

## 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)<br><b>C - Concurrent Credit</b><br><b>I - Industry Certification</b><br><b>A - Academic Credit</b>   |
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| 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<br>Agribusiness<br>Animal Science<br>Advanced Agri Science and Tech<br>Greenhouse<br>Irrigation Technology-I<br>Landscape Design and Maintenance<br>Supervised Ag Experience<br>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<br>Internship<br>Maintenance and Light Repair- <b>C</b><br>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<br>Engineering Technology 2-I<br>Independent Study<br>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)<br>Dental Assisting 1-I<br>Dental Assisting 2-I<br>Emergency Response<br>Emergency Medical Technician-I<br>Exercise and Health Science-I<br>Exploration of Health Care<br>Introduction to Sports Medicine<br>Medical Terminology- <b>C</b> |

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|   |                   |  | <b>Nursing Assistant-I</b>   |
| INTERACTIVE MEDIA                       | CDC<br>FHS<br>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<br>Beginning Digital Photo Graphic Design<br>Digital Video Editing (NHS)<br>Digital Video Production-I,C<br>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<br>ProStart 1-I,C<br>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<br>Welding 2<br>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<br>Complete PC Word Processing -I,C<br>Complete Web Authoring-I,C<br>Computer Technician I & II A+-I,C<br>Computer Science I C+-I,C             |

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|  |                           | 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<br>Intro to PC Applications- <b>I,C</b><br>Intro to Programming- <b>I,C</b><br>Intro to SQL- <b>I,C</b><br>PC Spreadsheet Concepts Excel- <b>I,C</b>  |
| CIS Computer Information Systems           | LHS<br>MHS<br>SCHS<br>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<br>AP Computer Science A/B<br>App Development<br>Beginning Graphic Design<br>Computer Science<br>Introduction to Computing<br>Intro to Cybersecurity<br>Intro to Programming<br>Multimedia<br>Web Design<br><i>(all courses are not available at all schools)</i> |
| FACS Core                                  | EHS<br>MHS<br>NHS<br>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<br>Culinary Nutrition<br>Living on Your Own<br>Nutrition and Wellness<br>Parenting/ 21st Century Parenting<br>Relationships  |
| FACS Food Science, Dietetics and Nutrition | EHS<br>MHS<br>NHS<br>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<br>Food Science 1<br>Food Science 2   |
| STEM                                       | FHS<br>IC<br>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<br>Advanced Engineering 1: Robotics<br>Advanced Engineering 6: Digital  |

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|                    | SHS                              | college ready the program includes instruction in various engineering support functions for research, production, and operations, and applications.   | Electronics<br>AP Computer Science A/B<br>CDC Engineering Technology 1<br>CDC Engineering Technology 2<br>Computer Science A/B<br>Creative Engineering 1<br>Devl Augmented & Virtual<br>Explorations in STEM<br>Intro to Computing<br>Intro to Programming<br>Senior Design A & B<br>STEM Coop<br>Technology 1 (Engineering Exploration 1 & 2)<br>Technology 2 (Engineering Fundamental)<br>Technology 3 (Engineering Design and Development)<br>TriCaster Certification<br>Tech Squad I, II and III |
| BUSINESS EDUCATION | FHS<br>LHS<br>MHS<br>NHS<br>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<br>Applied Money Management<br>Business Cooperative Education<br>Business Communications<br>Business Computer Applications<br>Business Law; Marketing 1 & 2<br>Career Exploration<br>Introduction to Business<br>International Business<br>Intro to Economics<br>Introduction to Programming<br>Marketing Co-op Education<br>Personal Finance<br>Starting Your Own Business<br>Web Design<br><b>High School of Business courses(HSB)</b>  |

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|                     |            |   | <b>only available at LHS:</b><br>HSB Principles of Marketing<br>HSB Principles of Finance<br>HSB Leadership<br>HSB Principles of Management<br>HSB Business Strategies<br>HSB Principles of Business<br>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<br>Cooperative Education<br>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<br>Career Exploration and Work Experience<br>College and Industry Readiness  |
| STAGE TECHNOLOGIES  | NHS<br>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<br>Intermediate Stage Craft/ Technology<br>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<br>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   |

**Pursuant to St. Vrain Valley Schools Board of Education Policy AC Nondiscrimination/Equal Opportunity:**

No otherwise qualified student shall be excluded from participation in, be denied the benefits of, or be subject to discrimination under any district program or activity on the basis of race, color, religion, national origin, ancestry, sex, sexual orientation or disability. This policy shall apply to access to and participation in educational activities, course offerings, athletics, counseling, employment assistance and extracurricular activities. Every student of this district shall have equal educational opportunities regardless of race, color, religion, national origin, ancestry, sex, sexual orientation or disability.

A lack of English proficiency will not be a barrier to admission to or participation in district programs and activities including career and technical education programs.

**Pursuant to St. Vrain Valley Schools Board of Education Policy AC-E-1 Nondiscrimination/Equal Opportunity (Notice):**

Complaint procedures have been established for students, parents, employees and members of the public. The following person has been identified as the compliance officer for District students and community members: Johnny Terrell Executive Director of Student Services 830 South Lincoln Street Longmont, CO 80501 Phone: (303) 772-7700 x 57859 [terrell\\_johnny@svvsd.org](mailto:terrell_johnny@svvsd.org)