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2026-2027

Montana Career Pathways

Last Updated Nov. 12th, 2026

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Montana OPI Career, Technical, and Adult Education

MONTANA OFFICE OF PUBLIC INSTRUCTION

MONTANA APPROVED PATHWAY LIST

Agricultural Education

- Agribusiness
- Agriculture Technology & Automation
- Animal Science
- Food Science & Processing
- Plant Systems
- Energy & Utilities - AgEd
- Conservation & Land Management

Art Entertainment & Design Education

- Fine & Performing Arts
- Design & Digital Arts
- Fashion, Textiles & Interiors

Business & Marketing Education

- Accounting
- Banking & Financial Strategy
- Data & Computer Science
- IT, Networking & Cybersecurity
- Management & Entrepreneurship
- Marketing & Sales
- Design & Digital Arts

Family & Consumer Sciences Education

- Fashion, Textiles & Interiors
- Early Childhood Care & Education
- Teaching & Training
- Culinary & Food Services
- Travel & Event Management
- Human & Community Services

Health & Public Safety Education

- Allied Health Professions
- Biotechnology Research & Health Administration
- Emergency Response
- Military & National Security
- Montana Tribal Leadership & Government - Coming Soon - 2028

Industrial Technology Education

- Skilled Trades: Construction & Heavy Equipment
- Skilled Trades: Welding & Fabrication
- Skilled Trades: HVAC & Electrical
- Engineering & Advanced Manufacturing
- Automotive Maintenance & Repair
- Air, Space, Ground & Marine Transportation
- Energy & Utilities - ITE



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Understanding the Guide

We hope this guide helps you develop your school's Montana Career Pathways. The following pages are split by content area, and some pathways appear in multiple content areas. Below is a description of each section found in those content areas, starting with the Cluster information page and followed by each Pathway information page(s).

Cluster Name

Pathway Name

At the top of the section you'll see the Career Clusters underlined and below are the Pathways for that cluster. Pathways pages contain the specific programs of study.

Prior to High School Courses

These are courses that could count towards the foundational work in a pathway. They need to be aligned with the High School course curriculum and taught by a CTE-certified teacher in 7th and 8th grade. These courses will not count towards State CTE Funding calculations for High School.

Foundational Across ALL Pathways

These courses can count towards foundational credit in all the pathways offered by the district. Only identify pathways your district offers, not all 33 pathways.

Foundation, Elective, Work-Based Learning Capstone

These sections are a comprehensive list of course codes for this pathway. To become a concentrator in this pathway, students need to earn 1 credit in the Foundational courses and 1 credit in the Elective courses or Work-Based Learning Capstone courses. Dual Credit can also count towards the Elective credit if directly related to the pathway.

IRC, Future Ready, and Dual Credit

The Dual Credit, Industry Recognized Credentials (IRC), and Future Ready IRCs are not an exhaustive list; rather, they are the most common in the pathway. Please confer with colleges, the Office of the Commissioner of Higher Education's (OCHE) toolkit, and the Credential Registry hosted by the Department of Labor and Industry (DLI) to find the current list.



Montana Agricultural Education

2026-27 Course Offerings and Codes













AGRICULTURAL EDUCATION COURSE OFFERINGS AND CODES

The following is the list of Agricultural Education Pathways, Courses, and SCED codes. It is important to list courses on high school transcripts by these course titles and codes. The courses listed within each of the Secondary Programs of Study utilize the Montana K-12 Course Codes.

These course codes are based upon the national SCED (School Codes for the Exchange of Data) Codes and are the same course codes local districts use when entering course data into the OPI's Infinite Campus school staffing system. The data entered into Infinite Campus is the same data used for completion of the Montana CTE Student Participation Reports and the calculation of Montana VoEd/CTE funding.

Pathways offering in 2026-2027 school year

Agriculture

Agribusiness

Agriculture Technology & Automation

Animal Science

Food Science & Processing

Plant Systems

Energy & Natural Resources

Energy & Utilities

Conservation & Land Management

Agricultural Education Courses Available

The focus of the agricultural education curriculum is a core of basic knowledge relating to agriculture. This knowledge base, coupled with a strong Supervised Agricultural Education program and the FFA, creates a well-rounded program that serves all students who wish to pursue an advanced interest for career development in agriculture.

In 2025, Agricultural Education took a big step to ensure that Montana's Agricultural Education students have the skills and abilities to be successful in college or successful in the workplace. That is why we developed curriculum standards for Agricultural Education.

These benchmarks are designed around the state and national Career Clusters Initiative and serve as a compass to direct curriculum, set goals, and measure successes. By following courses in seven different pathways, we in Agricultural Education have found a place for all students who are college-bound and job-ready.

These pathways and standards will serve as the catalyst in adding value to the experiences of students who enroll in our programs and give us the opportunity to prove that what we provide has value and why. All courses have an FFA component as well as a Supervised Agricultural Experience (SAE).

Prior to High School

Middle School Agriculture Education Course Codes

68001 - Introduction to Agriculture and Natural Resources
68002 - Agriculture - Comprehensive
68003 - Agriculture and Natural Resources - Comprehensive

Foundational Across All CTE Pathways

These courses give students the opportunity to learn valuable skills that can be utilized across CTE pathways

02154 - Business Mathematics
02157 - Consumer Mathematics
12053 - Entrepreneurship
19262 - Consumer Economics/Personal Finance
22101 - Leadership

Agribusiness

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18307 - Agriculture and Society

Pathway Elective

18201 - Agribusiness Management
18202 - Agricultural Entrepreneurship
18203 - Agricultural Leadership
18205 - Agriculture Computers and Technology

Work-Based Learning Capstone

18248 - Agribusiness - Workplace Experience
18993 - Agriculture, Food and Natural Resources - School-based
18994 - Agriculture, Food and Natural Resources - Career
18998 - Agriculture, Food, and Natural Resources - Workplace

Industry-Recognized Credentials

iCEV
NOCTE
YouScience

Future Ready Credentials

CASE Ag Business Foundations
AS Degree Ag/Animal Science
Bookkeeping Certification
ACRS21 -Montana Farm Bureau

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

M 105 Contemporary Math
M 111 Technical Math
WRIT 121 Technical Writing
COMX 102 Interpersonal Skills in the Workplace
COMX 106 Communicating in the Workplace
COMX 115 Intro to Interpersonal Communication

Please refer to the intended college/program for specific requirements



Agriculture Technology & Automation

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18307 - Agriculture and Society
18401 - Agriculture Mechanics / Equipment / Structures
18402 - Agriculture Mechanics and Equipment

Pathway Elective

13201 - Metalworking Occupations
13202 - Metalworking
18403 - Agriculture Structures
18404 - Agricultural Metal Fabrication Technology

Other Discipline Courses

21060 - Wind Energy
21061 - Wind Turbine Construction and Operations
21058 - Geospatial Technology

Industry-Recognized Credentials

iCEV
NCCER
Lincoln Electric

Future Ready

CASE Small Engines, AFNR
OSHA
NCEER - Ag Tech, Heavy Equipment, Welding Fabrication

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

AST 160 Automotive Engine Repair
DDSN 113 Technical Drafting
DDSN 114 Intro to CAD
WLDG 110 Welding Theory I
WLDG 111 Welding Theory Practical
WLDG 145 Fabrication Basics

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

18448 - Agricultural Mechanics and Construction - Workplace Experience
18993 - Agriculture, Food and Natural Resources - School-based
18994 - Agriculture, Food and Natural Resources - Career
18998 - Agriculture, Food, and Natural Resources - Workplace



Animal Science

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18307 - Agriculture and Society

Pathway Elective

18101 - Animal Production / Science
18102 - Small Animal Care
18103 - Large Animal Care
18104 - Equine Science
18105 - Veterinary Science
18108 - Animal Genetics
18310 - Sustainable / Alternative

Industry-Recognized Credentials

iCEV
NOCTI
NAVATA

Future Ready

Vet Assistant
CASE AHVS, AFNR, Animal
Animal Trainer/Kennel Management
Action Industry Fundamentals
Meat Cutter

Work-Based Learning Capstone

18148 - Animal Systems - Workplace Experience
18993 - Agriculture, Food and Natural Resources - School-based
18994 - Agriculture, Food, and Natural Resources - Career
18998 - Agriculture, Food, and Natural Resources - Workplace

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ANSC 100 Intro to Animal Science
ANSC 202 Livestock Feeding & Nutrition
EQUH Western Equitation
WILD 180 Careers in Wildlife Biology
BGEN 105 Intro to Business
BIOB 101 Discover Biology
ENSC 105 Environmental Science

Please refer to the intended college/program for specific requirements



Food Science & Processing

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18307 - Agriculture and Society

Pathway Elective

18303 - Plant Processing
18304 - Animal Processing
18305 - Food Product Processing
18309 - Particular Topics in Agricultural Production / Processing
18310 - Sustainable / Alternative

Other Discipline Courses

16051 - Exploration of Rest, Food and Beverages Services
16054 - Nutrition and Food Preparation
19254 - Food Science (FCS)

Industry-Recognized Credentials

iCEV
YouScience
CASE Food Science

Future Ready

AMSA Meat Evaluation
ServSafe
Pre-Apprenticeship

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

CULA 100 Culinary Arts Fundamentals
CULA 101 Intro to Knife Skills and Butchery
CULA 105 Food Service Sanitation

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

18348 - Agricultural Production and Processing - Workplace
18993 - Agriculture, Food, and Natural Resources - School-based
18994 - Agriculture, Food, and Natural Resources - Career
18998 - Agriculture, Food, and Natural Resources - Workplace



Plant Systems

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18307 - Agriculture and Society

Pathway Elective

18003 - Agriculture and Natural Resources
18004 - Biological Applications in Agriculture
18051 - Plant Systems / Sciences
18052 - Horticultural Science
18053 - Ornamental Horticulture / Floriculture
18054 - Turf and Landscape Management
18055 - Soil Science
18109 - Integrated Pest Management
18303 - Plant Processing
18310 - Sustainable / Alternative

Industry-Recognized Credentials

iCEV
NOCTI
YouScience
CASE-Plant Science

Future Ready

OSHA
Pre-Apprenticeship
CASE- Plant
ACRS 21- Montana Farm Bureau

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BIOB 101 Discover Biology
ENSC 105 Environmental Science
NRGY 101 Intro to Sustainable Energy
NRSM 101 Natural Resource Conservation

Please refer to the intended college/program for specific requirements

Work- Based Learning Capstone

18098 - Plant Systems - Workplace Experience
18993 - Agriculture, Food, and Natural Resources - School-based
18994 - Agriculture, Food, and Natural Resources - Career
18998 - Agriculture, Food, and Natural Resources - Workplace



Energy & Utilities - AgEd

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18004 - Biological Applications in Agriculture

Pathway Elective

18310 - Sustainable / Alternative
18406 - Water Treatment
18506- Alternative Energy
21057 - Laser / Fiber Optics
21058 - Geospatial Technology
21060 - Wind Energy
21061 - Wind Turbine Construction and Operations
20102 - Power and Mechanics
20119 - Hybrid Engines

Other Discipline Courses

10006 - Telecommunications
20101 - Energy / Power

Industry-Recognized Credentials

Energy Industry Fundamentals
OSHA
YouScience
CASE-Ag Power and Tech

Future Ready

NCCER Electrical
Pre-Apprenticeship
Apprenticeship - Wind Turbine Technician, Water Treatment, Telecommunications Tech

Dual Credit Opportunity(DC)
Office of Higher Education Toolkit - Provides More Detailed Information

NRSM 101 Natural Resource Conservation
M 105 Contemporary Math
M 111 Technical Math
M 151 Precalculus
M 162 Applied Calculus

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

18993 - Agriculture, Food, and Natural Resources - School-Based
18994 - Agriculture, Food, and Natural Resources - Career
18998 - Agriculture, Food, and Natural Resources - Workplace



Conservation & Land Management

Pathway Foundation

18001 - Introduction to Agriculture and Natural Resources
18002 - Agriculture - Comprehensive
18004 - Biological Applications in Agriculture
18307 - Agriculture and Society

Pathway Elective

18109 - Integrated Pest Management
18306 - Aquaculture
18308 - Agricultural Biotechnology
18309 - Particular Topics in Agricultural Production / Processing
18310 - Sustainable / Alternative
18501 - Wildlife and Recreation Management
18502 - Forestry Management
18504 - Natural Resources Management
21058 - Geospatial Technology

Other Discipline Courses

20101 - Energy / Power
21051 - Technological Literacy
21053 - Emerging Technologies

Industry-Recognized Credentials

iCEV
NOCTI
YouScience
CASE- Natural Resources
CASE-Environmental Science

Future Ready

NCCER Electrical
Pre-Apprenticeship
Apprenticeship

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BIOB 101 Discover Biology
ENSC 105 Environmental Science
NRGY 101 Intro to Sustainable Energy
NRSM 101 Natural Resource Conservation
ANSC 100 Intro to Animal Science
ANSC 202 Livestock Feeding & Nutrition
EQUH Western Equitation
WILD 180 Careers in Wildlife Biology
ENSC 105 Environmental Science

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

18548 - Natural Resources - Workplace
18993 - Agriculture, Food, and Natural Resources - School-based
18994 - Agriculture, Food, and Natural Resources - Career
18998 - Agriculture, Food, and Natural Recourses - Workplace



MONTANA OFFICE OF PUBLIC INSTRUCTION

Arts, Entertainment & Design

2026-27 Course Offerings and Codes



ARTS, ENTERTAINMENT & DESIGN EDUCATION OFFERINGS AND CODES

The following is the list of Art, Entertainment & Design Education, Courses, and SCED codes. The courses listed within each of the Secondary Programs of Study utilize the Montana K-12 Course Codes.

These course codes are based upon the national SCED (School Codes for the Exchange of Data) Codes and are the same course codes local districts use when entering course data into the OPI's Infinite Campus school staffing system. The data entered into Infinite Campus is the same data used for completion of the Montana CTE Student Participation Reports and the calculation of Montana VoEd/CTE funding.

2026-2027 Pathways

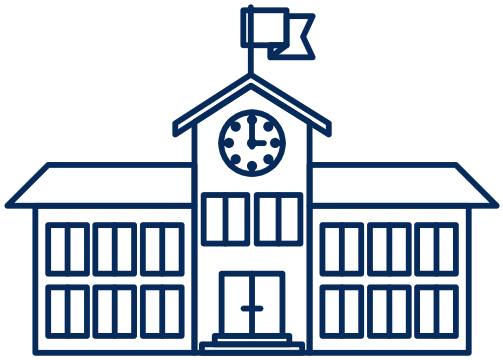
Arts, Entertainment & Design

Fine and Performing Arts
Design & Digital Arts
Fashion, Textiles & Interiors

ARTS, ENTERTAINMENT & DESIGN EDUCATION OFFERINGS AND CODES

Prior to High School

Middle School Arts & Education Course Codes



62001 - Business Career Exploration
62101 - Banking and Finance
60001 - Introduction to Computer Technology
60004 - Computer Applications
60201 - Web Page Design
60202 - Computer Graphics
69256 - Clothing/Sewing

Foundational Across All CTE Pathways

These courses give students the opportunity to learn valuable skills that can be utilized across CTE pathways

02154 - Business Mathematics
02157 - Consumer Mathematics
12053 - Entrepreneurship
19262 - Consumer Economics/Personal Finance
22101 - Leadership



Fine & Performing Arts

Pathway Foundation

05053 - Theater Comprehensive
05056 - Theater- Stagecraft
05157 - Visual Arts—Painting
05162 - Visual Communications Design
05165 - Crafts
05169 - Multimedia Art
19256 - Clothing/Sewing

Pathway Elective

05055 - Theater- Acting/Performance
05061 - Theatrical Production & Management
05168 - Cinematography/Video Production
19203 - Apparel Construction
05158 - Visual Arts—Sculpture
05159 - Ceramics/Pottery
05160 - Printmaking/Graphics
05161 - Printmaking
05164 - Fibers and Textile Design
05166 - Jewelry
05167 - Photography
05170 - Art Portfolio
05172 - AP Drawing
05173 - IB Visual Arts
05174 - AP 2-D Art and Design
05175 - AP 3-D Art and Design

Work-Based Learning Capstone

05098 - Theater—Workplace Experience Theater
05998 - Visual and Performing Arts—Workplace Experience
19248 - Apparel & Furnishings Workplace Experience

Industry-Recognized Credentials

USITT BACKstage Exam
USITT Basic Terms & Safety
USITT Audio
USITT Costume

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ARTJ 210 Jewelry & Metalsmithing I
ARTJ 211 Jewelry & Metalsmithing II
ARTZ 130 Intro. to Ceramics
THTR 101 Intro. to Theatre
THTR 113A Intro. to Voice Acting THTR 120 Intro. to Acting I

Please refer to the intended college/program for specific requirements



Design & Digital Arts

Pathway Foundation

05162 - Visual Communications Design
10201 - Web Page Design
11152 - Desktop Publishing

Pathway Elective

05163 - Advertising Design
10202 - Computer Graphics
11051 - Audio/Visual Production
11054 - Photo Imaging
11055 - Video
11102 - Photojournalism
11104 - Publication Production
11151 - Digital Media Technology
11153 - Digital Media Design and Production
11154 - Commercial Graphic Design
11155 - Graphic Technology
11156 - Photography and Printing Technology
11157 - Photoengraving
11158 - Print Press Operations
17102 - Electricity— Comprehensive
17103 - Residential Wiring
17104 - Industrial Electricity

Industry Recognized Credentials

Adobe Certified Professional
Autodesk Tinkercad 3D Design
YouScience - 3D Animation 1
Autodesk Certified User
YouScience - Digital Marketing

Future Ready

Adobe Certified Professional: Visual Design Using Photoshop - Certiport
Adobe Dreamweaver - Certiport

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ACTG 101 - Accounting Procedures I
ACTG 102 - Accounting Procedures II
BFIN 215 - Fund of Entrepreneurial Finance

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

05298- Media Arts—Workplace Experience
11198 - Printing Technology—Workplace Experience
11993 - Communication and Audio/Video Technology—School Based Enterprise
11994 - Communications and Audio/Video Technology—Career Project Based Learning
11998 - Communications and Audio/Video Technology—Workplace Experience



Fashion, Textiles & Interiors

Pathway Foundation

12053 - Entrepreneurship
19251 - Family & Consumer Sciences--Comp
19256 - Clothing/Sewing
19257 - Life Skills
19260 - Personal Development

Pathway Elective

05164 - Fibers and Textiles Design
05190 - Fashion Design
05193 - Interior Design
19201 - Clothing/Textiles
19202 - Clothing/Textiles Maintenance
19203 - Apparel Construction
19204 - Apparel & Textile Services
19205 - Home Furnishings
19206 - Home Furnishings Production
19258 - Personal and Career Readiness
19263 - Home Environments & Design

Industry Recognized Credentials

AAFCS pre-PAC Fashion, Textiles & Apparel
AAFCS pre-PAC Housing and Interiors
AAFCS pre-PAC Interior Design Fundamentals
AAFCS pre-PAC Leadership Essentials
Adobe Illustrator (with fashion/interiors applications)
Adobe Photoshop (with fashion/interiors applications)

Future Ready

OSHA General Industry 10 hour

Work-Based Learning Capstone

19248 - Apparel & Furnishings Workplace Experience
19298 - Family Consumer Sciences Workplace Experience

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BGEN 215 - Career Readiness
CMLD - 101 - Intro to Community Leadership
IDSN 101 - Intro to Interior Design

Please refer to the intended college/program for specific requirements



MONTANA OFFICE OF PUBLIC INSTRUCTION

Montana Business & Marketing Education

2026-27 Course Offerings and Codes













BUSINESS AND MARKETING COURSE OFFERINGS AND CODES

The following is the list of Business and Marketing Education Pathways, Courses, and SCED codes. It is important to list courses on high school transcripts by these course titles and codes. The courses listed within each of the Secondary Programs of Study utilize the Montana K-12 Course Codes.

These course codes are based upon the national SCED (School Codes for the Exchange of Data) Codes and are the same course codes local districts use when entering course data into the OPI's Infinite Campus school staffing system. The data entered into Infinite Campus is the same data used for completion of the Montana CTE Student Participation Reports and the calculation of Montana VoEd/CTE funding.

Pathways offering in 2026-2027 school year

Financial Services

Accounting

Banking & Financial Strategy

Digital Technology

Data & Computer Science

IT, Networking & Cybersecurity

Business and Marketing

Management & Entrepreneurship

Marketing & Sales

Arts, Entertainment & Design

Design & Digital Arts

Business & Marketing Education Overview

The focus of the Business and Marketing Education curriculum is a core of essential knowledge related to business principles, marketing, and entrepreneurship. This knowledge base, coupled with strong work-based learning opportunities and participation in Career and Technical Student Organizations such as DECA or BPA, creates a well-rounded program that serves all students who wish to pursue advanced interests for career development in business and marketing.

These benchmarks are designed around the state and national Career Clusters Initiative and serve as a compass to guide curriculum development, set goals, and measure success. By following courses in several specialized pathways, Business and Marketing Education has found a place for all students who are college-bound and career-ready.

These pathways and standards will serve as the catalyst for adding value to the experiences of students who enroll in our programs and give us the opportunity to demonstrate the relevance and impact of what we provide. All courses include components of leadership development and practical, hands-on learning experiences.

NOTE: Not all programs offer all of these courses or Career Pathways. The required number of Pathways to be eligible for Perkins is as follows:
Class C - 1 pathways across all CTE areas
Class B - 2 pathways across all CTE areas
Class A/AA - 3 pathways across all CTE areas

Prior to High School

Middle School Business & Marketing Education Course Codes

62001 - Business Career Exploration
62101 - Banking and Finance
60001 - Introduction to Computer Technology
60004 - Computer Applications
60201 - Web Page Design
60202 - Computer Graphics

Foundational Across All CTE Pathways

These courses give students the opportunity to learn valuable skills that can be utilized across CTE pathways

02154 - Business Mathematics
02157 - Consumer Mathematics
12053 - Entrepreneurship
19262 - Consumer Economics/Personal Finance
22101 - Leadership

Accounting

Pathway Foundation

12001 - Business/Office Career Exploration
12052 - Business Management
12104 - Accounting

Pathway Elective

12105 - Business Economics
12108 - Cost Accounting
12109 - Income Tax Accounting
12110 - Payroll Accounting
12111 - Particular Topics in Accounting

Industry Recognized Credentials (IRC)

YouScience - Accounting 1
Personal Finance (Next Gen)
YouScience - General Financial Literacy

Future Ready

Bookkeeping Certification - NACPB
QuickBooks Certified User - Intuit
Tax Level 1 - Intuit
Tax Level 2 - Intuit
Tax Preparation - Intuit
Accounting Certificate

Work-Based Learning Capstone

12993 - Business and Marketing - School-based Enterprise
12994 - Business and Marketing - Career Project Based
12998 - Business and Marketing - Workplace Experience

Dual Credit Opportunity (DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ACTG 101 - Accounting Procedures I
ACTG 102 - Accounting Procedures II
BFIN 205 - Personal Finance

Please refer to the intended college/program for specific requirements



Banking & Financial Strategy

Pathway Foundation

02155 - Business Mathematics with Algebra
02156 - Computer Mathematics with Algebra
12001 - Business/Office Career Exploration
12009 - Business Communications
12052 - Business Management
12104 - Accounting

Pathway Elective

12002 - Office Procedures—Comprehensive
12054 - Business Law
12055 - Business Principles and Management
12101 - Banking and Finance
12102 - Banking
12103 - Finance
12105 - Business Economics
12106 - Risk Management and Insurance
12107 - Securities and Investments
12154 - Marketing—Real Estate
12157 - Marketing—Insurance
12201 - Cashier/Checker Operation

Work-Based Learning Capstone

12148 - Finance Workplace Experience
12993 - Business and Marketing—School-based Enterprise
12994 - Business and Marketing—Career Project Based
12998 - Business and Marketing—Workplace Experience

Industry Recognized Credentials (IRC)

YouScience - Accounting 1
Personal Finance (Next Gen)
YouScience - General Financial Literacy
YouScience - Banking and Finance

Future Ready

Bookkeeping Certification - NACPB
QuickBooks Certified User - Intuit
Tax Level 1 - Intuit
Tax Level 2 - Intuit
Tax Preparation - Intuit
Accounting Certificate

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ACTG 101 - Accounting Procedures I
ACTG 102 - Accounting Procedures II
BFIN 205 - Personal Finance

Please refer to the intended college/program for specific requirements



Data & Computer Science

Pathway Foundation

10001 - Introduction to Computer Technology
10002 - Computing Systems
10003 - Computer and Information Technology
10004 - Computer Applications

Pathway Elective

10019 - AP Computer Science Principles
10021 - Computer Science Discoveries
10051 - Information Management
10052 - Database Management and Data Warehousing
10053 - Database Applications
10054 - Data Systems/Processing
25051 - Data Literacy
25052 - Data Science
25053 - Data Science Applications

Work-Based Learning Capstone

10048 - Computer Literacy—Workplace Experience
12993 - Business and Marketing—School-based Enterprise
12994 - Business and Marketing—Career Project Based
12998 - Business and Marketing—Workplace Experience

Industry Recognized Credentials (IRC)

YouScience - Computer Science Principles
YouScience - Computer Programming
YouScience - Computer Systems
YouScience - Computer Technology
CodeHS - Cybersecurity
CodeHS - AI

Future Ready

Introduction to Cybersecurity - Cisco Networking Academy
IT Support Specialist - Cisco Networking Academy
Machine Learning Specialty - Amazon Web Services
Associate Cloud Engineer - Google Cloud
Data+ - CompTIA

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ACSCI 107 - The Joy & Beauty of Computing
CSCI 127 - Joy and Beauty of Data
CSCI 100 - Intro to Programming
ITS 130 Cybersecurity Essentials

Please refer to the intended college/program for specific requirements



IT, Networking & Cybersecurity

Pathway Foundation

10001 - Introduction to Computer Technology
10002 - Computing Systems
10003 - Computer and Information Technology
10004 - Computer Applications

Pathway Elective

10006 - Telecommunications
10007 - IB Digital Society
10019 - AP Computer Science Principles
10051 - Information Management
10052 - Database Management and Data Warehousing
10053 - Database Applications
10152 - Computer Programming
10251 - Computer Technology
10252 - Computer Maintenance
10255 - CISCO—The Panduit Network Infrastructure Essentials (PNIE)
25053 - Data Science Applications
10101 - Network Technology
10102 - Networking Systems
10103 - Area Network Design and Protocols
10104 - Router Basics
10105 - NetWare Routing
10108 - Network Security
10254 - IT Essentials: PC Hardware and Software
10301 - Computer Forensics
10302 - Cyber Crime
10020 - Cybersecurity
10109 - Essentials of Network Operating Systems

Work-Based Learning Capstone

10993 - Information Technology—School-based Enterprise
10998 - Information Technology—Workplace Experience
12993 - Business and Marketing—School-based Enterprise
12994 - Business and Marketing—Career Project Based
12998 - Business and Marketing—Workplace Experience



IT, Networking & Cybersecurity

Industry Recognized Credentials (IRC)

YouScience - Computer Science Principles
YouScience - Computer Programming 1
YouScience - Cyber Forensics
YouScience - Information Technology, Introduction
CodeHS - Cybersecurity

Future Ready

Introduction to Cybersecurity - Cisco Networking Academy
IT Support Specialist - Cisco Networking Academy
Machine Learning Specialty - Amazon Web Services
Associate Cloud Engineer - Google Cloud
Data+ - CompTIA

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

ACSCI 107 - The Joy & Beauty of Computing
ITS 164 Networking Fundamentals
CSCI 100 - Intro to Programming
ITS 130 - Cybersecurity Essentials

Please refer to the intended college/program for specific requirements



Management & Entrepreneurship

Pathway Foundation

10001 - Introduction to Computer Technology
10002 - Computing Systems
10003 - Computer and Information Technology
10004 - Computer Applications
10005 - Business Computer Applications
11001 - Introduction to Communication
12001 - Business/Office Career Exploration
12009 - Business Communications
12052 - Business Management

Pathway Elective

10110 - Microsoft Certified Professional (MCP)
10151 - Business Programming
10252 - Computer Maintenance
12002 - Office Procedures—Comprehensive
12003 - Office and Administrative Technologies
12004 - Office Services
12054 - Business Law
12055 - Business Principles and Management
12056 - International Business and Marketing
12058 - Human Resources Management
12059 - IB Business and Management
12104 - Accounting
12105 - Business Economics
12151 - Marketing Career Exploration

Work-Based Learning Capstone

12048 - Administration—Workplace Experience
12098 - Management—Workplace Experience
12993 - Business and Marketing—School-based Enterprise
12994 - Business and Marketing—Career Project Based
12998 - Business and Marketing—Workplace Experience

Industry Recognized Credentials

Certiport - Microsoft Office Specialist
Certiport - Entrepreneurship and Small Business
YouScience - Business Management
Intuit - Entrepreneurship and Small Business
QuickBooks- Certified Bookkeeping Professional

Future Ready

Bookkeeping Certification - NACPB
QuickBooks Certified User - Intuit
Project Management Applications - Missoula College
Microsoft® Office Career Technology - Montana Digital Academy
BMGT 210- Small Bus. Entrepreneurship

Dual Credit Opportunity (DC)

Office of Higher Education Toolkit - Provides More Detailed Information

CAPP 131 - Basic MS Office
BGEN 105 - Intro to Business
COMX 115 - Intro to Interpersonal Communication
ACTG 101 Accounting Procedures I

Please refer to the intended college/program for specific requirements



Marketing & Sales

Pathway Foundation

11001 - Introduction to Communication
12151 - Marketing Career Exploration
12165 - Principles of Advertising
12202 - Principles of Selling

Pathway Elective

05163 - Advertising Design
11054 - Photo Imaging
11055 - Video
11104 - Publication Production
11153 - Digital Media Design and Production
11154 - Commercial Graphic Design
11155 - Graphic Technology
12153 - Marketing—Fashion
12154 - Marketing—Real Estate
12155 - Marketing—Transportation
12157 - Marketing—Insurance
12158 - Marketing—Floristry
12159 - Marketing—Hospitality/Tourism
12160 - Marketing—Merchandising
12161 - Retail Marketing
12162 - Internet Marketing
12163 - Sports and Entertainment Marketing
12164 - Principles of Marketing
12166 - Marketing Management
12167 - Marketing—Other Specialization

Work-Based Learning Capstone

12198 - Marketing—Workplace Experience
12248 - Sales—Workplace Experience
12993 - Business and Marketing—School-based Enterprise
12994 - Business and Marketing—Career Project Based
12998 - Business and Marketing—Workplace Experience

Industry Recognized Credentials

Certiport - Content Creation and Marketing
Adobe - Adobe Marketing Design
Adobe - Visual Design
Certiport -Adobe Dreamweaver
AMA - Digital Marketing Pro
YouScience - Digital Marketing
YouScience - Digital Media

Future Ready

Adobe Dreamweaver
Adobe Certified Professional: Visual Design Using Photoshop
Microsoft® Office Career Technology - Montana Digital Academy
Digital Marketing & E-commerce Professional Certificate
BMGT 210: Small Bus. Entrepreneurship

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

GDSN 149 - Digital Imaging
COMX 115 - Intro to Interpersonal Communication
BMKT 225 - Marketing

Please refer to the intended college/program for specific requirements



Design & Digital Arts

Pathway Foundation

05162 - Visual Communications Design
10201 - Web Page Design
11152 - Desktop Publishing

Pathway Elective

05163 - Advertising Design
05257 - Digital Sound Design
10202 - Computer Graphics
11051 - Audio/Visual Production
11054 - Photo Imaging
11055 - Video
11102 - Photojournalism
11104 - Publication Production
11151 - Digital Media Technology
11153 - Digital Media Design and Production
11154 - Commercial Graphic Design
11155 - Graphic Technology
11156 - Photography and Printing Technology
11157 - Photoengraving
11158 - Print Press Operations
17102 - Electricity— Comprehensive
17103 - Residential Wiring
17104 - Industrial Electricity

Work-Based Learning Capstone

05298- Media Arts—Workplace Experience
11198 - Printing Technology—Workplace Experience
11993 - Communication and Audio/Video Technology—School Based Enterprise
11994 - Communications and Audio/Video Technology—Career Project Based Learning
11998 - Communications and Audio/Video Technology—Workplace Experience

Industry Recognized Credentials

Adobe Certified Professional
Autodesk Tinkercad 3D Design
YouScience - 3D Animation 1
Autodesk Certified User
YouScience - Digital Media

Future Ready

Adobe Certified Professional: Visual Design Using Photoshop - Certiport
Adobe Dreamweaver - Certiport

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

GDSN 149 - Digital Imaging
GDSN 231 - Graphic Design Applications
MART 101 - Intro to Media Arts
Please refer to the intended college/program for specific requirements



MONTANA OFFICE OF PUBLIC INSTRUCTION

Family & Consumer Sciences Education

2026-27 Course Offerings and Codes



FAMILY & CONSUMER SCIENCES COURSE OFFERINGS AND CODES

The following is the list of Family & Consumer Sciences Pathways, courses, and SCED codes. The following guidance is strongly suggested to ensure CTE data is accurate.

List courses on high school transcripts by these course titles and codes.

- The courses listed in each Secondary Program of Study use the Montana K-12 Course Codes.
- These course codes are based on the national SCED (School Codes for the Exchange of Data) Codes and are the same course codes that local districts use when entering course data into OPI's Infinite Campus school staffing system.
- The data entered into Infinite Campus is used to complete the Montana CTE Student Participation Reports and to calculate Montana VoEd/CTE funding.

FCS Pathways in 2026-2027 school year

Arts, Entertainment & Design

Fashion, Textiles & Interiors

Education

Early Childhood Care & Education

Teaching & Training

Hospitality, Events & Tourism

Culinary & Food Services

Travel & Event Management

Healthcare & Human Services

Human & Community Services

Family & Consumer Sciences Overview

The focus of the Family & Consumer Sciences curriculum is a core of basic knowledge relating to the people-focused field. This knowledge base begins with foundational life literacy, expands through career-focused instruction, and creates a well-rounded program that serves all students who wish to pursue a stronger understanding of work-life balance and helping careers.

Family and Consumer Sciences Education took a significant step in 1998 to ensure that FCS students have the skills and abilities to succeed in life, college, or the workplace by developing the National FCS Standards. The input of industry partners, post-secondary content specialists, and classroom educators updates the standards every 10 years, with the addition of National Middle Level FCS Standards in 2024. Montana adopted these standards to guide the relevance and rigor of our instruction.

FCS courses have been identified as reflecting the foundational skill set needed by industry. Each course has a framework that identifies the standards aligned. By organizing our courses in six different pathways, we in Family and Consumer Sciences Education have found a place for all students who are interested in building their own life literacy undersanding, but also for those interested in people-centered careers.

Prior to High School Codes:

Middle School Family & Consumer Sciences Education Course Codes

69251 - Family and Consumer Sciences Comprehensive
69252 - Food Preparation and Health Management
69256 - Clothing/Sewing
69257 - Life Skills
69262 - Consumer Education

Foundational Across All CTE Pathways

These courses give students the opportunity to learn valuable skills that can be utilized across CTE pathways

02154 - Business Mathematics
02157 - Consumer Mathematics
12053 - Entrepreneurship
19262 - Consumer Economics/Personal Finance
22101 - Leadership

Fashion, Textiles & Interiors

Pathway Foundation

12053 - Entrepreneurship
19251 - Family & Consumer Sciences--Comp
19256 - Clothing/Sewing
19257 - Life Skills
19260 - Personal Development

Pathway Elective

05164 - Fibers and Textiles Design
05190 - Fashion Design
05193 - Interior Design
19201 - Clothing/Textiles
19202 - Clothing/Textiles Maintenance
19203 - Apparel Construction
19204 - Apparel & Textile Services
19205 - Home Furnishings
19206 - Home Furnishings Production
19258 - Personal and Career Readiness
19263 - Home Environments & Design

Industry Recognized Credentials

AAFCS Pre-PAC Fashion, Textiles & Apparel
AAFCS Pre-PAC Housing and Interiors
AAFCS Pre-PAC Interior Design Fundamentals
AAFCS Pre-PAC Leadership Essentials
Adobe Illustrator (with fashion/interiors applications)
Adobe Photoshop (with fashion/interiors applications)

Future Ready

OSHA General Industry 10-hour

Work-Based Learning Capstone

19248 - Apparel & Furnishings Workplace Experience
19298 - Family Consumer Sciences Workplace Experience

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BGEN 215 - Career Readiness
CMLD - 101 -Intro to Community Leadership
IDSN 101 - Intro to Interior Design

Please refer to the intended college/program for specific requirements



Early Childhood Care & Education

Pathway Foundation

19251 - Family & Consumer Sciences--Comp
19257 - Life Skills
19260 - Personal Development

Industry Recognized Credentials

AAFCS Pre-PAC Early Childhood Education
AAFCS Pre-PAC Leadership Essentials
Child Development Associates (CDA)

Pathway Elective

19051 - Child Care
19052 - Child Development
19054 - Child and Adult Care Services
19153 - Teaching--Early Childhood Ed
19253 - Nutrition and Wellness
19255 - Child Dev/Parenting
19258 - Personal and Career Readiness
19259 - Family and Interpersonal Relationships
19261 - Human Growth & Development

Future Ready

Pre-Apprenticeships: Child Development Associate: Montana Registered Apprenticeship Program
First Aid/CPR Level B or First Aid/CPR Level C (with children CPR components)

Work-Based Learning Capstone

19098 - Child and Elder Care Workplace Experience
19198 - Education--Workplace Experience
19298 - Family & Consumer Sciences Workplace Experience

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

CMLD 101 - Intro to Community Leadership
EDEC 108 - Intro to Early Childhood Ed
EDEC 210 - Meeting the Needs of Families
EDEC 251 - Montana Preschool Teacher Ed
EDI 220 - Human Growth & Development
HDFS 101 - Individual and Family Development: Lifespan
BGEN 215 - Career Readiness

Please refer to the intended college/program for specific requirements



Teaching & Training

Pathway Foundation

19251 - Family & Consumer Sciences--Comp.
19257 - Life Skills
19260 - Personal Development

Industry Recognized Credentials

Para Educator
AAFCS Pre-PAC Education Fundamentals
AAFCS Pre-PAC Leadership Essentials

Pathway Elective

19052 - Child Development
19151 - Teaching Professions
19152 - Education Methodology
19155 - Instructional Technology
1**9258** - Personal and Career Readiness
19259 - Family and Interpersonal Relationships
19261 - Human Growth & Development

Future Ready

First Aid/CPR
Pre-Apprenticeships: Teaching: Montana Registered Apprenticeship Program

Work-Based Learning Capstone

19198 - Education--Workplace Experience
19298 - Family & Consumer Sciences--Workplace Experience

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BFIN 205 -Personal Finance
CMLD 101 - Intro to Community Leadership
HDFS 101 - Individual and Family Development: Lifespan
EDU -101 - Teaching and Learning
EDU 201 - Introduction to Education
EDU 270 - Instructional Technology
EDU 220 - Human Growth & Development
BGEN 215 - Career Readiness

Please refer to the intended college/program for specific requirements



Culinary & Food Services

Pathway Foundation

12053 - Entrepreneurship
16051 - Exploration of Restaurant, Food and Beverage Services
19251 - Family & Consumer Sciences--Comp
19257 - Life Skills
19260 - Personal Development

Pathway Elective

16052 - Rest, Food & Beverages Services--Comp.
16053 - Food Service
16054 - Nutrition & Food Preparation
16055 - Restaurant Management and Operations
16056 - Culinary Art Specialty
19252 - Food Preparation and Health Management
1**9254** - Food Science
1**9258** - Personal and Career Readiness
16152 - Travel and Tourism--Comp.

Other Discipline Courses

18305--Food Product Processing

Work-Based Learning Capstone

16098 - Restaurant, Food and Beverage Services--Workplace Experience
16993 - Hospitality and Tourism--School-based Enterprise
16994 - Hospitality and Tourism--Career Project -based Learning
16998 - Hospitality and Tourism--Workplace Experience
19298 - Family & Consumer Sciences--Workplace Experience

Industry Recognized Credentials

ServSafe Managers
AAFCS Pre-PAC Culinary Arts
AAFCS Pre-PAC Food Science Fundamentals
AAFCS Pre-PAC Nutrition, Food and Wellness
AAFCS Pre-PAC Baking Science
AAFCS Pre-PAC Leadership Essentials

Future Ready

ServSafe Food Handlers
ServSafe Allergens
OSHA General Industry 10-hour
ProStart Certificate of Achievement
Pre-Apprenticeships: Culinary Arts Associate: Montana Registered Apprenticeship Program
Pre-Apprenticeships: Community Food Systems Associate: Montana Registered Apprenticeship Program

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BFIN 205 - Personal Finance
CMLD 101 - Intro to Community Leadership
CULA 107 - Keys to the Kitchen
NUTR 122 - Whole Foods Cooking
BGEN 215 - Career Readiness
HTR 107 - Intro to Hospitality Management

Please refer to the intended college/program for specific requirements



Travel & Event Management

Pathway Foundation

16001 - Intro to Hospitality Careers
16101 - Exploration of Lodging Careers
19251 - Family & Consumer Sciences--Comp.
19257 - Life Skills
1**9260**-Personal Development

Pathway Elective

16052 - Restaurant, Food and Beverage Services--Comp.
16102 - Lodging--Comprehensive
16151 - Intro to Travel and Tourism
16152 - Travel and Tourism--Comp.
16153 - World Travel and Tourism
16201 - Exploration of Recreation, Amusement and Attractions
16202 - Recreation, Amusement and Attractions--Comp.
19258 - Personal and Career Readiness
1**9261 -** Human Growth and Development

Industry Recognized Credentials

AAFCS pre-PAC Leadership Essentials

Future Ready

ServSafe Food Handlers
ServSafe Allergens
OSHA General Industry 10 hour

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BFIN 205 - Personal Finance
CMLD 101 - Intro to Comm Leadership
HTR 107 - Intro to Hospitality Management
EDU 220 - Human Growth & Development
HDFS 101 - Individual and Family Dev: Lifespan
BGEN 215 - Career Readiness

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

16148 - Lodging--Workplace Experience
16198 - Travel and Tourism--Workplace Experience
1**6993** - Hospitality and Tourism--School-based Enterprise
16994 - Hospitality and Tourism--Career Project-based Learning
16998 - Hospitality and Tourism--Workplace Experience
19298 - Family & Consumer Sciences--Workplace Experience











Human & Community Services

Pathway Foundation

19001 - Human Services Career Exploration
19251- Family & Consumer Sciences--Comp.
19257 - Life Skills
19260 - Personal Development
19262 - Consumer Ed/Personal Finance

Pathway Elective

08056 - Health for Parenting Teens
08057 - Health and Life Management
16054 - Nutrition and Food Preparation
19051 - Child Care
19052 - Child Development
19053 - Elder Care
19054 - Child and Elder Care Services
19252 - Food Preparation & Health Management
19253 - Nutrition and Wellness
19255 - Child Dev/Parenting
19258 - Personal and Career Readiness
19259 - Family and Interpersonal Relationships
19261 - Human Growth & Development

Other Discipline Courses

14002 - Healthcare Occupations-Comp.
14051 - Nursing (Care-Based)
15001 - Exploration of Public Service Careers

Work-Based Learning Capstone

19098 -Child and Elder Care--Workplace Experience
19298 - Family & Consumer Sciences--Workplace Experience
19993 - Human Services--School-based Enterprise
19994 - Human Services--Career Project-based Learning
19998 - Human Services--Work-based Learning

Industry Recognized Credentials (IRC)

AAFCS pre-PAC Early Childhood Education
AAFCS pre-PAC Broad Field FCS
AAFCS pre-PAC Family and Community Services
AAFCS--Nutrition, Food and Wellness
AAFCS pre-PAC Personal and Family Finance
AAFCS pre-PAC Leadership Essentials
Child Development Associates (CDA)
Personal Care Attendent (PCA)

Future Ready

Pre-Apprenticeships: Child Development Associate: Montana Registered Apprenticeship Program
ServSafe Food Handlers
ServSafe Allergens
First Aid/CPR Level B or First Aid/CPR Level C (with children CPR components)

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BFIN 205 - Personal Finance
CMLD 101 - Intro to Comm Leadership
HTH 110 - Personal Health and Wellbeing
EDEC-210 - Meeting the Needs of Families
HDFS 101 - Individual and Family Dev: Lifespan
BGEN 215 - Career Readiness
NUTR 122 - Whole Foods Cooking

Please refer to the intended college/program for specific requirements











MONTANA OFFICE OF PUBLIC INSTRUCTION

Health & Public Safety

2026-27 Course Offerings and Codes











HEALTH, PUBLIC SERVICE & SAFETY COURSE OFFERINGS & CODES

The following is the list of the Health, Public Service, and Safety Pathways, Courses, and SCED codes. It is important to list courses on high school transcripts by these course titles and codes. The courses listed in each Secondary Program of Study use the Montana K-12 Course Codes.

These course codes are based on the national SCED (School Codes for the Exchange of Data) Codes and are the same ones local districts use when entering course data into OPI's Infinite Campus school staffing system. The data entered into Infinite Campus is the same data used to complete the Montana CTE Student Participation Reports and to calculate Montana VoEd/CTE funding.

Pathways offering in 2026-2027 school year

Healthcare & Human Services

Allied Health Professions

Biotechnology & Health Administration

Public Service & Safety

Emergency Response

Military & National Safety

Montana Tribal Leadership & Government

Health & Public Safety Courses Overview

The focus of the Health, Public Safety and Safety curriculum is a core of basic knowledge relating to health, and the services and safety of the public. This knowledge base, coupled with a strong clinical and workplace experience creates a well-rounded program that serves all students who wish to pursue an advanced interest in these fields.

This program area is strongly focused upon foundational knowledge and skills leading to a credential, license or degree, and is reflected in the courses identified.

Course content is designed around the state and national Career Clusters Initiative and serves as a compass to direct curriculum, set goals, and measure successes. By following courses in five different pathways, we have found a place for all students who are college-bound or job-ready in the health-related careers.

The pathways identified have very strong credential connection. Review the recognized credentials for each pathway.

Prior to High School

Middle School Health & Public Education Course Codes

64001 - Exploration of Health Care Occupations
64002 - Health Care Occupations--Comp

Foundational Across All CTE Pathways

These courses give students the opportunity to learn valuable skills that can be utilized across CTE pathways

02154 - Business Mathematics
02157 - Consumer Mathematics
12053 - Entrepreneurship
19262 - Consumer Economics/Personal Finance
22101 - Leadership

Allied Health Professions

Pathway Foundation

03053 - Anatomy & Physiology
03066 - PLTW: Principles of Biomedical Science
03067 - PLTW: Human Body Systems
04254 - Psychology
14001 - Exploration Healthcare Occupations
14154 - Medical Terminology
14251 - Health Science

Pathway Elective

03068 - PLTW Medical Intervention
03070 - PLTW:Biomedical Innovation
14002 - Healthcare Occupations Comprehensive
14051 - Nursing
14055 - EMT
14062 - Sports Medicine
14099 - Other-Therapeutic
14104 - Phlebotomy
14105 - Phlebotomy (Clinical)

Other Discipline Courses:

19253 - Nutrition and Wellness
19261 - Human Growth & Development

Work-Based Learning Capstone

14098 -Therapeutic Services--Workplace Experience
14993 - Health Care Services--School-based Enterprise
14994 - Health Care Services--Career Project-Based Learning
14998 - Health Care Sciences--Workplace Experience

Industry Recognized Credentials (IRC)

Bloodborne Pathogen
Infection Control
PLTW Biomedical Science
OSHA PPE BioMed

Future Ready

AED Certification
Emergency Medical Responder
First Aid/CPR
Basic Life Support Certification
Health Science Certificate
Pre-Nursing/Pre-Health
Behavioral Health Aid Certificate
Certified Nursing Assistant
Home Health Aide
Emergency Medical Technician
Dental Assistant
Certified Pharmacy Technician
Certified Phlebotomy Technician
Medical Assistant

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BIOB - 106 -Biotechnology BACE Preparation
BIOH - 104 -Basic Human Biology
BIOH - 105 -Basic Human Biology Lab
BIOH - 108 - Basic Anatomy
ECP - 130 -Emergency Medical Technician
ECP -131 - EMT with Clinical

Please refer to the intended college/program for specific requirements



Biotechnology Research & Health Administration

Pathway Foundation

03053 - Anatomy & Physiology
03066 - PLTW: Principles of Biomed
14001 -Exploration of Healthcare Occupations
14002 - Healthcare Occupations--Comprehensive
14154 - Medical Terminology
14251 - Health Science

Pathway Elective

03068 - PLTW Medical Interventions
03070 - PLTW:Biomedical Innovation
14152 - Pharmacy Assisting
14153 - Medical Office Procedures
14252 - Biotechnology
14299 - Science Health - Other
15202 - Community Protection
21014 - Biotechnical Engineering

Industry Recognized Credentials (IRC)

PLTW Biomedical Science
OSHA PPE BioMed

Future Ready

Emergency Medical Responder
Basic Life Support Certification
Professional Management Certificate
Medical Assistant
Medical Billing Specialist
Information Management
Certified Pharmacy Technician
Health Science Certificate
Pre-Nursing/Pre- Health
Certified Phlebotomy Technician
Certified Nursing Assistant

Work-Based Learning Capstone

1**4993** - Health Care Services--School-based Enterprise
14994 - Health Care Sciences--Career Project-based Learning
14998 - Health Care Sciences--Workplace Experience

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BIOB 106 Biotechnology BACE Preparation
BIOH 104 Basic Human Biology
BIOH 105 Basic Human Biology Lab
BIOH 108 Basic Anatomy
ECP 130 Emergency Medical Technician
ECP 131 EMT with Clinical

Please refer to the intended college/program for specific requirements



Emergency Response

Pathway Foundation

03066 - PLTW: Principles of Biomed
15001 - Exploration of Public Services Careers
14154 - Medical Terminology
14251 - Health Science

Pathway Elective

14055 - EMT
15151 - Fire Science
15152 - Fire Fighting
15153 - Fire Management
15202 - Community Protection

Industry Recognized Credentials (IRC)

You Science- Fire Science IRC
You Science - Criminal Justice Fundamentals
You Science - Law Enforcement

Future Ready

AED Certification
Emergency Medical Responder
First Aid/CPR
Basic Life Support Certification
Certificate of Technical Studies, Firearms Technology

Work-Based Learning Capstone

12048 - Administration--Workplace Experience
15198 - Fire Management--Workplace Experience
14993 - Healthcare Sciences--School-based Enterprise
14994 - Healthcare Sciences--Career Project-Based Learning
14998 - Healthcare Sciences—Workplace Experience

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

BIOB 106 Biotechnology BACE Preparation
BIOH 104 Basic Human Biology
BIOH 105 Basic Human Biology Lab
BIOH 108 Basic Anatomy
ECP 130 Emergency Medical Technician
ECP 131 EMT with Clinical

Please refer to the intended college/program for specific requirements



Military & National Security

Pathway Foundation

09001 - Intro Miliary Jr ROTC
09151 - Air Force Junior ROTC
15001 - Exploration of Public Service Careers

Pathway Elective

09002 - Miltary Jr ROTC
09003 - ROTC Drill
09004 - Military Leadership
09152 - Air Force Junior ROTC II
09153 - Air Force Junior ROTC IIIA
09154 - Air Force Junior ROTCIV

Other Discipline Courses

10006 - Telecommunications
10020 - Cybersecurity
10301 - Computer Forensics
10302 - Cyber Crime
15202 - Community Protection

Industry Recognized Credentials (IRC)

Emergency Medical Responder
Basic Life Support Certification
Certificate of Technical Studies, Firearms Technology
Introduction to Cybersecurity
Junior Cybersecurity Analyst
Information Management

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

MYC 110 Leadership & Personal Development
MYC 120 Army Physical Fitness
MYC 130 Community & Civil Service

Please refer to the intended college/program for specific requirements

Work-Based Learning Capstone

09998 - Military Science--Workplace Experience
15993 - Public, Protective and Government Service--School-based Enterprise
15994 - Public, Protective and Government Service--Career Project-based Learning
15998 - Public, Protective and Government Services--Workplace Experience



Montana Tribal Leadership & Government

Pathway Foundation

Pathway Elective

Work-Based Learning Capstone

Industry Recognized Credentials (IRC)

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

Please refer to the intended college/program for specific requirements

Coming Soon!



Industrial Technology Education

2026-27 Course Offerings and Codes











INDUSTRIAL TECHNOLOGY EDUCATION COURSE OFFERINGS AND CODES

The following is the list of Industrial Technology Education Pathways, Courses, and SCED codes. The courses listed within each of the Secondary Programs of Study utilize the Montana K-12 Course Codes.

These course codes are based upon the national SCED (School Codes for the Exchange of Data) Codes and are the same course codes local districts use when entering course data into the OPI's Infinite Campus school staffing system. The data entered into Infinite Campus is the same data used for completion of the Montana CTE Student Participation Reports and the calculation of Montana VoEd/CTE funding.

2026-2027 Pathways

Construction

Skilled Trades - Construction & Heavy Equipment
Skilled Trades - Welding & Fabrication
Skilled Trades - HVAC & Electrical

Advanced Manufacturing

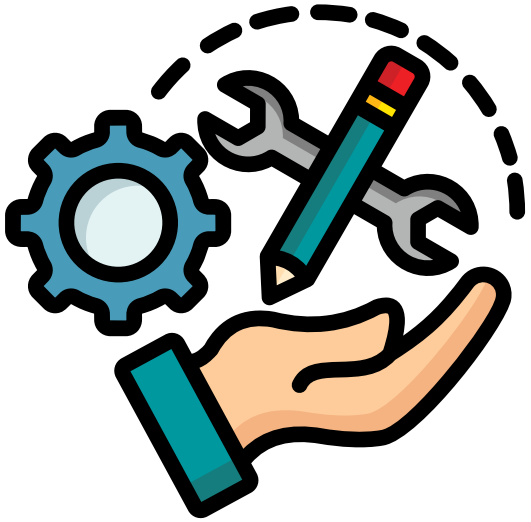
Engineering & Advanced Manufacturing

Supply Chain & Transportation

Automotive Maintenance & Repair
Air, Space, Ground & Marine Transportation
Energy & Utilities - ITE

Industrial Technology Education Programs

The focus of the Industrial Technology Education is a core of basic knowledge relating to technology, problem solving principles, with a strong emphasis on the skilled trades.



This knowledge base, practical laboratory experience coupled with CTSO engagement creates a well-rounded program that serves all students who wish to pursue an advanced interest for career development in technology and skilled trades. The curriculum ensures that students are equipped with foundational technical expertise alongside practical, hands-on application.

Trades Education and the Need for a Skilled Workforce

A key pillar of the course alignment is recognizing the essential nature of trades education. Trades spanning fields like construction, advanced manufacturing, and engineering. They represent high demand, high wage careers that are the backbone of the modern economy. These pathways directly addresses the critical skilled labor shortage by providing a viable and rewarding alternative to traditional four year college paths. Students gain practical, hands-on skills that lead directly to stable employment, valuable apprenticeships, or further specialized technical training.

Integration of SkillsUSA and TSA for Career Readiness

These pathways are brought to life through the integration of Montana's Industrial Technology's two powerful student organizations: SkillsUSA and TSA. All courses have the ability to include a SkillsUSA component and or a TSA component. As well as a Supervised Occupational Experience (SOE), which emphasizes robust laboratory and project-based learning.

SkillsUSA empowers students to become world-class workers and leaders by developing Personal, Workplace, and Technical Skills grounded in academics, primarily through competitions related to the skilled trades. TSA provides opportunities focused on design, engineering, and technological literacy through challenges like architectural design and robotics.

These pathways will serve as the catalyst in adding value to the experiences of students who enroll in Montana CTE programs, giving them the opportunity to prove the depth and relevance of what CTE provides.

NOTE: Not all Montana schools offer all these courses. Check with your Industrial Technology Education program for more information on the specific pathways available at your school.

Industrial Technology Education Courses Available

Prior to High School

Middle School Industrial Technology Education Course Codes

60002 - Computing Systems
60202 - Computer Graphics
61051 - Audio/ Visual Production
61054 - Photo Imaging
63001 - Exploration of Manufacturing Occupations
63003- Industrial Arts
63052 - Material and Processes
63103 - Product Development
63201 - Metalwork Occupation
67001 - Construction Careers Exploration
67002 - Construction - Comprehensive
67101 - Exploration of Electricity/Electronics
70103 - Introduction to Automobiles
71009 - Robotics
71051 - Technology Literacy
71053 - Emerging Technologies
71055 - Aerospace Technology
71101 - Drafting Careers Exploration
71102 - Drafting- General



Foundational Across All MT CTE Pathways

These courses give students the opportunity to learn valuable skills that can be utilized across CTE pathways

02154 - Business Mathematics
02157 - Consumer Mathematics
12053 - Entrepreneurship
19262 - Consumer Economics/Personal Finance
22101 - Leadership



Skilled Trades: Construction & Heavy Equipment

Pathway Foundation

13003 - Industrial Arts
13004 - Industrial Safety/First Aid
13102 - Electro-Mechanical Systems
17006 - Woodworking
21102 - Drafting—General
21108 - Blueprint Reading

Pathway Elective Courses

13054 - Wood Processing/Production
13055 - Metal Processing/Production
13302 - Equipment Maintenance and Repair
17002 - Construction - Comprehensive
17003 - Carpentry
17004 - Framing Carpentry
17007 - Cabinetmaking
17010 - Home Maintenance
17011 - Wall Finishings
18404 - Agricultural Metal Fabrication Technology
20052 - Heavy Equipment Operation
20101 - Energy/Power
21103 - Drafting—Architectural
21104 - Drafting—Civil/Structural
21107 - CAD Design and Software

20102 - Power and Mechanics
20107 - Diesel Mechanics—Comprehensive
20112 - Heavy Equipment Mechanics

Work-Based Learning Capstone

20148 - Mechanics and Repair—Workplace Experience
13348 - Repair—Workplace Experience
17048 - General Construction— Workplace Experience
17993 - Architecture and Construction—School-based Enterprise
17994 - Architecture and Construction—Career Project-based Learning
17998 - Architecture and Construction— Workplace Experience
13993 - Manufacturing—School-based Enterprise
13994 - Manufacturing—Career Project-based Learning
13998 - Manufacturing— Workplace Experience



Skilled Trades: Construction & Heavy Equipment

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- CSTN 100 Fundamentals of Construction Technology
- CSTN 120 Carpentry Basics
- CSTN 160 Construction Concepts and Building
- DDSN 113 Technical Drafting
- DDSN 114 Intro to CAD
- WLDG 110 Welding Theory I
- WLDG 111 Welding Theory Practical
- WLDG 145 Fabrication Basics
- WLDG 205 Applied Metallurgy
- M 105 Contemporary Math
- M 111 Technical Math
- WRIT 121 Technical Writing
- COMX 102 Interpersonal Skills in the Workplace
- COMX 106 Communicating in the Workplace

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA Construction 10
- Job Site Ready
- Mike Rowe Works: Sweat Pledge

Future Ready

- OSHA Construction 30
- Build Montana
- NCCER Carpentry
- Apprenticeship - Heavy Equipment Operator



Skilled Trades: Welding & Fabrication

Pathway Foundation

13003 - Industrial Arts
13004 - Industrial Safety/First Aid
13053 - Metal and Wood Processing/Production
13102 - Electro-Mechanical Systems
21102 - Drafting—General
21108 - Blueprint Reading
13201 - Metalworking Occupations

Pathway Elective

13052 - Material and Processes
13055 - Metal Processing/Production
13101 - Production Systems
13202 - Metalworking
13203 - Machining
13207 - Welding
13208 - Particular Topics in Welding
13209 - Particular Topics in Metalwork
13302 - Equipment Maintenance and Repair
18404 - Agricultural Metal Fabrication Technology
20102 - Power and Mechanics
20110 - Small Engine Mechanics
20112 - Heavy Equipment Mechanics
21104 - Drafting—Civil/Structural
21106 - Drafting— Technical/Mechanical
21107 - CAD Design and Software

Work-Based Learning Capstone

13248 - Metalwork—Workplace Experience
13348 - Repair—Workplace Experience
13993 - Manufacturing—School-based Enterprise
13994 - Manufacturing—Career Project-based Learning
13998 - Manufacturing— Workplace Experience
17993 - Architecture and Construction—School-based Enterprise
17994 - Architecture and Construction—Career Project-based Learning
17998 - Architecture and Construction— Workplace Experience



Skilled Trades: Welding & Fabrication

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- CSTN 100 Fundamentals of Construction Technology
- CSTN 120 Carpentry Basics
- CSTN 160 Construction Concepts and Building
- DDSN 113 Technical Drafting
- DDSN 114 Intro to CAD
- WLDG 110 Welding Theory I
- WLDG 111 Welding Theory Practical
- WLDG 145 Fabrication Basics
- WLDG 205 Applied Metallurgy
- M 105 Contemporary Math
- M 111 Technical Math
- WRIT 121 Technical Writing
- COMX 102 Interpersonal Skills in the Workplace
- COMX 106 Communicating in the Workplace

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA Construction 10
- American Welding Society (AWS) Certifications/Qualifications
- NCCER - CORE

Future Ready

- Shielded Metal Arc Welding (SMAW) AWS
- Gas Metal Arc Welding (GMAW) AWS
- Flux Cored Arc Welding (FCAW) AWS



Skilled Trades: HVAC & Electrical

Pathway Foundation

13003 - Industrial Arts
13004 - Industrial Safety/First Aid
13102 - Electro-Mechanical Systems
20101 - Energy/Power
21102 - Drafting—General
21108 - Blueprint Reading

Pathway Elective

13053 - Metal and Wood Processing/Production
13202 - Metalworking
13207 - Welding
13302 - Equipment Maintenance and Repair
17055 - Air Conditioning, Heating, and Refrigeration
17056 - Heating, Ventilation, and Air Conditioning
17058 - Plumbing
17102 - Electricity— Comprehensive
17103 - Residential Wiring
17106 - Electronics— Comprehensive
17108 - Electricity/Electronics— General
17110 - Analog and Digital Circuits
20102 - Power and Mechanics
21008 - Digital Electronics
21105 - Drafting-Electrical/Electronic
21106 - Drafting-Technical/Mechanical
21107 - CAD Design and Software
17104 - Industrial Electricity

Work-Based Learning Capstone

17993 - Architecture and Construction School-based Enterprise
17994 - Architecture and Construction Career Project-based Learning
17998 - Architecture and Construction Workplace Experience
17148 - Electricity/Electronics Workplace Experience
13348 - Repair—Workplace Experience
17098 - Air Conditioning, Heating and Plumbing Workplace Experience
13248 - Metalwork Workplace Experience



Skilled Trades: HVAC & Electrical

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- CSTN 100 Fundamentals of Construction Technology
- CSTN 120 Carpentry Basics
- CSTN 160 Construction Concepts and Building
- DDSN 113 Technical Drafting
- DDSN 114 Intro to CAD
- WLDG 110 Welding Theory I
- WLDG 111 Welding Theory Practical
- WLDG 145 Fabrication Basics
- WLDG 205 Applied Metallurgy
- M 105 Contemporary Math
- M 111 Technical Math
- WRIT 121 Technical Writing
- COMX 102 Interpersonal Skills in the Workplace
- COMX 106 Communicating in the Workplace

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA Construction 10
- Home Builders Institute Pre- Apprentice Certificate Training HVAC - NCCER
- HVAC Certification (Snap On)

Future Ready

- NCCER Electrical
- NCCER HVAC, level 1
- HVAC Diagnostic Instruments (Snap ON)
- Apprenticeship - Heating & Air Conditioning Mechanic & Installer



Engineering & Advanced Manufacturing

Pathway Foundation

13003 - Industrial Arts
13052 - Material and Processes
13053 - Metal and Wood Processing/Production
20101 - Energy/Power
21102 - Drafting—General
21108 - Blueprint Reading
21009 - Robotics
13102 - Electro-Mechanical Systems

Pathway Elective

13054 - Wood Processing/Production
13055 - Metal Processing/Production
13002 - Manufacturing— Comprehensive
17106 - Electronics— Comprehensive
17108 - Electricity/Electronics— General
17110 - Analog and Digital Circuits
21007 - Engineering Design and Development
21008 - Digital Electronics
21010 - Computer Integrated Manufacturing
21011 - Civil Engineering
21012 - Civil Engineering and Architecture
21013 - Aerospace Engineering
21014 - Biotechnical Engineering
21054 - Technology Innovation and Assessment
21103 - Drafting—Architectural
21104 - Drafting—Civil/Structural
21106 - Drafting—Technical/Mechanical
21107 - CAD Design and Software

Work-Based Learning Capstone

13098 - Processing/Production— Workplace Experience
21098 - Technology—Workplace Experience
21148 - Drafting—Workplace Experience
21993 - Engineering and Technology—School-based Enterprise
21994 - Engineering and Technology—Career Project-based Learning
21998 - Engineering and Technology - Workplace Experience
13148 - Production Systems—Workplace Experience
13993 - Manufacturing—School-based Enterprise
13994 - Manufacturing—Career Project-based Learning
13998 - Manufacturing— Workplace Experience



Engineering & Advanced Manufacturing

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- CSTN 100 Fundamentals of Construction Technology
- CSTN 120 Carpentry Basics
- CSTN 160 Construction Concepts and Building
- DDSN 113 Technical Drafting
- DDSN 114 Intro to CAD
- WLDG 110 Welding Theory I
- WLDG 111 Welding Theory Practical
- WLDG 145 Fabrication Basics
- WLDG 205 Applied Metallurgy
- M 105 Contemporary Math
- M 111 Technical Math
- WRIT 121 Technical Writing
- COMX 102 Interpersonal Skills in the Workplace
- COMX 106 Communicating in the Workplace

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA General Industry 10
- Autodesk Certifications
- OnShape 3D Certified
- PLTW Certifications

Future Ready

- OSHA General Industry 30
- Apprenticeship - Injection-Molding-Machnist Operator
- Apprenticeship - Machinist (Alternate Title: Precision Machinist)



Automotive Maintenance & Repair

Pathway Foundation

13003 - Industrial Arts
20102 - Power and Mechanics
20103 - Introduction to Automobiles
20106 - Automotive Service
21102 - Drafting—General
21108 - Blueprint Reading
20101 - Energy/Power
13102 - Electro-Mechanical Systems

Pathway Elective

20110 - Small Engine Mechanics
20104 - Automotive Mechanics— Comprehensive
20109 - Small Vehicle Mechanics
20115 - Automotive Detailing and Reconditioning
18404 -Agricultural Metal Fabrication Technology
20116 -Automotive Body Repair and Refinishing— Comprehensive
20119 - Hybrid Engines
21107 - CAD Design and Software

Work-Based Learning Capstone

20148 - Mechanics and Repair—Workplace Experience
20993 - Transportation, Distribution, and Logistics—School-based Enterprise
20994 - Transportation, Distribution, and Logistics—Career Project-based Learning
20998 - Transportation, Distribution and Logistics—Workplace Experience



Automotive Maintenance & Repair

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- AST 106 Automotive Manual Drive Train and Axles
- AST 114 Automotive Brakes
- AST 160 Automotive Engine Repair
- DDSN 113 Technical Drafting
- DDSN 114 Intro to CAD
- WLDG 101 Welding Fundamentals for Auto Tech/Diesel
- WLDG 110 Welding Theory I
- WLDG 111 Welding Theory Practical
- WLDG 145 Fabrication Basics
- M 105 Contemporary Math
- M 111 Technical Math
- WRIT 121 Technical Writing
- COMX 102 Interpersonal Skills in the Workplace
- COMX 106 Communicating in the Workplace

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA General Industry 10
- Autodesk Certifications
- OnShape 3D Certified
- PLTW Certifications

Future Ready

- OSHA General Industry 30
- Master Service Technician (Briggs and Stratton)
- Apprenticeship - Diesel Mechanic (Alternate Title: Power Generation Equipment Repairer)



Air, Space, Ground & Marine Transportation

Pathway Foundation

13003 - Industrial Arts
20102 - Power and Mechanics
20106 - Automotive Service
21102 - Drafting—General
21108 - Blueprint Reading
20101 - Energy/Power
13102 - Electro-Mechanical Systems

Pathway Elective

20053 - Aviation
20107 - Diesel Mechanics— Comprehensive
20113 - Aircraft Power Plant
20114 - Aircraft Airframe
21007 - Engineering Design and Development

21013 - Aerospace Engineering
21103 - Drafting—Architectural
21104 - Drafting—Civil/Structural
21107 - CAD Design and Software

Work-Based Learning Capstone

20993 -Transportation, Distribution, and Logistics—School-based Enterprise
20994 - Transportation, Distribution, and Logistics—Career Project-based Learning
20998 - Transportation, Distribution and Logistics—Workplace Experience



Air, Space, Ground & Marine Transportation

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- AST 106 Automotive Manual Drive Train and Axles
- AST 114 Automotive Brakes
- AST 160 Automotive Engine Repair
- DDSN 113 Technical Drafting
- DDSN 114 Intro to CAD
- WLDG 101 Welding Fundamentals for Auto Tech/Diesel
- WLDG 110 Welding Theory I
- WLDG 111 Welding Theory Practical
- WLDG 145 Fabrication Basics
- M 105 Contemporary Math
- M 111 Technical Math
- WRIT 121 Technical Writing
- COMX 102 Interpersonal Skills in the Workplace
- COMX 106 Communicating in the Workplace

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA General Industry 10
- Automotive Service Excellence Certifications
- Multimeter Certification (Snap On)

Future Ready

- OSHA General Industry 30
- Master Service Technician (Briggs and Stratton)
- Apprenticeship - Industrial Maintenance Mechanic
- Apprenticeship - Diesel Mechanic (Alternate Title: PowerGeneration Equipment Repairer)



Energy & Utilities - ITE

Pathway Foundation

13003 - Industrial Arts
20102 - Power and Mechanics
21102 - Drafting—General
21108 - Blueprint Reading
20101 - Energy/Power
13102 - Electro-Mechanical Systems

Pathway Elective

20053 - Aviation
20107 - Diesel Mechanics— Comprehensive
20113 - Aircraft Power Plant
20114 - Aircraft Airframe
21007 - Engineering Design and Development
21103 - Drafting—Architectural
21104 - Drafting—Civil/Structural
21107 - CAD Design and Software
18406 - Water Treatment
18506 - Alternative Energy
21057 - Laser/Fiber Optics
21058 - Geospatial Technology
21060 - Wind Energy
21061 - Wind Turbine Construction and Operations
20102 - Power and Mechanics
20119 - Hybrid Engines
10020 - Telecommunications
20101 - Energy/Power

Work-Based Learning Capstone

20993 - Transportation, Distribution, and Logistics—School-based Enterprise
20994 - Transportation, Distribution, and Logistics—Career Project-based Learning
20998 - Transportation, Distribution and Logistics—Workplace Experience



Energy & Utilities - ITE

Dual Credit Opportunity(DC)

Office of Higher Education Toolkit - Provides More Detailed Information

- M 105 Contemporary Math
- M 111 Technical Math
- M 121 College Algebra
- M 122 College Trigonometry
- M 151 Precalculus
- M 162 Applied Calculus
- M 171 Calculus I
- M 172 Calculus II
- BIOB 101 Discover Biology
- ENSC 105 Environmental Science
- NRSM 101 Natural Resource ConservationNRGY 101 Intro to Sustainable Energy
- PSYX 100 Intro to Psychology
- WRIT 101 College Writing I
- WRIT 201 College Writing II
- WRIT 121 Technical Writing
- COMX 111 Intro to Public Speaking
- COMX 115 Intro to Interpersonal Communication
- SOCI 101 Intro to Sociology
- 100 - level History/Social Sciences
- 100 - level Humanities/ Arts
- 100 - level Natural Science
- 100 - level Cultural Diversity

Please refer to the intended college/program for specific requirements

Industry Recognized Credentials (IRC)

- OSHA General Industry 10
- OSHA General Industry 30
- NCCER Carpentry

Future Ready

- NCCER Electrical
- Apprenticeship - Wind Turbine Technician
- Job Site Ready
- Apprenticeship - Diesel Mechanic (Alternate Title: Power Generation Equipment Repairer)



Create Your District Pathways

Course Offerings and Codes

Templates for each program area will be provided so that districts can use their own course information to fill out and create their specific pathways. Providing a useful resource for program development.



Building Pathways For Your District

A Montana Career Pathway is an aligned program of study that provides students with the academic and technical skills needed for college and career success in high-wage, high-demand, or high-skill occupations.

A successful Montana Career Pathway(MCP) results in students who:

Academic & Technical Proficiency	Demonstrate mastery of both core academic and pathway-specific technical standards.
Postsecondary Transition	Have earned dual enrollment/credit (where applicable) and/or an Industry Recognized Credential (IRC).
Workplace Readiness	Demonstrate employability skills (communication, teamwork, critical thinking) gained through coursework and WBL.
Informed Career Plan	Have a clear, actionable post-graduation plan for college and/or career entry in a high-demand Montana field.

The core elements of a quality Montana Career Pathway (MCP) focus on building a rigorous and relevant educational experience by ensuring high-quality, sequential courses that build upon one another, offering student choice, and aligning the curriculum to meet local industry needs.

The pathway should lead to meaningful outcomes, providing embedded opportunities for students to earn quality industry-recognized credentials (IRCs) and culminating in pathway-specific capstone work-based learning (WBL) experiences.

Finally, pathways should align with a relevant Career and Technical Student Organization (CTSO) to ensure that students also develop essential leadership and workplace-readiness skills alongside their technical competencies.

Developing quality Montana Career Pathways requires a comprehensive, collaborative effort from key stakeholders across the education and workforce spectrum. High school CTE educators, core academic teachers, school administrators, and counselors are essential for designing and implementing the curriculum, while postsecondary faculty and administrators ensure seamless credit transfer and articulation.

Critically, local employers, business partners, and workforce development boards must be involved to provide data on high-demand occupations, validate technical standards, offer industry-recognized credentials, and supply capstone work-based learning opportunities. Finally, students, parents, and CTSO advisors provide critical input on pathway relevance and ensure the integration of leadership and workplace skills.

What is a Quality Montana CTE Pathway

Quality Montana Career Pathway is defined by the following interconnected components:

Quality & Rigorous Courses:

- Courses must be academically rigorous and aligned with industry standards and postsecondary expectations.
- They should integrate core academic skills (math, reading, and science) and technical skills into the CTE content.

Sequential Course Structure (Program of Study):

- The pathway must be a planned, non-duplicative sequence of courses that builds student knowledge and skills from introductory to advanced levels.
- This sequence should span secondary and/or postsecondary education, leading to a recognized postsecondary credential or employment.

Student Choice & Career Guidance:

- Students have informed choice in selecting a pathway that aligns with their personal interests and career goals.
- The pathway must include focused career guidance and advisement systems to help students make informed decisions about their post-high school options.

Connection to Local Industry Needs:

- The pathway must be clearly aligned with current and projected Montana workforce needs, especially high-demand, high-wage local and regional occupations.
- Requires active engagement with local employers to validate the curriculum and ensure relevance.

Industry Recognized Credentials (IRCs):

- The curriculum must offer opportunities for students to earn quality, industry-recognized credentials (IRCs) within the coursework.
- They provide students with portable evidence of their skills and enhance their employability.

Capstone Work-Based Learning (WBL):

- Must culminate in a high-quality, intensive capstone WBL opportunity (e.g., internship, apprenticeship, extended job shadow).
- The capstone experience must be directly connected to the knowledge and skills taught within the specific CTE pathway.

Career and Technical Student Organization (CTSO) Connection:

- The pathway is integrated with a relevant CTSO (e.g., FFA, HOSA, SkillsUSA, DECA, FCCLA, BPA, TSA).
- CTSOs provide intra-curricular leadership development, competitive events, and community service experiences that extend classroom learning.

Build Your Own Pathway

Learning that works for Montana CTE™

Pathway Foundation

_____ - _____
_____ - _____
_____ - _____

_____ - _____
_____ - _____
_____ - _____

Pathway Elective

_____ - _____
_____ - _____
_____ - _____

_____ - _____
_____ - _____
_____ - _____

Related Courses

____ - _____
____ - _____
____ - _____

Work-Based Learning Capstone

_____ - _____
_____ - _____
_____ - _____

Dual Credit Opportunity(DC)

_____ - _____
_____ - _____
_____ - _____

Industry Recognized Credentials (IRC)

_____
_____
_____
_____



Resources

Additional Resources to Consider and utilize when building your CTAE Program



Office of the Commissioner of Higher Education: Dual Credit Toolkit

College & Career Pathways

These resources are designed to support you and your school community in developing postsecondary credit and career opportunities outlined in the STARS Act (HB 252 of the 2025 legislative session). This toolkit aims to support district leadership in establishing infrastructure that will allow for growth in dual enrollment, workforce training, and industry recognized credentials to high school students. The information in this toolkit is not exhaustive. Please contact your nearest college for more information.

Full Future Ready Toolkit: Dual Credit

Montana Colleges Offering CTE Opportunities

- Montana State University
- Montana Technological University
- Montana State University Northern
- Great Falls College
- Flathead Valley Community College
- City College
- Helena College
- Aaniiih Nakoda College
- Salish Kootenai College
- Little Big Horn College
- Helena College
- Missoula College
- University of Montana
- University of Montana Western
- Montana State University Billings
- Dawson Community College
- Miles Community College
- Gallatin College
- Blackfeet Community College
- Chief Dull Knife College
- Fort Peck Community College
- UM Bitterroot
- Highlands College
- Stone Child College

Credential Registry

Montana Credential Registry

Montana Department of LABOR & INDUSTRY

The Montana Department of Labor and Industry maintains the Montana Credential Registry, a centralized resource that provides clear, consistent information about credentials offered across the state. The Montana Credential Registry includes certificates, apprenticeships, degrees, licenses, industry-recognized certifications, and stackable micro credentials, along with details on the skills and competencies they represent. The registry is designed to help students, jobseekers, employers, and educators explore credential options, compare pathways, and connect education and training to career opportunities in Montana's economy.

This is a list of credentials eligible for 3 or more credits or stackable to 3 credits. Credentials that do not meet the minimum threshold for individual credit, but that can be part of a stack of credentials have the stackability designation. While all credentials that are eligible for credit are also stackable, those with the stackability designation can be combined with other credentials to reach the minimum eligibility threshold. Individual courses within a training pathway are not all listed, but are also stackable toward the designated certificate, sprint degree, and degree programs.

How to Access the Montana Credential Registry



- For more information on Future Ready and to view the DLI Montana Credential Registry.
- View the complete Montana Credential Registry Finder from DLI.
- A PDF Version of the Future Ready IRC List is available on the Montana Credential Registry webpage.

Career Clusters

Pathways to College & Career Readiness

The National Career Clusters Framework

The Career Clusters Framework serves as the foundation for designing consistent, high-quality Career Technical Education (CTE) and career pathway programs.

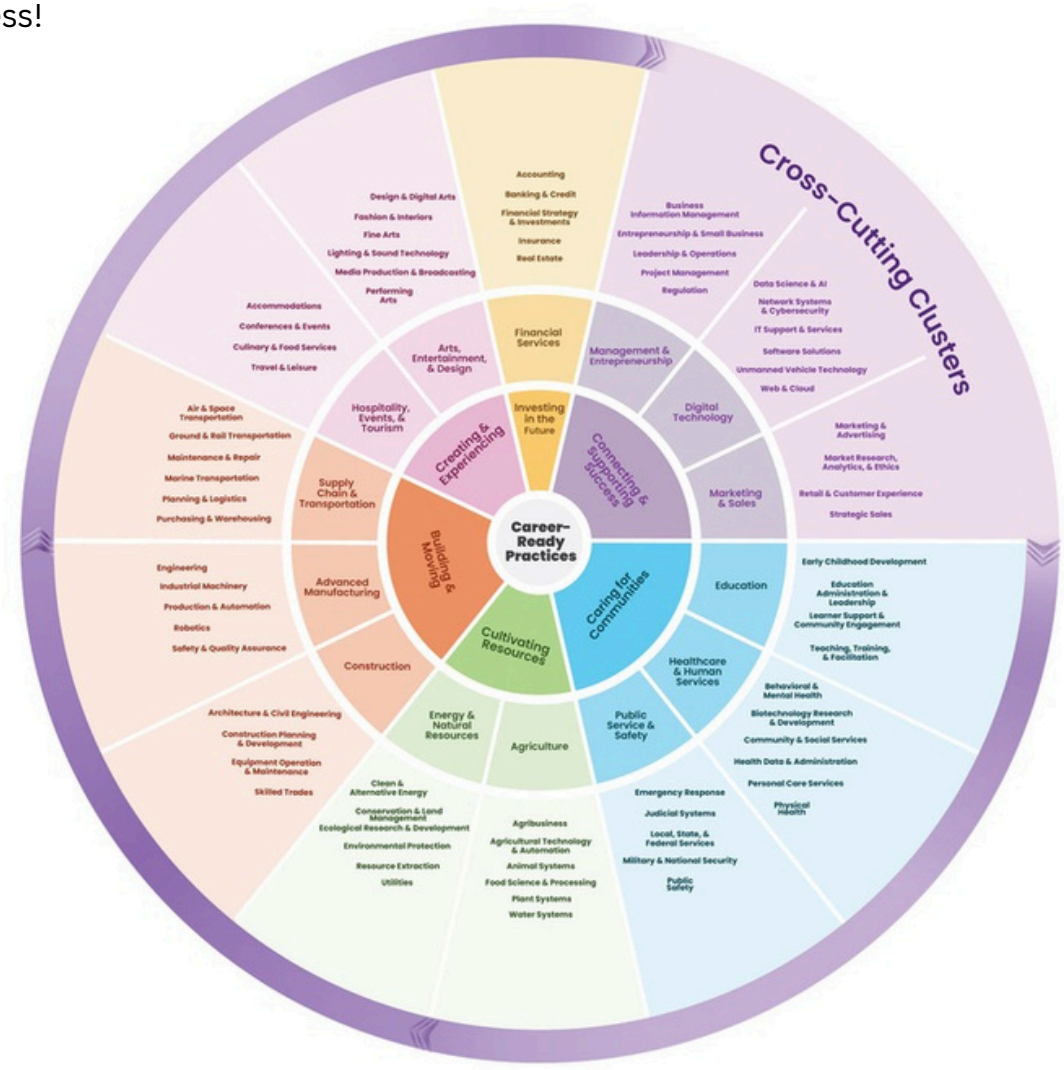
All learners deserve opportunities to explore and prepare for the full world of work, and discover where they fit in. Created in 2002 and modernized in 2024, the National Career Clusters Framework has provided a shared structure and language for CTE program design across the United States. Advance CTE serves as the steward of the Framework.

The Framework has the power to transform systems, Career Pathways and programs, and the lives of learners and communities. Whether you are an administrator, CTE or core academic educator, career advising professional, or an employer, you can use the Framework to help every learner chart their path to career success!

The modern Framework consists of 14 Clusters and 72 Sub-Clusters that serve as the primary organizing structures for CTE programs.

These structures are supported by five Cluster Groupings aligned to purpose and impact of included careers, and three Cross-Cutting Clusters that provide both skills and careers that can stand alone and intersect with all other Clusters.

Twelve Career-Ready Practices to ensure that every program includes the skills that are essential to every career and life.



Framework Guidebook

CTAE Unit Contact List

Career Technical and Adult Education Unit at Montana Office of Public Instruction

Google sites are a place for CTE teachers to find resources and tools specific to their endorsements, a place for networking and important CTE related updates.

Career Technical and Adult Education Director ..... Shannon Boswell

- ***Career Technical, and Adult Education Website***

Lifelong Learning and HSE Administrator ..... Katie Madsen
Lifelong Learning and HSE Coordinator ..... Emily Fuller

- ***Adult Community Education Webpage Link***

Agricultural Education Specialist ..... Eric Tilleman

- ***Ag-Ed Google Sites Link***

Business Education Specialist ..... Jennifer Rohrer

- ***Business Google Group Site Link***

Family and Consumer Sciences Specialist ..... Carley Gunderson

- ***Family and Consumer Sciences Google Sites Link***

Health Science & Public Safety Specialist ..... Tammie Ellington

- ***Health Science & Public Safety Google Sites Link***

Industrial Technology Education Specialist ..... Kaitlin Trutzel

- ***Industrial Technology Education Google Sites Link***

