

Career & Technology Studies

Career & Technology Studies (CTS) (1 Credit Each)

Career and Technology Studies (CTS) are complementary courses, providing important learning opportunities for students to:

- develop skills that can be applied in their daily lives, now and in the future;
- refine career-planning skills;
- develop technology-related skills;
- enhance employability skills;
- apply and reinforce learnings; developed in other subject areas and prepare for transition into adult roles in the family, community, workplace and/or further education.

Each CTS course is worth one-credit, and represents approximately 25 hours of instruction. There are three levels: introductory (1000-level), intermediate (2000-level), or advanced level (3000-level).

Although students can register for multiple CTS courses, which have deadlines paced across the school year. If a course has a pre-requisite, students must complete the pre-requisite course first. Students do not need to take CTS in a sequential order, but must complete pre-requisites first.

E.g. FOD 1010 (Foods Basics) is the pre-requisite for all other foods classes. Although a student may request several foods classes at registration, the student must first access and complete FOD 1010.



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Agriculture:	
AGR1040 - Animal Basics	Students learn to identify and demonstrate the basic steps involved in raising and caring for a domestic animal. Students gain an understanding of general care to ensure animal health. Required Resources: access to a domestic animal e.g. cat, horse etc.
AGR2020 - Animal Husbandry & Welfare Pre-Req: AGR1040 & AGR3000	Students apply the principles of animal science and health technology in providing care for a domestic animal. Required Resources: access to a domestic animal e.g. cat, horse etc.
AGR3000 - Agriculture Safety	Students recognize and assess the hazards and manage the risks of working in agriculture. Required Resources: access to appropriate agricultural facilities and/or equipment. This course is the pre-requisite to Green Certificate.
Communication Technology:	*COM1005 IS the pre-requisite for ALL COM modules
COM1005 - Visual Composition Pre- Req: COM1005 for all COM courses	Students learn to employ fundamental elements and principles of design for various media and gain a strong foundational multidisciplinary experience in preparation for other Communication Technology courses.
COM1025 – Typography*	If there is no type on the page it is not graphic design, it is fine art. Students learn about the power of typography and its uses in today's world.

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Communication Technology:	*COM1005 IS the pre-requisite for ALL COM modules
COM1035 - Graphic Tools*	Students are introduced to the basics of computer graphics (vector and raster), and graphic computer programs.
COM1205 - Photography Intro*	Students develop essential skills in camera use with a focus on basic composition, set-up and examination of exposure. Students operate a camera to capture images and produce final display proofs. Required Resources: access to a camera (can be digital) with manual settings to control aperture and shutter speed independently
COM1215 - Photography Exposure*	Students learn the technical and creative uses of aperture, shutter speed and ISO, and demonstrate how combinations of the three elements give very different results. Students also discover how a correct exposure is obtained through the combination of shutter speed, aperture and ISO, which make up the photographic triangle. Required Resources: access to a camera (can be digital) with manual settings to control aperture and shutter speed independently
COM1275 - Photography Digital Processing*	Students learn the fundamentals of consumer-based digital image acquisition, management, composition, manipulation and editing software to improve image composition. Required Resources: access to a camera (can be digital) with manual settings to control aperture and shutter speed independently

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Communication Technology:	*COM1005 IS the pre-requisite for ALL COM modules
COM2035 - Raster Graphics 1 Pre-Req: COM1035	A raster format is commonly used in full color images/graphics and photographs by using a data structure representing a generally rectangular grid of pixels or points of color. In this course, students are introduced to the fundamental skills of raster graphics and their application.
COM2045 - Vector Graphics 1 Pre-Req: COM1035	Vector graphics are commonly used in graphic design, page layout, typography, logos, sharp-edged artistic illustrations, technical illustrations, diagramming and flowcharting. In this course, students use vector-editing software to create basic vector graphics.
COM3035 - Raster Graphics 2 Pre-Req: COM2035	Students build on the knowledge and skills acquired in Raster Graphics 1 by using raster-editing software to create advanced Raster Graphics.
COM3045 - Vector Graphics 2 Pre-Req: COM2045	Students build on knowledge and skills acquired in Vector Graphics 1 by using vector-editing software to create advanced Vector Graphics.
Community Care Services:	
CCS3110 - Early Learning & Child Care 1	Students will develop skills to assist in promoting the physical, intellectual and language development in children from birth to age six. Required Resources: access to children between the ages of 0–5 in any of the following ways: a licensed childcare centre; a licensed preschool; a licensed or approved family day home; a licensed out-of-school care program; or, a school-based pre-Kindergarten program. (A Kindergarten program will not fulfill the needs of the program due to the age of the children.)

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Community Care Services:	
<p>CCS3120 - Early Learning & Child Care 2 Pre-Req: CCS3110</p>	<p>Students will develop skills to assist in promoting the social-emotional and creative development with children from birth to age 6. Students also will examine the development of learning through play. Required Resources: access to children between the ages of 0–5 in any of the following ways: a licensed childcare centre; a licensed preschool; a licensed or approved family day home; a licensed out-of-school care program; or, a school-based pre-Kindergarten program. (A Kindergarten program will not fulfill the needs of the program due to the age of the children.)</p>
<p>CCS3130 - Early Learning & Child Care 3 Pre-Req: CCS3120</p>	<p>Students will develop skills to assist in promoting the social-emotional and creative development with children from birth to age 6. Students also will examine the development of learning through play. Required Resources: access to children between the ages of 0-5 in any of the following ways: a licensed child care centre; a licensed preschool; a licensed or approved family day home; a licensed out-of-school care program; or, a school-based pre-Kindergarten program. (A Kindergarten program will not fulfill the needs of the program due to the age of the children.)</p>
<p>CCS3140 - Early Learning & Child Care 4 Pre-Req: CCS3130</p>	<p>Students will examine family dynamics and issues, as well as the cultural diversity of the children and families under their care. Students also will develop skills to support and promote the cultural identity of children. Required Resources: access to children between the ages of 0–5 in any of the following ways: a licensed childcare centre; a licensed preschool; a licensed or approved family day home; a licensed out-of-school care program; or, a school-based pre-Kindergarten program. (A Kindergarten program will not fulfill the needs of the program due to the age of the children.)</p>

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Community Care Services:	
CCS3150 - Early Learning & Child Care 5 Pre-Req: CCS3140	Students will learn appropriate practices related to routines in a childcare program. Students also will plan for the health, safety and well-being of children in childcare programs. Required Resources: access to children between the ages of 0–5 in any of the following ways: a licensed childcare centre; a licensed preschool; a licensed or approved family day home; a licensed out-of-school care program; or, a school-based pre-Kindergarten program. (A Kindergarten program will not fulfill the needs of the program due to the age of the children.)
Computing Science:	
CSE1010: Computer Science 1	Students explore hardware, software and processes. This includes an introduction to the algorithm as a problem-solving tool, to programming languages in general and to the role of programming as a tool for implementing algorithms. Provided Resources: access to a programming language will be provided.
CSE1110: Structured Programming 1	Students are introduced to a general programming environment in which they write simple structured algorithms and programs that input, process and output data, use some of the more basic operators and data types, and follow a sequential flow of control. Provided Resources: access to a programming language will be provided.
CSE1240: Robotic Programming 1 Pre-Req: CSE1110	Students work with structured programming constructs by adding the selection and iteration program control flow mechanisms to their programming repertoire. They write structured algorithms and programs that use blocks to introduce an element of modularity into their programming practice. Provided Resources: access to a programming language will be provided.

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Computing Science:	
CSE1240 - Robotics Programming 1 Pre-Req: CSE1110	Students use an appropriate Robot Control Language (RCL) to design, develop, implement and debug robotics programs that employ standard structured programming constructs and simple data structures. In the process, they develop a general understanding of robots and the robotics environment.
Electro-Technologies:	
ELT1010 - Electro-Assembly 1 *Students must concurrently register for ELT1010 & ELT1030*	Students apply the fundamentals of robotics systems and basic robotics functions. Provided Resource: a school-provided kit for students to build a low voltage circuitry system.
ELT1030 - Conversion & Distribution *Students must concurrently register for ELT1010 & ELT1030*	Students experiment and work with principles of electrical energy conversion and distribution. In the course students: identify and describe methods of converting nonrenewable and renewable sources of energy into electricity; construct an electrical distribution system; demonstrate how mechanical, chemical, light and heat energy can be converted into electrical energy; determine the cost efficiency, practicality and environmental impact of producing electricity from various sources of energy. Provided Resource: a school-provided kit for students to build a low voltage circuitry system.
ELT1130 - Robotics 1	Students apply the fundamentals of robotics systems and basic robotics functions.

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Electro-Technologies:	
ELT1140 - Robotics Applications Pre-Req: ELT1010 *Students must concurrently register for ELT1140 & ELT2140*	Students apply the fundamentals of robotics systems and basic robotics functions. Students describe the evolution and applications of programmable robotics systems; identify and classify programmable robotics systems and subsystems; identify and describe various alternative types of power sources; build and program a programmable robotics system; build a direct control robotics system. Provided Resource: a school-provided kit for students to build a programmable robot.
ELT2140 - Robotics 2 Pre-Req: ELT1130 *Students must concurrently register for ELT1140 & ELT2140*	Students demonstrate the fundamental concepts of sensor devices and control systems by building an electronic circuit to control a direct wire or mobile robot. Provided Resource: a school-provided kit for students to build a programmable robot.
Fashion Studies:	
FAS1030 - Sewing Fundamentals	Students learn how to safely use and care for sewing and pressing equipment, and apply these skills during the assembly of a final project. Required Resources: students must have access to a sewing machine and related materials.
Financial Management:	
FIN1010 - Personal Financial Information	Students explore concepts that affect the finances of an individual, including a code of conduct, the economic environment, acquiring and using financial resources and the effects of government legislation.
FIN1015 - Accounting Prep	Students are introduced to accounting and terminology unique to financial accounting. They become familiar with financial statements, generally accepted accounting principles (GAAP) and how to prepare for the process of starting up a business.

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Financial Management:	
FIN1020 - Accounting Cycle 1 Pre-Req: FIN1015	Students are introduced to the accounting cycle for a service business. They will analyze and record business transactions up to trial balance for the fiscal period of a business using terminology unique to financial accounting.
FIN1030 - Accounting Cycle 2 Pre-Req: FIN1020	Students complete the accounting cycle for a service business, preparing financial statements and closing accounts. They also will explore other factors of a business, including budgets.
Foods:	* FOD1010 is the pre-requisite for ALL Foods modules
FOD1010 - Food Basics Pre-Req: FOD 1010 for all FOD courses	Students learn safe and sanitary food handling procedures, equipment care, comprehension of recipes and the importance of efficient work habits. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD1020 - Contemporary Baking*	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. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD1030 - Snacks & Appetizers*	Students apply the importance of snacks and appetizers related to lifestyle, by making nutritious, as well as delicious, snacks and appetizers. Required Resources: families must purchase cooking ingredients and provide kitchen access

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Foods:	* FOD1010 is the pre-requisite for ALL Foods modules
FOD1040 - Meal Planning 1*	Students develop an understanding of planning, preparation and evaluation of balanced healthy meals. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD1060 - Canadian Heritage Foods*	Students become aware of how food in Canada today reflects the country's history and origins by examining food patterns and customs, and by analyzing and preparing ethnic foods. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD2040 - Cake and Pastry*	Students expand their knowledge and skills in the production of a variety of cake and pastry products. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD3020 - Nutrition & Digestion*	Students learn about nutrition and how the body processes food by appraising current nutritional theories/issues and dietary needs. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD3030 - Creative Baking*	Students learn about specialty cakes and pastry products by selecting and creating specialty cakes, pastries, desserts and a major baked project. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD3060 - Food Presentation*	Students develop creativity and flair while learning the techniques of tempting and artistic food presentation. Required Resources: families must purchase cooking ingredients and provide kitchen access
FOD3100 - Entertaining with Food*	Students plan and prepare food for an event and develop organizational skills that may be used in the hospitality industry, at home or in entrepreneurial endeavors. Required Resources: families must purchase cooking ingredients and provide kitchen access

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Foods:	* FOD1010 is the pre-requisite for ALL Foods modules
FOD3160 - Regional Cuisine*	Students explore, in depth, the cuisine of a region in order to appreciate the richness of its history and culture. They discover its foods, learn about food customs, experience traditional cooking methods and adapt local produce to create regional recipes. Required Resources: families must purchase cooking ingredients and provide kitchen access
Health Care Services:	
HCS1050 - Musculoskeletal System Pre-Req: HSS1010	Students explore the structure and function of the musculoskeletal system, gain an understanding of conditions of the musculoskeletal system and achieve an appreciation for the benefits of practicing a healthy lifestyle as it pertains to the individual, family, peers and community.
HCS1080 - Cardiovascular System Pre-Req: HSS1010	Students acquire the attitude, knowledge and skills for the promotion and maintenance of a healthy cardiovascular system. Students study the pathology of cardiovascular conditions, and gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.
HCS2020 - First Aid/CPR with AED	Students study and demonstrate first-aid skills and procedures, including cardiopulmonary resuscitation (CPR) and automatic external defibrillator (AED), for dealing with emergency situations. Students recommend practices for a safe environment and demonstrate skills and procedures for dealing with common emergency situations. Students examine safety strategies to prevent infection from blood-borne pathogens in healthcare and recreational settings. Provided Resources: students will be enrolled in an 'Adult-Child-Infant CPR/AED First Aid' course if they do not already possess relevant certification

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Health Care Services:	
HCS3000 - Workplace Safety Systems	Students gain the attitudes, knowledge and skills related to workplace health and safety and examine relevant legislation required in the workplace. This course is the pre-requisite for Work Experience and RAP.
HCS3010 - Workplace Safety Practices Pre-Req: HCS3000	Students explore workplace safety principles and practices, and apply these principles and practices to a variety of contexts.
HCS3040 - Child Care First Aid	Students study and demonstrate first-aid skills and procedures, including CPR and automated defibrillator (AED), for dealing with emergency situations with emphasis on children and infants. Students identify a child safe environment and recognize and demonstrate skills and procedures for dealing with child and infant emergency situations and medical conditions. Provided Resources: students will be enrolled in an 'Adult-Child-Infant CPR/AED First Aid' course if they do not already possess relevant certification
Human and Social Services:	
HSS1010 - 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.

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Information Processing:	
INF1030 - Word Processing 1	Students are introduced to the proper use of word processing software, including document creation, editing and printing of properly formatted documents.
INF1050 - Database 1	Students develop skills in the proper use of a database management system by developing flat-file databases and demonstrating their use in personal and business applications. Resources: Students cannot use a Mac computer.
INF1060 - Spreadsheet 1	Students develop skills in the proper use of spreadsheet software through general data manipulation and personal recordkeeping.
INF1070 - Digital Presentation	Students develop skills with tools used for computerized presentations involving text, data, graphics, sound and animation.
INF2020 - Keyboarding	Students enhance their occupational level keyboarding competence of all keystroke functions, using unedited, edited and straight copy material.
INF2050 - Word Processing 2	Students develop their skills in the proper use of word processing software, including document creation, editing and printing of properly formatted documents.
INF2080 - Spreadsheet 2	Students develop skills in the proper use of spreadsheet software through advanced data manipulation and preparation of appropriate reports and printouts in text and graphic format.
INF3060 - Word Processing 3 Pre-Req: INF2050	Students master their skills in the proper use of word processing software, including document creation, editing and printing of properly formatted documents.

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Legal Studies:	
LGS1010 - Private Law	Students explore workplace and consumer law with a focus on basic rights and responsibilities at a place of work and the legal aspects of buying, selling and renting goods and services.
LGS1020 - Public Law	Students explore the legal relationship between the government and the citizen with an emphasis on criminal law.
LGS1030 - Relationship Law	Students learn about laws affecting family members through the use of realistic scenarios and case studies.
LGS2010 - Family Law	Students examine a broad range of legal issues relating to personal relationships.
LGS2020 - Employment Law	Students learn about contracts of employment, unions and collective bargaining, employment insurance, and workers' compensation.
LGS3010 - Property Law	Students identify laws relating to real, personal and intellectual properties and investigate the processes of buying and selling real property and the legal implications associated with Internet transactions.
LGS3040 - Negligence	Students explore the legal meaning of negligence and legal actions relating to negligence.
LGS3070 - Landmark Decisions	Students analyze in detail landmark decisions and their influence on society.

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Legal Studies:	
LGS3080 - Criminal Law	Students examine the criminal justice system, including the criminal process and the roles and responsibilities of the participants. Students also explore challenging issues and law-related careers.
Recreation Leadership:	
REC1020 - Injury Management 1	Students learn prevention, assessment and management techniques related to injuries that may occur during recreation and sporting events and activities.
REC1050 - Sport Psychology 1	Students assess the impact of mental fitness on optimal sport, artistic and/or academic performance and motivation. Students examine and demonstrate strategies to strengthen mental fitness, including relaxation, visualization and positive self-talk.
REC2010 - Nutrition for Rec. Activities & Sport	Students explain the role of food and hydration in helping individuals achieve optimal physical performance for recreational physical promoting nutrition for performance. Activities and sport. Students acquire knowledge and skills to plan effectively for nutrition and hydration related to a variety of recreational activities and athletic events. Students examine food labelling and the role of recreation leaders and coaches related to a variety of recreational activities and athletic events. Students examine food labelling and the role of recreation leaders and coaches related to promoting nutrition for performance.

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Recreation Leadership:	
REC2060 - Leadership in Rec. & Sport	Students learn basic skills and developmental principles for teaching recreation activities and foundational movement concepts to children and youth. Required Resources: access to sports teams in the school and/or community. Students need to have access to instruction from an individual with recognized training in coaching.
REC2120 - Coaching 1	Students learn basic coaching skills common to all sports in the areas of planning and delivering a practice, teaching and learning, and mental skills training. Students develop an appreciation for the role of coaches in community recreation programs. Required Resources: access to sports teams in the school and/or community. Students need to have access to instruction from an individual with recognized training in coaching.
Wildlife:	*Students must register for and complete WLD1070, WLD1075, WLD1080 concurrently*
WLD1010 - Introduction to Wildlife	Students develop the attitudes, skills and knowledge related to wildlife and ecosystems, and an understanding for the need to manage wildlife.
WLD1020 - Wildlife Diversity	Students investigate the diversity of Canadian wildlife in terms of structure, behavior and habitat, and compare Alberta wildlife with wildlife in other parts of the world.

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Wildlife:	*Students must register for and complete WLD1070, WLD1075, WLD1080 concurrently*
WLD1070 - Hunting & Game Management Theory *This course must be concurrently completed with WLD 1075 & WLD 1080*	Students explain the role of regulated hunting in game management, identify Alberta's game animals, and develop and demonstrate the attitudes, skills and knowledge necessary for safe and comfortable experiences in the outdoors with bows, arrows, crossbows and firearms. Provided resources: Access to complete the Hunter Education Certificate.
WLD1075 – Bow Hunting Education *This course must be concurrently completed with WLD 1070 & WLD 1080*	Students explain the role of regulated bow hunting in game management, identify Alberta's game animals, develop, and demonstrate the attitudes, skills and knowledge for safe and comfortable experiences in the outdoors. Provided resources: Access to complete the Hunter Education Certificate.
WLD1080 - Angling & Fish Management Theory *This course must be concurrently completed with WLD 1070 & WLD 1075*	Students explain the role of recreational fishing in the management and conservation of fish resources, and develop the attitudes; skills and knowledge required for responsible fishing practices and related outdoor activities .Provided resources: Access to complete the Hunter Education Certificate.
WLD1090 - Boating Safety	Students develop the attitudes, skills and knowledge to evaluate their capabilities and limits, to prepare themselves adequately before heading out, and to be responsible on the water.

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Design Studies:	
DES1010 - Sketch, Draw, & Model	Students are introduced to observational sketching, drawing and modelling, and to a selection of basic materials and tools and their uses. Students also develop skills that can be applied to the field of design.
DES1020 - The Design Process	Students develop an understanding of design problems through research and select, generate and evaluate possible solutions.
DES1030 - 2D Design 1 Pre-Req: DES1020	Students develop skills and techniques for 2-D design by using tools (including computer-aided design software), materials, and processes common to 2-D design to create a corporate or personal identity brand/logo, a promotional USB drive design and package, and a new cereal and character box; the latter two projects based on packaging design theory and user/target market design theory.
DES1040 - 3D Design 1 Pre-Req: DES1020	Students develop skills and techniques for 3-D design by using tools (including computer-aided design software), materials and processes common to 3-D design to create a new type of shoe, a piece of kinetic art based on principles of simple machines, and an architectural tiny home based on sustainable energy theory and woods/materials theory.

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Design Studies:	
DES1050 - CAD 1	Students develop basic knowledge and skills in computer-aided design (CAD). There will be a variety of tasks involving two-dimensional and three-dimensional objects. Technological Push Pull Market theory and Scales of Production and Automation theory will be discussed.
DES1060 - Technical Design and Drafting 1	Students develop basic knowledge, skills and techniques to draft drawings for visualizing and illustrating simple design problems. There will be a variety of tasks involving two-dimensional and three-dimensional objects. Technological Push Pull Market theory and Scales of Production and Automation theory will be discussed.