

TECHNOLOGY APPLICATIONS COURSES

The following Career and Technical Education and Technology Application courses may meet college entrance requirements:

<i>Course #</i>	<i>Course Name</i>
7450	Computer Science/Programming
7451	Computer Science/Programming (PreAP/GT)
2821	AP Computer Science A
7250	Game Programming
7210 7221	Audio/Video Production Course Sequence <ul style="list-style-type: none"> • Introduction to Audio/Video Production • Audio/Video Production I
7900 7910 7911 7920 7921 7940	Project Lead The Way (PLTW) Course Sequence: <ul style="list-style-type: none"> • Introduction to Engineering Design, and • Any two of the following PLTW courses: <ul style="list-style-type: none"> ○ Principles of Engineering (Adv Acad) ○ Digital Electronics (Adv Acad) ○ Architecture and Engineering (Adv Acad) ○ Aerospace Engineering (Adv Acad) ○ Engineering Design and Development (Adv Acad)
7321	Microsoft Computer Applications Specialist I
7201	Digital and Interactive Multimedia
7241	Graphic Design and Illustration I
7260	Web Technologies
7410	Computer Maintenance

CAREER AND TECHNICAL EDUCATION (CTE SPECIALTY PROGRAMS)

The following CTE specialty programs are located at only one campus in the district, however, they are district-wide programs and 11th and 12th graders from all high school campuses can apply to attend. Upon acceptance into the program, students can either travel to that campus for the periods the program is offered, or the student can apply for a transfer to become a student of that campus.

CTE Program	Location	Contact
Robotics (after school program)	Clear Brook High School	Luis Medina lmedina@ccisd.net
Metal Manufacturing	Clear Creek High School	Shannon Herd sherd@ccisd.net
Information Technology (Computer Technician)	Clear Falls High School	Robert Davis rdavis1@ccisd.net
Biotechnology	Clear Falls High School	Andrew Zovath azovath@ccisd.net
Hospitality Services	Clear Lake High School	Darlene Snell dsnell@ccisd.net
Automotive Technology	Clear Springs High School	Kathleen Gandin kgandin@ccisd.net
Culinary Arts	Clear Springs High School	Kathleen Gandin kgandin@ccisd.net
Cosmetology	Clear View Education Center	Kristi Foret kforet@ccisd.net
Health Science – Certified Nursing Assistant	Clear View Education Center	Wanda Herfarth wherfart@ccisd.net
Center for Agriculture Science and Engineering Internship (Longhorn Project)	NASA	Jennifer Edenfield jemshoff@ccisd.net

Applications are available from your Counselor or Career Specialist.
Applications will be due at the time of course selection.

CAREER AND TECHNICAL EDUCATION

Courses are based on campus availability and enrollment

AGRICULTURE, FOOD & NATURAL RESOURCES

7000 Principles of Agriculture, 1 credit (state) GPA Level 2**Grade Level(s):** 9-12**Service ID:** 13000200**Prerequisite(s):** None**Notes:** \$10 class fee; \$20 FFA dues recommended.

This introductory course prepares students for careers in agriculture, food, and natural resources. This course allows students to develop knowledge and skills regarding career opportunities in agriculture, specifically related to leadership, plant science, animal industry, food technology, and agriculture mechanics.

7010 Small Animal Management, 0.5 credit (state) GPA Level 2**Grade Level(s):** 9-12**Service ID:** 13000400**Prerequisite(s):** Principles of Agriculture recommended.**Notes:** \$10 class fee; \$20 FFA dues recommended.

This course is designed to prepare students in the field of small animal management. It will provide students the skills regarding career opportunities, entry requirements, and industry expectations in veterinary careers. Students will develop knowledge and skills pertaining to animal ownership, industry hazards, current topics associated with animal rights/welfare, management and career opportunities. Small animals which may be included in the course of study are dogs, cats, and other small mammals, amphibians, reptiles, and birds.

7011 Wildlife Fisheries & Ecology Management, 0.5 credit (state) GPA Level 2**Grade Level(s):** 9-12**Service ID:** 13001500**Prerequisite(s):** Principles of Agriculture recommended.**Notes:** \$10 class fee; \$20 FFA dues recommended; optional hunter education certification available.

This course serves as preparation for a career or studies in the wildlife, ecology, and natural resources industries. This course explores the importance of wildlife and recreation management to the environment and the agricultural industry. Students will learn the identification and management of game and non-game wildlife species, fish, and their habitats as well as their ecological needs.

7070 Agricultural Mechanics & Metal Technologies, 1 credit (state) GPA Level 2**Grade Level(s):** 10-12**Service ID:** 13002200**Prerequisite(s):** Principles of Agriculture recommended.**Notes:** \$30/per semester; \$20 FFA membership dues recommended.

Students will prepare for careers in agricultural power, structural, and technical systems. This course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, carpentry, and metal working through collaboration, innovation, and self-direction. Emphasis will be placed on welding and as students prepare for the industry recognized NCCER welding certification.

7080 Agricultural Design & Fabrication, 2 credits (state) GPA Level 2**Grade Level(s):** 11-12**Service ID:** 13002300**Prerequisite(s):** Agricultural Mechanics & Metal Technologies**Notes:** \$50/per semester class fee; \$20 FFA dues recommended.

This course is a continuation of Agricultural Mechanics and Metal Technology. Students will learn how to apply appropriate technology to metal construction related to agricultural facilities design and fabrication. They will also gain further knowledge in the different types of power systems used in agricultural facilities. Career opportunities, entry requirements, and industry expectations in this field will be explored.

7012 Livestock Production, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13000300**Prerequisite(s):** Principles of Agriculture recommended**Notes:** \$10 class fee; \$20 FFA dues recommended.

Students will gain technical knowledge and skills to prepare for careers in the field of animal science and livestock management. Students will explore nutrition, reproduction, health, and management of livestock and poultry. This course will study such topics as: common livestock and poultry breeds; internal and external anatomies; evaluation of livestock; feeds and feeding techniques; breeding advancements; and management skills.

7013 Equine Science, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13000500**Prerequisite(s):** Principles of Agriculture recommended.**Notes:** \$10 class fee; \$20 FFA dues recommended.

This course is designed to develop knowledge and skills pertaining to the nutrition, reproduction, health, and management of horses. Student will identify breeds, colors, and markings of horses, evaluate conformation and performance, develop feed rations, analyze internal and external anatomies, review basic grooming and health practices, and address training and handling practices.

7020 Veterinary Medical Applications, 1 credit (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13000600**Prerequisite(s):** Livestock Production; Small Animal Management or Equine Science.**Notes:** \$20 class fee; \$20 FFA dues recommended.

This course provides training in the veterinary assistant field. Students have the opportunity to develop technical skills in health, nutrition, examinations, diseases, sanitation, and regulatory programs of small and large animals through collaboration, innovation and self-direction. The course includes, but is not limited to animal handling and restraint, health and safety, surgical preparation, anatomy, physiology, medical terminology, infectious diseases, instrument and equipment identification, vaccine preparation and injections techniques, and veterinary office procedures. Students will begin preparation for the Veterinary Assistant-Level I exam.

7021 Advanced Animal Science, 1 credit (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13000700**Prerequisite(s):** Two high school science credits; and one of the following: Principles of Agriculture; Small Animal Management; Livestock Production; Equine Science; or Veterinary Medical Applications.**Notes:** \$20 FFA dues recommended; **this course will satisfy the 4th Science graduation requirement.**

This course is developed to prepare students for careers in the field of animal science. The students will learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. This course examines the correspondence of human, scientific, and technological aspects of animal science through field and laboratory experience.

7030 Principles & Elements of Floral Design, 1 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13001800**Prerequisite(s):** None**Notes:** \$50/per semester class fee; \$20 FFA dues recommended; **this course will satisfy the Fine Art graduation requirement.**

This course prepares students for careers in floral art and design. It is a laboratory-oriented course designed to provide students technical knowledge and skills related to horticultural systems, career opportunities, entry requirements, and industry expectations. This course is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises.

7031 Horticulture Science, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13002000**Prerequisite(s):** Principles of Agriculture recommended.**Notes:** \$10 class fee; \$20 FFA dues recommended.

This hands-on course prepares students to produce, process, and market horticulture plants used primarily for ornamental, recreational, and aesthetic purposes. The course also addresses topics and skills in establishing, maintaining, and managing horticultural enterprises.

7032 Landscape Design & Turf Grass Management, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13001900**Prerequisite(s):** Principles & Elements of Floral Design or Horticulture Science.**Notes:** \$10 class fee; \$20 FFA dues recommended.

This course prepares students for careers in landscape design and turf grass management. It is a laboratory-oriented course will provide students technical knowledge and skills related to horticultural systems. Students will develop skills in the design, construction and maintenance of outdoor landscapes and structures for the beautification of homes, businesses, and recreation areas. Students will explore the use of trees, shrubs, and flowering plants and integrate this knowledge with landscape design principles.

7090 Practicum in Agriculture, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13002500**Prerequisite(s):** Minimum of one Agriculture, Food, and Natural Resources course credit.**Notes:** \$10 class fee; \$20 FFA dues recommended; application required.

The practicum course is a paid or unpaid internship experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources cluster. The practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorship, or laboratories.

7095 Practicum in Veterinary Medicine, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13002510**Prerequisite(s):** Veterinary Medical Applications**Notes:** \$10 class fee; \$20 FFA dues recommended; application required.

This practicum course provides internship experiences for students interested in pursuing the field of veterinary medicine. The internship is designed to give students supervised practical application of knowledge and skills. In a Veterinary clinic setting, students will learn small animal nursing, radiology and ultrasound imaging, laboratory procedures, animal restraint, examination room procedures, pharmacy and pharmacology, and surgical preparation/assisting. Hours accrued will go toward the Veterinary Medical Assistant certification.

ARCHITECTURE AND CONSTRUCTION**7100 Interior Design, 1 credit (state)****GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13004300**Prerequisite(s):** None**Notes:** \$10 class fee

This course covers the concepts and skills needed to design interior environments of a home and/or business successfully. Students design rooms using skills in color combinations, furniture styles and arrangement, fabric selection, space planning, and surface coverings. Other topics in the course include the impact of technology on interiors, the acquisition of professional services, and career choices.

7920 Architecture and Engineering (Adv Acad), 1 credit (state) GPA Level 1

Grade Level(s): 10-12 **Service ID:** N1303747

Prerequisite(s): Introduction to Engineering Design recommended.

Notes: \$20 class fee; Project Lead the Way course.

In this course, students will learn how to design residential and commercial buildings from the ground up. Students will go through the steps an architect or engineer must go through when developing a project. Using state of the art software to solve real-world problems through projects and activities, students will produce drawings, renderings, and scaled models for architectural purposes and will also learn about key strategies in the up and coming construction field of high performance “green” technology. They will learn what it takes to make properties, structures, and landscapes come to life and what makes a design withstand the test of time.

7131 Construction Technology I, 1 credit (state) GPA Level 2

Grade Level(s): 9-12 **Service ID:** 13005100

Prerequisite(s): None

Notes: \$30 class fee.

In Construction Technology, students gain knowledge and skills needed to enter the workforce as carpenters, electricians, plumbers, or building maintenance supervisors. The student can also prepare for postsecondary degree construction management, architecture, or engineering. Students will acquire skills in safety, tool usage, building materials, building codes, and home building.

7132 Construction Technology II, 2 credits (state) GPA Level 2

Grade Level(s): 10-12 **Service ID:** 13005200

Prerequisite(s): Construction Technology I

Notes: \$30 class fee; application required.

This course is a continuation of Construction Technology I. Students work on structures using the appropriate tools, equipment, machines, materials, and technical processes. Students will also learn how to perform basic maintenance on selected construction equipment and machines.

7190 Practicum in Construction Management, 2 credits (state) GPA Level 2

Grade Level(s): 11-12 **Service ID:** 13006200

Prerequisite(s): Construction Technology II

Notes: \$30 class fee; application required.

This is an occupationally specific course designed to provide classroom technical instruction or on-the-job training. Students gain advanced knowledge and skills specific to enter the workforce and/or prepare for a postsecondary degree in construction management, architecture, or engineering.

ARTS, A/V TECHNOLOGY & COMMUNICATION

7200 Professional Communications, 0.5 credit (state) GPA Level 2

Grade Level(s): 9-12 **Service ID:** 13009900

Prerequisite(s): None

Notes: \$10 class fee; **this course will satisfy the Speech graduation requirement.**

Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

7201 Digital & Interactive Multimedia, 1 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13027800**Prerequisite(s):** None**Notes:** \$15 class fee.

This is an introductory course into the world of multimedia. Students will be introduced to several multimedia applications, including image editing (Photoshop), graphic design (Illustrator), animation (Flash), web design (Dreamweaver), video production (MovieMaker & Premier), and desktop publishing (InDesign). This class is designed to create an interest in upper level courses. This is a recommended pre-requisite for the Information Technology and Arts, A/V Technology and Communication career cluster courses.

7210 Introduction to Audio/Video Production, 1 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13008500**Prerequisite(s):** Digital & Interactive Multimedia recommended.**Notes:** \$20 class fee.

This course introduces the student to all phases of the television field and studio production including concept development, scripting, preproduction, camera work, editing, sound mixing, and postproduction. Emphasis will be on the various technologies associated with video production. Students will be provided with an overview of the media industry and will learn the basic create, edit, and render skills needed to design and produce multimedia presentations that use video and audio resources.

7221 Audio/Video Production I, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13008600**Prerequisite(s):** Introduction to Audio/Video Production**Notes:** \$20 class fee; enrollment limited/application required.

This course is a continuation of Introduction to Audio/Video Production and is designed to provide job-specific training entry-level employment in movie, video, audio, radio and television production careers. Instruction includes operation of different types of cameras, mastery of audio techniques, electronic editing, creation of television graphics, lighting, script writing, direction, production, special effects, signal control and monitoring equipment, and set design. Editing will be performed using industry standard editing software. Students will participate in the production of a campus broadcast and will have the opportunity to gain industry certification while still in high school.

7222 Audio/Video Production II, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13008700**Prerequisite(s):** Audio/Video Production I**Notes:** \$20 class fee; enrollment limited/application required.

This course is a continuation of Audio/Video Production I. Students will develop an advanced understanding of the industry and industry roles. Students will serve as mentors to students in the Introduction to Audio/Video Production and Audio and Video Production I courses. They will act in leadership roles to guide the pre-production, production, and post-production of audio and video activities.

7231 Animation I, 1 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13008300**Prerequisite(s):** Digital & Interactive Multimedia or Graphic Design and Illustration.**Notes:** \$10 class fee.

This course will provide instruction in animation principles as well as story development, background design, scenic layout and special effects. Students will work with program specific software such as Adobe Photoshop, Illustrator, After Effects, Flash, and 3ds Max. Students will learn modeling, animation, and rendering techniques. They will generate realistic characters, seamless CG effects, and top-quality film and television content.

7232 Animation II, 2 credits (state) GPA Level 2

Grade Level(s): 11-12 **Service ID:** 13008400

Prerequisite(s): Animation I

Notes: \$10 class fee.

This course is a continuation of Animation I. Students will develop advanced skills found in the multimedia/animation industry through a project-based curriculum. Projects will include animation, video-production, character and story development and sound editing. Students will develop a portfolio of the year's work.

7250 Game Programming, 1 credit (state) GPA Level 2

Grade Level(s): 11-12 **Service ID:** N1300993

Prerequisite(s): Web Technologies; Graphic Design & Illustration I; or Digital and Interactive Multimedia.

Notes: \$10 class fee.

Students will apply technical skills to address the emerging game industry. Students will develop a foundation in a game programming language and study the technical, economical, financial, international, social, and ethical aspects of the gaming industry and the aspects to become competent consumers, employees, and entrepreneurs. Students will learn various standard programming languages used in game development.

7241 Graphic Design & Illustration I, 1 credit (state) GPA Level 2

Grade Level(s): 9-12 **Service ID:** 13008800

Prerequisite(s): None

Notes: \$30 class fee.

This course provides an introduction to graphic design with a focus on the fundamental elements and principles of visual art and design. Students will develop the basic design and technical skills needed to be successful in the visual/digital world. They will use industry standard hardware and software to produce an individual portfolio of real world projects. Students will be exposed to the use of digital cameras, scanners, printers, and various graphic file formats.

7242 Graphic Design & Illustration II, 2 credits (state) GPA Level 2

Grade Level(s): 10-12 **Service ID:** 13008900

Prerequisite(s): Graphic Design & Illustration I

Notes: \$30 class fee.

Students will expand upon their introductory skills from Graphic Design and Illustration I. They will develop mock professional projects to further expand their portfolio of self-generated images. They will demonstrate proficient visual layout skills using industry standard software representing a variety of various visual styles. Students will have the opportunity to participate in graphic design competitions at the discretion of the instructor. This course prepares students for potential certification options.

7260 Web Technologies, 1 credit (state) GPA Level 2

Grade Level(s): 10-12 **Service ID:** 13027900

Prerequisite(s): Digital & Interactive Multimedia recommended.

Notes: \$10 class fee.

The internet has changed the world dramatically and has impacted the world of business, entertainment, science, politics and much more. Web designers are responsible for creating the look and feel of the Internet. This course includes a study of web design and the creation, management, and publication of fully developed websites. Students will learn how to create web content pages and sites in HTML and with web authoring software. The student will walk out of this class empowered to create web pages for clients as well as themselves.

7240 Fashion Design, 1 credit (state) GPA Level 2

Grade Level(s): 10-12 **Service ID:** 13009300

Prerequisite(s): None

Notes: \$30 class fee.

This course is designed for students who have an interest in the field of fashion design, production, and merchandising of apparel and textiles. This class is divided into classroom instruction as well as laboratory experiences in which individual projects are created using professional design principles. Experiences will include garment construction, fitting, and alterations. The students will also explore careers in fashion that span all aspects of the textile and apparel industries.

7299 Independent Study: Arts & Communications Technology (Adv Acad), 1 credit (state) GPA Level 1

Grade Level(s): 11-12

Service ID: 12701510

Prerequisite(s): Web Technologies; Graphic Design and Illustration I; or Intro to Audio/Video Production.

Notes: \$10 class fee; a possible Distinguished Achievement Plan Advanced Measure.

This independent study course allows students to continue their studies in Graphic Design and Illustration, or Web Technologies, or Audio/Video Production. Students will demonstrate the ability to use a variety of resources, advanced technology, and communication skills in the development and presentation of a project.

BUSINESS MANAGEMENT & ADMINISTRATION

7300 Business, Marketing & Finance, 1 credit (state) GPA Level 2

Grade Level(s): 9-12

Service ID: 13011200

Prerequisite(s): None

Notes: None

In this course students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

7311 Business Law, 0.5 credit (state) GPA Level 2

Grade Level(s): 10-12

Service ID: 13011700

Prerequisite(s): Business, Marketing & Finance recommended.

Notes: None

This course uses current events, discussion/debate, and a mock trial to provide students the opportunity to understand and participate in issues that shape our society, government, and business structure. Students develop a foundation in criminal and civil law, real and personal property, contract law, and the relationship between societal values, ethics and the law. Students analyze the social responsibility of business and industry relating to the environment, business ethics, health, safety, and diversity in society and the workplace. The course culminates with the students participating in a mock trial. All courtroom roles (attorneys, judge, bailiff, plaintiff, defendant, witnesses, and jury) will be voted on, and filled, by students in the course.

7320 Keyboarding/Word Processing, 0.5 credit (state) GPA Level 2

Grade Level(s): 9-12

Service ID: 13011300

Prerequisite(s): None

Notes: \$10 class fee.

This course will help students develop typing speed and accuracy through the use of proper keyboarding techniques and practice. Students will learn how to properly format documents for both personal and business use and will learn advanced skills in Microsoft Word including setting margins, tabs, hyphenation and indents, adjust line and character spacing, auto format, align and control text flow, spelling and grammar check, creating templates and more.

7321 Microsoft Computer Application Specialist I, 1 credit (state) GPA Level 2

Grade Level(s): 9-12

Service ID: 13011400

Prerequisite(s): Keyboarding/Word Processing recommended.

Notes: \$15 class fee.

This course develops technology skills with applications to personal, college, or business situations. Students will learn computer applications in the Microsoft Office Suite – Word, Excel, PowerPoint, Publisher, and Access. They will also learn effective and efficient internet searching skills and explore operating systems and information systems relating to professional business environments.

7322 Microsoft Computer Application Specialist II, 1 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13011500**Prerequisite(s):** Microsoft Computer Application Specialist I**Notes:** \$15 class fee.

This course is a continuation of Microsoft Computer Application Specialist I. It provides students with the opportunity to learn the advanced technology skills required in the work place. Students will develop expert level knowledge of Microsoft Office applications and how to seamlessly integrate these skills in various real-world projects. Students will have an opportunity to train and prepare for the industry recognized Microsoft Certified Application Specialist (MCAS) credential.

EDUCATION & TRAINING**7700 Introduction to Education & Training, 0.5 credit (state)****GPA Level 2****Grade Level(s):** 9-11**Service ID:** 13014200**Prerequisite(s):** None**Notes:** \$10 class fee.

Introduction to Education and Training is designed to introduce learners to the various career opportunities available within the education and training career cluster. This course will serve as a foundation for students interested in teaching fields ranging from preschool to high school age. Students will explore the various roles and responsibilities and describe typical personal characteristics, qualities, and aptitudes of education professionals. Students will also investigate post-secondary education alternatives and create an education and training degree plan for their chosen occupation area.

7710 Child Development, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13024700**Prerequisite(s):** Introduction to Education & Training recommended.**Notes:** \$10 class fee.

This course is designed to study human growth and development from newborns through school-age children. Emphasis will be on current trends and studies in child behaviors, guidance and child care for optimal family management. Students will analyze these topics to promote the well-being and healthy development of children. Laboratory experiences will be included.

7711 Teacher Education Training I, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13014400**Prerequisite(s):** Introduction to Education & Training or Child Development recommended.**Notes:** \$20 class fee; application required.

This course allows an opportunity for a field-based internship that provides students with knowledge of child and adolescent development as well as principles of effective teaching practices. Students work under the joint direction of their classroom teacher and a mentoring teacher of their choice. Students will plan instructional activities and lessons as well as understand the responsibilities of teachers and all careers related to the education field.

7712 Teacher Education Training II, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13014500**Prerequisite(s):** Teacher Education Training I**Notes:** \$20 class fee; application required.

This course is designed for the student who demonstrated success in Teacher Education Training I. Students will be more intensely immersed in the educational process by job-shadowing their mentoring teacher in all aspects of the teaching profession. All careers in education will be explored in depth.

7721 Child Guidance I, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13024800**Prerequisite(s):** Introduction to Education & Training or Child Development recommended.**Notes:** \$20 class fee; application required.

This on-site laboratory includes hands-on experiences in a preschool classroom. High school students become student teachers of young children. Students prepare by analyzing the developmental theories of young children and exhibit principles of effective teaching. Students plan age appropriate activities, design, prepare, and teach lessons. They will also create bulletin boards prepare nutritious snacks, and practice positive guidance techniques. Other topics studied include procedures and state guidelines of a preschool classroom, management of a center, and employment opportunities.

7722 Child Guidance II, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13025000**Prerequisite(s):** Child Guidance I.**Notes:** \$20 class fee; application required.

This course is designed for the student who demonstrated success in Child Guidance I. Experienced students mentor Child Guidance I students and serve as a role model for class expectations. Students will continue an in-depth study of early childhood education in preparation for a career in the teaching field.

FINANCE**7300 Business, Marketing & Finance, 1 credit (state)****GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13011200**Prerequisite(s):** None**Notes:** None

In this course, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

7340 Dollars and Sense, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13024300**Prerequisite(s):** None**Notes:** None

This course will teach students about money concepts and how to avoid excessive debt. It will help students become educated consumers and responsible young adults. It covers basic financial skills and problem solving techniques needed as students take their roles as consumers in American society. The course will also focus on individual practices and responsibilities regarding money management and how to set and achieve financial goals.

7341 Accounting I, 1 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13016600**Prerequisite(s):** Business, Marketing & Finance recommended.**Notes:** \$10 class fee.

A basic understanding of Accounting is essential to anyone interested in pursuing a career in business, marketing, management, or finance. Students will learn manual and automated accounting concepts, principles, and procedures. Students formulate and interpret financial information for use in management decision making. They will learn how to understand financial records, accounting equations, and the basic steps of the accounting cycle. This course is highly recommended for students interested in Entrepreneurship and for all college bound students pursuing a Business or Marketing degree.

7342 Accounting II, 1 credit (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13016700**Prerequisite(s):** Accounting I**Notes:** \$10 class fee.

This course is a continuation of Accounting I. Students will build on their knowledge of accounting and strengthen their skills by studying a merchandising business. The students will use simulations and computer software to enhance their knowledge. This course is highly recommended for students interested in Entrepreneurship and for all college bound students pursuing a Business, Marketing or Finance degree.

HEALTH SCIENCE**7501 Health Science Technology I, 1 credit (state)****GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13020200**Prerequisite(s):** None**Notes:** \$30 class fee.

Health Science I is designed to develop health care specific knowledge and skills in effective communications, ethical and legal responsibilities, client care, safety, first aid, and CPR. This course prepares the student for the transition to clinical or work-based experiences in health care.

7502 Health Science Technology II – Clinical Rotations, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13020400**Prerequisite(s):** Health Science Technology I**Notes:** \$30 class fee; background checks are required for clinical facilities; application required.

Health Science II is designed to provide for the development of multi-occupational knowledge and skills related to a wide variety of health careers. Students will have hands-on experiences for continued knowledge and skill development. Students will intern in a local hospital and shadow medical personnel in a variety of hospital departments. These range from Physical Therapy, Radiology, Nursing Care, Pharmacy and Emergency Room, to Surgery, ICU, Medical Records, Lab and others.

7510 Medical Terminology, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13020300**Prerequisite(s):** None**Notes:** None

Medical Terminology will help students develop a working knowledge of the language of medicine. Students acquire word-building skills by learning prefixes, suffixes, roots, and abbreviations. By relating terms to body systems, students identify proper use of words in the medical environment. Knowledge of medical terminology enhances the student's ability to successfully secure employment or pursue advanced education in health care.

7500 Nutrition and Wellness, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13024500**Prerequisite(s):** None**Notes:** \$15 class fee.

This laboratory course concentrates on nutrition, food choices, and food management skills that may be applied to individual life and/or careers related to hospitality and tourism, education and training, human services and health sciences. Instruction addresses dietary needs, safety and sanitation procedures, preparation skills applied in a laboratory setting, and career options.

7503 Health Science – Certified Nursing Assistant, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13020510**Prerequisite(s):** Health Science Technology I recommended.**Notes:** \$20 class fee; application required.

This course is an occupationally specific course designed to provide knowledge and skills for certification as a Nursing Assistant in the state of Texas. Students develop advanced clinical skills necessary for employment in the health care industry. This course culminates in a certification as a Certified Nursing Assistant (C.N.A.).

7504 Health Science – Pharmacy Technician, 2 credits (state) GPA Level 2

Grade Level(s): 12 **Service ID:** 13020500

Prerequisite(s): Health Science Technology I recommended.

Notes: \$20; fingerprinting fee (\$45) is required at the beginning of the school year; application required.

This course is an occupationally specific course designed to provide the knowledge and skills for certification as a Pharmacy Technician and leads to further education needed to work in the pharmacy industry. Students also develop advanced clinical skills necessary for employment in the health care industry. This course culminates with certification as a Pharmacy Technician. *The certification exam is offered by the Pharmacy Technician Certification Board and the current fee for testing is \$125 (price subject to change per PTCB).*

7550 Anatomy and Physiology, 1 credit (state) GPA Level 2

Grade Level(s): 11-12 **Service ID:** 13020600

Prerequisite(s): Biology; Chemistry.

Notes: This course will satisfy the 4th Science graduation requirement.

In this course, students conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Topics will be presented through an integration of biology, chemistry, and physics. Students will study structures and functions of the human body and body systems and will investigate the body's responses to forces, maintenance of homeostasis, electrical interactions, transport systems, and energy systems. Animal dissection is a required part of the curriculum in this course.

7551 Anatomy and Physiology (Adv Acad/GT), 1 credit (state) GPA Level 1

Grade Level(s): 11-12 **Service ID:** 13020600

Prerequisite(s): Biology; Chemistry.

Notes: This course will satisfy the 4th Science graduation requirement.

Anatomy and Physiology (Adv Acad/GT) offers a more advanced level of experiences for students planning to enter the medical profession. Students will conduct laboratory investigations using appropriate scientific tools and procedures. Topics will be presented through an integration of biology, chemistry, and physics. Students will study in detail the structures and functions of the human body and body systems and will investigate the body's responses to forces, maintenance of homeostasis, electrical interactions, transport systems, and energy systems. Extensive labs, including formal write-ups, are required. Animal dissection is a required part of the curriculum of this course.

7520 World Health Research, 1 credit (state) GPA Level 2

Grade Level(s): 11-12 **Service ID:** 13020900

Prerequisite(s): Health Science Technology I recommended.

Notes: None

This course examines major world health problems and emerging technologies as solutions to these medical concerns. Students will explore and discuss current major human health problems in developing and developed countries in the world by identifying the challenges in global health, contrasting health problems, and investigating the pathophysiology of the leading causes of death. Students will apply research principles to create projects to address global health problems.

7530 Pathophysiology, 1 credit (state) GPA Level 2

Grade Level(s): 11-12 **Service ID:** 13020800

Prerequisite(s): Two high school science credits.

Notes: This course will satisfy the 4th Science graduation requirement.

This course studies disease processes and how human systems are affected. Emphasis is placed on prevention and treatment of diseases. The course begins with the basics of cellular biology, cancer, the infection process, and the immune system. A focus on specific body systems and common disorders will be covered. Students will differentiate between normal and abnormal physiology. The course will include at least 40% laboratory investigation and fieldwork using appropriate scientific inquiry.

7599 Independent Study Mentorship: Health Science (Adv Acad), 0.5 to 1 credit (state)

GPA Level 1

Grade Level(s): 11-12

Service ID: 12701500

Prerequisite(s): Health Science Technology I recommended.

Notes: Application required; mentorship site may require background check and associated fees.

Health Science Independent Study Mentorship is a course designed for the student ready to study a profession in the medical/health care industry. With the mentor and the teacher-facilitator, each student will create a unique plan of study and receive individual instruction. Students leave the high school campus and go to the mentor's place of business to study with professionals. ISM is a one-semester class, but may be taken twice for Advanced Academic credit. Students in this course must perform at a collegiate or professional level. *Students must provide their own transportation to clinical sites.*

Students must:

Complete an in-depth study in an area of interest; Document three to five hours of work each week; Submit weekly logs of documentation; Meet with a mentor on a regular basis; Present a final project; and Follow all school policies and represent Clear Creek Independent School District in a respectful and professional manner.

HOSPITALITY & TOURISM

7600 Principles of Hospitality and Tourism, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13022200

Prerequisite(s): None

Notes: None

Students enrolled in this class will explore and develop personal, technical, and social skills that are necessary to have a successful career in the industries of lodging, restaurants, travel and tourism, and resorts. Job safety, customer service, roles within various departments, and career opportunities are just a few of the topics covered. This course is recommended when pursuing the Hospitality Services or Culinary Arts programs.

7500 Nutrition and Wellness, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13024500

Prerequisite(s): None

Notes: \$15 class fee.

This laboratory course concentrates on nutrition, food choices, and food management skills that may be applied to individual life and/or careers related to hospitality and tourism, education and training, human services and health sciences. Instruction addresses dietary needs, safety and sanitation procedures, preparation skills applied in a laboratory setting, and career options.

7620 Food Science, 1 credit (state)

GPA Level 2

Grade Level(s): 11-12

Service ID: 13023000

Prerequisite(s): Biology; IPC or Chemistry.

Notes: \$20 class fee; **this course will satisfy the 4th Science graduation requirement.**

This class explores the nature and improvement of foods for consumers. Students study nutrition and wellness, food technology, world food supply, diet-related disorders, chemical and physical changes that affect food product quality, technologies used in food processing, and food safety. Investigation of the properties of food and how it affects the human body will also be covered.

7610 Restaurant/Culinary Management, 0.5 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13022400**Prerequisite(s):** None**Notes:** None

This course will provide students with insight into the operations of a well-run restaurant including “front and back of house” operations. Students will learn the responsibilities of a restaurant manager, including the principles of planning, organizing, staffing, directing, and controlling a variety of food service operations. This course is recommended when pursuing the Culinary Arts or Hospitality Services programs.

7621 Culinary Arts I, 2 credits (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13022600**Prerequisite(s):** Restaurant Management and/or Careers in Culinary Arts and Hospitality recommended.**Notes:** \$20 class fee; application required.

Culinary Arts I is part of a two-year course sequence designed to provide job specific training opportunities in the food service and hospitality industries. The course will concentrate on skills and attributes needed to fill entry level culinary and food service positions. Instruction includes training in the fundamentals of basic food production, nutrition and sanitation, and management and services. Students will receive instruction on safety and sanitation and will be given the opportunity to take the ServSafe Certification exam.

7622/7623 Culinary Arts II, 2-3 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13022700/13022700**Prerequisite(s):** Culinary Arts I**Notes:** \$20 class fee; application required.

This course provides training to prepare students who are interested in pursuing a career in culinary arts or related fields. Students will develop food preparation skills in a variety of areas related to the culinary arts. These include principles of cooking, sauces, soups/stocks, cooking methods, garnishing, baking, pastries, and desserts. Professional skills related to employability, customer service and the dining experience will be reinforced and practiced. Other content areas of the program include equipment and technology, culinary nutrition, creating menus, recipe conversion, cost control techniques, and plating and presentation of food. The course can be taken for 2 or 3 credits. The 3 credit course includes an outside internship.

7690 Practicum in Culinary Arts, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13022710**Prerequisite(s):** Culinary Arts II**Notes:** \$20 class fee; application required; students are responsible for cost of chef coat/pants.

This practicum course will provide an internship experience for students that have completed levels I and II of the Culinary Arts program. Students will practice advanced levels of food preparation and presentation skills and will continue to develop professionally in all areas of culinary arts.

7611 Hospitality Services I, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13022800**Prerequisite(s):** Careers in Culinary Arts and Hospitality recommended.**Notes:** \$20 lab fee; application required.

Students will have the unique opportunity to gain knowledge and skills needed to effectively work in the hospitality industry. While rotating through the departments at a local hotel, students will be exposed to various careers as they perform appropriate work roles in each department. Students will also be exposed to the various aspects of lodging, sales and marketing, human resources, accounting, food and beverage, security, engineering, and career opportunities.

7612 Hospitality Services II, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13022900**Prerequisite(s):** Hospitality Services I**Notes:** \$20 lab fee; application required.

This course is a continuation of Hospitality Services I. In this advanced level course, students will continue to gain knowledge and skills needed to effectively work in the hospitality industry. Further training at a local hotel will focus on preparing students for employability, career options, and post-secondary education.

HUMAN SERVICES

7340 Dollars and Sense, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13024300

Prerequisite(s): None

Notes: None

This course will teach students about money concepts and how to avoid excessive debt. It will help students become educated consumers and responsible young adults. It covers basic financial skills and problem solving techniques needed as students take their roles as consumers in American society. The course will also focus on individual practices and responsibilities regarding money management and how to set and achieve financial goals.

7750 Life & Relationships, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13024400

Prerequisite(s): None

Notes: None

This course prepares the student for life in the real world. Students will examine how the relationships between individuals and family will affect quality of life. Topics include self-discovery, dating and marriage; career preparation, independent living, and how to deal with personal and family crisis. Careers related to counseling and mental health services will be explored.

7710 Child Development, 0.5 credit (state)

GPA Level 2

Grade Level(s): 10-12

Service ID: 13024700

Prerequisite(s): Introduction to Education & Training recommended.

Notes: \$10 class fee.

This course is designed to study human growth and development from newborns through school-age children. Emphasis will be on current trends and studies in child behaviors, guidance and child care for optimal family management. Students will analyze these topics to promote the well-being and healthy development of children. Laboratory experiences will be included.

7760 Introduction to Cosmetology, 0.5 credit (state)

GPA Level 2

Grade Level(s): 10

Service ID: 13025100

Prerequisite(s): None

Notes: \$10 class fee.

Students will explore the areas of product knowledge, professional development, effective communication, bacteriology, sanitation and sterilization, hair structure and growth, skin structure, nail structure and growth, and nail diseases and disorders. To prepare for success, students must have skills relative to this industry, as well as academic knowledge and skills.

7761 Cosmetology I, 3 credits (state)

GPA Level 2

Grade Level(s): 11-12

Service ID: 13025200

Prerequisite(s): None

Notes: Application required; class fees will apply.

The cosmetology program is a two year sequence of courses designed to provide job-specific training that will prepare the student to become a licensed cosmetologist. This first year course consists of orientation to cosmetology, fundamentals of cosmetology, chemical reformation and related theory, artistry of hair, and manicures. *Students will be required to spend extra hours in the cosmetology lab in order to meet the 500 clock hours required to move to Cosmetology II.*

7762 Cosmetology II, 3 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13025300**Prerequisite(s):** Cosmetology I**Notes:** Application required; class fees will apply.

This course includes advanced cosmetology instruction. The students practice advanced hair design, principles and applications of hair coloring techniques, advanced haircutting and related theory, learn about salon development, and prepare for the Texas Department of Licensing & Regulation (TDLR) exam. Students will gain real world experience by practicing their skills on clients. This program meets all of the Texas Department of Licensing & Regulation requirements for licensure upon passing the state exam. *Students will be required to spend extra hours in the cosmetology lab in order to meet the total 1000 clock hours required to take the Cosmetology State exam. NOTE: The 1,000 clock hours must be completed PRIOR to May 25 of Senior Year in order to graduate under the TDLR High School Operator Program.*

INFORMATION TECHNOLOGY**7201 Digital & Interactive Multimedia, 1 credit (state)****GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13027800**Prerequisite(s):** None**Notes:** \$15 class fee.

This is an introductory course into the world of multimedia. Students will be introduced to several multimedia applications, including image editing (Photoshop), graphic design (Illustrator), animation (Flash), web design (Dreamweaver), video production (MovieMaker & Premier), and desktop publishing (InDesign). This class is designed to create an interest in upper level courses. This is a recommended pre-requisite for the Information Technology and Arts, A/V Technology and Communication career cluster courses.

7321 Microsoft Computer Application Specialist I, 1 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13011400**Prerequisite(s):** Keyboarding/Word Processing recommended.**Notes:** \$15 class fee.

This course develops technology skills with applications to personal, college, or business situations. Students will learn computer applications in the Microsoft Office Suite – Word, Excel, PowerPoint, Publisher, and Access. Skills are developed at an intermediate level and students will have the opportunity to prepare for the industry recognized Microsoft Certified Application Specialist (MCAS) credential. This industry certification provides the foundation needed for higher education courses and entry into the business world.

7322 Microsoft Computer Application Specialist II, 1 credit (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13011500**Prerequisite(s):** Microsoft Computer Application Specialist I**Notes:** \$15 class fee.

This course is a continuation of Microsoft Computer Application Specialist I. It provides students with the opportunity to learn the advanced technology skills required in the work place. Students will develop expert level knowledge of Microsoft Office applications and how to seamlessly integrate these skills in various real-world projects. Students will train and prepare for the industry recognized Microsoft Certified Application Specialist (MCAS) credential. This industry certification provides the foundation needed for higher education courses and entry into the business world.

7410/7412 Computer Maintenance, 1 or 2 credit(s) (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13027300/13027300**Prerequisite(s):** Digital & Interactive Multimedia or Microsoft Computer Application Specialist I recommended.**Notes:** \$20 class fee.

This course is the first in a sequence of courses that teach students the basics of building, maintaining, repairing, supporting and upgrading computer desktops, laptops and networks. Students acquire principles of computer maintenance, including electrical and electronic theory, computer hardware principles, and broad level components related to the installation, diagnosis, service, and repair of computer systems.

7420 Computer Technician, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13027500**Prerequisite(s):** Computer Maintenance**Notes:** \$20 class fee; application required.

This course is the continuation of Computer Maintenance. Students will continue to learn the fundamentals of computer technology, preventative maintenance, troubleshooting, networking and security, as well as the communication skills and professionalism which is now required of all entry-level IT professionals. Through hands-on exercises, students will work on PCs and local area networks in a lab setting and will gain the knowledge to install, configure and optimize personal computer hardware and operating systems. The primary focus of this course will be preparing students for the industry recognized A+ Computer Technician certification exam.

7430 Telecommunications & Networking, 1 credit (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13027400**Prerequisite(s):** Computer Maintenance**Notes:** \$20 class fee; application required.

This course will cover the basics of networking. Students will learn competencies in managing, maintaining, troubleshooting, installing and configuring basic network infrastructures. They will develop knowledge and skills related to telecommunications and data networking technologies that can be applied to personal and/or career development. Topics will include: wireless networks, switching and routing, Ethernet protocol, TCP/IP, LANs and WANs, firewalls, and fiber optics. The primary focus of this course will be preparing students for the industry recognized Network+ certification exam.

7440 Research in IT Solutions, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13028000**Prerequisite(s):** Telecommunications & Networking or Computer Technician.**Notes:** \$20 class fee; application required.

This course is an independent self-study course in IT Solutions. Prior to registration, the student and the instructor will meet and agree upon an area of study. Possible topics for this independent study might include, but are not limited to: Microsoft Certified Professional, Cisco Routing, Fiber Optic networking, Wide-area networking, or Macintosh networking.

7450 Computer Science/Programming, 1 credit (state)**GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13027600**Prerequisite(s):** Geometry; Algebra II concurrently.**Notes:** \$10 class fee.

This course is designed to introduce students to the fundamentals of computer programming. Students will begin with learning object-oriented, event driven programming through the use of *Alice* software. They will then learn the fundamentals of the Java programming language to develop high quality, working software that solves real problems.

7451 Computer Science/Programming (PreAP/GT), 1 credit (state)**GPA Level 1****Grade Level(s):** 9-12**Service ID:** 13027600**Prerequisite(s):** Geometry; Algebra II concurrently.**Notes:** \$10 class fee.

This course offers an advanced level of experiences for students interested in studying the discipline of software engineering and computer programming. Students will learn object-oriented programming using the Java programming language and will focus on developing high quality, functional solutions to problems. They will develop computer programs through the study of problem solving, structured programming, top down design, and control structures. This course is the beginning of a sequence of courses that prepares students for the College Board Advanced Placement Computer Science A exam.

2821 Computer Science A (AP/GT), 1 credit (state)**GPA Level 1****Grade Level(s):** 10-12**Service ID:** A3580100**Prerequisites:** Computer Science/Programming (PreAP/GT preferred).**Notes:** \$10 class fee.

This course builds on the content taught in Computer Science/Programming. Students will learn advanced object-oriented programming using the Java programming language. The topics include data types, functions, control structures, data structures, and the use of classes and files. Upon completion of this course, students will be prepared to take the College Board Advanced Placement Computer Science A exam.

2899 Independent Study: Computer Science (Adv Acad), 1 credit (state)**GPA Level 1****Grade Level(s):** 11-12**Service ID:** 03581100**Prerequisites:** Computer Science A (AP/GT)**Notes:** \$20 class fee.

Students will pursue a specific long-term topic relating programming analysis, design, development, implementation, and testing. Any approved programming language can be used to implement the project. Students must create a portfolio including all the documentation and code. A portion of their grade is based on their project presentation to a qualified critiquing audience. This project must go beyond the skills of a first-year programmer. To accomplish this, there will be a brief review of the topics covered in the AP Computer Science A course. Additional advanced programming concepts are also introduced such as dynamic data structures, queues, stacks, trees, maps, and recursion.

MANUFACTURING**7150 Introduction to Metal Manufacturing, 1 credit (state)****GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13032500**Prerequisite(s):** None**Notes:** \$20 class fee.

This is the first course in a sequence of 3 courses designed to provide introductory skills and a basic understanding of the metal technology and machining industry. Students will learn about career opportunities and training requirements for entry into the metal manufacturing industry. Topics will include: metal types, shop safety, hand tools, metal trades, sheet metal, measurements, and understanding blueprints. Student will learn to operate CNC vertical milling machines, CNC lathes, hydraulic shears, hydraulic punch machines, the pneumatic press brake, and the manual mill.

7151 Metal Manufacturing I, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13032600**Prerequisites:** Introduction to Metal Manufacturing**Notes:** \$30 class fee; application required.

This course is a continuation of Introduction to Metal Manufacturing. It is designed to provide intermediate-level skills and a further understanding of machine shop operations. Students will continue to refine their metal technology skills and will be required to make a sheet metal project, a lathe project, and a vertical milling project. Students will participate in the H.U.N.C.H. program (High Schools United with NASA to Create Hardware) where they will work in cooperation with NASA to design, model, and assist in the manufacturing of parts for space.

7152 Metal Manufacturing II, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13033000**Prerequisites:** Metal Manufacturing I**Notes:** \$30 class fee; application required.

This course is the final course in the series of Metal Manufacturing courses. It is designed to provide advanced-level skills and a further understanding of machine shop operations. Students will learn the knowledge, skills, and technologies required for employment in a globally competitive manufacturing environment. They will continue to refine their metal technology skills and will be required to make a sheet metal project, a lathe project, and a vertical milling project. Students will participate in the H.U.N.C.H. program (High Schools United with NASA to Create Hardware) where they will work in cooperation with NASA to design, model, and assist in the manufacturing of parts for space.

MARKETING

7300 Business, Marketing & Finance, 1 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13011200

Prerequisite(s): None

Notes: None

In this course, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

7350 Sports & Entertainment Marketing, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13034600

Prerequisite(s): Business, Marketing & Finance recommended.

Notes: None

Spectators of sports and entertainment are customers. Planning products or services and enticing these customers to buy is sports and entertainment marketing. In this course, students investigate promotions, advertising, sales, event marketing, and sponsorships as they relate to a diverse population and global society. Students will develop promotional plans, sponsorship proposals, endorsement contracts, and sports and entertainment marketing plans. Students will also explore career options in the sports and entertainment marketing areas.

7360 Advertising & Sales Promotion, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13034200

Prerequisite(s): Business, Marketing & Finance recommended.

Notes: None

This course is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print and broadcast media. The social, ethical, and legal issues of advertising, historical influences, strategies, media decision processes as well as integrated marketing communications will be explored. The course provides an overview of how communication tools can be used in an attempt to reach target audiences and increase consumer knowledge.

7370 Fashion Marketing, 0.5 credit (state)

GPA Level 2

Grade Level(s): 9-12

Service ID: 13034300

Prerequisite(s): Business, Marketing & Finance recommended.

Notes: None

Enticing people to buy fashions means having the right product, at the right price, in the right location, and is the goal of fashion marketing. This Fashion Marketing course provides the knowledge to reach this goal in a highly competitive, fast-paced business that needs creative people. Students will gain a working knowledge of the various business functions in the fashion industry including promotion, textiles, visual merchandising and selling. Students will also have the opportunity to explore career options in the fashion marketing industry.

7380 Entrepreneurship, 1 credit (state)

GPA Level 2

Grade Level(s): 11-12

Service ID: 13034400

Prerequisite(s): Business, Marketing & Finance recommended.

Notes: None

In this course, students will gain the knowledge and skills needed to become an entrepreneur. Students will learn the principles necessary to begin and operate a business. The primary focus will be to help students understand the process of analyzing a business opportunity, determine the feasibility of an idea using research, develop a plan to organize and promote the business and its products and services, and to understand the capital required, return on investment desired, and potential for profit.

7381/7383 Marketing Dynamics I, 2-3 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13034700/13034700**Prerequisite(s):** Business, Marketing & Finance recommended.**Notes:** \$10 class fee; application required.

Marketing Dynamics I provides opportunities for students to participate in a learning experience that combines classroom instruction with a paid employment experience. Classroom instruction will include exploring marketing areas associated with distribution, financing, pricing, product planning, promotion, purchasing, risk management, and selling skills. In addition, students are taught job interview techniques, communication skills, and resume portfolio development. Students are required to work 10 hours per week for 2 credits or 15 hours per week for 3 credits. Transportation to and from the training station is the responsibility of the student. **Daily attendance and reliable transportation are mandatory.** Students must be in an approved training station for continuation in course.

7382/7384 Marketing Dynamics II, 2-3 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13034800/13034800**Prerequisite(s):** Marketing Dynamics I**Notes:** \$10 class fee; application required.

This second year course is designed for the more mature and experienced marketing student that has successfully completed Marketing Dynamics I. Students will participate in a learning experience that combines classroom instruction with a paid employment experience. In the classroom, the student will build on the basic marketing concepts acquired in previous courses. Students will illustrate appropriate management and research skills to create the ideal marketing mix. Students are required to work 10 hours per week for 2 credits or 15 hours per week for 3 credits. Transportation to and from the training station is the responsibility of the student. **Daily attendance and reliable transportation are mandatory.** Students must be in an approved training station for continuation in course.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (STEM)**7900 Introduction to Engineering Design (Adv Acad), 1 credit (state)****GPA Level 1****Grade Level(s):** 9-12**Service ID:** N1303742**Prerequisite(s):** Algebra I or concurrent enrollment.**Notes:** \$20 class fee; Project Lead the Way course.

Making a world of difference while being creative is what engineers do. Find out why engineering is a great career for young men and women. The major focus of this course is to expose students to design processes, research and analysis, teamwork, communication methods, engineering standards, and technical documentation. Using 3D computer modeling software, students learn the design process and solve design problems for which they develop, analyze, and create product models. Upon completing this course, students will have an understanding of the various fields of engineering and will be able to make informed decisions regarding future course studies.

7910 Principles of Engineering (Adv Acad), 1 credit (state)**GPA Level 1****Grade Level(s):** 10-12**Service ID:** N1303743**Prerequisite(s):** Introduction to Engineering Design and Algebra I.**Notes:** \$20 class fee; Project Lead the Way course.

Imagine having both the passion to make a difference in the world and the technical know-how to achieve it – that's what engineering is all about. In this course, students will find out how engineers make a difference in our world. They will meet people who currently enjoy careers as engineers and see how they use their creativity to design things that matter. Students will explore technology systems and engineering processes to find out how math, science, and technology help people. Students will use a variety of computer hardware and software applications to complete assignments and will participate in various project-based learning challenges.

7911 Digital Electronics (Adv Acad), 1 credit (state)**GPA Level 1****Grade Level(s):** 10-12**Service ID:** N1303744**Prerequisite(s):** Introduction to Engineering Design; and Algebra II or concurrent enrollment in Algebra II.**Notes:** \$20 class fee; Project Lead the Way course.

This course introduces students to applied digital logic, a key element of careers in electrical engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games, and computers. Students will use industry-standard computer software to test and analyze digital circuitry. They will learn how to transform written design specifications into things like robots or computer networks – areas that are at the very forefront of technological innovation.

7920 Architecture and Engineering (Adv Acad), 1 credit (state)**GPA Level 1****Grade Level(s):** 10-12**Service ID:** N1303747**Prerequisite(s):** Introduction to Engineering Design recommended.**Notes:** \$20 class fee; Project Lead the Way course.

In this course, students will learn how to design residential and commercial buildings from the ground up. Students will go through the steps an architect or engineer must go through when developing a project. Using state of the art software to solve real-world problems through projects and activities, students will produce drawings, renderings, and scaled models for architectural purposes and will also learn about key strategies in the up and coming construction field of high performance “green” technology. They will learn what it takes to make properties, structures, and landscapes come to life and what makes a design withstand the test of time.

7921 Aerospace Engineering (Adv Acad), 1 credit (state)**GPA Level 1****Grade Level(s):** 11-12**Service ID:** N1303745**Prerequisite(s):** Introduction to Engineering Design; Algebra II or concurrent enrollment in Algebra II required; Principles of Engineering recommended.**Notes:** \$20 class fee; Project Lead the Way course.

Aerospace engineers are involved in space exploration, the development of commercial airliners, military jets, and helicopters. This class uses activity-based problem solving methods related to aerospace systems to provide students with opportunities to explore the world of aeronautics. Through hands-on engineering projects developed with NASA, students learn about aerodynamics, astronautics, space-life sciences, and rocketry propulsion.

7930 Engineering Design and Problem Solving, 1 credit (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13037300**Prerequisite(s):** Two high school science credits.**Notes:** This course will satisfy the 4th Science graduation requirements.

Creative problem solving will take students into uncharted territory and the ideas of their peers will expose them to different ways of thinking. Students will have their talents stretched in ways they’ve never expected. In the Engineering Design and Development course, students work in teams to research, create, design and construct unique and original solutions to real-world engineering problems. The student’s final project/solutions will be presented to and evaluated by a panel of community engineers and school personnel.

7940 Engineering Design and Development (Adv Acad), 1 credit (state)**GPA Level 1****Grade Level(s):** 11-12**Service ID:** 13037300**Prerequisite(s):** 2 Project Lead the Way course credits; two high school science credits.**Notes:** Project Lead the Way course; this course will satisfy the 4th Science graduation requirements.

This course builds on the knowledge and skills students learned in previous Project Lead the Way engineering courses. Instruction will emphasize advanced principles of engineering processes and the development of three-dimensional solid models. Students will work in teams to research, create, design and construct unique and original solutions to real-world engineering problems. The student’s final project/solutions will be presented to and evaluated by a panel of community engineers and school personnel.

7951 Forensic Science, 1 credit (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13029500**Prerequisite(s):** Biology; Chemistry.**Notes:** This course will satisfy the 4th Science graduation requirement.

This course is a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of the criminally insane. Students will learn basic terminology and investigative procedures related to crime scene, question building, interviewing, criminal behavior characteristics, truth detection methodology, and scientific procedures used to solve crimes. Students will have the opportunity to collect and analyze evidence through case studies and mock crime scenes. Students will learn about the history, legal aspects of forensics, and career options available in the forensic field.

7961 Biotechnology, 1 credit (state)**GPA Level 1****Grade Level(s):** 9-12**Service ID:** 13036300**Prerequisite(s):** Biology; Chemistry concurrent.**Notes:** \$20 class fee.

Biotechnology is technology based on biology, agriculture, food science, and medicine. This course provides an overview of biotechnology and begins preparing students for working in medical, clinical, science, and/or law enforcement forensic laboratories. Students will learn basic lab methods, including preparation of buffers, sterile techniques, centrifugation, spectrophotometry, autoclaving, and equipment maintenance.

7963 Advanced Biotechnology (Adv Acad/GT), 1 credit (state)**GPA Level 1****Grade Level(s):** 10-12**Service ID:** 13036400**Prerequisite(s):** Biotechnology**Notes:** This course will satisfy the 4th Science graduation requirement.

Students in Advanced Biotechnology study a variety of topics that include structures and functions of cells, nucleic acids, proteins, and genetics. Topics include cell structure, proteins, genetic engineering, and the impact of immunological events in biotechnology. Students further study the increasingly important agricultural, environmental, economic, and political roles of bioenergy and biological remediation; the roles of nanoscience and nanotechnology in biotechnology medical research; and future trends in biological science and biotechnology.

7970 Broadband Communications I, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13036800**Prerequisite(s):** None**Notes:** None

Students will learn about telecommunications technologies, fiber and copper-based cabling, and the design and installation of audio and video systems for both residential and commercial uses. They will assemble, test and troubleshoot audio, visual, wired and wireless connectivity. They will understand multi-zoned and single zoned arrangements, learn speaker placement and sound staging methodologies as well as interpreting blue prints to determine audio equipment placement. They will learn proper tool use and construction techniques and will build cabling systems for electronic equipment. Students will have the opportunity to earn four industry recognized certifications: *Telecommunications Technologies*, *Network Cabling Specialist – Copper*, *Network Cabling Specialist – Fiber Optics*, and *Smart Home Professional – Audio/Video*.

7971 Broadband Communications II, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13036900**Prerequisite(s):** Broadband Communications I**Notes:** None

This course is a continuation of Broadband Communications I. Students will learn how to design and install voice over IP telephone and communication systems. They will learn teamwork, troubleshooting, and customer relations. They will explore concepts in “green” technologies and learn energy saving strategies that can then be passed on to the client. Students will be given the opportunity to connect to area businesses for potential employment and learn job search, preparation and interview techniques. Students will earn two additional industry recognized certifications: *Voice Communications Professional* and *Smart Home Professional – Energy Management*.

7990 Practicum in Biotechnology, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13037410**Prerequisite(s):** Advanced Biotechnology**Notes:** Application required.

Students in this course either participate in a working internship or pursue an individual laboratory project in biotechnology. Students who participate in internships will work alongside employees at the location in which they are assigned. They will gain real-world experience and will be trained in similar duties as regular employees. Students who participate in an individual laboratory project will work independently to develop and maintain records of a project in the student's area of interest.

TRANSPORTATION, DISTRIBUTION & LOGISTICS**7800 Introduction to Automotive Technology, 0.5 credit (state)****GPA Level 2****Grade Level(s):** 9-12**Service ID:** 13039200**Prerequisite(s):** None**Notes:** \$10 class fee.

Students explore careers in the automotive industry and will learn about the technical skill level that can be achieved through completion of Clear Creek ISD's automotive educational program. Students are introduced to safety, brakes, electrical/electronic systems, suspension/steering, and engine performance. The course instructor is a certified Master Automotive Technician who is helping students decide if this is a career they want to pursue.

7811 Automotive Technology I, 2 credits (state)**GPA Level 2****Grade Level(s):** 10-12**Service ID:** 13039600**Prerequisite(s):** Introduction to Automotive Technology recommended.**Notes:** \$20 class fee; application required.

This is a foundation course that offers students theory and hands-on training to develop the technical skills needed in the ever-increasingly complex automotive field. Students will receive training in safety, the use of technical manuals, computer diagnostic programs, and automotive tools and equipment. The instructor is a certified Master Automotive Technician who will prepare students for the Automotive Service Excellence (ASE) exams in Engine Performance, Electrical/Electronic Systems, Suspension/Steering, and Brakes.

7812 Automotive Technology II, 2 credits (state)**GPA Level 2****Grade Level(s):** 11-12**Service ID:** 13039700**Prerequisite(s):** Automotive Technology I**Notes:** \$20 class fee; application required.

This course is a continuation of Automotive Technology I. In-depth instruction is provided in Engine Performance, Electrical/Electronic Systems, Suspension/Steering, and Brakes. Students will be expected to take and pass the Automotive Service Excellence (ASE) certification exam in these areas. Through successful completion of this course, students will earn college credit, giving them a jump start in an associate degree program.

7890 Automotive Technology Internship, 2 credits (state)**GPA Level 2****Grade Level(s):** 12**Service ID:** 13040400**Prerequisite(s):** None**Notes:** \$20 class fee; transportation required to employment; application required.

This course is either a paid or unpaid internship in an automotive repair facility (independent shop or dealership) where the student will work in the automotive field while attending automotive classes at Clear Springs HS. The student will gain hands-on work experience while shadowing their lead mentor at the assigned repair facility. Transportation to and from the internship location is the responsibility of the student.

CAREER DEVELOPMENT

7391/7393 Career Preparation I, 2-3 credits (state)

GPA Level 2

Grade Level(s): 11-12

Service ID: 12701300/12701300

Prerequisite(s): Microsoft Computer Application Specialist I recommended.

Notes: \$10 class fee; must be 16 years old; application required; parent/guardian approval and good attendance record needed.

Career Preparation I provides opportunities for students to participate in a learning experience that combines classroom instruction with paid business and industry employment experiences. Students are taught employability skills as a group; however, each student will have an individual training plan which will address his/her job specific knowledge and skills. In addition, students are taught job interview techniques, communication skills, financial and budget activities, human relations and resume portfolio development. Students are required to work 10 hours per week for 2 credits or 15 hours per week for 3 credits. Transportation to and from the training station is the responsibility of the student. **Daily attendance and reliable transportation are mandatory.** Students must be in an approved training station for continuation in course.

7392/7394 Career Preparation II, 2-3 credits (state)

GPA Level 2

Grade Level(s): 11-12

Service ID: 12701400/12701400

Prerequisite(s): Career Preparation I

Notes: \$10 class fee; must be 16 years old; application required; parent/guardian approval and good attendance record needed.

This course extends and enhances the content of Career Preparation I. It provides students with continued opportunities to enhance acquired knowledge and skills to thrive in the world of work through a combination of classroom instruction and an approved paid business and industry employment experience in the student's chosen pathway. Students are required to work 10 hours per week for 2 credits or 15 hours per week for 3 credits. Transportation to and from the training station is the responsibility of the student. **Daily attendance and reliable transportation are mandatory.** Students must be in an approved training station for continuation in course.

7499 Independent Study Mentorship (Adv Acad), 0.5 – 1 credit (state)

GPA Level 1

Grade Level(s): 11-12

Service ID: 12701500

Prerequisite(s): Enrollment limited; application required.

Notes: A possible Distinguished Achievement Plan Advanced Measure.

Independent Study Mentorship is a course designed for the student ready to study a particular profession. With the mentor and the teacher-facilitator, each ISM student creates a unique plan of study and receives individual instruction. The ISM student leaves the high school campus and goes to the mentor's place of business to study with professionals. ISM is a one-semester class, but may be taken twice for state credit. Students in this course must perform at a collegiate or professional level.

Students must:

Complete an in-depth study in an area of interest; Document three to five hours of work each week; Submit weekly logs of documentation; Meet with a mentor on a regular basis; Present a final project; and Follow all school policies and represent Clear Creek Independent School District in a respectful and professional manner.

7599 Independent Study Mentorship: Health Science (Adv Acad), 0.5 to 1 credit (state)

GPA Level 1

Grade Level(s): 11-12

Service ID: 12701500

Prerequisite(s): Health Science Technology I recommended.

Notes: Application required; mentorship site may require background check and associated fees; a possible Distinguished Achievement Plan Advanced Measure.

Health Science Independent Study Mentorship is a course designed for the student ready to study a profession in the medical/health care industry. With the mentor and the teacher-facilitator, each student will create a unique plan of study and receive individual instruction. Students leave the high school campus and go to the mentor's place of business to study with professionals. ISM is a one-semester class, but may be taken twice for state credit. Students in this course must perform at a collegiate or professional level. *Students must provide their own transportation to clinical sites.*

Students must:

Complete an in-depth study in an area of interest; Document three to five hours of work each week; Submit weekly logs of documentation; Meet with a mentor on a regular basis; Present a final project; and Follow all school policies and represent Clear Creek Independent School District in a respectful and professional manner.