origins and complexities of ideologies and examine multiple perspectives regarding the 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 the roles and responsibilities associated with citizenship will encourage students to respond to emergent global issues.

**Related Issues:**

1. To what extent should ideology be the foundation of identity?
2. To what extent is resistance to liberalism justified?
3. To what extent are the principles of liberalism viable?
4. To what extent should my actions be shaped by an ideology?
5. Are the principles of liberalism compatible with a Christian world view?

**SOCIAL STUDIES 30-2**

**5**

**CREDITS**

*(Understandings of Ideologies)* 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.

**Related Issues:**

1. Should ideology be the foundation of identity?
2. Is resistance to liberalism justified?
3. Are the values of liberalism viable?
4. Should my actions as a citizen be shaped by an ideology?
5. Are the principles of liberalism compatible with a Christian world view?

## SCIENCE

**SCIENCE 10****5 CREDITS**

Science 10 is designed to integrate the disciplines of Biology, Chemistry and Physics into one course and to prepare students with a basic understanding for future studies in each subject area. The biological section of the course allows students to discover the intricacy of God's living creation at the cellular level. Chapters covering solar energy, water and weather help students to discover how the living components of our earth depend upon non-living systems. The third unit of the course focuses on the chemical nature of all matter. Students will learn to appreciate how God has systematically designed all things down to the smallest particle of all matter known as the atom. The fourth unit focuses on the physical components of science where students will investigate how the natural laws of motion impact life on earth and how energy in its various forms allows life to exist.

**SCIENCE 14****5 CREDITS**

Science is the discovery and study of God's creation. Therefore, as we are "...grateful for the advances in sciences and technology, we must make careful use of their products, be on guard against idolatry and harmful research and be careful to use them in ways that answer to God's demands to love our neighbor and to take care of the earth and its creatures." (CRC Psalter Hymnal, p 1031).

This course has four modules:

1. Investigating Properties of Matter
2. Energy Transfer Technologies
3. From Life to Lifestyle
4. Matter & Energy in The Biosphere

**SCIENCE 24****5 CREDITS**

Science is the discovery and study of God's creation. Therefore, as we are "...grateful for the advances in sciences and technology, we must make careful use of their products, be on guard against idolatry and harmful research and be careful to use them in ways that answer to God's demands to love our neighbor and to take care of the earth and its creatures." (CRC Psalter Hymnal, p 1031).

This course has four modules:

1. Matter and Chemical Change
2. Energy Transforms

3. Disease Defense and Human Health
4. Safety in Transportation

### **BIOLOGY 20**

**5 CREDITS**

Biology 20 will allow the learner to explore and become more knowledgeable about the natural world that God has created. The first unit of study focuses on the dynamic equilibrium that exists for both energy and matter within the biosphere. In the second unit, energy and matter exchange within the digestive, circulatory, immune, respiratory, motor and excretory systems of the body are studied. The human body is compared to other organisms by means of organ and organism dissection. In unit three, matter and energy from the environment is traced through the reactions involved in photosynthesis and cellular respiration that make life on earth possible. Biology 20 finishes with a discussion of the diversity some of the organisms that make up the biosphere through an exploration the principles of taxonomy and binomial nomenclature. The course closes with a discussion of Darwin's theory of evolution of organisms to fill niches in those ecosystems; however considerable time will be spent on demonstrating the holes in evolutionary thought, the evidence for a sophisticated universe as created by our Lord and the intricacy of the human body as evidence for creation by design rather than genetic error.

### **BIOLOGY 30**

**5 CREDITS**

Biology 30 will help the student gain a greater appreciation of God's complex and unique creation. This course focuses primarily on the structure and function of the human body, from the organ to the molecular level. The nervous and endocrine systems will be studied in detail, as well as, the process of reproduction and embryo development. Through the study of the miracle of life, learners will gain a sense of awe and wonder for our Creator. Investigations of the cell cycle and genetics will provide a molecular understanding of how humans develop, grow and pass on hereditary information. Ethical issues that arise for Christians with regard to reproductive and genetic technologies will also be emphasized. The Biology 30 course will end with an investigation of populations and their interaction within ecosystems.

### **PHYSICS 20**

**5 CREDITS**

Physics 20 is a course designed to give students a broad range of knowledge about the physical world that we live in. The course opens with a unit about kinematics, the study of how objects move. Unit two takes those ideas and expands them to the study of dynamics, the forces that cause objects to change the way that they are moving. The principles of dynamics are then extended to explain circular motion and gravitation, including the motion of planets and satellites. The course finishes with students investigating simple harmonic motion and mechanical waves by observing the motion of oscillating spring and pendulums. Waves, which are one method of transferring energy, will be studied as they related to the concepts of resonance, the Doppler effect and wave interference. Physics 20 is academically challenging and requires a good grounding in mathematics skills.

### **PHYSICS 30**

**5 CREDITS**

Physics 30 is an advanced diploma exam course which takes concepts explored in Physics 20 and expands on them. Physics 30 has four units of study: momentum and impulse, forces and fields, electromagnetic radiation, and atomic physics. Most students find the discussion of atomic physics fascinating as we begin to explore both Einstein's theories on the nature of matter as well as the newest ideas of atomic structure. Although this course is academically demanding, most students enjoy the material covered as it attempts to draw all of the information together into a more unified understanding of God's creation.



## **CHEMISTRY 20**

**5 CREDITS**

Chemistry 20 is an academic program that aims to help students better understand the chemical principles behind the natural events that they experience and the technology that they use in their daily lives. The course begins with a study of the intricate design behind atomic structure, chemical bonding and chemical reactions as evidence for the creative power of our heavenly Father. The course also explores the idea of both aqueous and gaseous solutions as a part of our everyday life and finishes with the study of stoichiometry, the practical math application of the theory previously studied.

## **CHEMISTRY 30**

**5 CREDITS**

This diploma exam course contains four units of study. The first concerns thermochemical changes; reaction which involves a net gain or loss of thermal energy and the applications that originate from this (ie. combustion engines). Students then learn about electrochemical changes and acid-base systems. The course finishes with a unit on organic chemistry, where students are introduced to some of the organic compounds that they come into contact with on a daily basis, as well as the importance of the fossil fuel and petrochemical industry to the economy of Alberta.

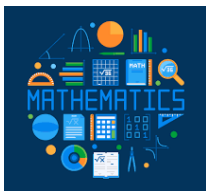
## **FORENSIC SCIENCE 25/35**

**3 CREDITS/EACH**

Forensic Science 25 is the application of scientific principles, methods and technologies for the purpose of solving debates including legal proceedings. Through the study of forensic science, students are given the opportunity to explore how scientific concepts from a variety of disciplines (biology, chemistry, and physics) apply specifically to this unique field. This course will promote the importance of scientific literacy and problem-solving techniques.

### **Units of Study**

Blood Spatter Analysis, Entomology, Footprint/Fingerprint Analysis, DNA Typing, Fire Debris Analysis, Questioned Document Analysis, Bite Marks Analysis, Glass Fragment Identification, Hair and Fibre Analysis, Blood Detection and Evidence Processing, Gunshot Residue Analysis, Bullet Striations, Drug Testing and Analysis



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# **MATHEMATICS**

The study of mathematics from a Christian perspective points us to our Creator in a very unique way. When you see the patterns and order in creation and in the laws embedded in creation, your faith is strengthened, as you know only God's mighty hand can be behind this. Our God is a faithful and unchanging God. Other attributes of God can be observed when we study topics such as probability and learn there is no such thing as chance with our all-knowing God. What a comfort this is to our lives. The study of infinity causes us to stand back in amazement at the fact that we can never truly understand the mind of God. However, we can know Him and His world in part, and mathematics helps us to take care of His world with greater wisdom. When we study math, it is impossible to do so without magnifying our Creator and His creation.

**MATH 10 COMMON****5 CREDITS**

This course should be taken by all students who would either take Math 20-1 or Math 20-2 the next year. The idea behind this curriculum is to give students an extra year before they must choose a stream. Hopefully, as they mature and start to think about their future goals, they will be better able to make this decision and better able to dedicate themselves to the work required.

Topics: Measurement, Trigonometry, Exponents, Radicals, Polynomials, Relations and Functions, Linear Relations, Systems of Linear Equations

The **Math 20-1 and Math 30-1** courses are heavily dependent upon algebra, with an emphasis on both the theory and application of the different mathematical concepts and areas studied. They are designed to emphasize the process and understanding of mechanisms behind the formulas, geometry, and problems studied. They are geared towards students intending to take any post-secondary program requiring the study of Calculus.

**MATH 20-1****5 CREDITS**

Topics: Series and Sequences, Trigonometry, Quadratic Functions, Quadratic Equations, Radical Expressions, Rational Expressions and Equations, Absolute Value and Reciprocal Equations, Systems of Equations, Inequalities

**MATH 30-1****5 CREDITS**

Topics: Transformations, Exponential Functions, Logarithmic Functions, Permutations, Combinations, Polynomial Functions, Radical Functions, Rational Functions and Trigonometric Functions, Identities, and Equations

**CALCULUS MATH 31****5 CREDITS**

Calculus is for students who are currently in or have completed Math 30-1. It is an elective course that takes the student's knowledge and understanding of math and challenges them in an exciting new direction. It enables students to understand in much greater detail the how and why of many problem-solving techniques. Because this course requires a higher level of understanding, it allows students to see more clearly the hand of God in His creation and the amazing complexity and simplicity with which He has structured the universe.

The **Math 20-2 and Math 30-2** courses are dedicated to developing students mathematically by guiding them through rigorous, relevant, and meaningful mathematical experiences. They are designed to incorporate hands-on activities, calculator skills, graphing, and problem-solving in order to investigate mathematical concepts. Many college and university programs accept Math 30-2 as a prerequisite for the non-math or non-science fields which do not require a student to take Calculus.

**MATH 20-2****5 CREDITS**

Topics: Quadratic Relations & Functions, Inductive and Deductive Reasoning, Statistics, Radicals, Angles, Triangles and Trigonometry, Measurement and Proportional Reasoning, Systems of Linear Inequalities

**MATH 30-2****5 CREDITS**

Topics: Logical Reasoning, Counting Methods, Probability, Rational Expressions and Equations, Polynomial Functions, Exponential Functions, Logarithmic Functions, Sinusoidal Functions

The **Math 10-3** and **Math 20-3** courses are dedicated to preparing students for Math in the trades and general workplace.

**MATH 10-3**

**5 CREDITS**

Topics: Measurement, Geometry, Algebra, Number

**MATH 20-3**

**5 CREDITS**

Topics: Measurement, Geometry, Algebra, Number, Statistics



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## PHYSICAL EDUCATION

**PHYSICAL EDUCATION 10**

**3 CREDITS**

Compulsory for all students; this course includes a wide variety of individual and team sports and strives to have the students find enjoyment in physical activity, being responsible stewards of their bodies, and interacting in a fun, safe, and God-honouring environment.

**PHYSICAL EDUCATION 20**

**3 CREDITS**

A continuation of Physical Education 10 stressing individual and team sports, their rules of competition and strategies. Team sports: soccer, rugby, ultimate Frisbee, football, ice hockey, volleyball, basketball, and softball. Individual sports: golf, badminton, gymnastics, handball, archery, racquetball, wall climbing, tennis, swimming, cycling, and track and field.

**PHYSICAL EDUCATION 30**

**3 CREDITS**

A continuation of Physical Education 20 with particular stress on individual and dual sports, including soccer, rugby, ultimate Frisbee, football, ice hockey, volleyball, basketball, and softball gymnastics, track and field, golf, badminton, gymnastics, handball, archery, racquetball, wall climbing, tennis, swimming, cycling, and track and field scuba diving, and activities and a section on first aid.



## FRENCH (Second Language)

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The aims of the French as a Second Language (FSL) Program at ICSS are to make students aware of the fact that the language they speak is only **one of many**; to realize that God instituted language so that we could **talk to Him and to each other**; to develop a sense of **unity, understanding, acceptance and respect** for our francophone neighbours; to provide situations through which they can develop **comprehension and communication** of spoken and written French; to provide a **safe, comfortable environment** where they can use and practice the language skills which they are developing; and to **embrace their roles in God's Kingdom** through exploring God-worshipping, idolatry-discerning, earth-keeping, beauty-creating, justice-seeking, creation-enjoying, servant-working, community-building, image-reflecting, and order-discovering.

The general outcomes of the FSL 9-year program are Communication (Listening Comprehension, Reading Comprehension, Oral Production, Written Production), Language (Language Concepts, Vocabulary Acquisition, Application), Culture, and Language Learning Strategies.

### FRENCH 10-9Y

5 CREDITS

Students will engage in various language activities based on the following fields of experience: Activities (daily, physical, cultural, social), Shopping (for goods and services, advice, habits), Vacations (Canadian and other destinations, vacation planning), Fine Arts (visual arts, performing arts, literary arts), and other areas of interest, in order to improve their communication, language, knowledge of culture and language learning strategies.

### FRENCH 20-9Y

5 CREDITS

Students will engage in various language activities based on the following fields of experience: Senses and feelings, Close Friends (friendship, social life, conflict resolution), Fads and Fashions (past and present), Consumerism, and other areas of interest, in order to improve their communication, language, knowledge of culture and language learning strategies.

### FRENCH 30-9Y 5

CREDITS

Students will engage in various language activities based on the following fields of experience: the World of Work (employability skills, job market), Travel and Tourism (tourist information, travel advice, francophone destinations), The Role of the Media, and other areas of interest, in order to improve their communication, language, knowledge of culture and language learning strategies. *As an exciting culminating activity, students enrolled in French 30 will have the opportunity to go on a class trip to a francophone destination!*



## FINE ARTS

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In the Arts, we are not teaching students to be artists, actors, or musicians, just as with Math, we don't teach students to be mathematicians. The Arts are disciplines with we use to help develop the whole person. The Arts complement other areas of studies and encourages students to challenge themselves. They help develop skills and talents that academics may miss. The elements that are found in the Arts are the same ordering and guiding principles that are in the creation around us. God loves this world that He created and we glorify Him when we celebrate and explore His creation.

### **ART 10**

**3 CREDITS**

Students will be learning the elements and principles of design and utilizing them through the use of different Art techniques and materials. Painting, drawing, print making, sculpture and pottery are some of the techniques utilized in this course. It introduces students to different Art movements, styles, and techniques throughout the 20<sup>th</sup> or 21<sup>st</sup> century. It encourages them to learn that Art can be utilized to create or express meaning for the artist and to the one responding to Art. This course opens students to a wide range of art experience; and through Art students become more aware of how wonderful a Creator our God is.

### **ART 20**

**3 CREDITS**

Art 20 is a continuation of Art 10 with an emphasis on individual expression and growth.

### **ART 30**

**5 CREDITS**

This course is designed for the student to be able to show the skills they have developed over the years. They are encouraged and challenged to express themselves visually – showing who they are and what they believe, think, or feel. A number of different techniques will be explored throughout the course with students working at a higher level of personal expectation. The course consists of research demonstrated creatively in a sketchbook, with a completed art piece for each.

### **CHORAL MUSIC 10/20/30**

**5 CREDITS**

This course is designed to develop the fundamentals of good choral singing, and to give the student exposure to a wide range of choral music. The emphasis of the course is performance (3 concerts and invited guest appearances) but elements of music history and church history will also be covered. Students enrolled in this class will be encouraged to take what they have learned and make repertoire, understanding of good music, and singing technique part of their expression of faith.

### **INSTRUMENTAL MUSIC 10/20/30**

**5 CREDITS**

This ensemble will focus on developing the essential techniques required to play at a high level. The emphasis will be to grow as a group but opportunities for individual performance will also be encouraged. The students will learn about the qualities of music through performance (3 concerts and guest appearances), listening, videos and theory. Students enrolled in this class will be able to use what they have learned as part of their expression of faith.



# Career and Technology Studies (CTS)

(Individualized 1 Credit Modules)

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The Alberta Education CTS program centers around five clusters and more than 1000 1-credit courses in 28 occupational areas. A cluster is a group of CTS courses that represent occupations with broad industry commonalities. Clusters in CTS are aligned with the National Occupational Classification (NOC) and function as an organizing tool for the CTS program:

- **BIT: Business, Administration, Finance & Information Technology**  
The BIT cluster focuses on the management, marketing and use of electronic technologies to access, use and manipulate information within personal, family, workplace, community and global contexts. Students are challenged to expand their confidence, experience and skills as innovators and leaders.
- **HRH: Health, Recreation & Human Services**  
The HRH cluster focuses on a vast array of challenging and rewarding careers in health care, community supports, recreation, cosmetology, food services, tourism and law.
- **MDC: Media, Design & Communication Arts**  
The MDC cluster is designed to provide students the flexibility to adapt to various situations relating to design, communication and esthetics. Courses relate to art and culture, such as the performing arts, film and video, broadcasting, journalism, writing, creative design, fashion, libraries and museums.
- **NAT: Natural Resources**  
The NAT cluster focuses on conservation and the sustainable use of natural resources. Students develop the motivation and commitment to work individually and collectively as private citizens and members of the workforce toward the conservation and responsible use of air, energy, forests, land, minerals, water and wildlife.
- **TMT: Trades, Manufacturing & Transportation**  
The TMT cluster focuses on skills and knowledge related to the design, construction, fabrication and maintenance of a product. Courses relate to manufacturing, processing, utilities, construction, mechanics, fabrication, trades supervision, trades contracting, logistics, transportation and heavy equipment.

Within each cluster are occupational areas that contain courses related to specific areas of work. There are a total of 28 occupational areas in CTS. Each occupational area is comprised of a group of courses designed to support positive career and occupational opportunities for students. Students can explore their interests by selecting and creating personalized pathways.

Each CTS course at the introductory, intermediate or advanced level represents approximately 25 hours of instruction. Some courses require one or more prerequisites which are essential for maintaining safety standards, appropriate instructional sequencing and articulation with post-secondary programs.

Courses are organized into three levels of achievement. Levels of achievement are not indicators of grade levels. Students progressing through the levels will be expected to meet higher standards and demonstrate an increasing degree of competence in both the general and specific outcomes.

## CURRENT CTS ON-CAMPUS OFFERINGS AT ICSS

### DIGITAL COMMUNICATIONS

As a result of men and women working, exploring, playing, and inventing in God's creation for many centuries, the electronic computer is a reality. The age in which we find ourselves can be described as post-industrial or as the information age. In the past, people were primarily active in agriculture, and later in industry. Today almost all people are affected by the Information Revolution. Information, timely and accurate information, is essential, even crucial, to farming, manufacturing, banking, education, science, medicine, and many other human endeavors.

Digital Communications is taught in the Christian secondary school because computers and tech have a profound effect on our society and culture. The invention, development, and use of computers and related technologies in modern society have affected or will affect all areas of human endeavor. Young Christian students must be equipped to effectively live in a complex, rapidly changing world. They must understand the computer's impact on life and come to a greater knowledge of the uses of this most powerful information processing tool. Students will learn to be stewardly about their time and talents, and stewardly about the application and uses of the computer. they will learn what it means to use computer technology in serving God and their fellow humans. Students can choose from any CTS information processing credits available. Word processing, spreadsheets, databases, information highway, graphics, Hypermedia and programming topics are available.

### FOODS & FASHION

These subjects are taught using modules in three levels of achievement: introductory, intermediate and advanced. Modules allow for flexibility of student abilities and interests. Each module requires about 20 hours to complete and is worth 1 credit. Students may choose from Food and Fashion modules offered and work at their own pace but should complete at least 3 modules per semester. More modules can be completed, however.

Choices for Fashion Studies include:

Ready, Set, Sew; Fashion Basics; Repair & Recycle; Basic Sewing with Knits; Creative Construction; Specialty Fabrics; Sewing for Others; Creating Home Decor (*and others*)

Choices for Food Studies include:

Food Basics; Baking Basics; Snacks & Appetizers; Milk Products & Eggs; International Cuisine; Cakes & Pastries; Contemporary Baking; Farm to Table; Meat Cookery (*and others*)

### WOOD TECHNOLOGY (INTRO/ADVANCED)

#### INTRODUCTORY

The program exposes students to a great variety of elements within woodworking. The course provides hands-on experience that helps prepare students for entry into the work world and further studies in technology-based careers.

1000 level Course consists of the following 3 CTS modules:

- Construction Tools & Materials- Students develop basic hand tool and production skills to transform common building materials safely into useful products.
- Building Construction - Students examine common building systems and develop basic skills related to building a simple model or full-size system/structure

- Product Management - Students develop basic shop drawing and estimating skills and apply them to build a product.

2000 & 3000 level courses build on the 1000 level courses. They explore more in-depth concepts in single credit modules such as Furniture, Cabinetmaking & Wood Turning. Students have the opportunity to be instructed in concepts as well as take on independent responsibility for their time and projects.

### **ADVANCED**

The program exposes students to a great variety of elements within the building construction industry. The course provides hands-on experience that helps prepare students for entry into the work world and further studies in technology-based careers. Students need to have taken Introductory modules first before taking this course.

2000 level Course consists of the following 3 CTS modules:

- Framing Systems Floor- Students develop basic framing knowledge and skills associated with the construction of a floor and wall system.
- Framing Systems Wall - Students develop basic framing knowledge and skills associated with the construction of a wall system.
- Roof Structures 1 - Students develop basic knowledge and skills associated with framing and finishing a simple roof system.

300 level courses build on the 200 level courses. They explore more in-depth concepts in single credit modules such as Doors & Windows, Stair Construction & Renovations

## **MECHANICS 10/20**

### **Mechanics 10**

Students will learn about engines, brakes, suspension, tires and other concepts such as preventative maintenance and tools and materials. The shop environment here is one that encourages cooperation, collaboration and respect.

#### **Modules**

##### **MECH 1015: Mechanics Tools and Materials**

Students develop knowledge and skills and in the safe use of specialty hand tools, measuring tools and fasteners.

##### **MECH 1020: Service and Care**

Students develop the knowledge and skills to care for and service a motor vehicle.

##### **MECH 1040: Engine Fundamentals**

Students investigate and describe operating principles, construction and applications of engines.

##### **MECH 1110: Pneumatics and Hydraulics**

Students identify and describe the operating principles and applications of pneumatic and hydraulic systems.

##### **MECH 1150: Ride and Control**



Students identify and describe the operating principles and applications used to transmit and control mechanical energy in the above systems.

## **Mechanics 20**

This course is designed to build upon the skills and concepts learned in Mech 10. Students will study more advanced concepts of theory and repair for brakes, suspension, cooling, exhaust, lubrication, electrical and other systems.

### **Modules**

#### **MEC 2060: Ignition Systems**

Students identify the basic components and the parts of ignition systems used on internal combustion engines and service and repair an ignition system.

#### **MEC 2110: Braking Systems**

Students develop the necessary knowledge, skills, and attitudes to diagnose service and maintain a braking system according to accepted trade practices.

#### **MECH 2150: Suspension Systems**

Students develop the necessary knowledge, skills, and attitudes to diagnose service and maintain a suspension system according to accepted trade practices.

#### **MEC 2030: Lubrication and Cooling**

Students develop the necessary knowledge, skills, and attitudes to diagnose service and maintain automotive lubrication and cooling systems according to accepted trade practices.

#### **MECH 2040: Fuel and Exhaust**

Students develop the necessary knowledge, skills, and attitudes to diagnose service and maintain automotive fuel and exhaust systems according to accepted trade practices.

## **OUTDOOR EDUCATION**

When God created the earth, He didn't make it a boring place. He created it with an enormous amount of diversity in plants and animals, landscapes and weather. He built the earth in such a way that He loves what He created. He constructed it so that we are able to see, discover, and interact with it so that we may discover His character. He has also put us in a position where we need to take care of the creation, manage it, and also consume it responsibly.

### **WLD 1080 Angling and Fish Management Theory**

We will be doing various projects (making flashcard, learning about the different equipment used, etc) in order to appreciate and understand the world of fishing and fish management. We will take the knowledge and skills we learn and use them to hopefully catch some fish!

The main goals for this class will be:

- Explore what conservation means and why it matters

- Learn what equipment (license, tackle, etc) is necessary
- Participate in fishing (hopefully catching and eating some fish!)

### **WLD 1100 Outdoor Cooking Theory**

We will be researching and planning a meal plan for a backpacking trip. We will look at sanitary cooking rules and use a variety of techniques to create different meals (ex. using a smoker, dehydrator etc).

### **WLD 1130 Outdoor Survival Skills**

In this module, we will be planning a backpacking trip, looking at what gear is needed as well as learning how to use a variety of tools in the outdoors (ex. compass, knife safety, etc)