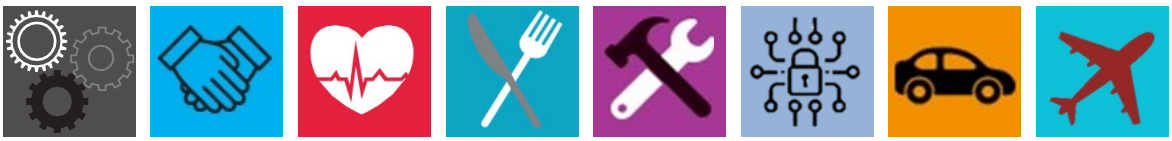
CHERRY CREEK INNOVATION CAMPUS

Cherry Creek Schools CTE Career & Technical Education Pathways of Purpose

CHERRY CREEK INNOVATION CAMPUS

2024-2025 Course Catalog

www.cherrycreekschools.org/CCIC



APPLY TO CCIC Scan Me

CCIC WEBSITE SCAN ME

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CCIC PROGRAMS EXPLAINED

Career & Technical Education (CTE) is a national program with courses teaching core academics, technical, and job-specific skills. CTE classes and programs like internships and apprenticeships, are designed to provide students with tools necessary to succeed in post-secondary education and career. All high schools in the Cherry Creek School District offer CTE courses. (CTE Website)

Cherry Creek Innovation Campus (CCIC) is a stand-alone CTE facility which opened in August, 2019. Courses at the CCIC align with the industry standards for seven in-demand and growing career pathways. Many courses offer core academic credit in English, Math, or Science and/or college credit. Transportation to and from CCIC is provided at all home high schools.

Concurrent Enrollment / Dual Enrollment (CE/DE) is an opportunity for students to earn high school and college credit simultaneously. Many courses in the Cherry Creek School District (CCSD) offer concurrent/dual enrollment credit through local colleges. Concurrent Enrollment courses are tuition-free through a local community college. Dual Enrollment courses have a minimal per-credit fee ($60 per credit) through a local university. College credit can only be earned with a grade of 'C' or higher.

Industry Certifications are available in many CTE programs. An industry certification is recognized by industry at the local, state and national level. These certifications measure competency in an occupation, and they validate the knowledge base and skills that show mastery in a particular industry. Some certifications will be accepted for a student's demonstration of learning according to Graduation Guidelines. See your counselor for more information.

Career & Technical Student Organizations (CTSOs) are key components to strong CTE programs. These student run organizations develop business and industry-specific skills, procedures, and values that align with coursework, activities, and events in the classroom and greater community. Students also have the opportunity to demonstrate these acquired skills at regional, state and national competitions.

Work-Based Learning is a continuum of activities that occur, in part or in whole, in the workplace, providing the learner with hands-on, real world experience and is an integral part of a student's experience at CCIC. CCIC offers work-based learning at all levels: Learning About Work, Learning Through Work and Learning at Work. (WBL Continuum Chart)

The CTE Internship and Apprenticeship programs connect students with career pathways of interest by partnering with businesses in the community. CTE partners with CCIC to identify Internship and Apprenticeship opportunities in all CCIC Pathways.

Scan to watch a video about Apprenticeships

CCIC REGISTRATION PROCESS

To register for CCIC courses:

Step 1: MyCAP Planning

Use your MyCAP to help select a CTE pathway that fits your career and academic goals. Based on your career goals, you may choose to apply for a CTE course that is offered at the Cherry Creek Innovation Campus (CCIC), or through the District CTE program.

Step 2: Course Selection

Use the information in the course catalog to help plan your course selection. Make sure you meet the grade-level requirements and any prerequisites required.

Step 3: Counselor Input

After you've selected a CCIC or District CTE course that fits your MyCAP, consult your counselor to ensure the courses will fit with your home high school schedule and will allow you to complete all courses necessary for graduation.

Step 4: Application

The online application opens on **January 22, 2024**. A link to the online application can be found on the CCIC website and in registration links on home high school websites. **Applications must be submitted by Friday, March 8, 2024.** In addition to the application, some courses may require a supplemental application and/or attendance at an informational meeting.

Accommodations: *The Cherry Creek Innovation Campus provides accommodations and modifications identified in a student's IEP/504. Additional accommodations requested must be deemed as "reasonable accommodations." Students can self-advocate for reasonable accommodations with Alex Sabin, the CCIC 504 Coordinator, through email (asabin@cherrycreekschools.org) or phone (720-554-2604).*

Step 5: Confirmation

After submitting an application, you will receive a confirmation email, as well as information regarding additional application requirements. Please note that all application requirements must be completed to be considered for acceptance. Notification of acceptance into a CCIC course will occur by email in mid/late April. Students will also be notified by email in mid/late April if they are on a wait list for requested courses or if alternative class options are available.

APPLICATION DUE: FRIDAY, MARCH 8, 2024

Transportation provided to and from each home high school.
Financial assistance available to students who qualify.

CCIC CORE CLASSES

CCIC core content is integrated within our pathway curriculum and meets district core standards requirements for graduation. All CCIC core classes are NCAA approved.

EngA

CP Innovator's English A (Effective Communication, Writing, and Career Success) - In this integrative English course, students demonstrate career & college readiness, developing leadership skills, research, & writing skills that will enable them to be successful in their pathway of purpose. Students in this course also participate in many collaborative settings where they will use rhetorical strategies to reach a decision with others who have diverse ideas. To be successful, students must contribute to conversations in professional manners. Students conduct research relating to issues in their industry, problem solving those issues to invite diversity into their writing and conversations. Students write in APA format, citing sources and developing their informational literacy skills. This course can be repeated for credit.

EngB

CP Innovator's English B (Research and Writing) – In this course, students will use argumentation, research processes, and reflection to continue to develop and experiment with their writing. It will also use an active learning approach in writing, reading, and communication processes to integrate topics into potential careers. Students will complete a college and career research project according to the APA style guide that enables them to confidently transition to post-secondary realms. This course involves continued emphasis on the writing process, critical thinking, the rhetorical nature of language, and furthers their research skills. This course can be repeated for credit.

Tech

EngC

CE Technical Writing / CP Innovator's English C – This integrated English course teaches the fundamentals of writing and pathway or industry-specific technical documents with structure, organization, diction, style, revision, editing and mechanics. Students will write for specific industry-related purposes including, but not limited to professional emails, training manuals, business proposals, blog creation and response, professional interviewing, podcast creation, and social media content writing. Finally, students will conduct research as necessary for the pathway and industry curriculum, gathering relevant information from multiple print sources related to the task. By the end of the course, students will be able to read, analyze, summarize, and apply technical information and plain language as appropriate for career preparation. This course may offer CE Credit (ENG 1031) and may be repeated for credit.

MthA

CP Innovator's Math Topics A - This course will extend students' proficiency in fundamental arithmetic topics to in-depth analysis of plane, solid, and coordinate geometry as they relate to both abstract mathematical concepts as well as real-world problem situations. This course can be repeated for credit.

MthB

CP Innovator's Math Topics B - This course will extend students' proficiency in fundamental arithmetic topics to more advanced algebraic topics, including the application of trigonometric functions, standard deviation, matrix and vector analysis, logarithmic and exponential relationships, and linear systems. This course can be repeated for credit.

MthC

CP Innovator's Math Topics C - This course will extend students' proficiency in the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, and the analysis of potential solutions. This course can be repeated for credit.

MthD

CP Innovator's Math Topics D – Innovator's Math D will expand on students' proficiency in number theory and discrete mathematics topics as it applies to technology. Topics may include number systems, basic combinatorics, modular arithmetic, and prime numbers. This course can be repeated for credit.

A&P

CE Basic Anatomy & Physiology - This course provides a deeper exploration of the human body and biological systems in great detail. Students expand their knowledge of the body and terminology/phonetic pronunciations used to describe and locate body parts as well as an overall review of human development and body processes. This course focuses on basic knowledge of body structures and function and provides a foundation for understanding deviations from normal and disease conditions. This course may offer CE Credit (BIO 1006) and may be repeated for credit.

LifSci

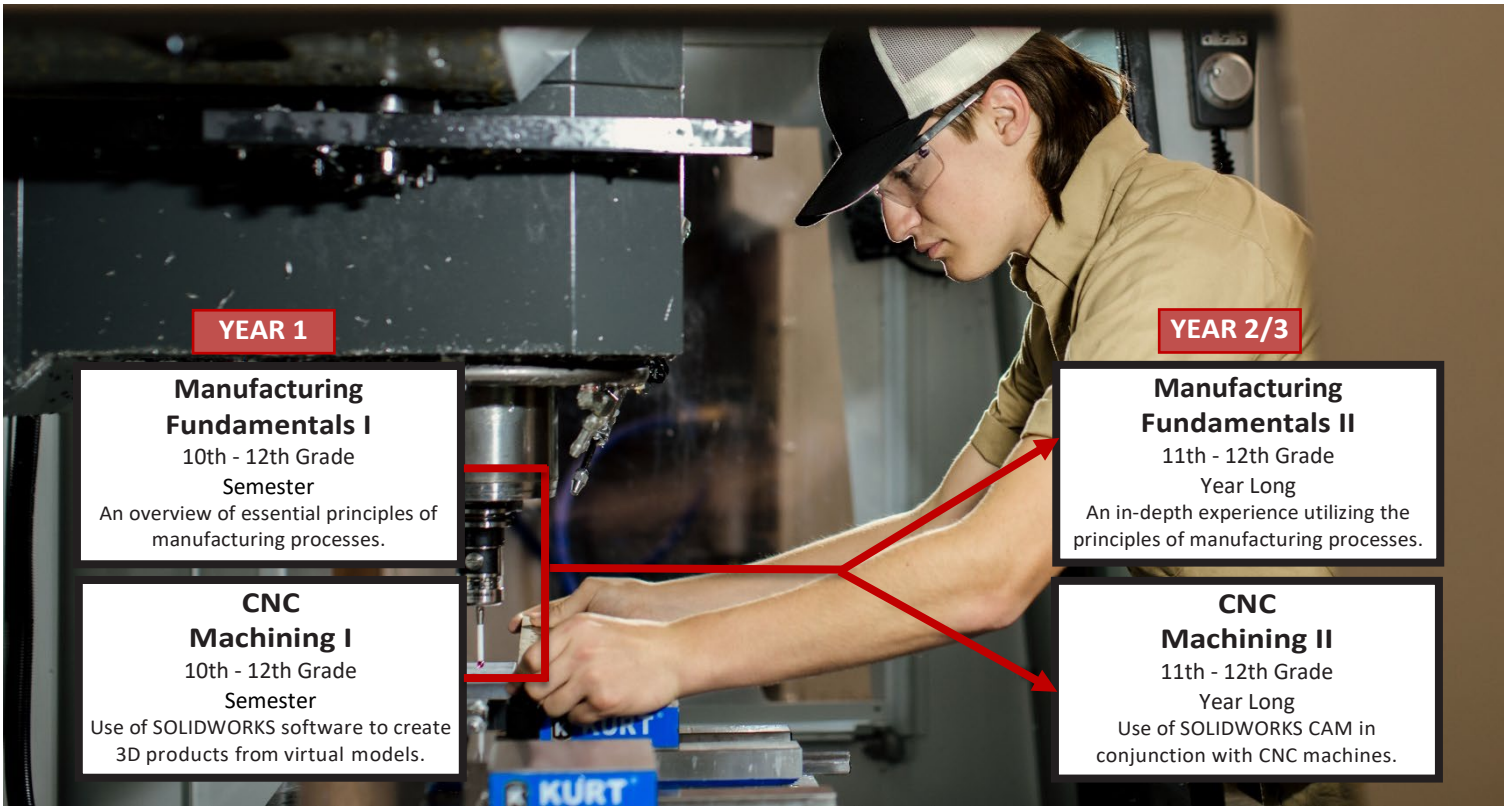
CP Innovator's Life Science - Students will use a full range of science and engineering practices to make sense of natural phenomena and solve problems that require an understanding of how individual organisms are configured and how these structures function to support life, growth, behavior, and reproduction. This course can be repeated for credit.

PhySci

CP Innovator's Physical Science - Students can use the full range of science and engineering practices to make sense of natural phenomena and solve problems that require understanding structure, properties and interactions of matter. This course can be repeated for credit.

AEROSPACE MANUFACTURING

Scan to watch a video about the Aerospace Manufacturing Pathway



MANUFACTURING FUNDAMENTALS I

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 MTH B	EST. FEES: $150

Suggested Prerequisite: CAD (Computer Aided Design)

Concurrent Enrollment: Machine Shop Safety (MAC 1000, 1 credit)

COMMUNITY COLLEGE OF DENVER MthB

Certifications: Certified SOLIDWORKS Associate – Additive Manufacturing (CSWA-AM)

Course Description: This course is designed to provide students with the skills and knowledge to be effective in production environments as a machinist, CNC operator, or supervisor. Upon completion of this course, proficient students will demonstrate safety practices concerning machining technology, proper measurement and layout techniques, reading and interpreting drawings and blueprints, production design processes, and quality control procedures. Students will complete projects using various manufacturing techniques and build intermediate skills involving manufacturing techniques. Upon completion of this course, students will be knowledgeable about potential postsecondary education and career opportunities related to machining technology and will be prepared to enroll in more advanced machining courses in high school. Students will create real world projects using CNC Plasma Cutters, Water Jet Cutters, Routers, Injection Molders, Additive Manufacturing (3D Printing) and Vacuum Formers.

AEROSPACE MANUFACTURING

CNC MACHINING I

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 MTH B	EST. FEES: $150

Suggested Prerequisite: CAD (Computer Aided Design)

Concurrent Enrollment: Machine Shop Safety (MAC 1000, 1 credit), Print Reading for Machinists (MAC 1002, 3 credits)

Certifications: Haas Basic Mill Operator

Course Description: This course covers fundamentals of computer numerical control (CNC), basic programming, machine setup and operation of CNC machines. The course begins with manual programming practices so that the student will understand the programming code and its structure. Geometric Dimensioning & Tolerancing codes; G & M codes, control functions, the letter address system, and math issues related to CNC are included. Standard safety conventions will be introduced for safe programming practice. This course allows for the further development of CNC skills with hands-on instruction related to the CNC milling machines, and CNC turning centers. The lab work includes operation of CNC machines to demonstrate the programming skills.

MANUFACTURING FUNDAMENTALS II

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 MTH B	EST. FEES: $150

Prerequisites: Manufacturing Fundamentals I and CNC Machining I

Concurrent Enrollment: CAD/CAM 2D (MAC 2040, 3 credits)

Certifications: Stratasys Additive Manufacturing Certification and Certified SOLIDWORKS Associate – Additive Manufacturing (CSWA-AM)

Course Description: This course is designed to provide students with the skills and knowledge to be effective in production and engineering environments as a machinist, technician, CNC operator or supervisor. Upon completion of this course, proficient students will demonstrate safety practices concerning machining technology, proper measurement and layout techniques, reading and interpreting drawings and blueprints, production design processes, and quality control procedures. Students will complete projects using various manufacturing techniques and build intermediate skills involving manufacturing techniques. Upon completion of this course, students will be knowledgeable about potential postsecondary education and career opportunities related to machining technology and will be prepared to enroll in more advanced machining courses in high school. Students will create real world projects using CNC Plasma Cutters, Water Jet Cutters, Routers, Injection Molders, Additive Manufacturing (3D Printing) and Vacuum Formers.

CNC MACHINING II

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 MTH B	EST. FEES: $150

Prerequisites: Manufacturing Fundamentals I and CNC Machining I

Concurrent Enrollment: CAD/CAM 2D (MAC 2040, 3 credits), Introduction to CNC Milling Operations (MAC 2005, 3 credits)

Dual Enrollment: CNC Machining & Inspection (MET 2010, 3 credits)

Certifications: National Institute of Metalworking Skills (NIMS)

Course Description: This course prepares students to enter the manufacturing/production industry, specifically covering CAD/CAM systems, geometric modeling, process planning, tool path generation. Course content includes programming and production of complex parts. Projects focus on solid modeling for design and manufacturing applications as well as the use of commercial CAD/CAM software for automating the production cycle. Special content addresses CNC mill and lathe setups and operations not covered in the basic CNC Machining. NIMS certification preparation and testing are included in course content.

BUSINESS SERVICES

PROJECT MANAGEMENT FOR ENTREPRENEURS I

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 ENG A	EST. FEES: $80

Suggested Prerequisite: Introductory Business and/or Marketing Course

ACC ARAPAHOE COMMUNITY COLLEGE — EngA

Concurrent Enrollment: Introduction to Entrepreneurship (ENP 1005, 3 credits), Project Management in Organizations (MAN 2041, 3 credits)

Course Description: Project Management for Entrepreneurs I explores the business skills, personality traits, and commitment necessary to successfully plan, launch, and grow an entrepreneurial venture while also investigating the concepts and applicability of project management within organizations. This course will cover the challenges and rewards of entrepreneurship and the role of entrepreneurial businesses in the United States and the world as well as their impact on our national and global economy. Students will examine the unique nature of the project management structure, including its emphasis on integrated decision making throughout the lifecycle of a product from the planning, implementing, monitoring, and controlling phases. Emphasis is on the processes of initiating, planning, executing, controlling, and closing activities of project management.

PROJECT MANAGEMENT FOR ENTREPRENEURS II

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 ENG B	EST. FEES: $50

Prerequisites: Successful Completion of Project Management for Entrepreneurs I

ACC ARAPAHOE COMMUNITY COLLEGE — EngB

Concurrent Enrollment: Marketing Your Image (MAR 1006, 3 credits), Marketing for Entrepreneur (ENP 2005, 3 credits)

Certifications: Stukent Social Media Marketing Certification

Course Description: Project Management is a rapidly growing profession. Project Management for Entrepreneurs II presents a series of marketing challenges to teams of student project managers with the winners announced at the end of the semester. This course continues to prepare students in understanding how project management skills can assist in promoting an entrepreneurial venture. Students gain insights essential for using digital media to market their ideas, using innovative and financially responsible marketing strategies that are both traditional and non-traditional in nature.

BUSINESS SERVICES

PROJECT MANAGEMENT FOR ENTREPRENEURS III

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 ENG C	EST. FEES: $100

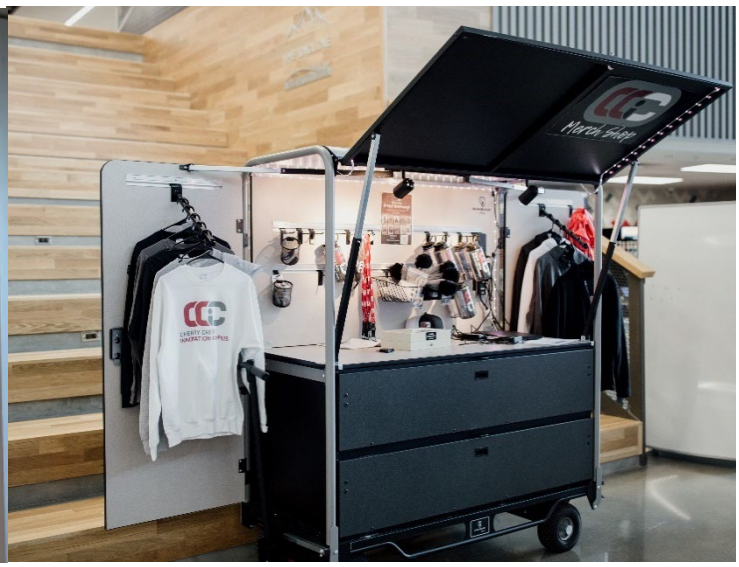
Prerequisites: Project Management for Entrepreneurs I & II

ACC ARAPAHOE COMMUNITY COLLEGE — EngC

Concurrent Enrollment: Customer Service (MAR 1060, 3 credits), Project Management in Action (MAN 2043, 3 credits)

Certifications: PMI Project Management Ready Certification

Course Description: Project Management for Entrepreneurs III explores concepts in Project Management and Customer Service. This course introduces major activities and tools in Project Management related to resources, risk, and quality. There is a heavy focus to provide how to manage the human element of project management. Specific project management tools and methodologies are introduced and used. Students will also learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.



CTE CAPSTONE BUSINESS

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 TECH WRITING	EST. FEES: $80

Prerequisites: Project Management for Entrepreneurs I, Project Management for Entrepreneurs II, Project Management for Entrepreneurs III

ACC ARAPAHOE COMMUNITY COLLEGE — Tech

Concurrent Enrollment: Leadership (MAN 2024, 3 credits), Technical Writing I (ENG 1031, 3 credits)

Certifications: PMI Project Management Ready, Certified Associate Project Management (CAPM)

Course Description: While working in teams, students focus on the leadership skills for contemporary organizations. Covers development and communication of a shared vision to motivate and empower employees to manage conflict, to negotiate, and to develop teams.

CRIMINAL JUSTICE

CRIMINAL JUSTICE AND LAW I

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: 1.0 CTE	EST. FEES: $0

Concurrent Enrollment: Introduction to Criminal Justice (CRJ 1010, 3 credits), Policing Systems (CRJ 1025, 3 credits)

Course Description: This course combines Introduction to Criminal Justice (CRJ 1010) and Policing Systems (CRJ 1025). Introduces students to the basic components of the criminal justice system in the United States. Concepts of crime, crime data, victimization, perspectives and views of crime, theory, and law are discussed. Particular attention to the criminal justice process, interaction and conflict between criminal justice agencies, and current criminal justice issues are examined. The course also examines policing in the United States, including: historical foundations, emerging issues, and the relationship between law enforcement and the community. The various types of law enforcement agencies, their administrative practices, and the behavior of those involved in the delivery of police services are examined from the perspective of democratic values, racial and ethnic diversity, and societal perceptions of police effectiveness. Career requirements, including current and future trends, are also presented.

CRIMINAL JUSTICE II: INVESTIGATIONS

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: 1.0 CTE	EST. FEES: $0

Prerequisites: Criminal Justice and Law I

Concurrent Enrollment: Criminal Investigation I (CRJ 2009, 3 credits)

Course Description: Criminal Justice 2: Investigations covers the function of the preliminary investigation at a crime scene (search warrant) to include securing the scene, crime scene searches, police drawings, and recognition and collection of evidence. Competencies include investigative skills related to interviews/interrogations, surveillance, executing search and arrest warrants, report writing/documentation, and operational planning. In addition, students will develop an understanding of how Constitutional law, based on Supreme Court cases, impacts criminal justice investigations and enforcement.

HEALTH & WELLNESS

Advanced Studies in Health Care
10th-12th Grade
Exploration of healthcare careers and content related to basic anatomy & physiology.

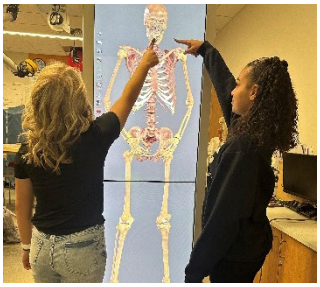
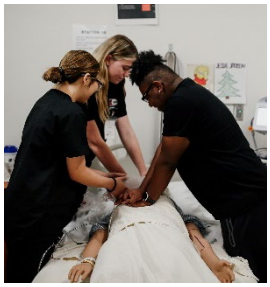
Suggested prerequisite for courses in the Health & Wellness pathway

Certified Nurse Aide
11th-12th Grade
Students prepare to perform patient care in a nurse aide role.

Behavioral Health Technician
11th-12th Grade
Students explore and apply basic principles of behavioral and mental health.

Introduction to OT & PT
11th-12th Grade
Course prepares students for patient care as a physical and occupational therapy aide.

Pharmacy Technician
12th Grade
Students learn the role and function of pharmacy technicians.


ADVANCED STUDIES IN HEALTH CARE *(formerly Introduction to Health Care)*

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 LIFE SCI	EST. FEES: $50

Concurrent Enrollment: Comprehensive Medical Terminology (HPR 1040, 3 credits)

Certification: Basic Life Support (BLS) CPR through American Heart Association

ACC ARAPAHOE COMMUNITY COLLEGE — LifSci

Course Description: Develop a broad understanding of the many career opportunities within the healthcare field by studying the human body systems and their respective medical terminology. Through a combination of lectures, interactive activities, case studies, and practical exercises, this course aims to equip students with the necessary knowledge and skills to communicate effectively in a healthcare environment and to foster an understanding of the diverse opportunities available in the healthcare industry. Students will gain an in-depth understanding of the language of medicine, including the pronunciation, analysis, and interpretation of medical terms (common prefixes, roots, and suffixes), abbreviations, and acronyms commonly used in healthcare settings.

CERTIFIED NURSE AIDE (CNA)

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/ .5 LIFE SCI	EST. FEES: $175

Prerequisite: Basic Life Support (BLS) CPR through American Heart Association

Certification: Colorado State Nurse Aide Certification NNAAP® Exam (Written and Skills)

LifSci

Course Description: The Nursing Aide course prepares students for the Colorado State Nurse Aide Certification NNAAP® Exam while providing students a foundation in Nurse Aide theory and skills. Students will learn the scope of practice and multiple proficiencies of working in an interdisciplinary team to provide holistic care to patients and residents. Students will participate in a minimum of 16 hours of hands-on care to residents during supervised clinical learning experiences at a local Long-Term Care facility. Content includes: introduction to the nursing aide role, communication skills, exploration of healthcare settings, ethical and legal issues, cultural sensitivity, patient/resident rights, infection control, safety and body mechanics, measures and records vital signs, admission, transfer, and discharge, bed making and caring for patients' environment, personal care, nutrition and fluid balance, toileting, restorative care, and end-of-life care.

Note: Participation in CNA Clinicals requires students to provide documentation of active BLS CPR certification; cleared background check, drug screen, and TB screening; Up-to-date immunization records with Chickenpox/Varivax, Tetanus, MMR, Hepatitis B vaccinations. Optional but recommended vaccinations include seasonal influenza and COVID-19.

HEALTH & WELLNESS

BEHAVIORAL HEALTH TECHNICIAN

GRADES: 11-12	LENGTH: 1 YEAR	LENGTH: 1.0 CTE / 1.0 ENGLISH A	EST. FEES: $96

Suggested Prerequisite: Advanced Studies in Health Care

Concurrent Enrollment: Intro to Behavioral Health Care & Wellness (PTE 1010, 3 credits), Mental Health Crisis and Intervention: Preparedness and Emp (BEH 1001, 3 credits), Behavioral Health Case Management and Clinical Documentation (BEH 1030, 1 credit), Applied Therapeutic Communication Skills (BEH 2030, 3 credits)

Pueblo Community College

EngA

Certifications: Registered Behavior Technician Certification, Basic Life Support (BLS) CPR through American Heart Association

Course Description: This course explores the basic principles of behavioral health in a behavioral health care setting. This course develops interpersonal and technical skills while working with clients in psychiatric care settings. Students obtain skills used daily by Behavioral Health Technicians (BHT's) such as therapeutic communication and relationship building and conducting psychoeducational therapy groups. Students will also explore aspects of mental health and factors that influence human development and behavior.

INTRODUCTION TO OCCUPATIONAL & PHYSICAL THERAPY

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 A&P	EST. FEES: $150

Suggested Prerequisite: Advanced Studies in Health Care

Concurrent Enrollment: Intro to Occupational Therapy (OTA 1000, 3 credits), Intro to Medical Terminology (HPR 1038, 1 credit), Basic Anatomy & Physiology (BIO 1006, 4 credits)

Pueblo Community College

A&P

Certification: Basic Life Support (BLS) CPR through American Heart Association

Course Description: This course combines foundations of Occupational Therapy (OT) and Physical Therapy (PT). Students will explore profession definitions, roles and responsibilities, history, scope of practice, philosophical basis, relationships with other healthcare professionals, ethical and legal implications, industry settings, and more. Students will compare and contrast OT and PT throughout the year while learning and exploring health and wellness, diseases/conditions, and injuries. A moderate amount of human anatomy and medical terminology is included. Clinical skills include ambulation, range of motion (ROM), manual muscle testing, adaptive dressing techniques, functional transfers, physical agent modalities, clinical communication, etc.

PHARMACY TECHNICIAN

GRADES: 12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 LIFE SCI	EST. FEES: $164

Prerequisite: Algebra I

Suggested Prerequisite: Advanced Studies in Health Care

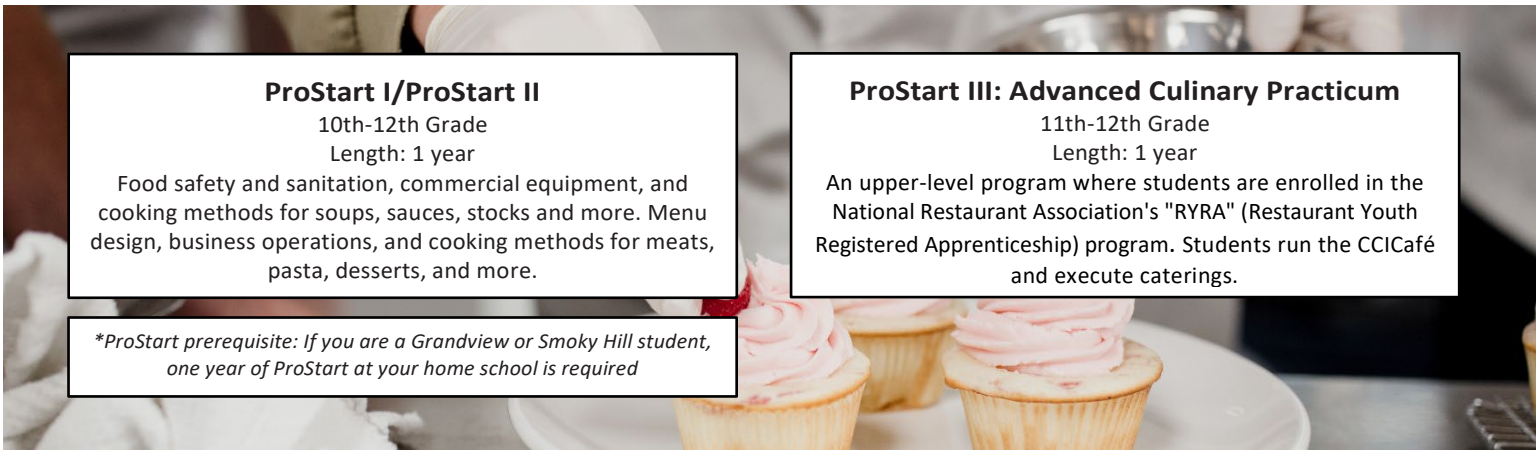
LifSci

Certifications: Certified Pharmacy Technician (CPhT), Basic Life Support (BLS) CPR through American Heart Association

Course Description: This course combines foundations of pharmacology, pharmaceutical care and knowledge with hands-on applications. Students will explore real-world application of a pharmacy technician working with a licensed pharmacist in a variety of clinical and retail settings. We explore pharmacy history and laws, federal and state regulations and ethics, medical and pharmaceutical terminology, pharmacy calculations and conversions, sterile and non-sterile compounding, and communicative customer service. Students will also examine essential medical topics such as body systems, common diseases and conditions, and medication errors. This course prepares students to sit for the nationally recognized Pharmacy Technician Certification Exams. This preparation includes learning the 200 most prescribed medications.

HOSPITALITY & TOURISM

CULINARY MANAGEMENT PATHWAY



ProStart I/ProStart II
10th-12th Grade
Length: 1 year
Food safety and sanitation, commercial equipment, and cooking methods for soups, sauces, stocks and more. Menu design, business operations, and cooking methods for meats, pasta, desserts, and more.

**ProStart prerequisite: If you are a Grandview or Smoky Hill student, one year of ProStart at your home school is required*

ProStart III: Advanced Culinary Practicum
11th-12th Grade
Length: 1 year
An upper-level program where students are enrolled in the National Restaurant Association's "RYRA" (Restaurant Youth Registered Apprenticeship) program. Students run the CCICafé and execute caterings.

PROSTART I / PROSTART II

GRADES: 10-12	LENGTH: 1 YEAR	CREDITS: 2.0 CTE	EST. FEES: $200

Prerequisite: *Grandview and Smoky Hill students must take ProStart I at home high school.

Dual Enrollment: ProStart I (RST 1550, 3 credits), ProStart II (RST 2550, 3 credits)

Certifications: ServSafe Food Handler, ServSafe Allergen, Colorado Restaurant Association Workforce Readiness Certificate and ProStart National Certification of Achievement. (additional certifications available upon request)

Course Description: This pre-apprenticeship course from the National Restaurant Association Educational Foundation and Colorado Restaurant Foundation introduces students to a competency-based foodservice & hospitality management curriculum offered to students in grades 10-12. It is a study of culinary arts, restaurant and lodging management, employability skills, and business entrepreneurship coupled with paid mentored work internships in a broad spectrum of industry restaurant, foodservice, and lodging operations. Students who wish to obtain the national ProStart certification must complete a 400 - hour guided internship and pass the exams for both ProStart I & II. Successful participants in the program will have the opportunity to receive college credits, earn industry certifications and credentials, compete in the ProStart Invitational Competitions, and apply for industry scholarships.

Note: Students must pass the ServSafe Food Handler certification first semester in order to advance to second semester.

PROSTART III: ADVANCED CULINARY PRACTICUM *(formerly ProStart Youth Apprenticeship)*

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE /.5 ENG C/.5 TECH WRITING	EST. FEES: $200

Prerequisites: ProStart I and/or ProStart II

Concurrent Enrollment: Technical Writing I (ENG 1031, 3 credits)

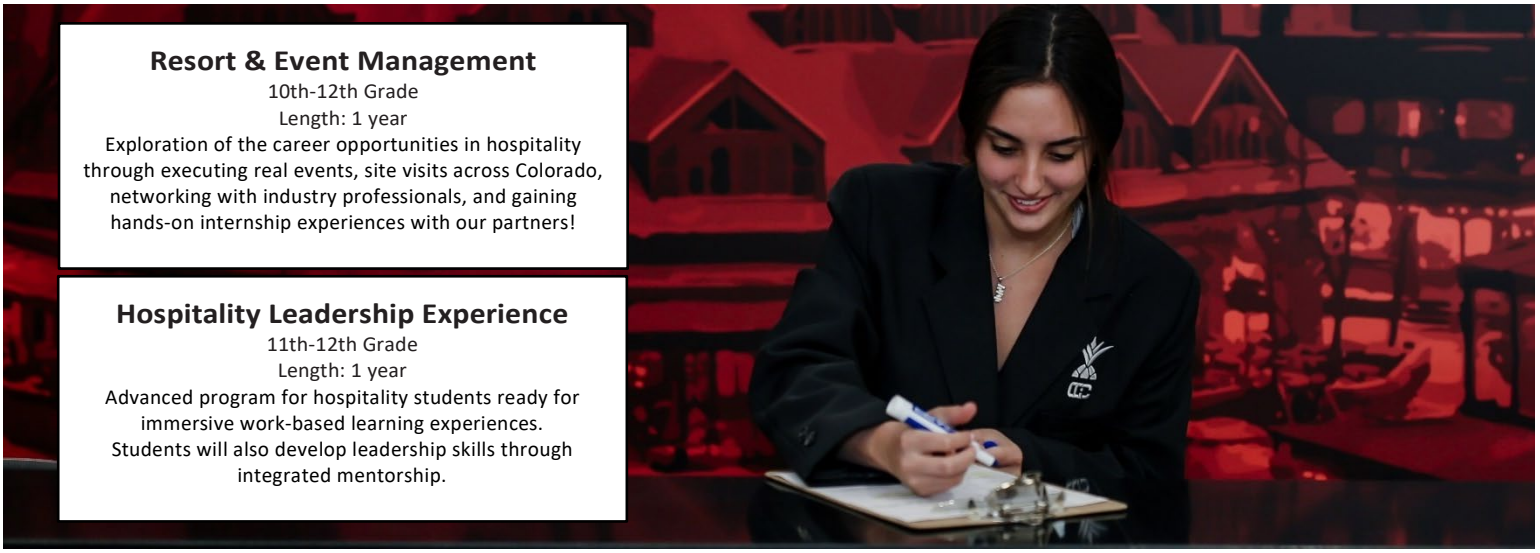
EngC Tech

Certifications: ServSafe Manager, ProStart National Certificate of Achievement, ServSuccess Certified Restaurant Professional, Certified Line Cook (additional certifications available upon request)

Course Description: This upper-level culinary program is an opportunity for students to put their culinary & restaurant management knowledge to the test! Students are enrolled in the National Restaurant Association's "RYRA" (Restaurant Youth Registered Apprenticeship) program and can start earning hours towards the "Restaurant Line Cook Apprenticeship" starting at 17 years old. Students learn applicable industry skills through class instruction and can earn paid work hours outside of class time through an approved employer or through the CCICafé. In addition, students will be working alongside the Hospitality Management program to cater CCIC events, teaching them communication, leadership, cost analysis, teamwork, responsibility, and professionalism- skills they can apply to any industry they choose for their future.

HOSPITALITY & TOURISM

HOSPITALITY MANAGEMENT PATHWAY



Resort & Event Management
10th-12th Grade
Length: 1 year
Exploration of the career opportunities in hospitality through executing real events, site visits across Colorado, networking with industry professionals, and gaining hands-on internship experiences with our partners!

Hospitality Leadership Experience
11th-12th Grade
Length: 1 year
Advanced program for hospitality students ready for immersive work-based learning experiences. Students will also develop leadership skills through integrated mentorship.

RESORT & EVENT MANAGEMENT

GRADES: 10-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE /1.0 ENG B	EST. FEES: $165

Dual Enrollment: Hotel Industry Fundamentals (HTL 1010, 3 credits) & Introduction to Hospitality (HLDR 1000, 3 credits)

EngB

Certifications: Certified Guest Service Professional (CGSP), ServSafe Food Handler, and Hospitality & Tourism Specialist (HTS).

Course Description: This two-year industry-developed curriculum by the American Hotel and Lodging Educational Institute covers careers in hospitality and restaurant operations, customer service, sales, marketing, employability and soft skills, communication, guest experience cycle and food and beverage services. Successful participants in the program will have the opportunity to receive college credits, earn industry certifications and credentials, participate in a mentored internship off site and at our on-site café, and apply for industry scholarships. CCIC students will also have the opportunity to earn internship hours through our on-site cafe. Includes a 100-hour internship.

HOSPITALITY LEADERSHIP EXPERIENCE

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE /.5 ENG C/.5 TECH WRITING	EST. FEES: $100

Prerequisites: One of the following: Resort & Event Management or ProStart I/II

Concurrent Enrollment: Technical Writing I (ENG 1031, 3 credits)

EngC Tech

Dual Enrollment: Quality Service Leadership (HLDR 2200, 3 credits) & Career and Leadership Development for Hospitality (HLDR 2000, 3 credits)

Certifications: AHLEI Hospitality Manager: Leadership Training, AHLEI Certified Front Desk Representative, ServSafe Unconscious Bias Training, ServSafe Sexual Harassment Training, ServSafe Manager

Course Description: This advanced program is for hospitality students who are ready for immersive work-based learning experiences within the hospitality industry. Students will start the year exploring hospitality career paths and developing their leadership styles using self-assessments and integrated mentorship experiences. Students will apply their different hospitality skills across authentic industry-directed problems of practice. In addition, students will develop goals and a plan for 150 hours of work-based learning experiences to be completed throughout the year. A digital portfolio will be utilized to showcase each student's industry experience(s) and skills they develop along with industry mentor and instructor feedback. Student's industry experience can be on campus (ex: CCIC events, CCICafé , CTE project management intern) or off campus (ex: hotel or restaurant internship or RYRA apprenticeship). The experience may be paid or unpaid (depending on the experience each student coordinates). Students should have access to transportation for off campus experiences.

INFRASTRUCTURE ENGINEERING

Scan to watch a video about the Infrastructure Engineering Pathway

Construction I
10th-12th grade
Students gain practical experience in the various building trades using industry tools and materials.

Construction II
11th-12th grade
Students will expand on skills gained in the previous year and begin an introduction to commercial materials and career pathways.

CONSTRUCTION I

GRADES: 10-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 MTH A	EST FEES: $120

Prerequisite: Algebra I

MthA

Certifications: OSHA-10 Construction, Home Builders Institute (HBI) Pre-Apprenticeship Certificate Training (PACT)

Course Description: This is the foundation course to basic residential construction. Students will demonstrate competencies that are nationally recognized by the construction industry. Students will learn and practice structural framing of floors, walls, ceilings, and roofs. This course also includes the use of basic construction tools and machinery, applied math, and an introduction to blueprint reading. This course teaches students industry safety including the use of all machines and tools. In addition, topics will include electrical wiring, masonry, plumbing, carpentry, HVAC, drywall, foundations, footings, stairs, doors, and employability.

Note: Construction I students must be able to carry 20 lbs. across the classroom and lift 15 lbs. overhead. Construction I students must be able to lift, bend, twist, and work overhead, as well as under a structure. Construction I students must be able to climb a ladder and work from an elevated position.

CONSTRUCTION II

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 MTH A	EST FEES: $120

Prerequisite: Construction I

MthA

Certifications: Home Builders Institute Pre-Apprenticeship: Carpentry, Electrical, Plumbing

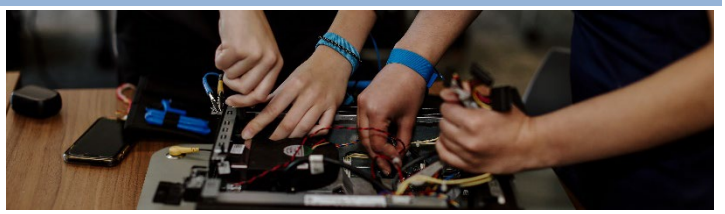
Course Description: In Construction II, students will gain advanced knowledge and skills needed to enter the workforce as carpenters, building maintenance technicians or supervisors, or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will gain more complex practical experience with carpentry, electrical and plumbing. Working in conjunction with the Associated General Contractors of Denver, students focus on various skills in preparation for entry into trades apprenticeships. Students will be introduced to all facets of residential and commercial wiring, installation of fixtures, plumbing and exterior and interior finish work. Carpentry in Construction II will include a more comprehensive understanding of framing, drywall, exterior siding, roofing, insulation, windows, doors, trim and cabinet installation. Students are expected to work closely with people, do physical work and solve problems independently.

Note: Construction II students must be able to carry 20 lbs. across the classroom and lift 15 lbs. overhead. Construction II students must be able to lift, bend, twist, and work overhead, as well as under a structure. Construction II students must be able to climb a ladder and work from an elevated position.

IT/STEAM

IT PATHWAY

Scan to watch a video about the IT Pathway



Cybersecurity I: Computer Systems
Semester
10th-12th grade
Computer hardware, operating systems, and software.

Cybersecurity II: Networks & Security
Semester
10th-12th grade
Computer networks and security applied to business operations

Artificial Intelligence (AI) I
Semester
10th-12th grade
Basic Artificial Intelligence (AI) Concepts

Artificial Intelligence (AI) II
Semester
10th-12th grade
Applied Artificial Intelligence (AI) Concepts

Amazon Web Services
Year
10th-12th grade
Cloud Computing

CYBERSECURITY I: COMPUTER SYSTEMS

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 TECH WRITING	EST. FEES: $50

Concurrent Enrollment: Technical Writing I (ENG 1031, 3 credits)

Certifications: Google IT Support Professional

Course Description: This course will give students hands-on experience with computer hardware, operating systems, and software. Students will also learn the essentials of computer networks and how the internet works. Along the way, students will be exposed to a variety of security implications that impact our computer systems and society today. At the end of this course, students will be prepared to take the Google IT Support Professional exam, a credential that demonstrate their ability to be able to diagnose and troubleshoot a variety of IT-related issues. Cybersecurity I is a course intended to teach students the basic concepts of cybersecurity. The course places an emphasis on security integration, application of cybersecurity practices and devices, ethics, and best practices management. The fundamental skills in this course cover both in house and external threats to network security and design, how to enforce network level security policies, and how to safeguard an organization's information. Upon completion, proficient students will be able to demonstrate an understanding of cybersecurity concepts, identify fundamental principles of networking systems, understand network infrastructure and network security, and be able to demonstrate how to implement various aspects of security within a networking system.

CYBERSECURITY II: NETWORKS & SECURITY

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 MTH D	EST. FEES: $0

Prerequisite: Cybersecurity I: Computer Systems

Concurrent Enrollment: Principles of Information Assurance (CNG 1031, 3 credits), Network Security Fundamentals (CNG 1032, 3 credits)

Certifications: CompTIA Security+, CompTIA Network+

Course Description: In this course, students will dive deeper into networking and security concepts. Students will learn to design, implement, and troubleshoot issues for both wired and wireless networks. Students will also learn more about cryptography as well as security in business operations including risk management and disaster recovery. Students will be prepared to take the industry-recognized CompTIA Network+ and CompTIA Security+ exams. Cybersecurity II challenges students to develop advanced skills in concepts and terminology of cybersecurity. This course builds on previous concepts introduced in Cybersecurity I while expanding the content to include malware threats, cryptography, wireless technologies and organizational security. Upon completion of this course, proficient students will be able to demonstrate and understanding of cybersecurity ethical decisions, malware threats, how to detect vulnerabilities, principles of cryptology, security techniques, contingency plan techniques, security analysis, risk management techniques, and advanced methods of cybersecurity.

IT/STEAM

IT PATHWAY

ARTIFICIAL INTELLIGENCE I *(formerly Data Science I: Foundations)*

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 MTH C	EST. FEES: $50

Prerequisites: One of the following: Computer Programming I, AP Computer Science Principles or equivalent

MthC

Suggested Prerequisite or Corequisite: Statistics or AP Statistics

Course Description: In this course students will be introduced to the concept of Artificial Intelligence (AI). Students will learn the basic concepts of AI and how to use it to efficiently answer questions about the world. More specifically, students will develop the fundamental computer science, mathematical reasoning, and user experience skills to eventually build AI software. This course is ideal for students who are interested in learning more about how AI can be better leveraged in careers, life and beyond.

ARTIFICIAL INTELLIGENCE II *(formerly Data Science II: Machine Learning)*

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 MTH B	EST. FEES: $0

Prerequisites: Artificial Intelligence I

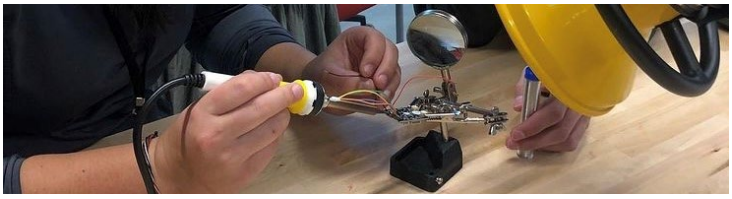
MthB

Course Description: This course teaches students how to apply the skills learned in Artificial Intelligence I to build their own AIs. More specifically, this course introduces machine learning, deep learning, and statistical pattern recognition techniques that are used to build systems that can predict outcomes and generate new content. This course is ideal for students who are interested in pursuing careers in computer science or IT, and is especially great for students who dream of creating a computer that can learn.

IT/STEAM

STEAM PATHWAY – PRODUCT DESIGN & FABRICATION

Scan to watch a video about the STEAM Pathway



Product Design I
10th-12th grade
Bring ideas from initial concept to tangible reality using design thinking and processes.

→

Product Design II
10th-12th grade
Solve design problems by using the latest applications for direct digital fabrication.

→

Product Design III
10th-12th grade
Advanced work in any Drafting and Design Program of study.

→

Product Design IV
11th-12th grade
Design & fabricate a working prototype for an industry specific challenge.

PRODUCT DESIGN I

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 PHY SCI	EST. FEES: $125

Suggested Prerequisite: Computer Aided Design (CAD) or similar design course

Metropolitan State University of Denver PhySci

Dual Enrollment: Introduction to Industrial Design (IND 1000, 1 credit) & Technical Drawing & CAD (IND 1450, 3 credits

Certifications: Society of Manufacturing Engineers Additive Manufacturing Fundamentals, Certified Associate - CSWA-AM Additive Manufacturing, SOLIDWORKS Certified Associate - CSWA Mechanical Design

Course Description: Students that are interested in careers involving design, engineering and innovation. Students will utilize design thinking and the design process to research, conceptualize, design, prototype, and evaluate physical products. Students will develop their digital fabrication skills utilizing production machines. Students will design and create both as an individual and in collaborative groups, including working on/with projects directly from industry. This course is the professional practice of creating products that enhance the function, usability, value, and appearance of products with the goal of benefiting the user, manufacturer, community, and the environment. Also known as product design, industrial design education prepares students to design systems and tangible artifacts including, consumer and recreational products, medical and computer equipment, and transportation and environments. Both generalist and specialist, industrial designers tend to be part artist, part entrepreneur and engineer. This course is designed for students interested in careers in Industrial Design, Packaging Design, or Design Arts industry sector. Students will be introduced to industry standard tools, skills, and materials that they can manipulate as the primary means of manufacturing and package design. Students will explore basic applications of various tools to create projects in both digital and 3D format.

PRODUCT DESIGN II

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 PHY SCI	EST. FEES: $90

Prerequisite: Product Design I

Metropolitan State University of Denver PhySci

Dual Enrollment: Computer Aided Modeling (IND 3660, 3 credits)

Certifications: SOLIDWORKS Certified Associate - CSWA Mechanical Design, SOLIDWORKS Certified Professional - CSWP Mechanical Design, SOLIDWORKS Certified Expert - CSWE Mechanical Design

Course Description: Students that are interested in careers involving design, engineering, and innovation. Students will explore and use the latest applications of direct digital fabrication. Emphasis will be placed on practical experience in utilizing departmental equipment to produce digital 3D files and output them to appropriate direct digital fabrication equipment. Students will solve design problems by applying knowledge of material properties, ergonomics, form vs. function, additive manufacturing (3D printing), principles of design, and elements of art. Students will design and create both as an individual and in collaborative groups, including working on/with projects directly from industry. This course prepares students to design systems and tangible artifacts and deepen understanding of manufacturing and marketing processes. Students will advance development of industry-standard tools, skills, and material usage for product manufacturing and design in Industrial Design, Packaging Design, or Design Arts industry sector.

IT/STEAM

STEAM PATHWAY – PRODUCT DESIGN & FABRICATION

PRODUCT DESIGN III

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 PHY SCI	EST. FEES: $90

Prerequisite: Product Design II

PhySci

Certifications: SOLIDWORKS Certified Associate - CSWA-Mechanical Design, SOLIDWORKS Certified Professional - CSWP Mechanical Design, SOLIDWORKS Certified Expert - CSWE Mechanical Design, Stratasys Additive Manufacturing Certification

Course Description: This course allows for advanced work in any Drafting and Design Program of Study. This advanced work can be individualized to the specific program of study to allow for specialized study for the student. It may include project-based learning or preparation for the end of program industry certification. Specific content and course design will be determined by the instructor in collaboration with the individual student.

PRODUCT DESIGN IV

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 TECH WRITING	EST. FEES: $90

Prerequisites: Product Design III

ACC ARAPAHOE COMMUNITY COLLEGE Tech

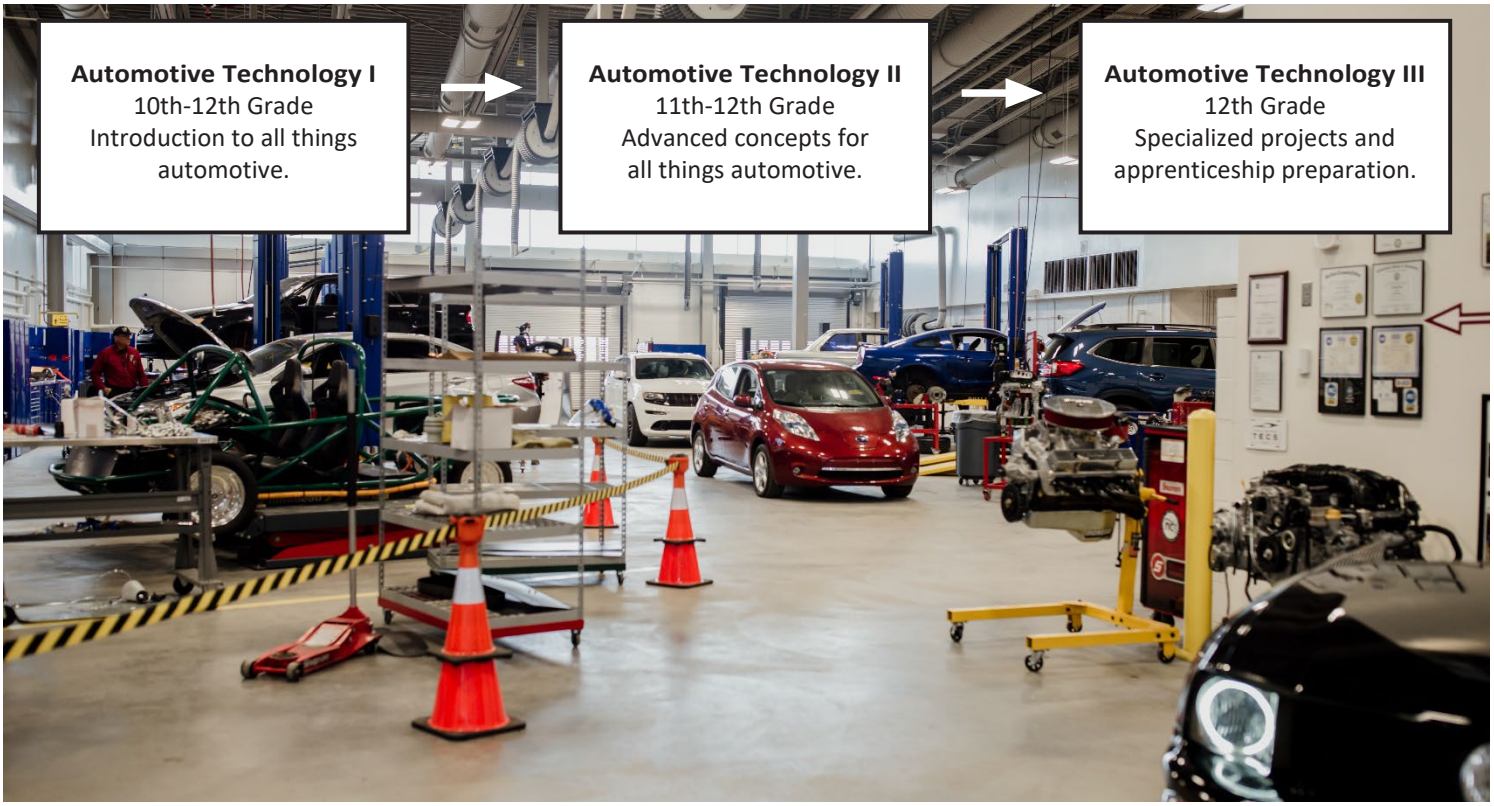
Concurrent Enrollment: Technical Writing I (ENG 1031, 3 credits)

Certifications: SOLIDWORKS CSWA+, Stratasys Additive Manufacturing Certification

Course Description: Students who have completed Product Design III, will team with other students from various CCIC pathways to solve real world problems faced by our business & industry partners. The teams will initiate, plan, execute, monitor and control, and close the project by presenting the sponsor with the deliverable and/or solution. The STEAM students will bring their design and fabrication skills to this process and help produce the prototype or functional product. All students enrolled in this course must be willing to improve their skills in collaboration, leadership, time management, teamwork, commitment, and perseverance. This course can be repeated for credit.

TRANSPORTATION

AUTOMOTIVE TECHNOLOGY



AUTOMOTIVE TECHNOLOGY I

GRADES: 10-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 PHY SCI	EST FEES: $110

Concurrent Enrollment: Auto Shop Orientation (ASE 1001, 2 credits), Auto Maintenance I (ASE 1003, 2 credits), Basic Automotive Electricity (ASE 1020, 2 credits), Automatic Transmission/Transaxle Service (ASE 2050, 1 credit)

ACC ARAPAHOE COMMUNITY COLLEGE PhySci

Certifications: Snap-on Certifications (Multimeter, Torque, Precision Measurement, Scanner and Diagnostics), Ford ACE Training

Course Description: Automotive Technology I explores automotive industry standards and terminology, career opportunities and classifications, shop operations and safety, tool identification and usage, diagnostic equipment identification and usage, automotive systems, tires and wheels, hydraulic braking systems, cooling systems, lubrication systems, and preventative maintenance. Also included is basic operation of automotive braking systems, operation, diagnosis and basic repair of disc, drum, and basic hydraulic braking systems. The basics of electrical systems, electronic systems, batteries, starting systems, charging systems, lighting systems, electrical instruments and accessories, and ignition systems will also be studied. This course focuses on the diagnosis and service of suspensions and steering systems and their components. Students who successfully complete all Automotive Technology courses will have the knowledge needed to pass the ASE certification exam for MLR. Students who pass the exam and meet the work-based requirement will be eligible and encouraged to enter the workforce as an ASE-Certified MLR Technician.

TRANSPORTATION

AUTOMOTIVE TECHNOLOGY

AUTOMOTIVE TECHNOLOGY II

GRADES: 11-12	LENGTH: 1 YEAR	CREDITS: 1.0 CTE/ 1.0 PHY SCI	EST. FEES: $110

Prerequisite: Automotive Technology I*;* secondary application & skills assessment required

Concurrent Enrollment: Automotive Brake Service I (ASE 1010, 2 credits), Suspension & Steering I (ASE 1040, 2 credits), Starting and Charging Syste,s (ASE 1023, 2 credits), Introduction to Automotive Heating and Air Conditioning (ASE 2064 – 1 credit) – *only available to students who completed concurrent enrollment in Auto Tech I*

Certifications: Snap-on Certifications (Wheel Service & Alignment, Advanced Scanner Diagnostics, Pro-Cut on-car Rotor Machining, Battery Starting and Charging), ASE Student Automobile Certifications (Brake Systems, Suspension & Steering Systems, Electrical/Electronic Systems, and Engine performance), ASE Maintenance & Light Repair (MLR), Ford ACE Training, Subaru University Level I, Toyota TECS Elite

Course Description: Automotive Technology II is the second course in the Automotive Technology program of study and covers important skills and knowledge on becoming a professional service technician. The Automotive Technology II course prepares students for entry into Automotive Technology III. Students study automotive general electrical systems, starting and charging systems, batteries, lighting, and electrical accessories. Students who successfully complete all Automotive Technology courses will have the knowledge needed to pass the ASE certification exam for MLR. Students who pass the exam and meet the work-based requirement will be eligible and encouraged to enter the workforce as an ASE-Certified MLR Technician.

AUTOMOTIVE TECHNOLOGY III

GRADES: 12	LENGTH: 1 YEAR	CREDITS: 2.0 CTE	EST. FEES: $110

Prerequisites: Automotive Technology I and II; secondary application and skills assessment required

Certifications: Continuation of Snap-on Certifications (Wheel Service & Alignment, Advanced Scanner Diagnostics, Pro-Cut on-car Rotor Machining, Battery Starting and Charging), ASE Student Automobile Certifications (Brake Systems, Suspension & Steering Systems, Electrical/Electronic Systems, and Engine performance), Ford ACE Training

Course Description: Students learn advanced diagnostic techniques including high performance concepts. Do you love automotive technology, but want to know more about how to make cars go fast? Do you have a mechanical mind, and don't just love working with cars, but want to maximize horsepower to achieve top speed at the race track? Does this sound like you? In Automotive Technology III you will be part of a team that: Builds a high-performance engine and runs it on a specialized test stand, is exposed to all aspects of engine machining, learns how to tune engines for maximum output and drivability using various data acquisition tools, learns to improve performance of engines and maintain peak performance of racing engines, and learns aspects of high-performance chassis, brake and suspension modifications including those on our in-house NASCARs. In addition, students will have opportunities to compete in our SkillsUSA program. Students study and service suspension and steering systems and brake systems. Students who successfully complete all Automotive Technology courses will have the knowledge needed to pass the ASE certification exam for MLR. Students who pass the exam and meet the work-based requirement will be eligible and encouraged to enter the workforce as an ASE-Certified MLR Technician.

TRANSPORTATION

AVIATION MAINTENANCE

TWO YEAR ACCELERATED AVIATION MAINTENANCE PATHWAY

YEAR 1	SUMMER	YEAR 2	SUMMER
Accelerated General Aircraft Maintenance I & II (Half Day, **Every Day**, 1 Yr) 11th-12th grade Foundation of the Aviation Maintenance program.	**Airframe I** (7.5 Hrs, **Every Day**, 20 days) 11th-12th grade Introduction to Airframe Studies.	**Airframe II & III** (Half Day, **Every Day**, 1 Yr) 11th-12th grade Continuation of aircraft structures and systems.	**Airframe IV** (7.5 Hrs, **Every Day**, 20 days) 12th grade Completion of the Airframe education and exam preparation.

THREE YEAR AVIATION MAINTENANCE PATHWAY

YEAR 1	YEAR 2	SUMMER	YEAR 3	SUMMER
General Aircraft Maintenance I (Half-Day, Every Other Day, 1 Yr) 10th-12th grade Foundation of the Aviation Maintenance program.	**General Aircraft Maintenance II** (Half-Day, Every Other Day, 1 Yr) 11th-12th grade Continuation of General Aircraft Maintenance I.	**Airframe I** (7.5 Hrs, **Every Day**, 20 days) 11th-12th grade Introduction to Airframe Studies.	**Airframe II & III** (Half Day, **Every Day**, 1 Yr) 11th-12th grade Continuation of aircraft structures and systems.	**Airframe IV** (7.5 Hrs, **Every Day**, 20 days) 12th grade Completion of Airframe education and exam preparation.

ACCELERATED GENERAL AIRCRAFT MAINTENANCE I & II — TWO YEAR

GRADES: 11-12 | **LENGTH: 1 Year** (meets daily) | **CREDITS: 2.0 CTE/ 1.0 MTH A/ 1.0 PHY SCI** | **EST. FEES: $154**

Suggested Prerequisite: Algebra I

MthA PhySci

Certifications: Snap-on Multimeter, Snap-on Torque, Snap-on Precision Measurement

Course Description: This course covers basic subjects, such as mathematics for aviation, basic physics for aviation, and basic electricity. In addition, this course will provide a foundation for further studies in the aviation maintenance pathway including the FAA coursework for General Aviation Mechanics. With successful completion of this class, the student may sit for the General Knowledge Exam portion of the FAA written tests.

GENERAL AIRCRAFT MAINTENANCE I — THREE YEAR

GRADES: 10-12 | **LENGTH: 1 Year** | **CREDITS: 1.0 CTE/ 1.0 MTH B** | **EST. FEES: $79**

Suggested Prerequisite: Algebra I

MthB

Certifications: Snap-on Multimeter

Course Description: This course is an introduction to foundational subjects, such as mathematics for aviation, physics for aviation, and basic electricity. In addition, this course will provide for further studies in the aviation maintenance pathway including the FAA coursework for General Aviation Mechanics.

GENERAL AIRCRAFT MAINTENANCE II — THREE YEAR

GRADES: 11-12 | **LENGTH: 1 Year** | **CREDITS: 1.0 CTE/ 1.0 PHY SCI** | **EST. FEES: $79**

Prerequisite: General Aircraft Maintenance I

PhySci

Certifications: Snap-on Torque, Snap-on Precision Measurement

Course Description: This course builds on the subjects addressed in General Aircraft Maintenance I and prepares students for future studies in the program. This class includes Regulations, Maintenance Forms, Records, and Publications, Fluid lines and fitting, weight and balance, aircraft materials, aircraft ground operation, cleaning and corrosion, aircraft drawings, and inspection techniques. Many of these subject areas afford the student opportunities to work on the program's aircraft in the hangar. With successful completion of this class, the student may sit for the General Knowledge Exam portion of the FAA written tests.

TRANSPORTATION

AVIATION MAINTENANCE

AIRFRAME I (SUMMER) — TWO & THREE YEAR

GRADES: 11-12	LENGTH: 7.5 hrs/day, 20 days	CREDITS: 1.0 CTE	EST. FEES: $150

Prerequisites: General Aircraft Maintenance I & II

Course Description: This course builds on General Aircraft Maintenance I & II. This course will cover wood structures, aircraft coverings, non-metallic structures, and aircraft finishes.

AIRFRAME II & III — TWO & THREE YEAR

GRADE: 11-12	LENGTH: 1 Year (meets daily)	CREDITS: 3.0 CTE/ 1.0 MTH B	EST.FEES: $ 154

Prerequisites: General Aircraft Maintenance I & II, Airframe I is recommended for class / required if pursuing certification

MthB

Course Description: In Airframe II & III, students will continue their study of Airframe Maintenance. Topics include aircraft sheet metal, electrical systems, hydraulic and pneumatic power systems, fuel systems, water and waste systems, and landing systems.

AIRFRAME IV (SUMMER) — TWO & THREE YEAR

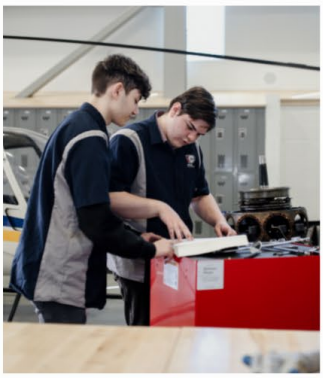
GRADES: 12	LENGTH: 7.5 hrs/day, 20 days	CREDITS: 0.5 CTE/ 0.5 PHY SCI	EST. FEES: $150

Prerequisites: General Aircraft Maintenance I & II, Airframe I, II, & III

PhySci

Certifications: After completing this final course in the pathway, Airframe IV, students may be eligible to take 2 FAA written tests: General and Airframe. Once the written tests are passed, students may be eligible to take an oral and practical test with a Designated Mechanic Examiner (DME). Contact instructor for further details.

Course Description: This course is the conclusion of Airframe Maintenance required by the FAA prior to testing. Topics for the class include instrument systems, communication and navigation systems, and inspection processes.



TRANSPORTATION

AVIATION FLIGHT PATHWAY

PRIVATE PILOT GROUND SCHOOL

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 MTH B	EST. FEES: $110

Dual Enrollment: Aviation Fundamentals (AES 1100, 4 credits)

Certification: FAA Private Pilot Knowledge Examination

MthB

Course Description: This course presents the fundamentals of aviation for the beginning student which includes a study of the airplane and its components, aerodynamics, basic aircraft systems, the airport environment, air-traffic control procedures, Federal Aviation Regulations, the basic elements of air navigation including radio navigation, and a review of aviation weather. At the end of the course students will be prepared to take the FAA Private Pilot Knowledge Test (aka "Written Exam"). Students wishing to complete their Private Pilot Certificate will need to find an FAA certified flight instructor and receive flight instruction to prepare for the FAA Private Pilot Practical Test. Passing the Knowledge Test ("written"), together with passing the Practical Test ("FAA check ride"), are required to earn a Private Pilot Certificate.

DRONE PILOT

GRADES: 10-12	LENGTH: 1 SEMESTER	CREDITS: .5 CTE/.5 MTH B	EST. FEES: $110

Dual Enrollment: Introduction to Unmanned Aircraft Systems (AES 1040, 3 credits)

Certifications: FAA Remote Pilot Certification (Part 107)

MthB

Course Description: Concepts in this course include drone components, drone operation, drone pilot skills, drone pilot careers, airspace, weather, airport operations, authorizations and waivers and the regulations governing drone operations. At the end of the course students will be prepared to take the FAA Remote Pilot Exam (Part 107). This course would be an applied applications course and could include instruction in aerial photography for commercial purposes, recording instrumentation, topics in inspection for industrial purposes, and data analytics.

CCIC STUDENT TECHNICIAN

GRADES: 11-12	LENGTH: 1 SEMESTER	CREDITS: 1.0 CTE	EST. FEES: $0

Prerequisite: Successful completion of a CCIC course or Pathway.

Course Description: CCIC Student Technicians will assist the teacher in classroom setup, management of classroom technology and equipment, leader/mentor to current students, and project management. Student Technicians are expected to work as mentors to students new to the pathway as well as tutors for students who are struggling academically. Student techs must have strong communication skills, organization skills, and a firm understanding of the curriculum they are assisting. Student Technicians must agree to either continue participation in the associated CTSO, or take on a leadership role in partnership with the selected pathway's Advisory Board as needed. Students must be willing to complete additional duties as assigned by the teacher. Any student wishing to become a Student Technician agrees to uphold and model all categories in the Professional Skills Rubric. This class can be repeated for credit. Instructor approval required.