

## St. Vrain Valley Schools

### Career and Technical Education Programs



Success for every student includes postsecondary preparation for successful careers. Career and Technical Education (CTE) courses provide this through the real-world application of core academic skills which students experience through partnerships with businesses, industries, and community agencies. Student success in CTE courses and programs can lead to a strong competitive advantage in the workforce and positively impacts the future of communities.

St. Vrain Valley Schools has CTE courses in neighborhood middle schools and high schools as well as our premier career and technical schools, Career Development Center and Innovation Center. Many of our CTE courses lead to nationally recognized industry certifications recognized by local businesses and industry. Please note that additional courses may be offered at each site and within each program. Refer to the individual high school websites for a full list of courses at their location. For registration purposes, refer to the home high school website.

#### School Key:

- AMS=Altona Middle School
- CDC=Career Development Center
- CRMS= Coal Ridge Middle School
- EHS=Erie High School
- EMS=Erie Middle School
- FHS=Frederick High School
- IC=Innovation Center
- LHS=Longmont High School
- MHS=Mead High School
- MSS=Main Street School
- NHS=Niwot High School
- OCHS= Olde Columbine High School
- SHS=Skyline High School
- SCHS=Silver Creek High School

Program Name	School	Program Description	Courses within Program (listed alphabetically) <b>C - Concurrent Credit</b> <b>I - Industry Certification</b> <b>A - Academic Credit</b>
AGRISCIENCE	CDC	Through agricultural education, students are provided opportunities for leadership development, personal growth, and career success. Agricultural education instruction is delivered through three major components: classroom/laboratory instruction, work-based learning and student leadership through the National FFA Organization	Intro to Agriscience Agribusiness Animal Science Advanced Agri Science and Tech Greenhouse Irrigation Technology-I Landscape Design and Maintenance Supervised Ag Experience Veterinary Science- <b>A</b>
AUTOMOTIVE TECHNOLOGY	CDC	Students in Automotive Technology will learn to inspect, diagnose, analyze, maintain, and repair modern automobiles and light trucks.	Engine Performance Internship Maintenance and Light Repair- <b>C</b> Suspension and Alignment
ENGINEERING TECHNOLOGY (MACHINING)	CDC	Engineering Technology introduces students to CAD/CAM (computer-aided design and computer-aided manufacturing) software including Solidworks and Mastercam and the application of those programs in the use of mills, lathes, and lasers used by machinists and engineers.	Engineering Technology I-I Engineering Technology 2-I Independent Study Internship
HEALTH CAREERS	CDC	The Health Sciences Pathways program prepares students for careers in the healthcare industry. After completion of the introductory course, "Exploration of Health Care," students will choose a pathway for focus. Leadership skill development will be offered through participation in HOSA (Health Occupation Students of America).	Anatomy and Physiology for Health Care (required for CNA students) Dental Assisting 1-I Dental Assisting 2-I Emergency Response Emergency Medical Technician-I Exercise and Health Science-I Exploration of Health Care Introduction to Sports Medicine Medical Terminology- <b>C</b>

			<b>Nursing Assistant-I</b>
INTERACTIVE MEDIA	CDC FHS NHS	The Multimedia Technology provides training in producing digital media using the most popular software applications in the industry. Students learn to design for print, video and web while working on exciting projects that simulate workplace experience.	Advance Digital Photo Animation Beginning Digital Photo Graphic Design Digital Video Editing (NHS) Digital Video Production-I,C Visual Communications/ Photoshop-I,C
Manufacturing	CDC	In this program, students will gain knowledge and skills in the application, design, production and assessment of products, services and systems and how it applies to the manufacturing industry. In addition to applied academic and technical knowledge and skills, students will gain an understanding of career opportunities available in manufacturing and what employers require to gain and maintain employment in these careers, as well as the opportunity to receive industry level certification. (New for 2019-2020)	Principles of Manufacturing
ProStart	CDC	In the ProStart program, students learn the basic skills of food production for a commercial kitchen, restaurant, or catering facility. Skill areas will include safety and sanitation, nutrition, menu planning, baking, production of desserts, entrees, soups, sauces, salads, and sandwiches. Through work-based learning, students experience all aspects of the industry including production, service, guest relations & basic financial record keeping.	Baking and Pastry Internship ProStart 1-I,C ProStart 2-I
WELDING	CDC	The Welding program provides an opportunity for students to learn Oxy-Acetylene, ARC, MIG, and TIG welding and torch cutting. Client projects allow students to experience and apply their skills in a work-based application.	Welding 1-C Welding 2 Internship
PTech-CIS Computer Informations Systems	SHS	P-TECH is a program offering students an opportunity to earn a high school diploma as well an Associate of Applied Science degree in Computer Information Systems (CIS) from Front Range Community College. This program includes significant internship and mentorship opportunities with IBM, giving students a head start in their career after completing the	Complete PC Database/ Access-I,C Complete PC Word Processing -I,C Complete Web Authoring-I,C Computer Technician I & II A+-I,C Computer Science I C++-I,C

		program. Students enroll in 9th grade and complete the program in 4-6 years. There is an application process & students must be accepted into the entire program.	Internship Intro to PC Applications-I,C Intro to Programming-I,C Intro to SQL-I,C PC Spreadsheet Concepts Excel-I,C
CIS Computer Information Systems	LHS MHS SCHS SHS	These programs are designed to provide 21st century career and technical education skills as students are introduced to the disciplines of Computer Science and programming. Algorithm development, data representation, program management, project management, and design thinking are taught skill-sets. Concepts are implemented by development through Javascript, Python, SQL, PHP. These programs are designed to prepare students for career pathways in the Computer Science fields to include coding, data structures, algorithms, cyber security and game design.	AP Computer Science Principles AP Computer Science A/B App Development Beginning Graphic Design Computer Science Introduction to Computing Intro to Cybersecurity Intro to Programming Multimedia Web Design <i>(all courses are not available at all schools)</i>
FACS Core	EHS MHS NHS SHS	The courses offered within the FACS CORE program are designed to familiarize students with issues related to personal growth, problem solving, and independent living. In addition, the topics of balancing school, work, and family are explored. All classes are designed to include activities with practical application to life situations. Students develop leadership skills through participation in Family, Career and Community Leaders of America (FCCLA).	Child Development Culinary Nutrition Living on Your Own Nutrition and Wellness Parenting/ 21st Century Parenting Relationships
FACS Food Science, Dietetics and Nutrition	EHS MHS NHS SHS	This program is designed to prepare students to work and understand the scientific principles behind the food industry and everyday cooking. Students will study the science of food production and preparation with an emphasis on careers within the industry, and nutrition for life. Students develop leadership skills through participation in Family, Career and Community Leaders of America (FCCLA).	Culinary Nutrition Food Science 1 Food Science 2
STEM	FHS IC LHS	STEM is a program that generally prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects. Along with preparing students to be career and	Advanced Engineering A/B Advanced Engineering 1: Robotics Advanced Engineering 6: Digital

	SHS	college ready the program includes instruction in various engineering support functions for research, production, and operations, and applications.	Electronics AP Computer Science A/B CDC Engineering Technology 1 CDC Engineering Technology 2 Computer Science A/B Creative Engineering 1 Devl Augmented & Virtual Explorations in STEM Intro to Computing Intro to Programming Senior Design A & B STEM Coop Technology 1 (Engineering Exploration 1 & 2) Technology 2 (Engineering Fundamental) Technology 3 (Engineering Design and Development) TriCaster Certification Tech Squad I, II and III
BUSINESS EDUCATION	FHS LHS MHS NHS SCHS	This program is designed to prepare students to be productive citizens in our business world. Students will have experience solving business-related problems and will develop skills valuable for sustaining a career in today's business world.	Accounting 1 & 2 Applied Money Management Business Cooperative Education Business Communications Business Computer Applications Business Law; Marketing 1 & 2 Career Exploration Introduction to Business International Business Intro to Economics Introduction to Programming Marketing Co-op Education Personal Finance Starting Your Own Business Web Design <b>High School of Business courses(HSB)</b>

			<b>only available at LHS:</b> HSB Principles of Marketing HSB Principles of Finance HSB Leadership HSB Principles of Management HSB Business Strategies HSB Principles of Business HSB Business Economics
ACE	OCHS	In this program, students develop a broad range of skills that are needed to be successful in the workplace, including goal setting, pro-social communication skills, decision making, problem solving skills, collaboration and leadership.	Career English Cooperative Education Orientation
Life Skills ACE	MSS	Life Skills ACE provides post secondary transition services for students 18-21 years of age, who have completed their high school credits and have socially graduated. Our program focuses on building independent living skills, social skills, career/employment skills, community based education and functional academics. There are three pathways in the LS-ACE program: community-based, career exploration, and college/industry readiness.	Community Based Education Career Exploration and Work Experience College and Industry Readiness
STAGE TECHNOLOGIES	NHS SHS	Stage Technology programs provide students the opportunity to explore and develop technical, creative and aesthetic skills used in the entertainment industry. Students are given the opportunity to create and run the lighting, audio and scenery design for performances and events at the school and community.	Beginning Stagecraft/Technology Intermediate Stage Craft/ Technology Advanced Stage Technology Direction & Design
TEEN PARENT PROGRAM	OCHS	This two semester program is designed to help students who are pregnant or parenting a child up to the age of one year. To receive an education in relationships, life skills, parenting and academics.	Teen Parenting
Middle School FACS	AMS EMS	The "learn by doing" method of instruction is used to prepare students with life skills in all areas of Family and Consumer Science. Students are encouraged to become lifelong learners as they follow directions, develop positive relationships, and manage time and resources with a focus on responsible digital citizenship.	Middle School FACS