

## CAREER TECHNICAL EDUCATION

Career Technical Education is based on the real world application of academic knowledge to technical job skills. It is designed to prepare students for high-wage, high-demand careers. The skills mastered in this program provide the foundation for entry into post-secondary advanced training or skilled employment to finance college.

Certain CTE courses are open to **juniors and seniors only**. For successful completion and certification, students must commit to the full two-year course of study.

### ***CTE Community Classroom***

In the second year of your CTE Pathway course you may be eligible to participate. Community Classroom is an externship program giving you the chance to apply what you've learned in class in an actual job setting.

- You'll get your foot in the door in a job related to your career choice
- You'll get entry-level job skills
- You'll get the opportunity to prove yourself to a potential employer

If you have regular attendance and are able to follow directions, are reliable and can demonstrate good judgment you may be a good candidate.

Community Classroom participants are on the job an average of 8 hours each week. They comply with rules and policies of both the workplace and school. Students are not paid but do earn credits toward graduation.

### **INTRODUCTION TO COMPUTER PROGRAMMING** **(not offered 23-24)**

GRADE LEVEL: 9-12

PREREQUISITES: Basic computer skills.

CONTENT: This year-long course teaches the fundamental concepts and terminology of software application development and develops skills in designing and writing simple computer programs. The course assumes no programming background and provides an overview of the software development process in addition to introducing important programming constructs and methodologies. The course covers such topics as programming language characteristics, integrated development environments,

flowcharts, algorithms, variables, operators, conditional statements, looping statements, procedures, error handling, debugging, object-oriented programming techniques, user interface design, and software modeling.

### **INTRODUCTION TO MARKETING**

GRADE LEVEL: 10-12

PREREQUISITES: Completion of Success 101

CONTENT: This introductory course will provide students an opportunity to investigate different economic aspects of the American economy as it relates to marketing and advertising. The course will examine sales, promotion, skills for marketing, pricing, economics, business ethics and social responsibility, interpersonal communication and leadership, and public speaking. This course will require students to work in small groups to provide Marketing Consultant Services to Bishop Union High School's Clubs, Teams, or Departments.

## EDUCATION, CHILD DEVELOPMENT & FAMILY SERVICES SECTOR

### **INTRODUCTION TO CHILD DEVELOPMENT**

GRADE LEVEL: 11-12

PREREQUISITES: completion of Success 101 and 102

CONTENT: This course provides a study of the physical, social and emotional, and cognitive, developmental stages of children from conception through adolescence (age 12), including the principle theories of development and their application. The need for an understanding of how children develop and what influences their development is an important component of contributing to the demands of our complex society. Students will develop an understanding of children and the developmental process through textbook readings, case studies, observations, individual research projects and project based learning. All students are required to observe and/or participate in settings and classrooms at the preschool/primary/elementary or middle/junior high levels at the end of the Spring semester. This course will help students prepare for careers in early elementary education, health and human services, recreation services, law enforcement, sociology, psychology and all careers involving families. **Satisfies the UC/CSU "g" College Prep Elective requirement\*\***

## **AGRICULTURE & NATURAL RESOURCES SECTOR**

### **AGRICULTURE – GENERAL INFORMATION**

- 1.) Open to all high school students.
- 2.) Agriculture Science II meets the requirements for the Life Science state requirement for California.
- 3.) Materials - class notebook is required in all Agriculture Science classes; Agriculture record book is furnished.
- 4.) Students enrolled in Agriculture classes are required to complete a supervised experience project - all Agriculture students meet this requirement by completing the California Future Farmer record book. Student record books are kept on student's personal occupational experience projects.
- 5.) All enrolled Agriculture students are automatically members of the California Association of Future Farmers of America.
- 6.) All Agriculture classes meet agriculture experience hours required for graduation from 4-year agriculture colleges in the USA.

### **AGRICULTURE SCIENCE I**

GRADE LEVEL: 9 - 12

PREREQUISITES: None

CONTENT: This year-long class covers basic knowledge of beef, sheep, and swine species in the animal industry with emphasis in the following areas: breed contribution to the industry and terminology, nutrition, basic management practices - especially involving market livestock, basic health and sanitation practices, and an overview of California, National, and International Agriculture. An introduction to various agriculture occupations is covered throughout all the vocational agriculture courses as well as presentations by post-secondary educators. All Agriculture Science courses involve record keeping on individual supervised occupational experience projects. Learning abilities are applied in the following areas of market livestock project involvement: project scope, budgeting, merchandising, financing, contracts, selection/judging, fitting and exhibiting, marketing and carcass evaluation, and processing and results evaluation. All Agriculture Science courses involve knowledge of the Future Farmer Organization as well as a general overview of U.S. and California Agriculture. This class is the first part of the agricultural core curriculum. After completing

this course, students have a strong foundation in animal science and a basic knowledge of plant science, natural resources, agricultural business, California agriculture, leadership skills, record keeping, and FFA. FFA is an integral part of agricultural education, and by being in this course students are automatically an FFA member and have the right to participate in all Bishop Future Farmer meetings and events.

### **AGRICULTURE SCIENCE II**

GRADE LEVEL: 10 - 12

PREREQUISITES: Agriculture Science I and teacher approval.

CONTENT: This yearlong class includes evaluation of our market livestock project program as well as evaluation of our Foundation Management program. Primary emphasis is on market livestock selection; livestock health and sanitation practices and application, Cooperatives in Agriculture, Foundation and supervised project record keeping; basic pasture and range management practices including irrigation, soils management, and pasture rotation. An evaluation of the commercial livestock management practices: genetic goals, health practices, accounting practices, and basic management procedures. This class is the second part of the agricultural core curriculum. After completing this course, students have a stronger foundation in animal science and a broader knowledge of plant science, natural resources, agricultural business, California agriculture, leadership skills, record keeping and FFA. FFA is an integral part of agricultural education, and by being in this course students are automatically an FFA member and have the right to participate in all Bishop Future Farmer meetings and events.

**\*\*NOTE: Ag Science I & II satisfy the BUHS Life Science graduation requirement.**

### **AGRICULTURE SCIENCE III & IV**

GRADE LEVEL: 11 - 12

PREREQUISITES: Completion of Ag I, Ag II and Instructor approval.

CONTENT: This two year course sequence includes studies and applications involved in cattle, swine and sheep genetics, and selection, reproduction, nutrition in both confinement and pasture situation, diseases, as

well as general production agriculture management practices. Advanced studies in natural resources and plant science will also be covered but the main emphasis is on animal science. Primary leaders in FFA-supervised occupational experience extracurricular events (fairs and shows) are selected from this course. Major farm laboratory activities are arranged for upper level students in this course. Farm facility improvements, design modifications, maintenance and repair are included in lab exercises. FFA is an integral part of agricultural education, and by being in this course students are automatically an FFA member and have the right to participate in all Bishop Future Farmer meetings and events. Students are required to have a SAE and keep a complete record book. All students should receive and obtain a California State FFA degree by the end of Ag IV.

### **AGRICULTURE MECHANICS 1A/1B**

GRADE LEVEL: 9 - 12

CONTENT: This year-long course teaches fundamental welding and wood and is divided into 2 semesters. One semester students will learn basic welding using three different processes (Oxy-Acetylene, Stick and Wire feed). Students will learn basic CAD programming and apply knowledge cutting out basic designs using a CAD plasma cutter. One semester students will learn basic woodworking working with hand tools and some power tools making simple projects. This class is open to any grade and must be taken and passed with a C or better in order to be able to take intermediate Agriculture mechanics. FFA is an integral part of agricultural education and by being in this course students are automatically an FFA member and have the right to participate in all Bishop Future Farmer meetings and events.

### **AGRICULTURE MECHANICS 2A/2B**

GRADE LEVEL: 10 - 12

PREREQUISITES: Completion of Ag Mechanics 1A/1B with a grade of B or better and Instructor signature on Course Request Form.

CONTENT: In this year long course, more advanced skills in welding and wood and are divided into 2 semesters. Wood will learn skills and make projects using planer, jointer, lathe and table saw. Welding will learn skills and making projects using forge, shear,

brake and learn how to weld using GMAW welding mild steel. Students will also learn and apply more advanced CAD programming and cut out more intrinsic designs with the CAD plasma cutter. This class is open to sophomores, juniors, seniors.

### **WILD LAND FIRE FIGHTING**

GRADE LEVEL: 11-12

PREREQUISITE: completion of Success 101 and 102. Desire to pursue a career in fire science

CONTENT: This Spring Semester course will provide students with a fundamental understanding of all aspects of fire control with an emphasis in wildland firefighting. Students will learn basic fire science and fire behavior principles. Federal certificates will be completed and will include S-190: Intro to Wildland Fire Behavior, S-130: Basic Wildland Firefighter Training, L180: Human Factors in the Wildland Fire Service, ICS100 Intro to the Incident Command System, IS-700.B National Incident Management System and also CPR & First Aid.

\*\* Wildland Fire Fighting is articulated with Cerro Coso College. This means that students who enroll as a Cerro Coso student AND earn a B or better will receive a college credit.

## **AUTOMOTIVE SYSTEMS SECTOR**

High wages, high demand! Auto Tech will never go away! The Auto Systems Pathway is for students who want to jump into the workforce as entry-level technicians. Classroom and shop experiences include: tune-up and lubrication, and brake adjustments and replacements. Hands-on and classroom work may include fuel systems, cooling, suspension and steering, electrical and electronic systems and engine performance. Training includes the safe and proper use of tools and equipment including use of diagnostic and testing tools and equipment use in the auto repair process. This course prepares students for the ASE Automobile / Light Truck certification.

### **SMALL ENGINE & MOTORCYCLE MAINTENANCE**

GRADE LEVEL: 9 - 10

PREREQUISITES: None

CONTENT: This is a one year course designed for all students who want a basic background in vehicle

maintenance and small engine theory, service and repair. Hands-on experiences will include performing inspections, troubleshooting, maintenance and repair. Students will learn engine fundamentals, ignition systems and electrical circuits, frame, steering, suspensions and brakes. Experience will be provided using hand tools, power tools, as well as service manuals. Personal and shop safety are emphasized. 80% classroom, 20% lab.

### **CTE AUTO I**

GRADE LEVEL: 10 - 12

PREREQUISITES: Recommended completion of Small Eng. with C or higher.

CONTENT: This year-long course is designed for students who have not had any automotive background. The course includes automotive theory and shop course work and gives the student technical information and related shop experience with 90% of class time devoted to classroom lecture and the remaining time to shop-related laboratory experience.

### **CTE AUTO II**

GRADE LEVEL: 12

PREREQUISITES: Completion of CTE Auto I and instructor approval

CONTENT: This year-long course, which is a two-period class, is designed to complement the basic course for those interested in auto mechanics as a vocation. In this course, students put into practice the materials learned in Auto I. All students participate in a community classroom program during the last quarter of the course.

## **ARTS, MEDIA, AND ENTERTAINMENT SECTOR**

### **CTE COMMERCIAL GRAPHIC DESIGN 1**

GRADE LEVELS: 9-12

PREREQUISITE: NONE

CONTENT: In this introductory course, students will learn foundational principles of various computer software skills and the application of tools available in Adobe InDesign, Photoshop and Illustrator. In addition, they will learn design and develop foundational concepts of preprint art, and be introduced to screen-printing, various heat press applications,

industry-standard printers, cutters, and other print shop applications and equipment. In this introductory course, students will learn foundational principles of various computer software skills and the application of tools available in Adobe InDesign, Photoshop and Illustrator. In addition, they will learn design and develop foundational concepts of preprint art, and be introduced to screen-printing, various heat press applications, industry-standard printers, cutters, and other print shop applications and equipment.

### **CTE COMMERCIAL GRAPHIC DESIGN 2**

GRADE LEVELS: 10-12

PREREQUISITE: CTE Commercial Graphic Design 1 with a grade C or higher.

CONTENT: This course explores a more specialized and concentrated study of visual communication techniques and methods. Students will learn how to prepare designs and files for specified media such as posters, t-shirts, and stickers to list a few to the production team or outside local sources of printing. Advanced Graphic Design is intended for self-motivated students who wish to continue their education in the Graphic Design field such as creating a design for a t-shirt, poster, sticker, and banner to list a few. They interact with state-of-the-art graphic design tools, namely, Adobe CC: Illustrator, Photoshop, and InDesign.

### **CTE GRAPHIC COMMUNICATION PRODUCTION TECHNOLOGY**

GRADE LEVELS: 10-12

PREREQUISITE: Completion of Comm Graph 1 & Comm Graph 2 and knowledge of Adobe design software

CONTENT: This is an advanced graphic arts course designed to go in-depth into the graphic arts industry where students actually participate in the school-based retail business called Bronco Industries. students will analyze, illustrate, and explain graphic design as a creative process that combines art and technology to communicate ideas through a variety of formats that include digital, print, pamphlets, book design, and

screen printing. Students will utilize, enhance, and build upon skills developed in the introductory and concentrator graphic design course including the acquisition of advanced techniques in Photoshop, Illustrator, and InDesign. They will continue their printing technologies exposure through the use of industry-standard printing and cutting equipment manufactured by Stahl and Rowland.

### **DIGITAL IMAGING & COMMUNICATION**

**(Not Offered 23/24)**

GRADE LEVEL: 10-12

PREREQUISITES: Completion of Commercial Art or Commercial Graphic Design 1 with a grade of B or higher

CONTENT: This course provides Intermediate artistic concepts through the use of digital media. Topics covered include image editing and enhancing, original creation of composite images from photographs and artwork, drawing and painting original digital artwork, and the creation of web graphics. Students incorporate design principles in their digital compositions to effectively communicate ideas.

### **ADVANCED DESIGN & PRODUCTION**

**(Not Offered 23/24)**

GRADE LEVEL: 11-12

PREREQUISITES: Completion of Commercial Graphic Design 1 with a grade of B, ability to follow instructions and follow a task through to completion.

CONTENT: This course enables students to participate in intermediate and advanced levels of fine art, computer illustration, and design skills through a hands-on visual design experience. Students will partake in campaigns for local schools and businesses by creating logos, technical and creative illustrations for digital signage, professional print and apparel package designs. Students develop proficiency through the intermediate level in the use of Adobe, Adobe Illustrator.

\*Completion with a 3.0 or better in 2-D Design and Digital Imaging & Communication is a requirement to enroll.

## **DIGITAL MEDIA ARTS SECTOR**

### **DIGITAL MEDIA AND BROADCASTING**

GRADE LEVEL: 10-12

PREREQUISITES: Completion of Success 101 and 102  
CONTENT: This course introduces students to the exciting world of online content or “campaigns” that air on digital signage system on campus and can distribute to smartphones or other mobile technology and to classroom interactive whiteboards. Students will work on real world media projects and contribute to multi-media content to the BroncoRoundup.org website. Students will contribute to the BUHS social media presence and market/support “The Bronco Way” and other initiatives. Students will learn reporting, writing, editing, photography, advertising, video, management and teamwork. The course may provide students insights in college and career choices. Some out of class time may be required.

### **BRONCO ROUND UP**

GRADE LEVEL: 9-12

PREREQUISITES: None

CONTENT: Bronco RoundUp is the BUHS Student Newspaper /Journalism course. This course introduces students to the exciting world of online and broadcast media. Students will maintain the BroncoRoundup.org website. Law, ethics and the history of journalism will complement the major units of study: reporting, writing, editing, photography, advertising, video, management and teamwork.

## **FASHION DESIGN & MERCHANDISING SECTOR**

### **FASHION DESIGN\*\***

GRADE LEVEL: 9 – 12

PREREQUISITES: None

CONTENT: In this year-long course, students learn the fundamentals of sewing, study textiles properties and sewing machine operation through the assembly of a sewing sample workbook and basic garment construction. This class includes the study of contemporary and historical fashion concepts and designers. Exploration of fashion merchandising concepts, practices and careers are incorporated. Cost for each student: variable, from \$30.00 to \$75.00 per semester for projects and supplies. This course satisfies the BUHS Fine Art graduation requirement. **Satisfies the UC/CSU “f” Visual and Performing Arts requirement. \*\***

### **ADVANCED FASHION DESIGN**

GRADE LEVEL: 10 – 12

PREREQUISITES: “B” grade or better in Fashion Design and instructor approval.

CONTENT: Students learn intermediate and advanced garment construction, industry practices, pattern-drafting and alteration methods, and study fiber and textile properties. Expanded exploration of careers and practices in Fashion Design and Merchandising are incorporated. This course includes an introduction to design elements and principles, as well as the sociology, economics, and history of fashion and clothing. Only highly self-motivated, industrious and creative students should apply. Cost for each student: variable, from \$50.00 to \$100.00 per semester for project and supplies. This course may be repeated for additional credits.

## **HEALTH SCIENCE & MEDICAL TECH SECTOR**

Get ready for entry-level employment in a medical setting. Learn about the human body, medical terminology, access vital signs and use health-related skills including professionalism, customer service and communications. Students may be placed in medical related community classroom sites, such as dietary, physical therapy, hospital offices, medical offices or other areas according to interests and availability.

The second year of this pathway allows students to acquire the skills for administrative and clinical employment in medical facilities, hospitals, and doctors’ offices. Possible occupations include: receptionist, appointment scheduler, insurance specialist, billing specialist, clinical assistant and ward clerk. Instruction includes: medical ethics and law, reception techniques, secretarial skills, communication skills, office automation, and medical terminology. The clinical component includes: infection control/aseptic technique, vital signs, patient assessment and charting, pharmacology, EKG’s, nebulizers, phlebotomy and injection techniques, as well as testing procedures for strep and other in-office testing. Students will study the gastrointestinal, pulmonary and cardiovascular systems in this course.

### **MEDICAL ASSISTING I**

GRADE LEVEL: 11 -12

PREREQUISITES: Completion of Success 101 and 102

CONTENT: This course is for Juniors (priority) or Seniors who are interested in one of the many great careers in the field of medicine and health care. Students will learn from both the administrative and clinical sides of health care including the following: Medical terminology, introduction to anatomy and physiology, records management, communication, and liabilities, patient medical history, physical assessment including vital signs, laboratory specimen collection and testing, medication administration. Nutrition, exercise, and weight control.

### **MEDICAL ASSISTING II**

GRADE LEVEL: 12

PREREQUISITES: Completion of Medical Assisting I with a grade of B or higher, and Instructor permission.

CONTENT: Students will continue learning more of the following: Preparing patients for a variety of examinations, a large variety of patient procedures, the use of instruments and assisting with minor surgeries. Year two students may assist with teaching Year One students

A large part of the year will be spent out in the field observing and assisting in a wide variety of hospitals, clinics, physician offices, and health agencies. Students will also learn information helpful for job searches, career entry, and continuing their health career education.