

Colorado Springs District 11

Colorado Springs, Colorado
Focus on Career Pathway Resources

Colorado Innovation Profile

Colorado's Career and Technical Education programs are developing a seamless system of education that ensures ease in student transition from one educational system to another and from one level of instruction to another.

There are eight key strategies that Colorado CTE teachers and administrators are applying:

- *Implementing Career and Technical Education Plans of Study;*
- *Strengthening Accountability for Results;*
- *Moving To a Project-Based Focus for Local Planning and Implementation;*
- *Assessing Career and Technical Skills;*
- *Integrating Academic and CTE Skills and Knowledge;*
- *Transforming Professional Development, Recruitment and Retention of CTE Teachers;*
- *Ensuring Effective Instruction and Strategies for Special Populations; and*
- *Connecting CTE to Employers and Workforce Priorities.*

The Colorado Community College System has prepared a series of "Innovation Profiles" that describe how Colorado's schools, community colleges and community partners are creating innovative strategies to improve their programs on behalf of students.

Key Innovation Activity

Related Strategy: Implementing Career and Technical Education Plans of Study

Colorado Springs District 11 is fully integrating information about career pathways into counseling and planning materials to help create an understanding of career pathways and how academic and CTE courses relate to career options. Through an emphasis on individual planning, District 11 is working to build a more individualized approach to help students develop personalized career pathways.

Background

Colorado Springs District 11 is comprised of five comprehensive high schools, two alternative high schools, and nine middle schools. Since mid-2007, district leaders in Colorado Springs have been thoughtfully addressing the question of how to introduce students to career awareness and decision-making skills, beginning as early as middle school as a strategy for building greater relevance to learning.

Colorado Springs has adopted a series of Career Pathways, based on the national Career Clusters Models (16 clusters, 87 pathways), and the 6 industry sectors adopted by Colorado as an overlay to the national Clusters model.

Key Factors in Implementation

The over-arching goal is to make District 11's curriculum entirely accessible to students, parents, teachers, and community partners, while integrating information about career clusters/pathways directly with curriculum standards and resources.

Online Curriculum Resources

During the first year of the effort, district staff and teachers placed the entire district's curriculum online to make it visible and easy to update based on user input. When the effort began in June 2007, there were at least 200 freestanding and inconsistent web pages. Now there is one integrated web resource representing about 40,000 files that have been reformatted and reorganized by a small and dedicated team of eight staff members. Staff members who participated in the project received an hourly stipend above their normal salary to get the work done expeditiously.

In spring of 2007, principals were asked to showcase at least one career pathway-related program currently doing well in their schools. The goal was to build differentiation among the schools so that educators could tap more directly into student interests.

The screenshot shows a Mozilla Firefox browser window displaying the 'College Preparatory Chemistry 1 Semester Overview' page. The browser's address bar shows the URL 'College Preparatory Chemistry 1 Semester Overview - Mozilla Firefox'. The page has a purple header with the text 'District 11 Educational Support Services' and 'Science'. Below the header is a navigation menu with links for 'Home', 'Programs & Services', 'Standards', 'Units', 'For Parents', and 'Comments'. The main content area is titled 'College Preparatory Chemistry 1: Overview' and includes the course number 'SC.CPCHM1'. The 'Overview' section describes chemistry as a quantitative and descriptive science. A sidebar on the right contains a 'For Teachers' menu with links for 'Semester 1', 'Semester 2', 'Prerequisite', and 'Next Course'. Below this is a 'Video Introduction' section featuring a video player with a portrait of a young man and a 'Science Career Pathways' link.

College Preparatory Chemistry 1: Overview
Course Number: SC.CPCHM1

Overview
This is a quantitative and descriptive science that deals with the composition of matter, the change of composition of matter, and the energy involved in these changes. Chemistry is also concerned with the properties and structures of matter. Instruction includes laboratory activities and problem-solving skills, which lead to increased interest in mathematics, sciences, and engineering, as well as preparation for college programs in these areas.
Prerequisite: Algebra 1, 2 completed or concurrent; recommended successful completion of Physical Science/Earth and Space Science and Biology.
Course Length: 2 Semesters Credit per Semester: 1 Grade Level: 9 - 12
Additional Credit Information: Credit per Semester: 1.0 (Science requirement or Elective)

Career Connection: This course fits within the Colorado Health Sciences and Public Safety Industry Sector. [Read more about Health Science and Public Safety career pathways, education requirements, and job opportunities.](#)

Enduring Understandings - important ideas that students should carry with them years beyond the instruction received this year.

- **Atomic Structure:** Atomic structure determines the behavior, scale of an atom, and the particles that

For Teachers

- Semester 1
- Semester 2
- Prerequisite
- Next Course

Video Introduction

Science Career Pathways

Standardized and Accessible Course Information

For each high school course, the student can click on the page and learn about the content of the course. Near the top of the course overview there is a paragraph marked “Career Connection” that describes the industry sector to which the course is related. For example, in the case of College Prep Chemistry, the related industry sector is “Colorado Health Sciences and Public Safety Industry Sector.” There is a clickable link to “[Read more about Health Science and Public Safety career pathways, education requirements, and job opportunities](http://www.careerclusters.org/resources/pos_ks/FoundationPOS/HS-Cluster-POS.pdf)”
http://www.careerclusters.org/resources/pos_ks/FoundationPOS/HS-Cluster-POS.pdf

Student Testimonials and Advice

For many of the course descriptions, there is also a video of a student describing the program, how it differs from other level courses, study habits it takes to be successful, and the career pathway linkage.

Career Cluster/Pathway Information

Positioned on the curriculum page under the student video, students can find additional detailed information about the related career cluster and pathways. The web resources include information about the 16 national clusters that are organized into Colorado’s six industry sectors. Students can download a brochure which explains job opportunities, roles and responsibilities in the career, years of study and certifications needed for various roles, and salary ranges for the careers.
<http://www.careerclusters.org/resources/ClusterDocuments/hsdocuments/brochure.pdf>


Information About Plans of Study

The student can also directly access one of the national model plans of study. These plans of study show how a core of pre-college academic courses, general electives, and career and technical education courses can be organized into a four-year high school plan of study - all coordinated around a student’s area of career interest. The plan of study indicates the academic courses necessary to be eligible for either a four-year or two-year college. Because these options are available, students are not locked into a narrow option after high school. It represents a plan for high school study based around an area of interest, and can be modified on a year-by-year basis as interests change. It is a plan to increase the relevance of all high school courses by linking them to a career interest, but not a career decision.

As of 2008, it is not district policy that every student must create a personalized plan of study, but the district is working to put the pieces in place for students to do so.

http://www.careerclusters.org/resources/pos_ks/FoundationPOS/HS-Cluster-POS.pdf





Name _____

Learner ID _____

School/College/University _____


SAMPLE

Health Science
 Career Cluster Plan of Study for ► Learners ► Parents ► Counselors ► Teachers/Faculty

This Career Cluster Plan of Study (based on the Health Science Career Cluster) can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. *This Plan of Study, used for learners at an educational institution, should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.

EDUCATION LEVELS	GRADE	English Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Health Science	SAMPLE Occupations Relating to This Career Cluster	
Interest Inventory Administered and Plan of Study Released for all Learners									
SECONDARY	9	English Language Arts I	Algebra I	Dependent on the state pathway	State History Civics	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Certain local student organization activities are also important including public speaking, record keeping and work-based experiences. A foreign language is recommended.	*Health Science I: Introduction to Health Science *Information Technology Applications	<ul style="list-style-type: none"> ► Occupations Requiring Less than Baccalaureate Degree ► Dental Assistant/Hygienist ► EMT/Paramedic ► Health Information Code ► Home Health Aide ► Lab Technician ► Phlebotomist ► Radiographer ► Registered Nurse ► Occupations Requiring Baccalaureate Degree ► Athletic Trainer ► Biomedical ► Dietitician ► Geneticist ► Industrial Hygienist ► Nutritionist ► Occupational Therapist ► Physician (M.D./D.O.) ► Physician Assistant ► Psychologist ► Radiologist ► Research Scientist ► Speech/Language Pathologist ► Toxicologist ► Veterinarian 	
	10	English Language Arts II	Dependent on the state pathway	Dependent on the state pathway	U.S. History		*Health Science II: Health, Safety and Ethics in the Health Environment		
	11	English Language Arts III	Dependent on the state pathway	Dependent on the state pathway	World History		*Health Science III: Employment in Health Occupations		
	College Placement Assessments-Academic Career Advancement Provided								Continue courses pertinent to the pathway selected.
POSTSECONDARY	12	English Language Arts IV	Dependent on the state pathway	Dependent on the state pathway	Psychology Economics		Continue courses pertinent to the pathway selected.		
	Articulation/Dual Credit: Transcribed-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.								
	Year 13	English Composition	Dependent on the state pathway	Dependent on the state pathway	American Govt. Psychology	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include. Work-based learning is an integral part of this Career Cluster.	Continue courses pertinent to the pathway selected.		
	Year 4	Speech/Oral Communication Technical Writing	Dependent on the state pathway	Dependent on the state pathway	American History Sociology				
	Year 15	Continue courses in the area of specialization.							
Year 16									

** See course descriptions on page 2.



SAMPLE

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Building Early Understanding of Career Options

At some schools within the district, counselors are meeting with groups of 8th graders twice a year, instructing them on how to use the College in Colorado website resource. This website includes information that explains career clusters and college planning options, and according to district staff, ‘the goal is embedding it (career interest relevance) in every class to let students know, ‘you should be thinking about how this fits with your interest.’”

There is also a new standardized counseling curriculum that is available from 5th grade through middle school. Students complete an interest survey and an electronic portfolio where they save a Word document as “my interest” through an online resource called “Sharepoint.” It can then be accessed and revised by the student year-by-year. Students can also document their interest and learning style and that information can be reviewed by the student’s teacher as he and she advances from grade-to-grade. This portfolio will give the teacher valuable information through which to build greater relevance into classroom experiences.

Empowering Decisions Through Information and Awareness

Colorado Springs District 11 is also sponsoring workshops with middle and high school counselors, so they understand the variety of career planning resources and the curriculum and career cluster web resources. This training is intended to empower students and parents to use the planning resources so the time spent face-to-face with the counselor is more focused on interpretation and discussion of the student’s preliminary plan.

District staff members indicate that they will be working with some of the district's advanced marketing classes to tap into student creativity and skills in order to create and implement a marketing plan for the career pathway resources aimed at students and parents.

Results

The effectiveness of the program implementation will be measured by qualitative and quantitative data. Examples of quantitative data include, but are not limited to:

- Graduation rates before and after the program implementation;
- Percentage of students that have identified a chosen career pathway as documented on the College in Colorado Career Pathways website;
- Percentage of increase in college prep courses compared before and after program implementation;
- Student enrollment in CTE courses that serve as entry level courses in specific career pathways;
- Evidence of consistent vertical and horizontal alignment of courses offered at different high schools;
- Percentage of nontraditional students within each program compared before and after program implementation; and
- Number of students pursuing post-graduate opportunities compared before and after as measured via *Work Keys*.

Examples of qualitative data include, but are not limited to:

- End of course student surveys;
- End of year teacher surveys;
- Analysis of teacher quality and training for each course offering;
- Parent, Community Member, and Business/Industry representative surveys; and
- Analysis of student readiness in each core area as measured by local college and university boards and Accu-Placer placement tests.

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This Innovation Profile was created by **Meeder Consulting, LLC** (www.meederconsulting.com), a firm specializing in leadership and aligning education systems with workforce needs, on behalf of the Colorado Community College System (CCCS). CCCS administers and leads career and technical education in Colorado on behalf of secondary education, community colleges and other CTE providers. Information about CTE in Colorado can be found at www.cccs.edu and www.ColoradoStatePlan.org.