Course Registration Guide
Gr. 10-12

2023-2024

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COUNSELLING SERVICES

Counselling services are provided 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 Counselling:** 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.
- **Career Counselling:** Students are assisted in developing their awareness of the wide range of careers available to them or the different ways of reaching career goals.
- **Post-Secondary Counselling:** The counsellor 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.
- Students may not be allowed to repeat a course in the same school year.
- Students need to plan carefully in order to choose a program that will not require timetable changes, and to ensure success in each course.
- 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.
- The last day to consider class changes is September 15th for Semester I and February 15th for Semester II.
- All fees for options classes must be paid by September 30th and February 28th.
- Timetable changes should be requested before the semester begins.
- Students in Grade 10 are not permitted to have spares and will carry a full timetable. Students in 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.
- Students may not be permitted to take a particular course online through PBB if that course is available at the school. Requests for online courses will be considered on a case-by-case basis.

10-12 COURSE REGISTRATION INFORMATION

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

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 60% 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 LEVEL❶ (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 Languages❹ 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 courses❺

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)❻

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 courses❼
- ➢ 30-level Knowledge and Employability courses
- ➢ 30-level Registered Apprenticeship Program courses
- ➢ 30-level Green Certificate Specialization courses ➢ Special Projects 30

❶ 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.

❷ See information on exemption from the physical education requirement.

❸ See information on exemption from the CALM requirement.

❹ 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.

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

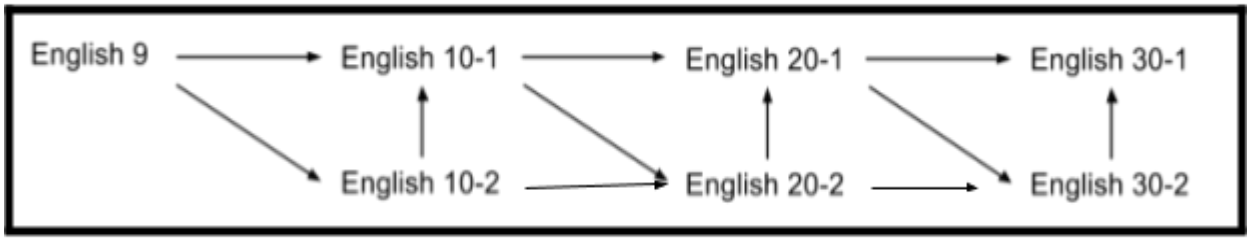
❻ 30-level English language arts or 30-level social studies courses from a different course sequence may not be used to meet the 30-level course requirement.

❼ 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



At CCHS, 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 course determines the Senior High course choices.

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)

Required Entry: 50% from Gr. 9 Language Arts

This course is intended to provide students with basic skills required for correct and appropriate communication, both written and oral. It is recommended that students who score under 65% in Language Arts 9 enroll in English 10-2.

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)

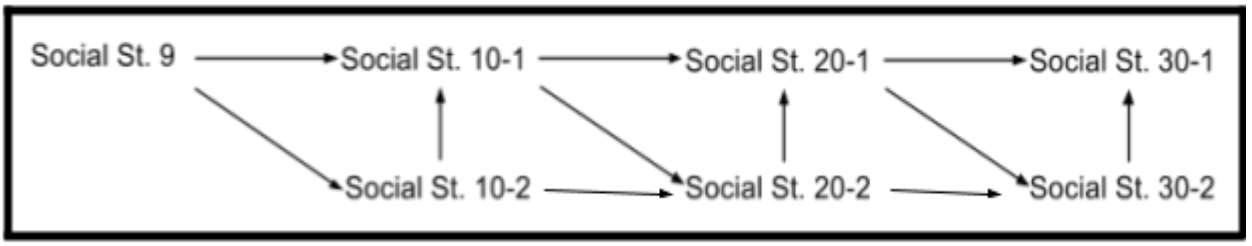
Required Entry: 50% from English 20-1 or English 20-2

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 in regard to 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



SOCIAL STUDIES 10-1 (5 Credits)

Recommended Entry: 65% from Social Studies 9

Perspectives on Globalization

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 (5 Credits)

Required Entry: 50% from Social Studies 9

Living in a Globalizing World

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 (5 Credits)

Recommended Entry: 65% from Social Studies 10-1

Perspectives on Nationalism

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 (5 Credits)

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

Understandings of Nationalism

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 (5 Credits)

Recommended Entry: 65% from Social Studies 20-1

Perspectives on Ideology

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 (5 Credits)

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

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.

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

MATHEMATICS

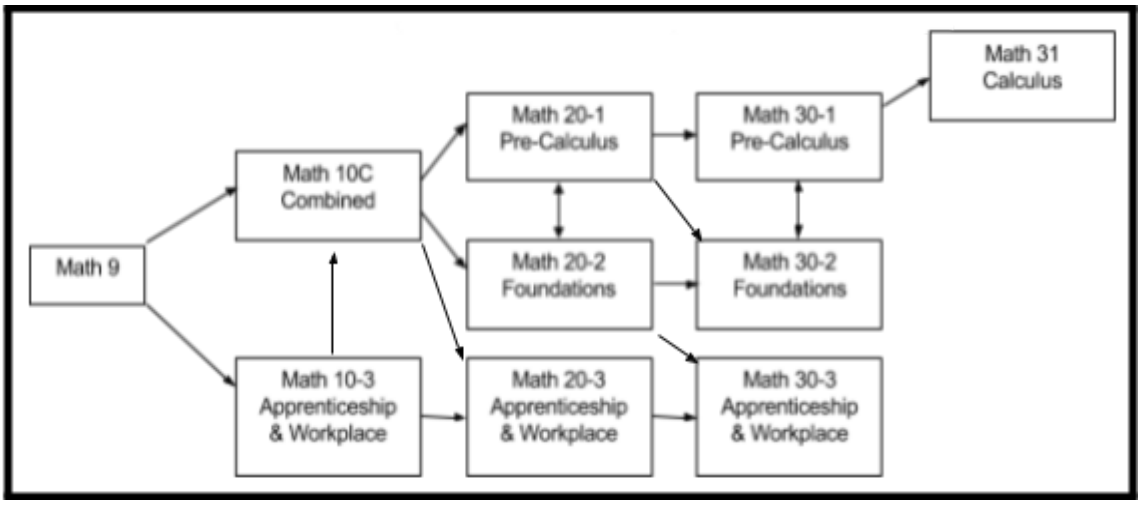
SENIOR HIGH MATH – Choosing the Right Sequence

For the upcoming school year, the following courses will be offered:

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

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 10.

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, and combinatorics	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 trigonometry, money management, taxes, geometry, and measurement.

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 80% in Math 9

- ➢ This 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 option.

MATHEMATICS 10: Combined (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)

- 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, 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 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.
- Topics in this sequence include sequences and series, trigonometry, quadratics, absolute value, radicals, inequalities, systems of equations, inequalities, rationals 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 10 Combined

- 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.
- 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 sequence 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 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.

- ➢ 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 for 50-59% in Math 20-1)

- ➢ 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.
- ➢ Topics in this sequence include rationals, 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 (Recommend at least 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 <u>does not</u> have a provincial diploma exam.

MATHEMATICS 31: Calculus (5 credits)

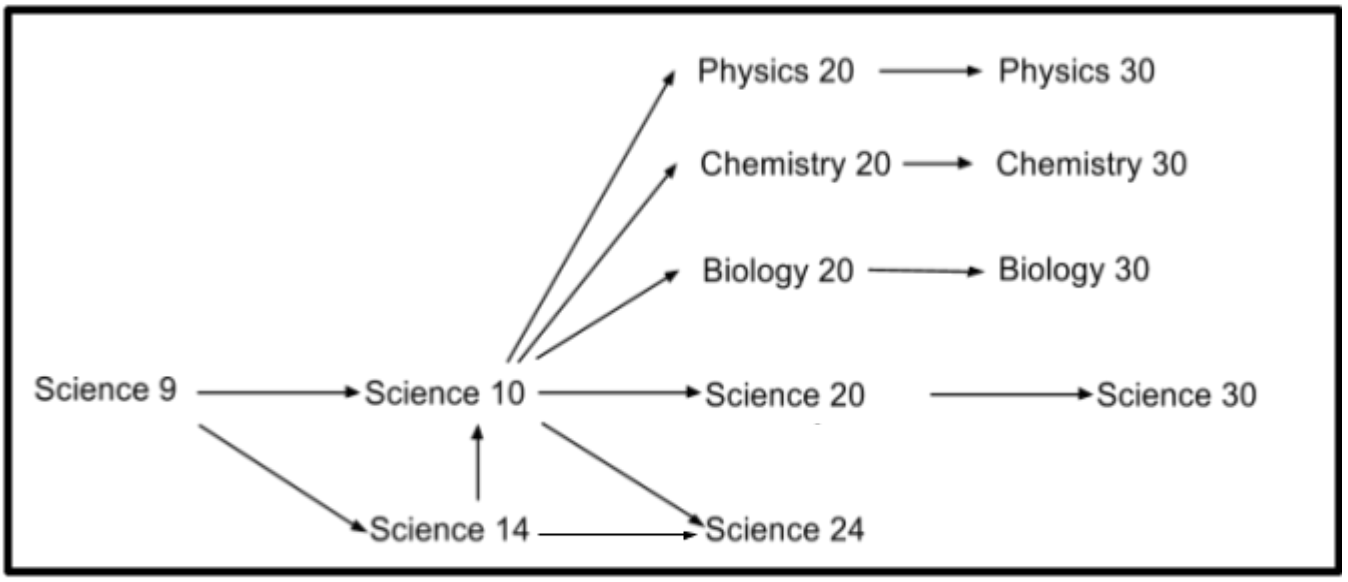
Recommended Entry: 60% from Math 20-1

Required Entry: You must already have, or be working toward Math 30-1

- ➢ 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 <u>does not</u> 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.

County Central High School has well-equipped science labs with good-quality equipment. Students are expected to handle the equipment responsibly and to pay for any breakages or damage.

SCIENCE 10 (5 Credits)

Required Entry: 50% from 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 14/24 (5 Credits each)

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

In Science 14 and 24 students will apply scientific knowledge and skills to everyday experiences. These courses will satisfy the requirements for an Alberta High School Diploma. The Science 14/24 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: 60% 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: 60% 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: 60% 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: 60% 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: 60% from Science 10 and 60% 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: 60% from Physics 20 and 60% 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 County Central High School we encourage students to take ownership for their own personal physical and psychological development.

Keeping in mind the need for fun, activity, and energy release, the Physical Education department has established the following:

PHYSICAL EDUCATION 10 (5 Credits)

Physical Education 10 is a required course for a High School Diploma. The aim of this program is to enable individuals to develop knowledge, skills and attitudes necessary to lead an active, healthy lifestyle. The emphasis of this course is on active participation. Activities will include volleyball, badminton, basketball, rugby, flag football, cross-country, fitness, aquatics, softball, athletics, gymnastics, and dance.

PHYSICAL EDUCATION 20 & 30 (5 Credits Each)

The Physical Education 20 and 30 program places a strong emphasis on lifetime sport activities. Students are given an option to choose their desired activities based on a curricular guide and a course selection contract. This contract will only be completed in the first semester (first 3 weeks if September). Examples of the activities that are offered in class include:

1. **Alternative environments** - Any and all trips - Fernie Ski trip, Flatwater Kayaking (trips subject to change), Aquatics, Broomball/Arena and Beach Volleyball.
2. **Games** - Any and all team sports fall in this category - Softball, basketball, rugby, volleyball
3. **Individual activities** - Badminton, Cross Country, Athletics, Fitness center/training
4. **Dance/Gymnastics**
5. **Leadership** - This category gives students the opportunity to give back to their community as well as participate in community service and activities. Leadership qualifications can also be included.

CALM: CAREER AND LIFE MANAGEMENT

CAREER & LIFE MANAGEMENT (5 Credits)

CALM is a three-credit course which is prescribed by Alberta Education as a core course for Senior High students and is a requirement for graduation. In addition to the 3 credits for CALM, students will receive further credits for career and workplace-related modules (HSC3000 and CTR1010). 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.

FINE ARTS

VISUAL ARTS

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. The program provides the opportunity for students to use not only their minds but also their voices, hands and bodies. 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 have the opportunity to 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 optional 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)

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 (5 Credits)

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. Note that Art 30 is only offered as a Five-credit course and that it may be used for post-secondary acceptance.

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

The opportunities provided for each student in the Senior Band program are directed at offering creatively positive musical experiences. Students can gain 5 credits for each complete year of enrolment to a maximum of 15. In Instrumental Music 10 and 20, 3 or 4 credits may be awarded if a complete year of attendance is not realized.

In Band, classics, orchestral transcriptions, original compositions, and arrangements of contemporary and popular music are studied with the intent of performance at the highest level possible. Aspects of music composition and theory are components of the course.

GENERAL MUSIC 10, 20 & 30 (3 to 5 Credits each)

Rock Band is another performance group made up of rock band instruments (vocals, guitar, bass guitar, drums). They play a variety of cover songs and also have the opportunity to perform for the public. Owning your own instrument is recommended however there are no other requirements to join this course.

CAREER & TECHNOLOGY STUDIES

CTS HOME ECONOMICS

Foods 10 (3 to 5 credits)

Foods 10 is made up of three modules in which 60% of class time is labs and 40% is theory.

- Basic Foods 1010 – Students learn safe and sanitary food handling procedures, equipment care, comprehension of recipes and the importance of efficient work habits.
- Contemporary Baking 1020 – Students develop and demonstrate an understanding of traditional and contemporary baking, focusing on basic measuring techniques, preparation methods, role of ingredients and the proper use of equipment for baked goods.
- Meal Planning I 1040 – Students develop an understanding of planning, preparation and evaluation of balanced healthy meals.

Foods 20 (3 to 5 credits)

Foods 20 is made up of 3 modules which can include: Nutrition, Food Venture, Vegetarian Cuisine, Food Safety and Sanitation, Creative Cold Foods, International Cuisine, Stocks, Soups and Thickening Agents, Vegetables, Fruits and Grain Products, Milk Products and Eggs, Baking Basics, Yeast Products, and Basic Meat Cookery.

The course consists of 70% cooking labs and 30% theory, research papers and tests.

Foods 30 (3 to 5 credits)

Foods 30 is also made up of three modules. The modules that a student may select from are: Nutrition II, the Food Entrepreneur, Entertaining with Food, Food Processing, Global Food Issues, Short Order Cooking, Beautiful Food, Fish and Poultry, Creative Baking, and Advanced Meat Cookery.

The students will have to complete the cookbook from Foods 10 and 20, do a research paper, do various food cooking demonstrations and various cooking labs to meet the course requirements.

CTS INDUSTRIAL EDUCATION

Construction 1, Introduction (4 credits)

The Introductory Construction class is designed for students to achieve 4 CTS credits. The CTS-Woods program at CCHS begins with its primary focus being on the creation of furniture and cabinetmaking. The program is intended to establish transferable skills and safe work procedures that can be applied to subsequent construction courses. Students will create a mixed material hanging entryway shelf and a hardwood tapered leg end table that utilize basic joints used in furniture manufacturing: rabbet, dado, plate, pocket joint, miter. No experience is necessary.
Prerequisite: None

Construction 2, Intermediate (4 credits)

The Construction 2 class is intended to further extend the students' knowledge of woodworking through advanced woodworking skills and building techniques. The Construction 2 students begin with a replica of a wood chair designed in 1917 by Gerrit Rietveld, an artist famous for his work in the De Stijl art movement . The Rietveld chair is a 2 credit project designed to further the students' skills in measuring and milling hardwood lumber while increasing the difficulty

in the assembly process. Our second project is the production of an oak blanket chest with a hinged lid. The hardwood chest is a 2 credit project designed to increase students' planning, joinery and technical capabilities in woodworking.

Prerequisite: Construction 1, Introduction

Construction 3, Advanced (3 to 6 credits)

Create a proposal, cost analysis, cut list, plan, design and build what you want…a wall unit, entertainment centre, coffee table, desk, chest of drawers, Dog house etc.

Prerequisite: Construction 2, Intermediate

3D Design and CNC 1 (4 credits)

3D modelling is used extensively in industry as a visualization tool. Students will acquire 3D modeling skills relevant to a broad range of careers, such as engineering, fashion design, architecture, product design and construction. You will design and create digital 3D models and use them to create 3D printing and CNC products.
Prerequisite: Fabrication 1, Introduction or Construction 1, Introduction

Communications Technology 1, Introduction (Multi-Media - 4 credits)

Students will learn the basics of Design through electronic publishing, digital image manipulation and digital image creation using the Adobe creative suite and DSLR cameras for photo and Video production.

Students will work through four one-credit CTS courses.
Prerequisite: None

Communications Technology 2 and 3, Intermediate and Advanced (1-11 credits)

There are several one credit CTS courses that students can choose from such as: Digital Communication, Lenses, Lighting, Photojournalism, Colour, BW Techniques, Outdoor, Digital Processing 2, etc. This course will build on the skills you gained from Comm Tech 1.

Prerequisite: Communications Technology 1, Introduction.

Computer Programming (Programming & Coding - 3 credits each)

This course provides an introduction to basic coding and programming skills, web design, and may touch on elements of robotics and 3D printing.

Prerequisite: None

Fabrication 1, Introduction (4 credits)

Students will learn the basics of sheet metal fabrication, basic electric SMAW welding and forging mild steel. You will learn safety and production procedures used in the metal fabrication lab.
Prerequisite: None

Fabrication 2 and 3, Advanced (4 Credits)

This course will build on the skills you gained from the Introductory Fabrication Studies course and further your exposure to advanced SMAW welding techniques and GMAW welding and plasma arc cutting.

Prerequisite: Fabrication 1, Introduction.

CTS SPORTS MEDICINE

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.

LEARNING STRATEGIES

Learning Strategies 10, 20, 30 (3 to 5 credits)

Learning Strategies is a practical course in which students gain a better understanding of their personal learning style and some effective strategies to complement and enhance that style. Students learn about time management, organizational skills, and goal setting. They analyze the barriers that might stand in the way of achieving their goals and develop strategies to overcome them. Students also examine the importance of self-advocacy as an important tool in helping them to meet their objectives. Students will create comprehensive study guides for each of their core classes and may - if time allows - spend some time in class completing assignments for other subjects or studying for tests.

BUSINESS STUDIES

Business Studies 10/20/30 (3 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 3 modules: MAM1010 (Marketing & Management), FIN1010 (Personal Finance Information), and ENT1010 (Challenge & Opportunity).

CRIMINAL JUSTICE

Criminal Justice 10/20/30 (3 credits)

This multi-grade course introduces students to the criminal justice system, including policing, corrections, and the law. Students will complete 3 modules: CJS3420 (Correctional Systems), CJS3400 (Criminal Justice Systems), and CJS3410 (Policy Service & Trends).

OFF CAMPUS COURSES (see www.palliseroffcampus for more details)

GREEN CERTIFICATE

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.

There are three rounds of testing and each discipline consists of three, 30-level courses. Testing takes place at Lethbridge College.

Prerequisite: AG 3000 (Agriculture Safety)

RAP (Registered Apprenticeship Program)

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.

Prerequisite: HCS 3000 (Workplace Safety)

WORK EXPERIENCE 15, 25 and 35

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 but only 15 credits may be used to meet the 100-credit requirement.

Registration forms must be submitted so a site visit can be completed by the Off Campus Teacher before hours can be counted. One credit = 25 hours of work experience (minimum 75 hours required)

Prerequisite: HCS 3000 (Workplace Safety)

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 application information and a list of courses currently offered, go to www.palliseroffcampus.ca/dual-credit.