Colorado Early Colleges

Online Campus

Course Catalog | Fall 2023 - Spring 2024

Course Offerings | Fall 2023 - Spring 2024

The CEC Online Campus offers a variety of courses designed to meet our students' needs. Classes are offered online synchronously between the hours of 7:50am and 3:30pm MWF with asynchronous learning and tutoring TR.

Courses are noted with credit hours and applicable school level appropriateness; however, middle school students may access high school level courses when readiness and preparedness are demonstrated.

High school classes are typically one semester in length. All middle school classes are yearlong courses. College-level courses (100-level and above) are approved on a case-by-case basis based on applicable placement scores, prerequisites, and college readiness. Please note, course availability will vary on a semester by semester basis.

College level credits follow our college partner conventions for credits and hours. New courses as they are developed will be added to the program.

ENGLISH
English Literature 6, 7, 8 *(Middle School)*
Literature & Composition 060 *(High School)*
Literature & Composition 090 *(High School)*
Literature & Composition 095 *(High School)*
Expository Composition *(College level)*
Intermediate Research Writing *(College level)*

MATH
Math Basics 020 *(Middle and High School)*
Math Basics 030 *(Middle and High School)*
Pre-algebra 060 060 *(Middle and High School)*
Algebra I 090 *(Middle and High School)*
Geometry *(Middle and High School)*
Algebra II 099 *(Middle and High School)*
Financial Literacy *(Middle and High School)*
College Algebra (College *level)*
Trigonometry *(College level)*

SCIENCE
Science 6, 7, 8 *(Middle School)*
Integrated STEM Lab *(Middle and High School)*
Earth Science w/Lab *(High School)*
Physical Science *(High School)*
Biology A (*High School)*
Biology B *(High School)*
Chemistry w/Lab *(High School)*
Physics w/Lab *(High School)*
Introductory Chemistry *(College level)*
Introductory Chemistry Lab *(College level)*

SOCIAL SCIENCE
Social Science 6, 7, 8 *(Middle School)*
Geography *(High School)*
US History *(High School)*
Civics *(High School)*
Microeconomics *(College level)*
Modern World Civilizations *(College level)*
Intro to Philosophy *(College level)*
General Psychology *(College level)*

WORLD LANGUAGES
Spanish I *(Middle and High School)*
Spanish II *(Middle and High School)*

COLLEGE AND CAREER READINESS
Base Camp *(Middle and High School)*
College & Career Awareness *(High School)*
Digital Literacy *(Middle and High School)*

CAREER AND TECHNICAL ED
Adobe Creative Cloud Certification *(Middle and High School)*
IT Fundamentals Certification *(Middle and High School)*
Microsoft Office Certification *(Middle and High School)*
Unity Certification *(Middle and High School)*

LIBERAL ARTS
Journalism *(Middle and High School)*
Philosophy *(High School)*
Psychology *(High School)*
Sociology *(High School)*

BUSINESS
Economics *(High School)*
Financial Literacy *(Middle and High School)*
Intro to Digital Business *(High School)*
Intro to Entrepreneurship *(Middle and High School)*

COMPUTER SCIENCE
Computer Programming Foundations *(Middle and High School)*
Electricity and Circuitry Foundations *(Middle and High School)*
Game Design *(Middle and High School)*
Intro to Python *(Middle and High School)*
Minecraft STEAM Foundations *(Middle and High School)*
Rocketry Foundations *(Middle and High School)*

ART, MUSIC AND WRITING
Art Foundations *(Middle and High School)*
Art History *(Middle and High School)*
Creative Writing *(Middle and High School)*
Drawing and Animation Foundations *(Middle and High School)*
Music Makers Lab: I (Synthase) *(Middle and High School)*
Music Makers Lab: II (Synthase) *(Middle and High School)*
Active Music Theory: Level 1 (Synthase) *(Middle and High School)*
Music History & Theory *(Middle and High School)*
Introduction to Music *(College level)*

AUDIO/VISUAL ARTS
Adobe Digital Art *(Middle and High School)*
Adobe Video Production (*Middle and High School*)
Digital Photography *(Middle and High School)*
Music Makers Lab: I (Synthase) *(Middle and High School)*
Music Makers Lab: II (Synthase) *(Middle and High School)*
Sound and Audio Mixing *(Middle and High School)*

PHYSICAL EDUCATION
Health and Fitness *(Middle and High School)*

6th Grade English Literature
This course will explore the English language and literature. Content units will explore different genres, including nonfiction, mythology, novels, grammar, and poetry. The class will incorporate hands-on activities, reading strategies, writing opportunities, and group work to promote understanding and engage students.

7th Grade English Literature
Students will practice reading, writing, speaking, and listening. Students will read a variety of novels, short stories, poems, plays, and nonfiction texts and write fiction and research papers. Throughout the year, 7th graders will reflect on the theme of bravery and how perceptions change with each text they will read.

8th Grade English Literature
This course seeks to promote and develop reading, writing, speaking, and listening. This class will emphasize learning how to think in new and creative ways, how to effectively communicate both spoken and written ideas, and how to gather relevant information from various text types. Students will pursue answering the question, "What does it mean to be human?"

Literature & Composition 060
Description: This course focuses on developing a strong foundation in both reading- and writing-related skills in addition to academic skills such as organization and holding oneself accountable for quality and timely work. The focus will be on communicating in a clear, structured way, both verbally and through written work, as well as understanding communication from others. This communication will be practiced in many different modes focusing on the various ways reading, writing, listening, and speaking occur in our world.
Prerequisites: Placement based on NWEA MAP score, NextGen ACCUPLACER score, and/or teacher recommendation
Designation: College Prep
Credits: 0.5

Literature & Composition 090
Description: This course provides an intensive introduction to college prep English work by establishing a foundation of skills needed for all reading and writing at CEC. Students will practice analytical reading skills in a variety of genres, including short stories, poems, novels, and nonfiction. Focus will be on close reading where students use specific passages from the text to develop and support their interpretations of literary works as well as recognize how texts function as a whole and the conventions of using communication in different settings. Students will focus on the devices used to achieve their own writing purposes and appeal to their audiences by composing various types of essays. Further, they will learn the conventions and expectations of the typical college essay.
Prerequisites: Placement based on NWEA MAP score, NextGen ACCUPLACER score, OR successful completion of Literature & Composition 060
Designation: College Prep
Credits: 1.0

Literature & Composition 095
Description: This course provides a comprehensive overview of all college prep English skill sets. Students will be challenged to analyze and evaluate texts at a more advanced level to prepare for college-level reading tasks and to articulate—in both speech and writing—interpretations of poems, short stories, novels, and plays. They will also practice writing skills, including a focus on the sentence level as well as making intentional decisions to compose various genres of writing effectively. Students will focus on conducting research and thinking critically about how to gather, process, and use information to become thoughtful, productive citizens in the modern world.
Prerequisites: NWEA MAP scores, NexGen ACCUPLACER score, and/or Foundational College Prep English
Designation: College Prep
Credits: 1.0

Expository Composition

Description: This course emphasizes critical reading, writing, and thinking skills through writing-intensive workshops. The course explores writing situations as a complex process focusing specifically on idea generation relative to audience and purpose, working through multiple drafts, peer collaboration and revision, and includes rhetorical analysis.
Prerequisites: NexGen ACCUPLACER score and teacher recommendation
Designation: Community College
College Credits: 3.0

Intermediate Research Writing

Description: Students will build on the skills learned in Expository Composition in this intermediate writing course designed to improve students' reading, writing, research, and critical thinking skills. The course may include expository, persuasive, and/or argumentative writing emphases. The course will require several research-oriented writing assignments. Students must achieve a C- or higher in this course to receive credit.
Prerequisites: Expository Composition
Designation: Community College
College Credits: 3.0

MATH

Pre-algebra 060
Description: This course includes vocabulary, properties, operations, applications of real numbers (i.e., fractions, decimals, signed numbers), and algebraic expressions. It also covers the solution of basic first-degree equations, associated word problems, graphing on coordinate plane, and introduction of systems.
Prerequisites: Placement based on NextGen ACCUPLACER score and/or teacher recommendation
Designation: College Prep
Credits: 0.5

Algebra I 090
Description: The course introduces the student to the basic structure of algebra through the use and application of real numbers, inequalities, factoring, polynomials, linear and quadratic equations, and graphs. Additionally, appropriate technology will be used to study and achieve the following:
- Enhance mathematical understanding and problem-solving skills.
- Represent linear and exponential relationships using graphs, tables, equations, and contexts.
- Manipulate expressions to solve problems by factoring, distributing, multiplying polynomials, and expanding exponential expressions.
- Analyze the slope of a line graphically, numerically, contextually, and algebraically.
- Solve equations and systems of equations using a variety of strategies.
- Represent arithmetic and geometric sequences.
- Investigate square root, cube root, absolute value, piecewise-defined, step, and simple inverse functions.
- Use function notation.
- Analyze two-variable data and explain the differences between association and causation and interpret correlation in context.
- Compare distributions of one-variable data.

Prerequisites: Pre-algebra 060
Designation: College Prep
Credits: 1.0

Geometry
Description: This course covers the following skills:
- Perform geometric transformations (reflection, rotation, translation, dilation) and find symmetry.
- Determine relationships between figures (such as similarity and congruence) in terms of rigid motions and similarity transformations.
- Explain properties of plane figures.
- Execute proofs of geometric theorems and use coordinates to prove geometric theorems.
- Model with geometry and create geometric constructions (with compass and straightedge).
- Find measurements of plane figures (such as area, perimeter, and angle measure) and three-dimensional solids (such as volume and surface area).
- Apply theorems about circles, including arc lengths and areas of sectors.
- Utilize tools for analyzing and measuring right triangles, general triangles, and complex shapes (such as the Pythagorean Theorem, trigonometric ratios, and the Laws of Sines and Cosines).
- Use algebra to formulate and solve equations arising from geometric situations.
- Calculate probability (independence and conditional probability, compound events, expected value, and permutationsand combinations).

Prerequisites: Algebra I 090
Designation: College Prep
Credits: 1.0

Algebra II 099

Description: This course is designed to build on algebraic and geometric concepts. It develops advanced algebra skills such as systems of equations, advanced polynomials, imaginary and complex numbers, and quadratics. Students will also prepare for the study of trigonometric functions. Finally, course content includes the vocabulary, systems, relations and functions, rational expressions and equations, inequalities, radical and complex numbers, and quadratic equations.

Prerequisites: Algebra I 090; Geometry
Designation: College Prep
Credits: 1.0

Financial Literacy

Description: This course will teach the financial secrets of monetarily successful people. Students will learn the best practices of money management, how to make their money work for them, how to research possible investments and avoid risky ones, and will additionally learn some common pitfalls of credit cards. Finally, students will learn the best practices of money management to ensure a greater likelihood of financial success and independence in the future.

Prerequisites: None
Designation: Middle School and College Prep
Credits: 0.5

College Algebra

Description: This course focuses on a variety of functions and the exploration of the graph of functions. Topics will include equations and inequalities, operations on functions, exponential and logarithmic functions, linear and non-linear systems, and an introduction to conic sections. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. College Algebra is designed to prepare students for trigonometry and calculus. In this course, students will study several types of functions including polynomial, rational, exponential, and logarithmic functions. Additional topics may include graphing technology, sequences and series, conic sections, matrices, modeling, and the binomial theorem.

Prerequisites: Algebra II 099 and NexGen ACCUPLACER
Designation: Community College
College Credits: 4.0

Trigonometry

Description: This course will cover trigonometric functions, definitions, radian measure, graphs, solving trigonometric equations, vectors, Law of Sines, Law of Cosines, complex numbers, and polar coordinates. A graphing calculator is required.

Prerequisites: College Algebra
Designation: Community College
College Credits: 3.0

6th Grade Earth and Space Science

This course will cover all Colorado state middle school earth systems standards, including natural resources, geology, weather, and space concepts. Students will investigate and evaluate the workings of our earth and its place in the universe and master the fundamentals of using basic scientific measurement tools, the metric system, and reading graphs to be prepared for future scientific explorations. Students will also apply 21st century skills in critical thinking and reasoning, innovation, collaboration, information literacy, and self-direction.

7th Grade Life Science

This course is largely based on the study of life sciences and will include the fundamentals of biology. Students will investigate, explore, and discover various ideas using the scientific method throughout the school year. The class will also incorporate hands-on activities, experiments, and group work. It will also include a focus on reading and writing for content and understanding.

8th Grade Physical Science

This course is largely based on physical science that will include the fundamentals of physics and chemistry. Students will investigate, explore, and discover various ideas using the scientific process throughout the year. The class will incorporate hands-on activities, experiments, and group work. It will also include a focus on reading and writing for content and understanding.

Integrated STEM Labs

The Integrated STEM Lab class is designed with a blended science approach to enhance lab skills and scientific thinking through hands-on activities. Lessons will have both a life science and a physical science component, including — but not limited to — activities, projects, experiments, and labs in genetics, kinetic and potential energies, waves, the basics of chemistry, and Newton's Laws. The course will culminate with the students creating their own capstone experiment, subjecting it to a rigorous evaluation process, and measuring final results.
Prerequisites: None
Designation: College Prep
Credits: 0.5

Earth Science

Description: The Earth Science curriculum builds upon the natural curiosity of students concerning the scientific world. The course will explore the systems of the earth, including its spheres and cycles. It will further look at the following:
- The history of the earth through the exploration of plate tectonics and the movement of the earth's crust.
- How the earth's surface was shaped by weathering and erosion.
- Examining the causes and effects of various natural disasters.

Earth Science affects us every day through our interaction with and dependency on air, weather, water, and even the ground upon which we stand. This course will further explore the processes that have formed the Earth, the stars, the elements, and the universe. Through labs, lessons, activities, and models, students will explore how earth's atmosphere (air), hydrosphere (water), and geosphere (land) all interact with each other and affect our everyday life.
Prerequisites: None
Designation: College Prep
Credits: 0.5

Physical Science

Description: Physical Science is the study of matter and energy and will offer introductory concepts in chemistry and physics. Students in this course will study the properties of matter, the periodic table, elements, mixtures, compounds, chemical reactions, and light. They will further demonstrate an understanding of the electromagnetic spectrum, including energy, heat, motion, Newton's laws, and momentum.
Prerequisites: None
Designation: College Prep
Credits: 0.5

Biology A with Lab

Description: During this course, students will practice cooperative inquiry and project-based learning in the study of molecular and cellular biology, including biochemistry, cell structure and functions, the metabolic process of respiration and photosynthesis, cellular reproduction, and the basic concepts of genetics. Laboratory experiences will encourage scientific thinking by following procedures and collecting and analyzing data.
Prerequisites: Pre-algebra 060 060; Literature & Composition 090
Designation: College Prep
Credits: 0.5

Biology B with Lab

Description: Biology, the study of living things, exposes students to a wide range of biological processes, including molecular and cell biology, heredity and genetics, ecology, evolution, and the diversity of life. The scientific method, the process of observing, hypothesizing, measuring, and gathering data followed by analyzing and interpreting said data, will be applied. Furthermore, students will explore the large-scale systems of biology, including ecology and evolution, by examining how these systems interact and how these processes shape our environment. During this course, students will practice cooperative inquiry and project-based learning within the study of environmental and evolutionary biology. Laboratory experiences will encourage scientific thinking by collecting and analyzing data.
Prerequisites: Biology A
Designation: College Prep
Credits: 0.5

Chemistry with Lab

Description: This course covers the fundamentals of chemistry, which includes understanding the basics of chemical theory and concepts, interpreting chemical symbols and language, and solving common chemical problems. Applications of chemistry to the everyday world are also explored. During this course, students will practice cooperative inquiry and self-guided learning in the study of matter, including matter and change, measurements, atomic theory, chemical bonding, nomenclature, and chemical reactions. These activities will include working in small groups at times to reinforce lecture material and other knowledge, utilizing various visual presentations and descriptions, and receiving direct instruction from the instructor. Laboratory experiences will encourage scientific thinking by following procedures, collecting and analyzing data, and writing lab reports.
Prerequisites: Algebra I 090
Designation: College Prep
Credits: 1.0

Physics with Lab

Description: Students will examine the following topics: the basic principles of mechanics, electricity and magnetism, and wave motion. Coursework will involve laboratory activities, assignments and formal assessments that will require students to demonstrate problem-solving skills in the context of a scientific scenario. Additionally, this course will introduce students to the study of astronomy, including its history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods used by astronomers to learn more about the universe. Finally, additional topics will include the solar system, the Milky Way and other galaxies, and the sun and stars. Using online tools, students will examine the life cycle of stars, the properties of planets, and the exploration of outer space.
Prerequisites: None
Designation: College Prep
Credits: 1.0

Introductory Chemistry

Description: This course introduces students to a variety of chemistry-related concepts and experiences and relates chemistry to real-world experiences by providing students an opportunity to investigate chemical principles within their life. This course teaches students how scientists view problems and how they use the scientific method to solve them. Discussion topics are chosen from physical, organic, and biological areas from within the chemistry field.
Prerequisites: Biology A/Biology B; Algebra II 099; Literature & Composition 090
Designation: Community College
College Credits: 3.0

Introductory Chemistry Lab

Description: This is a hands-on laboratory experience that accompanies the Introduction to Chemistry course. It is designed to give students a feel for basic laboratory equipment and measurement. It also provides reinforcement of the concepts covered in the class. The lab also enables students to visualize many concepts and experiments discussed in class.
Prerequisites: Biology A/Biology B; Algebra II 099; Literature & Composition 090
Designation: Community College
College Credits: 1.0

SOCIAL SCIENCE / HISTORY

6th Grade Ancient World History

Students will explore the world through the eyes of archeologists, explorers, citizens, and consumers. They will examine the origins of mankind and discover how the rise of civilizations shaped the world we live in today. In addition, students will determine how geography, economics, and civics contribute to the development of those civilizations. Content units will include the fundamentals of history, geography, economics, and civics.

7th Grade Modern World History

This course will explore Modern World History from the Renaissance through World War II. Content units will be taught in accordance with Colorado state Academics Standards for Social Studies and will include an analysis of history, geography, economics, and civics at an intermediate level. The class will incorporate investigative and critical thinking skills, inquiry activities, hands-on opportunities, reading and writing strategies, and small group work to promote the understanding of a variety of cultures around the world.

8th Grade US History

This course will examine the origins, key events, and historical themes of the United States. Content units will be taught in accordance with Colorado state Academics Standards for Social Studies and will include an analysis of history, geography, economics, and civics at an advanced level. Themes explored in this class will include regional historical issues, continuity and change, rule of law, diffusion, and trade.

Geography

Description: Geography is the study of humans and how they adjust to their environment. This course will consist of developing basic geographic skills and analyzing a regional approach to the geography of the world. Additionally, this course will examine how climate and resources impact the movement and development of human societies. Students will study the regional geographical method by analyzing how interactions between humans and their environment have impacted the characteristics of major world regions. Students will also learn to use geographic tools and resources to analyze the Earth's human systems and physical features by further investigating deeper geographic issues and concerns.

Prerequisites: None
Designation: College Prep
Credits: 1.0

US History

Description: This course will cover United States history from the founding of the North American colonies to the present with major studies in the American Revolution, the Civil War, the Reconstruction era in 1887, the making of modern America during the Industrial Revolution, the Gilded Age and the Progressive Movement, Imperialism and foreign affairs during the Spanish American War, World War I & II, the Great Depression, the Cold War, the Civil Rights movement, the rise of terrorism, and modern social and political history. Students will be expected to make connections between the events and ideas of the past and the current events of today. Students will contextualize the study of modern America by making connections across the span of U.S. history, which will enrich and deepen their understanding of the American story.

Prerequisites: None
Designation: College Prep
Credits: 1.0

Civics

Description: Students will study the history of the civil government of the United States and of the state of Colorado. Topics will include the history and contents of the Constitution, the functions of the three branches of government, the structure of Colorado's government, and certain key events in Colorado history. Students will also analyze and discuss current events at the national and local levels. Please note: All students who enroll into Civics will cover a unit on the Holocaust & Genocide. Students who transfer into CEC Online Campus having already completed a Civics course will take a standalone module course which covers the Holocaust & Genocide.
Prerequisites: Literature & Composition 090 or higher recommended
Designation: College Prep
Credits: 1.0

Principles of Microeconomics

Description: This course is designed to provide students with an introduction to the principles of microeconomics. This course teaches students microeconomic principles and theories that are the basis for economic behavior and economic systems with the primary focus on the U.S. financial and capitalist market system. Students will examine how these principles and theories influence economic realities within markets and society today.
Prerequisites: Algebra I 090; Literature & Composition 090
Designation: Community College
College Credits: 3.0

Modern World Civilizations

Description: This course will explore the history of the world from the European Renaissance to the 21st century. Emphasis will be placed on the political, cultural, and intellectual developments over the past six centuries on a global scale. Special attention will be paid to the commonalities, uniqueness, and interaction between Western and non-Western civilizations.
Prerequisites: Literature & Composition 090
Designation: Community College
College Credits: 3.0

Introduction to Philosophy

Description: This course is designed to help students better understand themselves and their relationship to the world by reading various points of view related to questions about morality, politics, religion, and approaches to truth.
Prerequisites: Literature & Composition 090
Designation: Community College
College Credits: 3.0

General Psychology

Description: This course offers an introductory survey of general psychological theories and concepts with an emphasis on the scientific study of human behaviors and its application to daily life.
Prerequisites: Literature & Composition 090
Designation: Community College
College Credits: 3.0

Spanish I

Description: Spanish I is a year-long course that focuses on the development of students' communicative competence and their understanding of the cultural products, practices, and perspectives of the Spanish-speaking world. Students will communicate in real-life contexts where grammar and vocabulary are integrated according to various real-life/real-world situations. Through the language learning process, students will develop an understanding of the structure of their native language and the uniqueness of their own culture. Emphasis will be placed on the use of Spanish in the classroom as well as on the use of authentic materials to learn about the culture. Students in Spanish I will develop interpersonal, interpretive, and presentational language skills as they interact with the Spanish language. Students in Spanish I will focus on improving comprehension, comprehensibility, vocabulary usage, cultural awareness, communication strategies, and language control.

Prerequisites: None
Designation: Middle School and College Prep
Credits: 1.0

Spanish II

Description: Spanish II is a year-long course that focuses on the development of students' communicative competence and their understanding of the cultural products, practice, and perspectives of the Spanish-speaking world by building upon and expanding the core competencies developed in Spanish I. Students will enhance their Spanish language skills by:

- Speaking and writing with other Spanish speakers (the Interpersonal mode).
- Reading, listening, and viewing as a receptive process in which deeper foreign language comprehension is developed (the Interpretive mode.
- Speaking and writing that is focused on the organization and structure of thoughts and the awareness of their audience (the Presentational mode).

Emphasis will be placed on the use of Spanish in the classroom as well as on the use of authentic materials to learn about the culture. An important component of Spanish II is the use of Spanish beyond the classroom in order to apply it in the real world.

Prerequisites: Spanish I
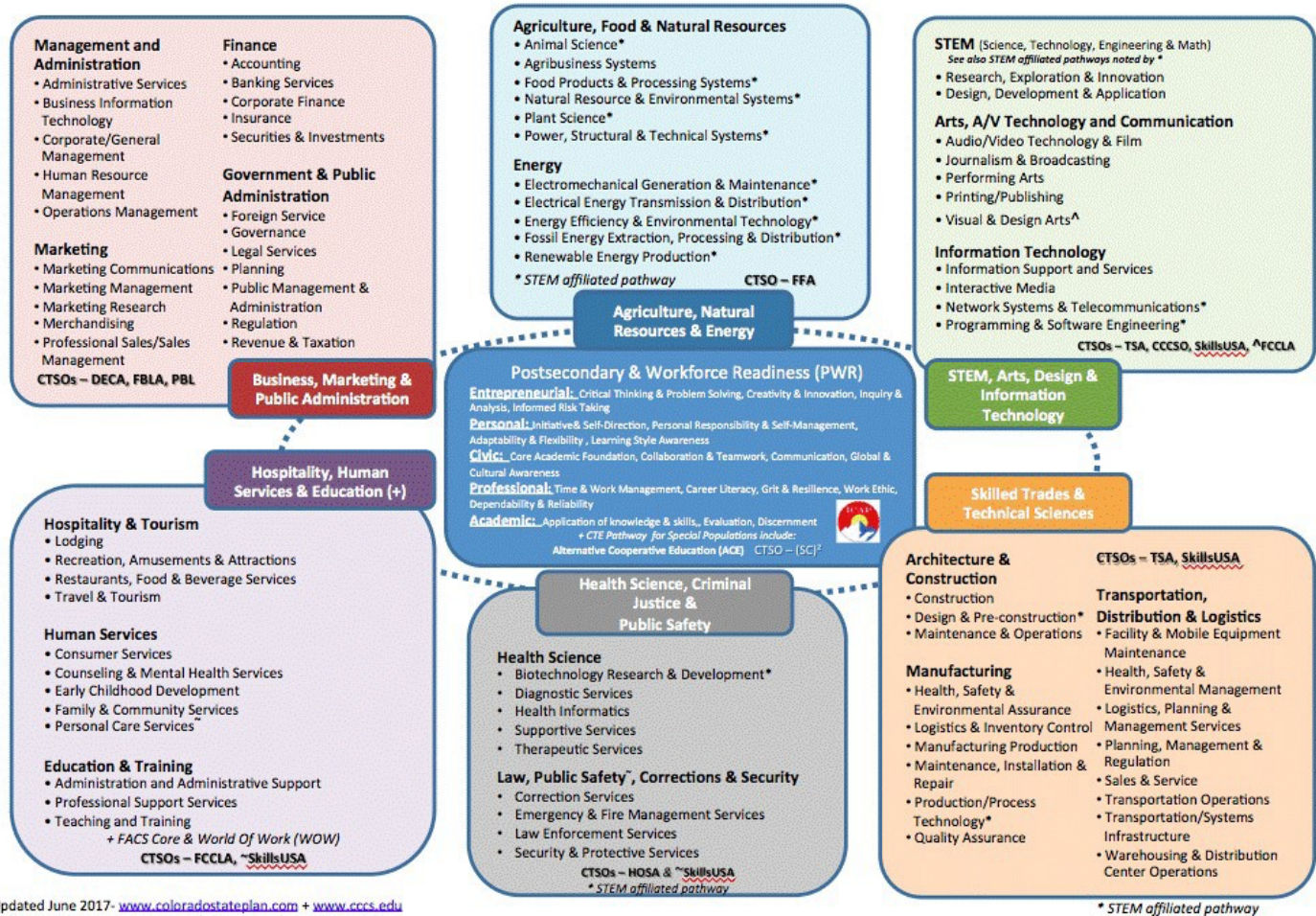**Designation:** Middle School and College Prep
Credits: 1.0

What is a CTE Program?

Career and Technical Education (CTE) consists of programs that teach students specific career skills in middle school, high school, and post-secondary institutions. In Colorado, CTE is split into 17 career clusters that meet the criteria of being high-wage, high-skill, and high-demand careers. CEC's Online Program has CTE programs in STEM (Science, Technology, Engineering, and Math), Arts, Design & Information Technologies, Business, Performing Arts, and Health Sciences.

Structure of a CTE Program

Our CTE programs consist of a sequence of courses that are designed to teach students the skills they need to be successful academically and in the workplace within that specific career cluster. Our program begins with a class that focuses on career explorations, college and career awareness, and includes the opportunity to earn industry certifications. Most programs will include work-based learning experiences that expose students to the work in that field at an early age.

Basecamp
Description: Basecamp is a required course for all CEC Online Program students. It is both the launching pad and the place to return over the course of a student's studies. Basecamp will provide a consistent touch point for students to engage with their teachers, advisors, and mentors. In Basecamp, students will develop essential skills to be successful in their learning, growth and development. These skills will include self-regulated learning techniques, social and emotional learning strategies, the development of interpersonal relationships in the online/virtual environment, executive functioning skills, goal setting, and priority planning. Students in Basecamp will also be introduced to topics in Digital Literacy to enhance their experience navigating the online learning environment.
Prerequisites: None
Designation: Essential Skills
Credit: N/A

College & Career Awareness
Description: This course is an integrated, exploratory program focusing on self-knowledge, education, and career exploration. The purpose of this course is to allow students to be involved in activity-centered lessons that explore careers, utilize technology, and develop life skills in the following potential Colorado CTE career pathways: agriculture, business, health science, health technology, marketing, technology education, and family and consumer sciences.
Prerequisites: None
Designation: College Prep
Credit: 0.5

Digital Literacy
Description: This course is designed to equip students with the many needed computer skills to excel in the digital world. Students will be exposed to a broad range of technology concepts from basic computer hardware/software to computer systems, the Internet, and safe online habits. Students will also learn the basics of programming, algorithms, cybersecurity, and cryptography. After taking this course, students will have the foundational skills necessary to troubleshoot basic computer problems, use Google Apps, and write their own computer code. A class designed for beginners looking to get started in the digital world.
Prerequisites: None
Designation: Essential Skills
Credit: 0.5

Adobe Creative Cloud Certification
Description: The future belongs to those who create. Whether it's to inform, persuade, entertain, or inspire, success in the digital age means communicating in visually rich and interactive ways. With a firm grasp on the world's most powerful creative tools, Adobe Certified Professionals are ready to make their mark.
Adobe Certification Pathway: Adobe Certified Professional is the industry-recognized certification that demonstrates mastery of Adobe Creative Cloud software and must-have knowledge for digital media careers. Each exam is integrated with an Adobe application — including Photoshop, Illustrator, and Premiere — and, designed by experts, allowing for an authentic assessment of job-ready skills.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

IT Fundamentals Certification
Description: The Information Technology Specialist program is a way for students to validate foundational IT skills sought after by employers. The IT Specialist program is aimed at candidates who are considering or just beginning a path to a career in information technology. Students can certify their knowledge in a broad range of IT topics, including software development, database administration, networking and security, mobility and device management, and coding. Help your students get on the pathway to a prosperous career by administering IT Specialist exams in your classroom.
IT Fundamentals: Certification Pathway: Through Certiport's full pathway solution you can prepare your students for the cloud computing workforce with tailored learning materials, practice tests, and certification exams. Adding these materials into your curriculum is easy and seamless.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Microsoft Office Certification
Description: The Microsoft Office Specialist Program provides industry-leading assessments of skills and knowledge through our project-based testing, giving students and professionals real-world exercises to appraise their understanding of Microsoft Office, notably in the applications Word, Excel, PowerPoint, and Outlook. This guarantees that every certified user can prove they have the ability to command the full features and functionality of Microsoft Office, preparing them for future academic or workforce opportunities. In the US over 1.17 million jobs request Microsoft Office skills. With a MOS certification you can prove you have the skills to be more effective and productive as well as have a higher work quality.
Microsoft Academy Certification Pathway: Microsoft certification gives students and workforce candidates the power to chart their own course, fulfill their ambition, and realize their potential. See the statistics that validate that these certifications give you the tools to build a brighter future and prepare yourself for a successful career.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Unity Certification
Description: Whether it's a desire to create games and apps or build new worlds in AR and VR, the Unity Certified User certification is a measurable way for employers and institutions to verify knowledge and skills using Unity.
Programming Certification Pathway: The Unity Certified User Programmer certification exam will test the basics of C# programming within Unity software to create interactivity in games, apps, AR/VR, and other experiences. This certification demonstrates entry-level knowledge that includes debugging, problem-solving, and interpreting the API, creating and evaluating code, and navigating the Unity interface. Candidates for this exam will be expected to have at least 150 hours of Unity training to obtain the certification.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Journalism
Description: In this course, students will learn or refine the skills of journalistic writing and overview of layout principles. Furthermore, the course features an examination and practice of the fundamentals of news gathering, interviewing and news writing, features, sports, and editorial writing, advertising copy, and layout, editing, proofing, printing, and typography. This course is intended to strengthen a student's reading, writing, speaking, listening, and language for college and career preparation and readiness with the use of grade-level text.
Prerequisites: None
Designation: College Prep
Credit: 0.5

Philosophy
Description: An introduction to philosophy through topics and themes found in classical and contemporary philosophical writings, such as the nature of truth and knowledge, the mind and body duality, freedom and determinism, and the nature of right and wrong. This course will look at some of the historical, cultural, and rhetorical influences that have shaped the way the people of the world think. The goal of this course is to examine these foundational concepts, evaluate their strengths and weaknesses, and discover why they have endured for thousands of years. In addition, students will gain skills in critical thinking, higher-order questioning, and rhetoric.
Prerequisites: None
Designation: College Prep
Credit: 0.5

Psychology
Description: This class is designed to provide students with an interactive introduction to the study of human behavior. Along with a biographical study of the major theorists and their psychological theories, students will also learn about perception, motivation, emotion, theories of personality, stress, psychological disorders, gender, adolescent development, parenting, and social interaction with the goal being to better understand ourselves and others. The purpose of this course is to introduce you to the psychological facts, principles, and phenomena associated with each of the subfields within psychology. It will include units in the following topics: knowledge base, research methods, critical thinking skills, psychological applications, values in the field of psychology, and personal development.
Prerequisites: None
Designation: College Prep
Credit: 0.5

Sociology
Description: Sociology is the study of society or human groups with the aim of making connections between human behavior and society. This course will examine the processes that have shaped the features we observe around us today and the social interactions that influence personality development, adolescence, and deviant behaviors. This class will deploy readings and assignments to examine different theories concerning societies, cultures, families, education, race, age, gender, and various constructs affecting peoples worldwide. Students will study and compare social groups and institutions along with the inter-relationship between these domains. Units and topics in this course will include culture, socialization, deviance, stratification, race, ethnicity, social change, and collective behavior.
Prerequisites: None
Designation: College Prep
Credit: 0.5

Economics
Description: Economics is a social science that studies how people satisfy unlimited wants and needs with scarce resources. Characteristics of the market economy of the United States and its function in the world will be explored. Students will learn methods of applying economics to one's life. In addition, this course will study areas of interest relating to a career in management, real estate, merchandising, and entrepreneurship as well as starting and operating a business. Topics covered in the course include the stock market, supply and demand, competition, production, taxes, and government.
Designation: College Prep
Credit: 0.5

Financial Literacy
Description: Students will understand and explore how values, culture, and economic forces affect personal financial priorities and goals. In addition, students in this course will study a wide-range of financial principles and ideas including rational decision-making processes and financial planning, the sources of income and lifetime earning power, models of saving and investment strategies, personal money management, budgeting, credit and its impact on personal finances, and the rights and responsibilities of buyers and sellers under consumer protection laws.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Intro to Digital Business
Description: The business world is progressively more reliant on digital technologies. The Digital Business Applications course is designed to prepare students with the knowledge and skills to be an asset to the collaborative, global, and innovative business world of today and tomorrow. Concepts include the overall digital experience, digital communications, digital media, and the exploration of career choices. This course also provides practical experience in professionalism using various forms of presentation skills, including speaking, podcasting, and digital portfolio relating to the globalization of business. This is a survey course covering trends in entrepreneurship, business, economics, forms of business ownership, small business management, marketing, advertising, pricing, and finance. Finally, this course identifies and explains the different business functions and their interrelationships.
Prerequisites: None
Designation: College Prep
Credit: 0.5

Intro to Entrepreneurship
Description: In this introduction to the principles of entrepreneurship, students will learn the fundamental concepts of how to turn an idea into a successful business. Topics will include, writing a business plan, conducting market research, designing marketing and promotional plans, undertaking cost analysis plans and generating a financial analysis, and understanding the basics of networking.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Computer Programming Foundations
Description: The vast digital world in which we live is constructed by coders. In this course, students will gain the knowledge necessary to understand programming vocabulary and concepts. Topics covered in the course will include the programming languages HTML, CSS, and JavaScript and complete coding exercises that apply these languages.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Electricity and Circuitry Foundations
Description: In this course, students will discover how electricity and switches work. Students will build simple electrical circuits with Snap Circuits® to understand how your electronic devices operate and the basics of circuitry.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Game Design
Description: Students will learn the basics of digital game design by developing their own games using Fusion 2.5®. You'll start this course by building and customizing pre-set games, then graduate to creating their very own original adventure game.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Intro to Python
Description: This course provides an introduction to computer programming and the Python language. Core concepts covered include essentials of the programming language, functions, data structures and sets, conditionals, loops, and variables. Additionally, students will cover an overview of the essential skills for writing and running computer programs, especially within the Python language. Modes of study within this course include hands-on coding exercises, composing custom functions, and writing code directly to files. The goal of this course is to get students coding in a computer programming language as quickly as is practicable.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Minecraft STEAM Foundations
Description: This course uses the online game and mystical world of Minecraft to teach students the basic principles of STEAM (science, technology, engineering, art, and music). Topics in this course will include planning, scaling, design, and illustrations and applying these design principles to the Minecraft community.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Rocketry Foundations
Description: Students will employ both Stomp Rockets and Estes Model Rockets to explore the basics of rocket design and flight. Students will use research and design to cover the core concepts of rocketry including weight, lift, drag, and thrust.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Art Foundations

Description: Art Foundations is a basic introductory art class for students who have not enrolled in an art class before. Units and topics in this course will cover the core elements and principles in art through a variety of art materials. Students will explore the basics of aesthetics through the creation and critique works of art. Additional concepts will include the principles of design including balance, form, composition, light, and harmony.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Art History

Description: The goal of Art History is to introduce students to art within its historical, social, geographical, political, and religious contexts. They will work to understand art and architecture through the ages. This course offers an in-depth overview of art throughout history, with lessons organized by chronological and historical order and world regions. Students enrolled in this one-semester course will cover topics throughout history. This is an introductory course in which students will learn to understand and appreciate art through the study of the visual language and art history. This course presents the fundamentals of the creative process, including structure, concept, material proficiency, and historical context. Emphasis will be placed on developing a student's ability to critically analyze artistic works.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Creative Writing

Description: Creative Writing is a year-long elective course for students who are interested in learning how to cultivate the habit, attitude, and responsibility of the creative writer. Students will learn how to create, develop, and refine original forms of descriptive and aesthetic writing. As they read and write, students will become familiar with a variety of genres, including short stories, poetry, and screenplays. Students will focus on developing their use of a variety of creative writing techniques to improve their craft.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Drawing and Animation Foundations

Description: This course will cover the fundamental basics of drawing and animation with the express purpose of transforming very simple drawings into moving animations. Topics and concepts in the course will include using shapes to draw figures, coloring, framing, types of animation, squashing and stretching images for movement, observing secondary action, and exaggeration and hyperbole.
Prerequisites: Art Foundations
Designation: Middle School and College Prep
Credit: 0.5

Music Makers Lab I (Synthase)

Description: This class is perfect for those who dream of making their own music but aren't sure where to start. You'll take songs apart and try to put them back together, and in the process learn tools and concepts that can help you make new songs of your own. By the end, you'll have original tracks to share with the world, plus an understanding of music technology that can help you get to the next level. This class is based in a Digital Audio Workstation and prior experience with music is not required.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Music Makers Lab II (Synthase)

Description: When musical artists have the basic skills of working with a Digital Audio Workstation under their belt, they can focus on developing their craft and artistic voice by repeating the process of making and learning until their ability matches their taste. In our case, this will happen through the creation of an EP of highly original, highly polished tracks, which you will have the option to release on Soundcloud or Bandcamp. This requires independent, self-paced work and includes one-on-one meetings with the instructor as well as peer feedback sessions.
Prerequisites: Music Makers Lab I
Designation: Middle School and College Prep
Credit: 0.5

Active Music Theory: Level 1 (Synthase)

Description: This innovative and exclusive curriculum is designed to help beginners from any background engage creatively in a wide variety of genres, from pop and electronic to jazz and classical. You'll develop aural, theoretical, and creative skills, and apply them to the music you want to make, earning certificates and compiling a portfolio of creative projects along the way. This intro-level class focuses on hearing, playing, singing, and using the building-blocks of melody.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Music History & Theory

Description: Music History & Theory is an introductory course in the core elements of music and its development over history. Topics in the course include the elements of music, the development of music over history, characteristics in music in the ancient and medieval world, developments to the art of music during the Renaissance, including the Circle of Fifths. In addition to music, other core competencies will include history, anthropology, and art appreciation. Please note that Music History and Theory is offered to students with substantial musical backgrounds, with approval from CEC's Online Program Academic Dean, or by completing the prerequisite(s) for the course.
Prerequisites: None; Teacher recommendation and/or approval from the academic dean
Designation: Middle School and College Prep
Credit: 1.0

Introduction to Music

Description: Introduction to Music is a general appreciation course designed to make music meaningful to the average listener. Students will study the relationship of rhythm, melody, harmony, and form. These concepts will be demonstrated through a variety of selected recordings. The elements of music will be treated non-technically along with other historical and biographical observations and studies. Western art music will be discussed as well as the music of other world cultures. Finally, a general survey of folk and popular music will be provided.
Prerequisites: None
Designation: Community College
College Credits: 3.0

Adobe Digital Art & Graphic Design
Description: In this course, students will be introduced to the basic principles and elements of graphic design. They will learn how to use Adobe Photoshop and Illustrator to create and edit images, posters, logos, patterns, icons, and more.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Adobe Video Production
Description: In this course, students will acquire the skills necessary to produce videos that will instruct, market, and/or entertain your intended audience. The course will require the use of Adobe Premiere Pro and students will learn how to import and edit video, add effects and transitions, and export video projects.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Digital Photography
Description: Students will learn basic principles of photography and how to apply them in producing photos with an artistic flair. Topics in this course include knowledge of the camera, the basic elements and principles of photography, methods of shooting and developing black and white film, darkroom procedures, and the introduction of special effects to the photographic or development process. Students will be expected to generate a portfolio of their work by the end of the course.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Music Makers Lab I (Synthase)
Description: This class is perfect for those who dream of making their own music but aren't sure where to start. You'll take songs apart and try to put them back together, and in the process learn tools and concepts that can help you make new songs of your own. By the end, you'll have original tracks to share with the world, plus an understanding of music technology that can help you get to the next level. This class is based in a Digital Audio Workstation and prior experience with music is not required.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 0.5

Music Makers Lab II (Synthase)
Description: When musical artists have the basic skills of working with a Digital Audio Workstation under their belt, they can focus on developing their craft and artistic voice by repeating the process of making and learning until their ability matches their taste. In our case, this will happen through the creation of an EP of highly original, highly polished tracks, which you will have the option to release on Soundcloud or Bandcamp. This requires independent, self-paced work and includes one-on-one meetings with the instructor as well as peer feedback sessions.
Prerequisites: Music Makers Lab I
Designation: Middle School and College Prep
Credit: 0.5

Sound and Audio Mixing

Description: Students will learn the basics of sound and audio mixing by gaining hands-on technical experience in that field. Topics in the course will include understanding the basics of the software program Audacity, the basics of sound, analog versus digital audio, how to record studio audio and different sound effects, different software, hardware and other applications for multitrack audio recordings, microphones and mixing audio, how to master different audio files, and mixing a master file.
Prerequisites: None
Designation: Middle School and College Prep
Credit: 1.0

Health and Fitness

Description: This course will study basic health, wellness, and fitness. The course will further introduce students to the basic concepts of healthy living and wellness, including nutrition, exercise, and the power of positive daily habits. Additionally, this course is designed to encourage and provide exercise opportunities for students in a variety of ways which include — but are not limited to — yoga, fitness and calisthenics, running, and other individual athletic competitions and programs. Wearable technologies and other devices may be implemented or utilized to help assist core competencies within the fitness units of the course.
Prerequisites: None
Designation: College Prep
Credits: 0.5