



CTS Skills Canada Alberta Pathways

This document has been provided to help teachers and students prepare for Skills Canada Alberta regional and provincial competitions.

A pathway is a selection of courses providing students with opportunities to explore and acquire the attitudes, skills, knowledge, and values for future careers that are relevant to their interests. Pathways can help students work toward goals that may include university, college, apprenticeship training or moving directly into the workforce.

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, provincial and/or national level.

This is a listing of specialized skill pathways that could help students succeed at Skills Canada Alberta events. The list of Career and Technology Studies (CTS) suggested courses for each competition are provided to ensure that students are adequately prepared. The scope documents at [Skills Canada Alberta: All Events](#) contain competition details and current information.

For more information, visit [Skills Canada Alberta](#).

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Select a Skills Canada Alberta pathway (described as a discipline at the Skills Canada Alberta website) to see all the courses suggested to complete that particular pathway. Go to the CTS cluster and find the pathway listed alphabetically.

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Skills Canada Alberta Pathways Descriptions

Business, Administration, Finance, & Information Technology (BIT) Skills Canada Alberta Pathways

IT & Network Support

NET2020: Workstation Technology & Operations	NET3050: Network Operating Systems
NET2030: Network Structures	NET3070: Routing Fundamentals
NET2040: Network Media & Devices	NET3090: Network Management
NET2060: Network Protocols	NET3100: Network Media & Devices, Security
NET2070: Local Area Networks	

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IT Office Software Applications – Level 1

INF1030: Word Processing 1
INF1060: Spreadsheet 1

INF1070: Digital Presentation

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IT Office Software Applications – Level 2

INF1030: Word Processing 1
INF1050: Database 1
INF1060: Spreadsheet 1
INF1070: Digital Presentation
INF2050: Word Processing 2
INF2070: Database 2

INF2080: Spreadsheet 2
INF2090: Correspondence
INF2100: Reports
INF3060: Word Processing 3
INF3095: Productivity Software Integration

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Robotics

CSE1110: Structured Programming 1
CSE1120: Structured Programming 2
CSE1240: Robotics Programming 1
CSE2110: Procedural Programming 1
CSE2240: Robotics Programming 2
CSE3240: Robotics Programming 3
DES1020: The Design Process
DES1040: 3-D Design 1
DES1050: CAD 1
DES1060: Technical Design & Drafting 1
DES2045: 3-D Design 2

DES2055: CAD 2
DES2075: Technical Drafting 2
DES3105: Engineering Design
ELT1010: Electro-Assembly 1
ELT1130: Robotics 1
ELT1140: Robotics Applications
ELT2140: Robotics 2
ELT2160: Robotics Sensor 1
ELT2170: Robotics Sensor 2
ELT3140: Motors
ELT3150: Robotics 3

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Health, Recreation, & Human Services (HRH) Skills Canada Alberta Pathways

Aesthetics

COS1010: Personal & Professional Practices
EST1020: Skin Care Practices
EST1025: Skin Care Practices – Client Services
EST1070: Manicuring 1
EST2030: Facials
EST2035: Facials – Client Services
EST2050: Make-up

EST2055: Make-up – Client Services
EST2070: Manicuring 2
EST2075: Manicuring 3 – Client Services
EST2090: Nail Art
EST3070: Pedicuring
EST3075: Manicuring & Pedicuring – Client Services

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Baking

Option 1:

FOD1010: Food Basics
 FOD1020: Contemporary Baking
 FOD2040: Cake & Pastry
 FOD2050: Bread Products
 FOD3030: Creative Baking
 FOD3040: Yeast Products
 CKA3401: Kitchen Orientation
 CKA3406: Kitchen Mathematics
 CKA3456: Introduction to Baking
 CKA3461: Breads & Cookies
 CKA3466: Pies & Fillings

Option 2:

BKA3400: Tools & Equipment
 BKA3405: Raised Goods Theory 1
 BKA3410: Raised Goods Practical 1
 BKA3415: Raised Goods Theory 2
 BKA3420: Raised Goods Practical 2
 BKA3425: Baking & Frying
 BKA3430: Cakes
 BKA3435: Cookies
 BKA3440: Quick Breads
 BKA3445: Pastries
 BKA3450: Custards & Fillings
 BKA3455: Icings & Piping
 BKA3460: Baking Math

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Culinary Arts

Non-apprenticeship Option:

FOD1010: Food Basics
 FOD2040: Cake & Pastry
 FOD2060: Milk Products & Eggs
 FOD2070: Soups & Sauces
 FOD2100: Basic Meat Cookery
 FOD2180: Vegetables & Fruits
 FOD2190: Grains, Legumes, Pulses, Nuts & Seeds
 FOD3030: Creative Baking
 FOD3050: Advanced Soups & Sauces
 FOD3060: Food Presentation
 FOD3080: Advanced Meat Cookery

Apprenticeship Option:

CKA3401: Kitchen Orientation
 CKA3406: Kitchen Mathematics
 CKA3411: Meats & Seafood 1
 CKA3416: Meats & Seafood 2
 CKA3421: Cooking Proteins 1
 CKA3426: Cooking Proteins 2
 CKA3431: Stocks & Soups
 CKA3436: Thickeners & Sauces
 CKA3441: Fruits & Vegetables
 CKA3446: Starches & Salads
 CKA3451: Breakfast & Dairy
 CKA3456: Introduction to Baking
 CKA3461: Breads & Cookies
 CKA3466: Pies and Fillings

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Hairstyling – Junior

COS1010: Personal & Professional Practices
 COS1020: Long Hair Design 1
 COS2010: Long Hair Design 2
 HSA3410: Hair & Scalp Care 2

HSA3570: Hair Colouring 1
 HSA3580: Hair Colouring 2 – Oxidative
 HSA3590: Hair Colouring 4 – Decolourization
 HSA3450: Haircutting 1

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Hairstyling – Intermediate

COS1020: Long Hair Design 1
 COS2010: Long Hair Design 2
 HSA3400: Hair & Scalp Care 1
 HSA3410: Hair & Scalp Care 2
 HSA3450: Haircutting 1
 HSA3505: Hair Care & Cutting 1 – Client Services

HSA3570: Hair Colouring 1
 HSA3580: Hair Colouring 2 – Oxidative
 HSA3590: Hair Colouring 4 – Decolourization
 HSA3625: Hair Goods & Extensions – Client Services
 HSA3640: Creative Cosmetology
 HSA3650: Competition Cosmetology

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Hairstyling – Senior

COS2010: Long Hair Design 2	HSA3505: Hair Care & Cutting 1 – Client Services
HSA3410: Hair & Scalp Care 2	HSA3515: Hair Care & Cutting 2 – Client Services
HSA3430: Hair Styling 1	HSA3570: Hair Colouring 1
HSA3440: Hair Styling 2	HSA3580: Hair Colouring 2 – Oxidative
HSA3450: Haircutting 1	HSA3590: Hair Colouring 4 – Decolourization
HSA3455: Haircutting 2 – Client Services	HSA3640: Creative Cosmetology
HSA3460: Haircutting 3 – Advanced Techniques	HSA3650: Competition Cosmetology

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Job Search

CTR1010: Job Preparation	HSS3050: Becoming a Mentee
CTR2010: Job Maintenance	

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Job Skill Demonstration

HCS3000: Workplace Safety Systems	HSS1090: Speaking & Presenting
HCS3010: Workplace Safety Practices	

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Public Speaking

COM3005: Creative Writing	HSS1090: Speaking & Presenting
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Workplace Safety

HCS2020: First Aid/CPR with AED	HCS3010: Workplace Safety Practices
HCS3000: Workplace Safety Systems	HSS1090: Speaking and Presenting

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Media, Design, & Communication Arts (MDC) Skills Canada Alberta Pathways

2D Computer Animation

COM1005: Visual Composition	COM2055: Web Design 2
COM1035: Graphics Tools	COM2145: Animation 2
COM1055: Web Design 1	COM3035: Raster Graphics 2
COM1145: Animation 1	COM3045: Vector Graphics 2
COM2035: Raster Graphics 1	COM3055: Rich Media – Basics
COM2045: Vector Graphics 1	COM3145: Animation 3

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3D Computer Animation

COM1005: Visual Composition	DES1010: Sketch, Draw & Model
COM1035: Graphics Tools	DES1020: The Design Process
COM1145: Animation 1	DES1040: 3-D Design 1
COM2035: Raster Graphics 1	DES1050: CAD 1
COM2045: Vector Graphics 1	DES2045: 3-D Design 2
COM2145: Animation 2	DES2055: CAD 2
COM3035: Raster Graphics 2	DES3045: 3-D Design 3
COM3045: Vector Graphics 2	DES3055: CAD 3
COM3145: Animation 3	DES3155: Modelling – Virtual

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Architectural Technology & Design

DES1010: Sketch, Draw & Model	DES2065: Technical Design 2
DES1020: The Design Process	DES2075: Technical Drafting 2 or DES2055: CAD 2
DES1030: 2-D Design 1	DES3035: 2-D Design 3
DES1040: 3-D Design 1	DES3045: 3-D Design 3
DES1050: CAD 1	DES3065: Technical Design 3
DES1060: Technical Design & Drafting 1	DES3075: Technical Drafting 3 or DES3055: CAD 3
DES2035: 2-D Design 2	DES3095: Architectural Design
DES2045: 3-D Design 2	

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Fashion Technology

FAS1000: Fashion Illustration 1	FAS2090: Specialty Fabrics 1
FAS1010: Fashion Dynamics	FAS2130: Construction Fundamentals 2
FAS1030: Sewing Fundamentals	FAS3000: Fashion Illustration 3
FAS1050: Redesign, Recycle & Restore	FAS3020: Computer-aided Pattern Design 2
FAS1060: Creating Accessories 1	FAS3030: Pattern Drafting 2
FAS1130: Construction Fundamentals 1	FAS3040: Contemporary Tailoring
FAS1190: Textile Arts 1	FAS3050: Flat Pattern 2
FAS2000: Fashion Illustration 2	FAS3070: Creators of Fashion
FAS2030: Computer-aided Pattern Design 1	FAS3090: Specialty Fabrics 2
FAS2050: Flat Pattern 1	FAS3130: Construction Fundamentals 3
FAS2060: Pattern Drafting 1	

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Graphic Design

COM1005: Visual Composition	COM2045: Vector Graphics 1
COM1025: Typography	COM2155: Design – Brand Identity
COM1035: Graphics Tools	COM2165: Printing 2
COM1165: Printing 1	COM3025: Electronic Layout & Publishing 2
COM2015: Media Impact	COM3035: Raster Graphics 2
COM2025: Electronic Layout & Publishing 1	COM3045: Vector Graphics 2
COM2035: Raster Graphics 1	

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Mechanical CADD

DES1010: Sketch, Draw & Model	DES2055: CAD 2
DES1020: The Design Process	DES2065: Technical Design 2
DES1030: 2-D Design 1 or DES1040: 3-D Design 1	DES3035: 2-D Design 3 or DES3045: 3-D Design 3
DES1050: CAD 1	DES3055: CAD 3
DES1060: Technical Design & Drafting 1	DES3065: Technical Design 3
DES2035: 2-D Design 2 or DES2045: 3-D Design 2	

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Photography

COM1005: Visual Composition	COM2205: Photography – Composition
COM1205: Photography – Introduction	COM2215: Photography – Communication
COM1215: Photography – Exposure	COM2235: Photography – Lenses
COM1275: Photography – Digital Processing 1	COM3215: Photography – Photojournalism

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TV & Video Production

COM1005: Visual Composition	COM3105: AV Preproduction 2
COM1105: Audio/Video	COM3115: AV Production 2
COM2105: AV Preproduction 1	COM3125: AV Postproduction 2
COM2115: AV Production 1	COM3135: Audio Techniques
COM2125: AV Postproduction 1	COM3165: AV Broadcasting
COM3005: Creative Writing	

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Website Development

COM1005: Visual Composition	CSE1110: Structured Programming 1
COM1055: Web Design 1	CSE1120: Structured Programming 2
COM2035: Raster Graphics 1	CSE1210: Client-side Scripting 1
COM2045: Vector Graphics 1	CSE1220: Client-side Scripting 2
COM2055: Web Design 2	CSE2110: Procedural Programming 1
COM3035: Raster Graphics 2	CSE2120: Data Structures 1
COM3045: Vector Graphics 2	CSE2210: Client-side Scripting 3
COM3055: Rich Media – Basics	CSE3210: Server-side Scripting 1
COM3065: Rich Media – Programming	INF1050: Database 1
COM3075: Cascading Style Sheets	INF1070: Digital Presentation

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Trades, Manufacturing, & Transportation (TMT) Skills Canada Alberta Pathways

Auto Service

Non-apprenticeship Option:

MEC1040: Engine Fundamentals
 MEC1090: Electrical Fundamentals
 MEC2030: Lubrication & Cooling
 MEC2040: Fuel & Exhaust Systems
 MEC2060: Ignition Systems
 MEC2070: Emission Controls
 MEC2090: Electrical Components
 MEC2110: Braking Systems
 MEC2130: Drive Line
 MEC2140: Transmissions/Transaxles
 MEC2150: Suspension Systems
 MEC2160: Steering Systems
 MEC3030: Engine Diagnosis
 MEC3040: Engine Tune-up
 MEC3060: Engine Reconditioning – Head
 MEC3070: Engine Reconditioning – Block
 MEC3090: Computer Systems
 MEC3130: Automatic Transmissions
 MEC3150: Wheel Alignment

Apprenticeship Option:

ASA3400: Basic Tools & Materials
 ASA3402: Vehicle Service Information
 ASA3405: Electrical Principles
 ASA3410: Electrical Circuits
 ASA3412: Electrical Service
 ASA3415: Frames & Undercarriage
 ASA3420: Steering Systems
 ASA3425: Suspension Systems
 ASA3430: Alignment Procedures
 ASA3435: Brake Fundamentals
 ASA3440: Disc & Drum Brakes
 ASA3445: Brake System Repairs
 ASA3450: Wheels & Drive Lines
 ASA3452: Maintenance & Trailers
 ASA3900: Apprenticeship Safety

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Autobody Repair

Non-apprenticeship Option:

MEC1160: Structures & Materials
 MEC1170: Metal Forming & Finishing
 MEC1190: Surface Preparation 1
 MEC2170: Metal Repair & Finishing
 MEC2190: Surface Preparation 2
 MEC2200: Refinishing 1
 MEC2210: Touch-up & Finishing
 MEC2220: Interior Repairs
 MEC3160: Body Repair Estimation
 MEC3170: Damage Analysis
 MEC3180: Damage Repair 1
 MEC3190: Damage Repair 2
 MEC3200: Refinishing 2
 MEC3210: Plastic & Fibreglass
 MEC3230: Refinishing 3

Apprenticeship Option:

ABA3400: Batteries, Trim & Tools
 ABA3405: Component Maintenance
 ABA3410: Substrates
 ABA3415: Fillers
 ABA3420: Surface Preparation
 ABA3425: Masking
 ABA3430: Undercoating
 ABA3900: Apprenticeship Safety

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Cabinet Making

CON1010: Construction Tools & Materials
 CON1120: Product Management
 CON1130: Solid Stock Construction
 CON2130: Furniture – Box Construction

CON2150: Finishing and Refinishing
 CON3130: Furniture Leg and Rail Construction
 CON3140: Furniture Surface Enhancement

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Carpentry

Non-apprenticeship Option:
 CON1010: Construction Tools & Materials
 CON1070: Building Construction
 CON1120: Product Management
 CON1130: Solid Stock Construction
 CON2035: Framing Systems – Floor
 CON2045: Framing Systems – Wall
 CON2050: Roof Structures 1

Apprenticeship Option:
 CRA3400: Introduction to Work Site Safety
 CRA3405: Basic Hand, Power Tools & Safety
 CRA3410: Construction Materials & Processes
 CRA3425: Blueprint Drawings & Sketching
 CRA3430: Construction Machines, Tools & Equipment
 CRA3435: Blueprint Interpretation

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Electrical Installations

Non-apprenticeship Option:
 ELT1010: Electro-Assembly
 ELT1030: Conversion & Distribution
 ELT1080: Control Systems 1
 ELT1110: Security Systems 1
 ELT2030: Branch Circuit Wiring
 ELT2130: Magnetic Control Devices
 ELT3030: Power Systems & Services

Apprenticeship Option:
 ETA3400: Electrical Principles
 ETA3405: Electrical Concepts
 ETA3410: Resistive Circuits
 ETA3455: Conductors & Grounding
 ETA3460: Wiring & Installation

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Joinery

CON1010: Construction Tools & Materials
 CON1120: Product Management

CON1130: Solid Stock Construction
 CON2140: Furniture – Frame & Panel

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Outdoor Power & Recreation Equipment

MEC1010: Modes & Mechanisms
 MEC1015: Mechanics Tools & Materials
 MEC1020: Vehicle Service & Care
 MEC1040: Engine Fundamentals

MEC1090: Electrical Fundamentals
 MEC1110: Pneumatics & Hydraulic Systems
 MEC1130: Mechanical Systems
 MEC1150: Ride & Control Systems

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Precision Machining

Non-apprenticeship Option:
 FAB1130: Principles of Machining
 FAB2130: Precision Turning 1
 FAB2140: Precision Milling 1
 FAB3130: Precision Turning 2
 FAB3140: Precision Milling 2

Apprenticeship Option:
 MWA3425: Drilling & Milling
 MWA3430: Lathe Introduction
 MWA3435: Lathe Operation

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Welding

Non-apprenticeship Option:

FAB1010: Fabrication Tools & Materials
 FAB1040: Oxyacetylene Welding
 FAB1048: Semi-automated/Automated Welding
 FAB1050: Basic Electric Welding
 FAB2020: Print Reading
 FAB2030: Oxyfuel Welding
 FAB2040: Thermal Cutting
 FAB2048: Flux Cored Arc Welding 1
 FAB2050: Arc Welding 1
 FAB2060: Arc Welding 2
 FAB2070: Gas Metal Arc Welding 1
 FAB3048: Flux Cored Arc Welding 2
 FAB3050: Arc Welding 3
 FAB3060: Arc Welding 4
 FAB3170: Gas Metal Arc Welding 2

Apprenticeship Option:

WDA3401: Tools & Equipment
 WDA3403: Oxyfuel & Plasma Arc
 WDA3406: Electricity & Metals
 WDA3407: Symbols & Drawings
 WDA3411: Wire-Feed Welding
 WDA3413: Gases & Maintenance
 WDA3415: GMAW on Mild Steel
 WDA3420: FCAW & MCAW on Mild Steel
 WDA3423: Mild Steel Welds
 WDA3427: Mild Steel Pipe Welds

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