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 a potential career. 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 Alberta Event View contain competition details and current information.

For more information, visit Skills Canada Alberta.

Pathway Menu

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 Systems Administration	
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	

IT Office Software Applications – Level 1	
INF1030: Word Processing 1	INF1070: Digital Presentation
INF1060: Spreadsheet 1	

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

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

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

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

Culinary Arts

Non-apprenticeship Option:	Apprenticeship Option:
FOD1010: Food Basics	CKA3401: Kitchen Orientation
FOD2040: Cake & Pastry	CKA3406: Kitchen Mathematics
FOD2060: Milk Products & Eggs	CKA3411: Meats & Seafood 1
FOD2070: Soups & Sauces	CKA3416: Meats & Seafood 2
FOD2100: Basic Meat Cookery	CKA3421: Cooking Proteins 1
FOD2180: Vegetables & Fruits	CKA3426: Cooking Proteins 2
FOD2190: Grains, Legumes, Pulses, Nuts & Seeds	CKA3431: Stocks & Soups
FOD3030: Creative Baking	CKA3436: Thickeners & Sauces
FOD3050: Advanced Soups & Sauces	CKA3441: Fruits & Vegetables
FOD3060: Food Presentation	CKA3446: Starches & Salads
FOD3080: Advanced Meat Cookery	CKA3451: Breakfast & Dairy
	CKA3456: Introduction to Baking
	CKA3461: Breads & Cookies
	CKA3466: Pies and Fillings

Hairstyling – Junior

COS1010: Personal & Professional Practices	HSA3450: Haircutting 1
COS1020: Long Hair Design 1	HSA3570: Hair Colouring 1
COS2010: Long Hair Design 2	HSA3580: Hair Colouring 2 – Oxidative
HSA3410: Hair & Scalp Care 2	HSA3590: Hair Colouring 4 – Decolourization

Hairstyling – Intermediate

COS1020: Long Hair Design 1	HSA3570: Hair Colouring 1
COS2010: Long Hair Design 2	HSA3580: Hair Colouring 2 – Oxidative
HSA3400: Hair & Scalp Care 1	HSA3590: Hair Colouring 4 – Decolourization
HSA3410: Hair & Scalp Care 2	HSA3625: Hair Goods & Extensions – Client Services
HSA3450: Haircutting 1	HSA3640: Creative Cosmetology
HSA3505: Hair Care & Cutting 1 – Client Services	HSA3650: Competition Cosmetology

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

Job Search

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

Job Skill Demonstration

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

Public Speaking

COM3005: Creative Writing	HSS1090: Speaking & Presenting

Workplace Safety

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

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

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

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	

Fashion Technology

FAS1000: Fashion Illustration 1
FAS1010: Fashion Dynamics
FAS1030: Sewing Fundamentals
FAS1050: Redesign, Recycle & Restore
FAS1060: Creating Accessories 1
FAS1130: Construction Fundamentals 1
FAS1190: Textile Arts 1
FAS2000: Fashion Illustration 2
FAS2030: Computer-aided Pattern Design 1
FAS2050: Flat Pattern 1
FAS2060: Pattern Drafting 1

FAS2090: Specialty Fabrics 1
FAS2130: Construction Fundamentals 2
FAS3000: Fashion Illustration 3
FAS3020: Computer-aided Pattern Design 2
FAS3030: Pattern Drafting 2
FAS3040: Contemporary Tailoring
FAS3050: Flat Pattern 2
FAS3070: Creators of Fashion
FAS3090: Specialty Fabrics 2
FAS3130: Construction Fundamentals 3

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Graphic Design

COM1005: Visual Composition
COM1025: Typography
COM1035: Graphics Tools
COM1165: Printing 1
COM2015: Media Impact
COM2025: Electronic Layout & Publishing 1
COM2035: Raster Graphics 1

COM2045: Vector Graphics 1
COM2155: Design – Brand Identity
COM2165: Printing 2
COM3025: Electronic Layout & Publishing 2
COM3035: Raster Graphics 2
COM3045: Vector Graphics 2

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Mechanical CADD

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

DES2055: CAD 2
DES2065: Technical Design 2
DES3035: 2-D Design 3 or DES3045: 3-D Design 3
DES3055: CAD 3
DES3065: Technical Design 3

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Photography

COM1005: Visual Composition
COM1205: Photography – Introduction
COM1215: Photography – Exposure
COM1275: Photography – Digital Processing 1

COM2205: Photography – Composition
COM2215: Photography – Communication
COM2235: Photography – Lenses
COM3215: Photography – Photojournalism

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Video Production

COM1005: Visual Composition
COM1105: Audio/Video
COM2105: AV Preproduction 1
COM2115: AV Production 1
COM2125: AV Postproduction 1
COM3005: Creative Writing

COM3105: AV Preproduction 2
COM3115: AV Production 2
COM3125: AV Postproduction 2
COM3135: Audio Techniques
COM3165: AV Broadcasting

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

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

2018

Autobody Repair

Non-apprenticeship Option:	Apprenticeship Option:
MEC1160: Structures & Materials	ABA3401: Workplace Skills
MEC1170: Metal Forming & Finishing	ABA3402: Tools, Batteries & Detailing
MEC1190: Surface Preparation 1	ABA3405: Removal & Installation 1
MEC2170: Metal Repair & Finishing	ABA3406: Removal & Installation 2
MEC2190: Surface Preparation 2	ABA3410: Substrates
MEC2200: Refinishing 1	ABA3415: Fillers
MEC2210: Touch-up & Finishing	ABA3420: Surface Preparations
MEC2220: Interior Repairs	ABA3425: Masking
MEC3160: Body Repair Estimation	ABA3430: Undercoating
MEC3170: Damage Analysis	ABA3900: Apprenticeship Safety
MEC3180: Damage Repair 1	
MEC3190: Damage Repair 2	
MEC3200: Refinishing 2	
MEC3210: Plastic & Fibreglass	
MEC3230: Refinishing 3	

Cabinet Making

Non-apprenticeship Option:	Apprenticeship Option:
CON1010: Construction Tools & Materials	CMA3400: Properties of Wood
CON1120: Product Management	CMA3405: Processing Lumber
CON1130: Solid Stock Construction	CMA3410: Adhesives & Fasteners
CON2130: Furniture – Box Construction	CMA3415: Abrasives & Joinery
CON2150: Finishing and Refinishing	CMA3420: Hand Tools 1
CON2170: Cabinetmaking Door & Drawer	CMA3425: Hand Tools 2
CON3130: Furniture - Leg & Rail Construction	CMA3430: Electric & Air Tools
CON3140: Furniture - Surface Enhancement	CMA3435: Power Saws
	CMA3440: Tooling Equipment
	CMA3445: Band Saws & Planers
	CMA3450: Drafting Basics
	CMA3455: Drawings & Cut Lists
	CMA3460: CAD & Print Reading
	CMA3465: Trade Mathematics
	CMA3900: Apprenticeship Safety

2018

Carpentry

Non-apprenticeship Option:	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	CRA3402: Building Materials CRA3407: Hand Tools Theory CRA3412: Hand Tools Practical CRA3417: Portable Power Tools CRA3422: Stationary Tools CRA3427: Accessory Tools CRA3432: Building Foundations CRA3437: Foundations Theory CRA3442: Foundations Practical CRA3447: Floor Frames CRA3452: Sketching & Drawing CRA3457: Drawing Principles CRA3462: Math Concepts CRA3467: Estimating CRA3900: Apprenticeship Safety

Car Painting

Non-apprenticeship Option:	Apprenticeship Option:
MEC1160: Structures & Materials MEC1170: Metal Forming & Finishing MEC1190: Surface Preparation 1 MEC2010: Vehicle Detailing MEC2170: Metal Repair & Finishing MEC2190: Surface Preparation 2 MEC2200: Refinishing 1 MEC2210: Touch-up & Finishing MEC3160: Body Repair Estimation MEC3170: Damage Analysis MEC3180: Damage Repair 1 MEC3190: Damage Repair 2 MEC3200: Refinishing 2 MEC3210: Plastic & Fibreglass MEC3230: Refinishing 3	ABA3401: Workplace Skills ABA3402: Tools, Batteries & Detailing ABA3405: Removal & Installation 1 ABA3406: Removal & Installation 2 ABA3410: Substrates ABA3415: Fillers ABA3420: Surface Preparations ABA3425: Masking ABA3430: Undercoating ABA3900: Apprenticeship Safety

Electrical Installations

Non-apprenticeship Option:	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	ETA3400: Electrical Principles ETA3405: Electrical Concepts ETA3410: Resistive Circuits ETA3420: Power & Efficiency ETA3430: Meters & Connections ETA3450: Introduction to Code ETA3455: Conductors & Grounding ETA3460: Wiring & Installation ETA3900: Apprenticeship Safety

Joinery

CON1010: Construction Tools & Materials
CON1120: Product Management

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

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

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
MWA3900: Apprenticeship Safety

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
WDA3900: Apprenticeship Safety