

we engage

Pathways to Possibilities



The Revised
Career & Technology
Studies Program

Government
of Alberta

Alberta



Alberta Education's revised Career & Technology Studies (CTS) program engages students in learning opportunities to discover their interests in practical and purposeful ways.

The CTS program, fully implemented in September 2010, centres around five clusters and more than 1000 1-credit courses in 28 occupational areas.

A cluster is a group of CTS courses that represents occupations with broad industry commonalities. Clusters in CTS are aligned with the National Occupational Classification and function as an organizing tool for the CTS program:

- Business, Administration, Finance & Information Technology (BIT)
- Health, Recreation & Human Services (HRH)
- Media, Design & Communication Arts (MDC)
- Natural Resources (NAT)
- Trades, Manufacturing & Transportation (TMT)

Within each cluster are occupational areas that contain courses related to specific areas of work. Students can explore their interests by selecting and creating personalized pathways.

A pathway is a selection of courses to give students the opportunity to explore and acquire the attitudes, skills and knowledge for a career that is relevant to their interests. Pathways support goals that may include university, college, apprentice training, or moving directly into the workforce.

Specialized skill pathways are a collection of courses selected to address student interests in a field of study; e.g., Event Planner, Outdoor Guide, Court Clerk.

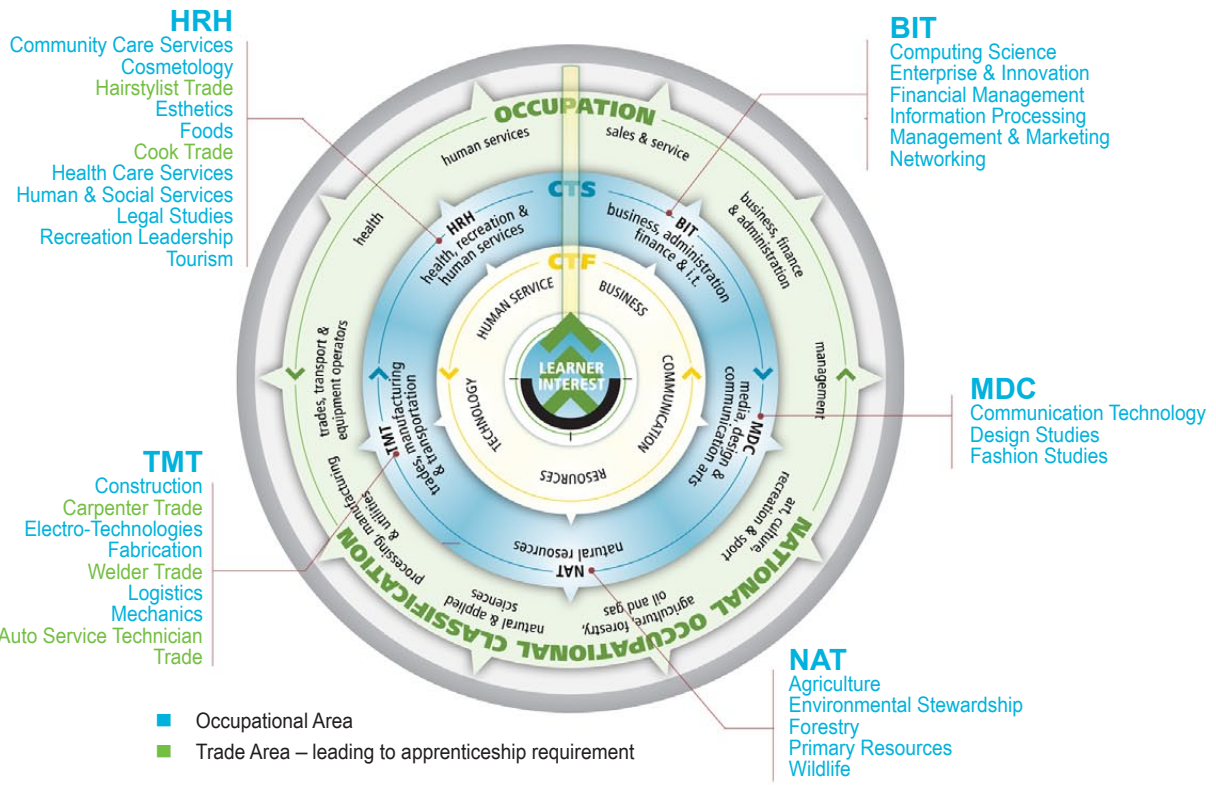
Credentialed pathways are a series of specific courses selected to provide opportunities for students to achieve a credential or credit awarded by a recognized community or industry organization or post-secondary institution; e.g., Welder, A+ Certification Computer Repair Technician.

Each CTS course at the introductory, intermediate and advanced levels represents approximately 25 hours of instruction. Some courses require one or more prerequisites.

An Occupational Area is a grouping of courses related to specific areas of work.

The CTS compass below shows the organization of CTS in relation to the National Occupational Classification and proposed middle years/junior high school program, Career and Technology Foundations.

Each of the 28 occupational areas are listed in their respective clusters.



 **SKILLS CANADA ALBERTA**

Skills Canada Alberta competitions take place annually and provide opportunities for students to participate in competitions related to trade and technology-based careers. Schools may encourage and support student participation at the school, city, province and/or national level. Additional information is available at <http://skillsalberta.com>.

Occupational Areas

BIT

Computing Science – explore hardware, software and processes to write or create structured algorithms and programs that input, process and output data.

Enterprise & Innovation – study the area of business that deals with the organization and management of a project, undertaking or innovation.

Financial Management – plan, organize, direct, control and evaluate the operation of an accountant, auditor or financial service.

Information Processing – take information and process it from one form into another.

Management & Marketing – learn the processes associated with promotion for the sale of goods and services.

Networking – use a group of computers that are connected for the purpose of communication.

HRH

Community Care Services – experience volunteering and developing skills for community-based services in a variety of settings.

Cosmetology – learn the various skills involved in the cosmetology trade, such as haircutting, texturizing, colouring and styling.

Esthetics – specialize in skin care and treatments, including facials, cosmetic make-up services, hair removal, massage and nail art.

Foods – examine the role of food, looking beyond consumption to production, visual appreciation, nutrition, meal planning, economics and preparation.

Health Care Services – prepare for medical careers by examining the anatomy and function of the body systems. Develop first aid, CPR and occupational safety skills necessary for careers in emergency response.

Human & Social Services – learn about occupations related to wellness, human development, family support, and professional standards and ethics.

Legal Studies – become familiar with the influence, impact and complexities of the law in daily life.

Recreation Leadership – develop skills useful for coaching, fitness leadership, sport performance, athletic therapy and leading recreational activities.

Tourism – look at the impact of tourism in Alberta and around the world and develop knowledge and skills required for the tourism industry.

MDC

Communication Technology – discover and develop skills to relay a message effectively using various forms of media, including animation, print, photography and audio/visual.

Design Studies – learn about the creative process from conception through to development in architecture, industrial design, engineering, interior design and landscaping.

Fashion Studies – design, manufacture and market clothing and other textile products as well as study the history, sociology and economics of clothing and textile arts.

NAT

Agriculture – learn the how and why of producing agriculture/horticulture products, providing related services, supporting sustainable development and efficient use of natural resources.

Environmental Stewardship – examine the management and conservation of the environment and propose actions that foster the sustainable development and use of resources.

Forestry – develop an understanding of the forest as a resource and how to maintain its sustainability.

Primary Resources – examine mineral industries and technologies that support sustainable development and efficient use of mineral resources.

Wildlife – examine the human relationship to the natural environment and consider the impact of various human pursuits on species and ecosystems.

TMT

Construction – develop skills in the use of tools and materials used in construction processes. Safely transform common wood materials into useful products.

Electro-Technologies – provide technical support and services in the design, development, testing, production, service, repair and operation of electrical and electronic equipment and systems.

Fabrication – develop skills in the use of tools and materials used in fabrication processes. Safely transform common metals into useful products.

Logistics – organize and coordinate the movement of people, materials and data.

Mechanics – inspect, diagnose, repair and service mechanical, electrical and electronic systems and components of cars and light and commercial transport trucks.

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. This cluster challenges students to expand their confidence, experience and skills as innovators and leaders.

Credentials/credit accessible through BIT Pathways

- Computer Science – five 3000-level credits (requirement for select bachelor programs at U of A and U of C)
- CompTIA A+
- CompTIA Network+
- Focus on Information Technology (FIT)
- Microsoft Certified Application Specialist in the following:
Access 2007, Excel 2007, PowerPoint 2007 and Word 2007.

Compete in Skills Canada Alberta with these Pathways



- IT and Network Support
- IT Office Software Applications Level 1
- IT Office Software Applications Level 2
- Robotics



For a complete listing of the courses that make up the pathways listed, visit

Health, Recreation & Human Services

HRH

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.

Credentials/credit accessible through HRH Pathways

- Aquatic Exercise Leader
- Athletic Injury Management
- Basic Interpreter
- Child Care First Aid
- Child Development Assistant
- Cook First Period Apprenticeship
- *emerit* Food and Beverage Manager
- *emerit* Food and Beverage Server
- *emerit* Tourism Essentials
- Ever Active Aging Leader
- Ever Active Kids Leader
- Fitness for the Older Adult Leader
- Foundations of Athletic Therapy
- Foundations of Mentoring
- Group Exercise Leader
- Hairstylist Journey person
- Interactive Group Management
- Leave No Trace Trainer
- Medical First Responder
- Resistance Training Leader
- Sports Nutrition
- Sports Taping and Strapping
- Standard First Aid with CPR C and AED
- Trained Coach

Compete in Skills Canada Alberta with these Pathways



- Aesthetics
- Baking
- Culinary Arts
- Hairstyling – Intermediate/Junior/Senior
- Job Interview
- Prepared Speech
- Workplace Safety



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. This cluster includes courses related to art and culture, such as the performing arts, film and video, broadcasting, journalism, writing, creative design, fashion, libraries and museums.

Credentials/credit accessible through MDC Pathways

- Costume Sewing Assessment Level I
- Level II (Stitcher Advanced)
- Adobe Certified Expert (ACE) in Illustrator CS4
- Adobe Certified Expert (ACE) in InDesign CS4
- Adobe Certified Expert (ACE) in Photoshop CS4

Compete in Skills Canada Alberta with these Pathways



- 2D Computer Animation
- 3D Computer Animation
- Architectural Technology and Design
- Fashion Technology
- Graphic Design
- Mechanical CADD
- TV and Video Production
- Website Development



For a complete listing of the courses that make up the pathways listed, visit

Natural Resources

NAT

NAT focuses on conservation and the sustainable use of natural resources. In this cluster, learners 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.

Credentials/credit accessible through NAT Pathways

- Alberta Conservation and Fishing Education Program
- Alberta Conservation and Hunter Education Program
- International Bowhunter Education Program
- Pleasure Craft Operator Card



TMT

Trades, Manufacturing & Transportation

The TMT cluster focuses on skills and knowledge related to the design, construction, fabrication and maintenance of a product. This cluster includes courses that relate to manufacturing, processing, utilities, construction, mechanics, fabrication, trades supervision, trades contracting, logistics, transportation and heavy equipment.

Credentials/credits accessible through TMT Pathways

- Auto Service Technician First Period Apprenticeship
- Carpenter First Period Apprenticeship
- Welder First Period Apprenticeship

Compete in Skills Canada Alberta with these Pathways



- Auto Body Repair
- Auto Service
- Cabinet Making
- Carpentry
- Electrical Wiring
- Outdoor Power and Recreation Equipment
- Precision Machining
- Welding



For a complete listing of the courses that make up the pathways listed, visit

Pathway Planning

Career development requires students to develop enthusiasm for lifelong learning that carries them beyond learning in school. Ultimately, students make their links between school, career development and post-secondary options. Creating personalized pathways in CTS allows students the opportunity to expand their career goals and interests and make connections among CTS courses and other subjects.

This is Alvaro; he is starting Grade 10 next year and is excited about choosing his own CTS courses. He met with his school counsellor and together they came up with a pathway using the “Pathway Planner” and a list of the courses available at his school that will help him achieve his goals.

I am really interested ... in being creative. I love everything about the movies, the costumes, the types of camera shots and the angles the camera work is done from. I was really good in fashion and design studies in junior high.



Code / Course Title

COM1005	Visual Composition
COM1105	Audio/Video
DES1020	The Design Process
DES1010	Sketch, Draw & Model
FAS1000	Fashion Illustration 1
FAS1030	Sewing Fundamentals
EST1140	Theatrical Makeup 1
COM2115	AV Production 1
COM2125	AV Postproduction 1
FAS2180	Creative Costuming
EST2140	Theatrical Makeup 2
COM3115	AV Production 2
FAS3180	Theatrical Costuming

I would like to complete this pathway because ... I would love to direct my own movie. This could lead to taking a program at NAIT and then work in the movie industry when I am finished school.



