

CAREER VOCATIONAL

EDUCATION

K-12 CURRICULUM MAP

JUNE 2021

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**Sweetwater County School District #1 Vision Statement**

As an innovative district, united with our community, we empower and inspire ALL students to academic excellence in pursuit of their interests and passions.

**Sweetwater County School District #1 Mission Statement**

To provide a quality education for ALL students. The district will accomplish this by:

* making students our first priority
* utilizing community partnerships
* promoting professional excellence
* being committed to excellence in education
* providing a safe, orderly and efficient environment for learning

**Career Vocational Education Mission Statement**

Students who complete the CVE programs at Sweetwater County School District #1 will have acquired and increased skills and knowledge that will allow them to:

* apply 21st Century work and employability skills in the workforce;
* demonstrate problem solving and critical thinking skills;
* apply collaborative skills in the work setting;
* and demonstrate content-specific skills.

|  |  |
| --- | --- |
| Sweetwater County School District No. 1 Curriculum Terms | |
| Curriculum Term | **Definition** |
| Community Curriculum Council (CCC) | advisory council responsible for evaluating current systems and making recommendations regarding curriculum, instruction, and assessment practices |
| Subject Area Committee (SAC) | team of representatives from a specific subject area who will write the curriculum and common assessments |
| Curriculum map | what SCSD1 values and guarantees that students will learn |
| Purpose statement | identifies the purpose of a class |
| Benchmark | overall outcome for a unit |
| Learning target | individual skills that lead up to achieving the benchmark |
| Resource, textbook, program, etc. | resource adopted by the district to help teach the local curriculum |
| Pacing Guide | identifies when a benchmark will be taught and when it will be assessed |
| Proficiency Scale | a tool to show learning goals and the progression of learning for students. |
| Instructional Planning Resources (IPR) | organizational tool for planning lessons based on learning targets rather than days |
| Formative assessment | informal assessment used to direct instruction |
| Common Assessment | common assessment given within a benchmark by all teachers who teach the same class |

**How to Read the CVE Curriculum Map**

**Purpose Statement** *identifies the purpose of a class and what is new or different at this level*.

|  |  |
| --- | --- |
| Purpose Statement: | Students will evaluate the safety and sanitation of a kitchen, show proper technique of kitchen tools and equipment and evaluate food choices using MyPlate guidelines. |

**Benchmark** *overall outcome for a unit*

Benchmarks:

|  |  |  |  |
| --- | --- | --- | --- |
| CVE.FW1.1 | | Students will evaluate the safety of a kitchen, explain the sanitation procedures of keeping food safe to eat, and identify the sources, symptoms, and treatments of food poisoning. | Standard Reference |
|  | CVE.FW1.1.1 | List how to prevent injuries and first aid procedures in the kitchen. | CV 8.2.4  CV 8.3.1 |
| CVE.FW1.1.2 | Sort what products are appropriate to put on a fire and grease fire in the kitchen to extinguish them. | CV 8.3.3 |
| CVE.FW1.1.3 | Examine and illustrate a dangerous kitchen and list the unsafe and unsanitary things. | CV 8.3.1 |
| CVE.FW1.1.4 | Explain and demonstrate proper food handling such as hand washing, personal hygiene, appropriate attire, cross-contamination and danger zone temperatures. | CV 8.1.4  CV 8.2.2  CV 8.3.1  CV 8.4.2  CV 8.5.3 |
| CVE.FW1.1.5 | Diagnose the top six common foodborne illnesses that we can receive when we consume contaminated food. | CV 8.3.1  CV 8.3.4  CV 8.4.1 |
| CVE.FW1.1.6 | Demonstrate proper knife handling and cutting skills. | CV 8.3.3  CV 8.3.4  CV 8.4.2 |

**Learning Target Code**   
***CVE****.FW1.1.4 = Subject area (Career Vocational Education)  
CVE.****FW1****.1.4 = Grade/course level (Foods and Wellness 1)  
CVE.FW1.****1****.4 = Benchmark  
CVE.FW1.1.****4*** *= Learning target*

**Learning Targets** *are individual skills that lead up to achieving the benchmark.*

**State Standard Reference**  
***CV****8.2.2 = Subject Area*

*CV****8****.2.2 = Grade level*

*CV8.****2.2*** *= Standard*

*CV8.2.****2*** *= Benchmark*

**K-5 Career Vocational Education Standard Matrix**

The following matrix represents where the CVE standards are being met in Kindergarten through 5th grade.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CVE Standard Benchmark | Kindergarten | 1st Grade | 2nd Grade | 3rd Grade | 4th Grade | 5th Grade |
| CVE.5.1.1 | SS.K.7.1 | ELA1.3.1, ELA1.3.2, ELA1.3.3, ELA1.6.1, ELA1.6.3, SS.1.3.5, SS.1.4.1 | SS.2.3.2, SS.2.3.3, SS.2.3.4 | ELA3.8.3, ELA3.8.4, ELA3.8.5, PA3.7.4 | PA4.7.3 | PA5.7.4 |
| CVE.5.1.2 | SS.K.7.2 | ELA1.3.4, SS.1.5.1 | SS.2.3.5, SS.2.4.4 | ELA3.8.3, ELA3.8.4, ELA3.8.5, SS.3.6.2 | SS4.5.1, SS4.6.1 | SS.5.3.2 |
| CVE.5.1.3 | FAK.1.1, FAK.1.2, PAK.1.1, SS.K.2.3 | FA1.1.1, FA1.2.1, FA1.3.2, PA1.1.1 | FA2.1.3, FA2.2.2, PA2.1.1, SS.2.3.5, SS.2.4.2, SS.2.3.5 | FA3.1.3, FA3.2.1, FA3.3.2, PA3.1.1 | ELA4.7.8, FA4.1.1, FA4.1.2, FA4.2.1, FA4.3.2 | ELA5.1.1, ELA5.1.2, ELA5.2.8, LA5.3.10, ELA5.4.2, ELA5.8.9, ELA5.10.7, FA5.1.1, FA5.2.2, FA.5.3.1, FA5.4.2, PA5.1.1 |
| CVE.5.1.4 | FAK.1.3 | M1.3.4 | SS.2.2.1 |  | SS4.3.1 | ELA5.3.1, ELA5.3.10, ELA5.7.1, ELA5.7.11, ELA5.9.1, ELA5.9.10, ELA5.11.9, SS.5.8.3 |
| CVE.5.2.1 | SS.K.2.1 |  | SS.2.4.1 | H3.2 | H4.2 | ELA5.1.2, H5.1.2 |
| CVE.5.2.2 | PAK.7.2 | ELA1.6.1, ELA1.6.3, ELA1.5.2, ELA1.9.3, ELA1.11.12, PA1.7.2 | PA2.7.2 | ELA3.9.7, PA3.7.2 | PA4.7.5 | ELA5.1.1, ELA5.11.8, ELA5.11.10, PA5.7.1, SS.5.8.3 |
| CVE.5.2.3 | ELAK.6.9, ELAK.8.6, ELAK.8.7, ELAK.11.10, ELAK.12.7, PAK.4.2, PEK.1, SS.K.2.3, SS.K.5.1 | PA, 1.4.2, PE1.1  SS.1.5.2, SS.1.1.4 | PA2.4.2, PE2.1, SS.2.4.4 | ELA3.2.1, ELA3.3.4, ELA3.4.4, PA3.4.2, PE3.1 | PA4.4.3, PE4.1 | ELA5.1.1, ELA5.1.2, ELA5.2.8, ELA5.3.10, ELA5.4.2, ELA5.8.9, ELA5.10.7, PA5.1.1 |
| CVE.5.2.4 | ELAK.6.7, ELAK.12.6 |  | SS.2.2.4 | SS.3.1.3 | ELA4.9.2 | ELA5.3.9, ELA5.7.11, ELA5.9.9, ELA5.11.8, SS.5.8.2 |
| CVE.5.3.1 | ELAK.11.7 | ELA1.11.3 | ELA2.9.3, ELA2.9.4, ELA2.12.1, M2.4.3, SS2.3.1, SS2.5.4 | M3.1.3, M3.2.8, M3.3.5, M3.6.4, M3.7.5, SS.3.1 | M.4.6 | ELA5.11.1 |
| CVE.5.3.2 | FAK.1.2 | FA1.1.1, FA1.2.1, FA1.3.2, M1.1.1, M1.2.1, M1.3.1, M1.4.1, M1.6.1 | ELA2.9.3, ELA2.9.4, SS.2.3.6 | FA3.1.3, FA3.2.1, FA3.3.2, SS.3.2.1 | ELA4.9.1, FA4.1.1, FA4.1.2, FA4.2.1, FA4.3.2 | FA5.1.1, FA5.2.2, FA5.3.1, FA5.4.2, H5.3.4, SS.5.8.3 |
| CVE Standard Benchmark | Kindergarten | 1st Grade | 2nd Grade | 3rd Grade | 4th Grade | 5th Grade |
| CVE.5.3.3 |  | M1.3.4 | M2.9.2, M2.9.4 | M3.6.1, M3.6.3, SS.3.1.1 | ELA4.9.2, ELA4.9.3, ELA4.9.4 | H5.2.4, H5.2.3 |
| CVE.5.3.4 | ELAK.5.1, ELAK.11.1, SS.K.3.2 |  |  | ELA3.2.9, ELA3.6.9, ELA3.11.9 | H4.1 | ELA5.11.1, ELA5.11.2 |
| CVE.5.4.1 | ELAK.6.1, ELAK.6.7, ELAK.8.3, ELAK.12.1, ELAK.12.6, FAK.1.2 | ELA1.3.1, ELA1.3.2, ELA1.3.3, ELA1.9.3, FA1.1.1, FA1.2.1, FA1.3.2, M1.3.4 | ELA2.10.8, ELA2.10.9, FA2.1.3, FA2.2.2, FA2.3.2 | ELA3.9.2, ELA3.9.4, ELA3.9.5, ELA3.9.7, FA3.1.3, FA3.2.1, FA3.3.2, M3.6.2, M3.6.3, M3.7.2, SS.3.1.1 | ELA4.3.1, FA4.1.1, FA4.2.3, FA4.3.1, FA4.2.1, FA4.3.2, FA4.2.3 | ELA5.3.9, ELA5.7.10, ELA5.6.3, ELA5.9.9, ELA5.11.8, FA4.1.2, FA5.2.1, FA5.3.1, FA5.3.2, FA5.3.3, FA5.4.2, SS.5.8.3 |
| CVE.5.4.2 | SS.K.7.4 | ELA1.3.4, SS.1.2.3, SS.1.3.8, SS.1.4.6, SS.1.5.4 | ELA2.12.1, SS.2.3.6 |  | ELA4.9.1 |  |
| CVE.5.4.3 |  | ELA1.6.3, ELA1.6.7 | ELA2.12.4, SS.2.3.5 | ELA3.8.3, ELA3.8.4, ELA3.8.5, ELA3.8.6, ELA3.8.7, SS.3.1.2 | SS5.4.4, SS5.4.1 |  |
| CVE.5.4.4 |  | ELA1.10.2, ELA1.10.4, ELA1.10.8, M1.3.4 | ELA2.9.3, M2.5.2 | ELA3.7.3, ELA3.7.4, M3.6.4, SS.3.3.1 | M.4.9, SS5.5.1, SS5.5.2 |  |
| CVE.5.5.1 | PAK.1.1, SS.K.2.1 | PA1.1.1, SS.1.2.1, SS.1.2.2 | PA2.1.1, SS.2.2.1, SS.2.2.2, | PA3.1.1, SS.3.2.1, SS.3.2.2 | PA4.1.1 | PA5.1.1, SS.5.7 .2 |
| CVE.5.5.2 | SS.K.3.3 |  | SS.2.4.1 |  | ELA4.9.12 |  |
| CVE.5.5.3 |  |  | SS.2.4.5 |  | ELA4.9.4 |  |
| CVE.5.5.4 | ELAK.6.7, SS.K.7.4 |  | SS.2.4.5 |  | ELA4.9.1, ELA4.9.12 |  |

**CVE Curriculum at a Glance**

|  |  |
| --- | --- |
| Grade Level or Course | Purpose Statement |
| Consumer Economics (grades 6-8) | Students will examine the influences of economic decision making when they face limited supply resources. Students will distinguish the difference and interrelationship between supply and demand. Students will discuss the role of consumer spending, saving, and investing within the marketplace. |
| Digital Communications  (grades 7-8) | Students will create web pages using HTML and CSS coding; create blogs to express their opinion, give advice, and communicate online in an effective and civil manner. They will further create high level presentation skills using appropriate software. Finally, they will enhance their coding skills by creating a video game. |
| Entrepreneurship  (grades 7-8) | Students will distinguish characteristics of successful entrepreneurs and evaluate the degree to which they possess those characteristics, analyze conditions and markets, brainstorm and generate ideas for a potential business, and begin the early stages of developing a business plan. |
| Integrated Computer Technology  (grades 7-8) | Students will apply digital etiquette and demonstrate responsibility in the use of digital/social media. Students will also develop proficiencies in computer applications (word processing, spreadsheets, and presentation software) and research skills. |
| Personal Finance/  Career Exploration  (grades 7-8) | Students will evaluate basic economic concepts related to the students’ roles as consumers, producers, and citizens. Students will demonstrate how to shape their own financial lives by developing financial skills for personal and family well-being; such as management of resources, financial services, responsible use of credit, consumer decisions, and consumer rights and responsibilities. Students will assess personal skills, abilities, and aptitudes for making a good career choice, develop an individualized career plan, research a prospective career, and develop strategies to make an effective transition from school to career. |
| Accounting I  Computer Accounting  (grades 9-12) | This is a year-long basic course in accounting with a focus on the accounting cycle and financial statements. Students will use double entry accounting procedures in a scenario of a service business as a sole proprietorship and a merchandising corporation. Students will analyze transactions and financial statements, use a general journal and general ledger, make adjustments, create worksheets, record and post closing entries, use special journals and calculate payroll. |
| Business Law  (grades 9-12) | Students will compare, contrast, classify and differentiate and hypothesize basic elements, branches, factors and outcomes of business law [including but not limited to: history of law, common law, contract law, personal law, civil law, criminal law, crimes, torts, morals, ethics, equality in law, trial procedures, equity of law and vehicles (buying, leasing, insuring, licensing)]. Students will analyze case studies of crimes, torts, contracts, buying, selling, insurance, employer-employee relations and the legal aspects of renting and owning real estate. |
| Business Management  (grades 9-12) | Students will compare, contrast, classify and differentiate and hypothesize basic elements, branches, factors and outcomes of business management [including but not limited to: types of businesses (sole proprietorship / partnership / corporation) managerial styles, ethics, employer law, employee law, hiring - firing law, criminal law, payroll including taxes and deductions, human resource foundations, written communications, morals, ethics, equality in the workplace, insurance regulations, equity of law, discounts, transportation, the stock market and reconciling a checkbook]. Students will analyze authentic situations, problems, operational procedures and human resource developments pertaining to the business world. |
| Computer I  Computer Literature  (grades 9-12) | Students will apply integrated software skills common in the business world. Students will start at a beginning level and build to an intermediate level using an integrated software suite, such as Microsoft Office and the Google Suite. Applications will include: word processing, spreadsheets, database, presentations, and several lessons that integrate two or more applications. |
| Personal Finance  Personal Finance/ Careers  (grades 9-12) | Students will evaluate basic economic concepts related to the students’ roles as consumers, producers, and citizens. Students will demonstrate how to shape their own financial lives, positively influence government and business economic policies and participate fully in the economic system of the United States. Students will develop financial skills for personal and family well-being; such as management of resources, financial services, responsible use of credit, consumer decisions, and consumer rights and responsibilities. |
| Digital Information Technology  (grades 9-12) | Students will compare computer applications, practice web design, utilize emerging technologies and operating systems, and develop skills in project management, including communication methods. Students will analyze Information Technology careers and what skills they need to pursue those careers. Students will analyze how different skills relate to various career paths. |
| Web Page Design I  (grades 9-12) | Students will design, develop, test, implement, update, and evaluate web pages using HTML and CSS code. They will create sticky websites, websites so rich in content and features, and so well organized, that visitors “stick around” viewing the content and come back often. |
| Child Development  (grades 7-8) | Students will interpret positive family relationships and evaluate the family as a whole. Students will the compare and contrast the role of the family and analyze the development of children from conception to preschool age. Students will apply safety and health practices when interacting with children. |
| Skills for Healthy Living  (grades 7-8) | Students will examine factors that impact personal development and gain an understanding of healthy relationships at home, school, and in the community. Students will demonstrate effective communication skills at home, school, and in the community. Students will demonstrate nutrition and wellness practices that enhance individual and family well-being. Students will apply life and resource management practices to human, economic and environmental resources. Students will be aware of and demonstrate professionalism and employability skills. |
| Foods and Wellness I  (grades 7-8) | Students will evaluate the safety and sanitation of a kitchen, show proper technique of kitchen tools and equipment and evaluate food choices using MyPlate guidelines. |
| Foods and Wellness II  (grades 7-8) | Students will create a food business using consumerism principles. Students will analyze the purpose of ingredients in yeast breads, classify the different cuts of meat and describe the basic ingredients and assembly for salads, soups, sauces, pies and tarts. |
| Introduction to Food Science  (grades 7-8) | Students will conduct experiments on food using the scientific method to gather data and compile reports including information of pH levels, major nutrients and microbiology. |
| Exploring Childhood I  (grades 10-12) | Students will explore child development theories and development from birth to preschool. Students will evaluate the significant roles and responsibilities of families and parents. Students will investigate factors that impact human growth and development from conception to preschool age. |
| Exploring Childhood II  (grades 10-12) | Students will differentiate instruction for diverse learners in an educational environment. Students will plan for instruction using various learning strategies. Students will explore various careers working with preschool age children. Students will use professional standards when working with preschool children. |
| Education and Training  (grades 9-12) | Students will interact with elementary students and work directly with an elementary classroom teacher. In this capacity, the student will observe young students in classroom situations, work one-on-one with students from diverse populations, assist with both small and large groups of students, and observe and demonstrate professional practices. |
| Kitchen Basics  (grades 9-12) | Students will apply basic food safety and sanitation. Students will demonstrate introductory cooking skills. Students will practice correct procedures for measuring ingredients while cooking simple recipes. Students will discuss and display how to budget for meals, grocery shop, and organize a kitchen. |
| Culinary Arts I  (grades 9-12) | Students will apply knowledge of ingredients and measurements to create meals successfully. Students will demonstrate appropriate safety and sanitation procedures in the kitchen following HACCP guidelines. Students will evaluate a finished product and suggest improvements when needed. Students will implement the proper techniques for thawing, preparing, cooking, and holding, displaying, serving, transporting, cooling, and reheating food various times throughout the year. Students will be able to demonstrate proper knife techniques and produce products that are the correct size. |
| Culinary Arts II  (grades 9-12) | Students will analyze the advantages and disadvantages for a variety of foodservice and hospitality careers, describe different types of foodservice and the importance of each, summarize some of the pitfalls of starting a new restaurant, and produce cuisines from around the world using knowledge of their cultures. Students will demonstrate good customer relations skills, professionalism, and employability skills and compare the success rates of franchises versus other private businesses. Students will categorize a variety of grains and starches, as well as demonstrate proper preparation of meat, poultry, fish and shellfish. |
| Professional Baking  (grades 9-12) | Students will apply knowledge of ingredients and measurements to create baked goods and specialty desserts. Students will analyze the advantages and disadvantages of baking careers and explore the pros and cons of operating a bakery. Students will demonstrate appropriate safety and sanitation procedures in the kitchen and evaluate a finished product and suggest improvement when needed. |
| CTE General Shop  (grade 6) | Students will demonstrate safety, identify tools, safely use tools and care of tools, complete projects in woods, drafting, building using kits, while using problem solving techniques. |
| CTE General Shop  (grade 7) | Students will demonstrate safety, identify tools, safely use tools and care of tools, complete projects in woods, drafting, construction, transportation and manufacturing using problem solving techniques. |
| CTE General Shop  (grade 8) | Students will demonstrate safety, identify tools, safely use tools and care of tools, complete projects in woods, drafting, construction, transportation and manufacturing using problem solving techniques. |
| Career and Technology Exploration I  (grades 9-12) | Students will apply fundamental skills to create woodworking, small engine, construction and welding projects. |
| Career and Technology Exploration II  (grades 9-12) | Students will review fundamentals for woodworking, small engines, construction and welding. Then students will select one area to concentrate on and increase their knowledge and skills in by making more complex project. Students will work independently on their projects. |
| Auto Technology I  (grades 10-12) | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards, basic tools and equipment, basic engine, basic transmission service, steering and alignment, brake systems, starting and charging systems, vehicle electrical system, employability skills and budgeting. |
| Auto Technology II  (grades 10-12) | Students will apply safety rules in the classroom and improve workability skills in the shop area. Students will diagnose and repair automotive systems |
| Auto Technology III  (grades 10-12) | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards Intermediate and some Advance Systems Diagnostics, Service, and Repair. Students will focus on more specific areas such as system diagnosis, advanced service, maintenance, and repair. Students will also concentrate on other support systems such as engine performance, performance braking, steering, cooling, and electrical/electronic, exhaust, frame and body components. |
| Auto Technology IV  (grades 10-12) | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards in the Advance Systems Diagnostics, Service, and Repair. Students will focus on more things such as system diagnosis, advanced service, maintenance, and repair. Students will also concentrate on other support systems such as engine performance, performance braking, steering, cooling, and electrical/electronic, exhaust, frame and body components. |
| Consumer Autos  (grades 9-12) | Students will apply knowledge and skills necessary to be a responsible vehicle owner. Students will build this knowledge and skill set in the classroom and Auto Shop environment. Students will articulate and demonstrate aspects of properly owning and maintaining a vehicle. |
| Computer Aided Drafting I  (grades 9-12) | Students will apply accepted drafting standards in mechanical and architectural drafting. 2D drawing techniques will be learned through the use of AutoCad software. |
| Computer Aided Drafting II  (grades 9-12) | Students will apply accepted drafting standards in the construction of 3D mechanical sectioning, working drawings, technical illustration, and the geometric construction using SOLIDWORKS software. This course serves as an introduction to 3D Drafting. |
| Computer Aided Drafting III  (grades 9-12) | This course is designed for the student who exhibits an intense interest in computer aided drafting, and/or who wishes to pursue a drafting related career. Students may specialize in either mechanical, architectural drafting or three dimensional drafting. |
| Computer Aided Drafting IV  (grades 9-12) | This course is designed for the student who exhibits an intense interest in computer aided drafting, and/or who wishes to pursue a drafting related career. Students may specialize in either mechanical, architectural drafting or three dimensional drafting. Designed as a capstone class for students that want to pursue a career in design or engineering. |
| Solid Works  3D Drafting  (grades 9-12) | Students will create and design 3D solid objects in a virtual environment using Solid Works software. |
| Image Editing  (grades 9-12) | Students will manipulate and create digital photographic images using photo editing software. |
| Robotics I  (grades 9-12) | Students will learn about the applications of robotics in society and industry. The students will learn about the application of gears, motors, and transmission control systems. The students who participate in this class will design and build three robots: basic mobility and control, advanced control and manipulation, and a wireless video RC robot. Each project will be designed around a challenge requiring the utilization of the Engineering Design Loop. |
| Robotics II  (grades 9-12) | Students will extend their knowledge on how Robotics affect and impact society. The students will further enhance their skills about the application of gears, motors, and transmission control systems. The students who participate in this class will design and build robots that incorporate design restrictions such as: weight distribution, leverage and gear ratio. Each project will be designed around a challenge requiring the utilization of the Engineering Design Loop and follow the requirements of presentation and documentation that a competitive organization requires. |
| Robotics III  (grades 9-12) | Robotics III is a further advanced robotics design and engineering class geared towards competitions in robotics and utilizing STEM principles. Students who participate in this class will build upon what they learned in Robotic I & II and incorporate autonomous control technologies and design aspects that real word robotic engineers encounter. Students will design, build, and test three robotics projects: RC challenge, half RC half autonomous, and fully autonomous utilizing the updated vex controllers. |
| Robotics IV  (grades 9-12) | Robotics IV is a further advanced robotics design and engineering class geared towards competitions in robotics and utilizing STEM principles. Students who participate in this class will build upon what they learned in Robotic I & II, III and incorporate autonomous control technologies and further programming enhancements. Students will design, build, and test at least three robotics projects: RC challenge, half RC half autonomous, and fully autonomous utilizing robotic programs and design strategies. |
| Pre-Engineering  (grades 9-12) | Students will work through the engineering design loop with an emphasis on science, technology, engineering and mathematics activities and problem solving. Students will also have an opportunity to use their drawings in computer aided manufacturing applications. |
| Introduction to Metal Technology I  (grades 7-8) | Students will explore and apply various forms of metalworking skills such as sheet metal, arc welding, machine tool technology, and wrought iron while safely completing skills tests and projects. |
| Introduction to Metal Technology II  (grades 7-8) | Students will explore and apply advanced forms of metalworking skills such as sheet metal, arc welding, machine tool technology, and wrought iron while safely completing skills tests and individual personal projects. |
| Power Mechanics  (grades 7-8) | Students will explore and apply various forms of power mechanic principles while safely completing lab units and hands on practices within the auto shop. |
| Introduction to Welding  (grades 7-8) | Students will apply the beginning principles and fundamentals of Shielded Metal Arc Welding. |
| Metal Technology  (grades 9-12) | An introductory course focused on Metal working. Students will gain an understanding of how metalworking impacts the environment, society, and economy. Students will develop a foundation in essential abilities and attitudes that will in turn expand their occupational opportunities in the world of metalworking. |
| Metal Technology II  (grades 9-12) | Students will work safely and efficiently in the metal shop constructing a variety of metal projects including sheet metal working and fabrication, machining, MIG welding, and foundry. Students will design and construct personal projects. |
| Metal Technology III  (grades 9-12) | Students will work safely and efficiently in the workshop constructing a variety of metal projects. Areas covered will include sheet metal working, machining, MIG welding, and foundry. Students will have the opportunity to design and construct personal projects. Students in this course will further refine the metalworking skills they have developed in Metals Technology I and II. Skills include: Research and project development, basic drafting, advanced sheet metal working, advanced machining, and advanced foundry. |
| Metal Technology IV  (grades 9-12) | Students will work safely and efficiently in the workshop constructing a variety of metal projects including sheet metal working, machine work, CAM (Computer Aided Manufacturing) softwares, CNC (Computer Numerically Controlled) machine set-up and development. |
| Welding I  (grades 9-12) | This class will serve as an introduction to the welding industry with an emphasis on safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects. |
| Welding II  (grades 9-12) | This class will serve as a continuation of Welding I with an emphasis on safety, worksite safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects. |
| Welding III  (grades 9-12) | This class will serve as a continuation of Welding 2 with an emphasis on safety, worksite safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects. Concentrating on vertical and overhead welding. |
| Welding IV  (grades 9-12) | This class will serve as a continuation of Welding 3 with an emphasis on safety, worksite safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects. Concentrating on MIG welding for production on assembly projects. This is also where students may participate in job shadowing. |
| Introduction to Furniture Making  (grade 8) | Students will gain a basic understanding of the principles and skills needed to construct a small furniture project. They must complete both Introduction to Woods Technology I and II prior to taking this class. |
| Introduction to Woods Technology I  (grades 7-8) | Students will apply basic woodworking skills to produce several required projects that incorporates safety, measurement, and a variety of woodworking processes. |
| Introduction to Woods Technology II  (grades 7-8) | Students will apply both newly learned skills as well as skills gained in the Introduction to Woodworking 1 class to produce two required advanced wood projects that incorporate safety, measurement, tool use, and project construction. |
| Woods Technology  (grades 9-12) | Students will apply general safety procedures and safety rules as they participate in lab activities. Students will interpret measurements using 1/16th and 1/8th inch increments and use the three-step process to create woodworking projects. |
| Introduction to Construction  (grades 9-12) | An introductory course focused on construction technology. Students will gain an understanding of how construction technologies impacts the environment, society, and economy. Student will develop an foundation in essential abilities and attitudes that will in turn expand their occupational opportunities in the world of construction. |
| Furniture Making I & II  (grades 9-12) | Students will analyze how changes in technology regarding furniture construction impacts the environment, society, and economy. Students will develop a foundation in essential abilities that will in turn expand their occupational opportunities in the world of furniture making. |
| Cabinet Making  (grades 9-12) | Students will apply advanced skills in machine woodworking and hand craftsmanship. Students will implement advanced design skills in door and drawer construction while working with team members and customers. |
| Energy Tech I  (grades 9-12) | Students will be introduced to a variety of career opportunities in business and industry to equip them with the background to make sound choices for their futures. It will provide 10th grade students with a strong, college-prep curriculum as well as industry-related courses of study. |
| Energy Tech II  (grades 9-12) | General topics of instruction will include hydro, solar, weatherization, gas, oil, and wind power. Our goal is to provide our students with a foundation of skills and knowledge in these areas. Instruction will include both lecture based and hands on learning activities as well on-site tours, mentoring (job shadowing) and guest lectures. Students can expect to work both independently and also in small groups. You will be expected to participate, ask questions when necessary, and also be a good listener. |
| Energy Tech III  (grades 9-12) | This course is the capstone course in the Energy Resources Academy sequence. Students will complete college, job, and scholarship applications. Students will update their career plan including educational requirements and employment documents, and they will demonstrate employability skills. |
| Fire Law Leadership I  (grades 9-12) | This class is structured around the Career Academy National Standards of Practice. Students will analyze a variety of career opportunities regarding all facets of law, fire and military. Students will work with local employers as well as being able to assist in obtaining employment after graduation, and pursue higher education. Students are able to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. They student will also complete the WWCC Intro To Online Learning which will also build strong alliances with the skills needed for the trends of technology today. The students will also complete the certification courses of Wyoming Game and Fish Hunter Safety and the Wyoming Highway Patrol's Alive at 25. |
| Fire Law Leadership II  (grades 9-12) | This class is structured around the Career Academy National Standards of Practice. Students will continue exploration a variety of career opportunities regarding all facets of law, fire and military. Students will work hand in hand (job shadowing) with local employers as well as enhancing employment opportunities for future reference. Students are able to continue to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. They student will also complete the certification coursework for the appropriate year (1st Aid/CPR - ICS 100 - ICS 800 - HAZMAT Awareness). |
| Fire Law Leadership III  (grades 9-12) | This class is structured around the Career Academy National Standards of Practice. Students will finalize a variety of career opportunities regarding all facets of law, fire and military in what is their capstone year. Students will work with local professional in an extensive job shadowing as well as being able to assist in obtaining employment after graduation, and pursue higher education. Students are able to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. The students will also demonstrate proficiency of their certification coursework. |
| Health Occupations Academy I  (grades 9-12) | Students will analyze various medical topics by synthesizing information into smaller portions. Students will utilize introductory medical terms and topics to create projects to share information with their classmates while working on presentation and employability skills. |
| Health Occupations Academy II  (grades 9-12) | This class is structured around the Career Academy National Standards of Practice. Students will explore a variety of career opportunities regarding all facets of healthcare through job shadowing opportunities in the community. Students will participate in a student-to-student mentor program that will allow them to gain and demonstrate social skills, including empathy, teamwork, and problem solving with a prescribed conflict resolution method.  Students will learn and apply technical writing skills, as well as understand the governmental structures and processes that impact the medical field. Students who choose to do so will have the opportunity to complete certification coursework as a CNA. |
| Health Occupations Academy III  (grades 9-12) | This class is structured around the Career Academy National Standards of Practice. Students will finalize a variety of career opportunities regarding all facets of healthcare in what is their capstone year. Students will work with local professional in an extensive job shadowing as well as being able to assist in obtaining employment after graduation, and pursue higher education. Students are able to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. The students will also demonstrate proficiency of their certification coursework which is Phlebotomy, CNA, EMT, EMR and BLS. |

**Consumer Economics**

(grades 6-8)

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| Purpose Statement: | Students will examine the influences of economic decision making when they face limited supply resources. Students will distinguish the difference and interrelationship between supply and demand. Students will discuss the role of consumer spending, saving, and investing within the marketplace. |

Benchmarks:

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| CVE.CE.1 | | Students will analyze what entrepreneurs do and how the economy works. | Standard Reference |
|  | CVE.CE.1.1 | Define economics and identify their role as a consumer. Compare and contrast the factors of production and scarcity. | CV8.3.1  CV8.5.2 |
| CVE.CE.1.2 | Evaluate the idea that all costs are passed on to the consumer. Debate the cost/sacrifice associated with every economic decision. | CV8.3.1  CV8.3.3 |
| CVE.CE.1.3 | Analyze the cost of doing business and how to maximize returns. Analyze how labor or human capital affects business decisions. | CV8.5.2 |
| CVE.CE.1.4 | Discuss the value of what, how, and for whom to produce goods and services. | CV8.3.1  CV8.5.2 |
| CVE.CE.1.5 | Analyze the role of the government in a free market economy. | CV8.3.2 |
| CVE.CE.1.6 | Evaluate the differences between socialism and communism. | CV8.3.2 |
| CVE.CE.1.7 | Explain the benefits of Free Enterprise. | CV8.3.1 |
| CVE.CE.1.8 | Compare and explain promoting growth and stability. | CV8.3.1 |
| CVE.CE.1.9 | Discuss providing public goods and safety Nets. | CV8.5.3 |

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| CVE.CE.2 | | Students will analyze the relationship between demand, supply, prices, and the market structure. | Standard Reference |
|  | CVE.CE.2.1 | Define demand and analyze the effects it has on the market. | CV8.3.1 |
| CVE.CE.2.2 | Analyze the shifts and elasticity of demand. | CV8.3.1 |
| CVE.CE.2.3 | Define supply and analyze the effects it has on the market. | CV8.3.1 |
| CVE.CE.2.4 | Identify the costs of production. | CV8.3.1  CV8.3.3 |
| CVE.CE.2.5 | List and discuss reasons for change in supply. | CV8.3.3 |
| CVE.CE.2.6 | Analyze the relationship between supply and demand and how they may change the market equilibrium. | CV8.3.3 |
| CVE.CE.2.7 | Discuss how the market reacts to shortages and the effect on, and role of, prices. | CV8.3.2 |

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| CVE.CE.3 | | Students will analyze the organizational structure of businesses and factors that affect labor. | Standard Reference |
|  | CVE.CE.3.1 | Describe the organization of sole proprietorships. | CV8.3.2 |
| CVE.CE.3.2 | Summarize the business relationship of partnerships. | CV8.3.2 |
| CVE.CE.3.3 | Explain the process of corporations and mergers. | CV8.3.2 |
| CVE.CE.3.4 | Define and list the labor market trends. | CV8.3.2 |
| CVE.CE.3.5 | Analyze how supply and demand in the labor market affects wage levels. | CV8.3.2 |
| CVE.CE.3.6 | Describe why American workers have formed organized labor. | CV8.3.2 |

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| CVE.CE.4 | | Students will analyze how to make the most of money, banking, and financial markets. | Standard Reference |
|  | CVE.CE.4.1 | Compare and contrast the three uses of money. | CV8.5.2 |
| CVE.CE.4.2 | Describe the shifts between centralized and decentralized banking. | CV8.5.2 |
| CVE.CE.4.3 | Explain how money supply is measured in banking today. | CV8.5.2 |
| CVE.CE.4.4 | Explain why creating a budget is essential to the use of money. | CV8.2.3  CV8.2.4  CV8.3.4  CV8.4.3 |
| CVE.CE.4.5 | Analyze how saving and investing contributes to the free enterprise system in the financial markets. | CV8.3.1 |
| CVE.CE.4.6 | List the characteristics of bonds as financial assets. Explain how to open and manage checking accounts. | CV8.3.1  CV8.3.4 |
| CVE.CE.4.7 | Analyze the relationship between credit and debt. | CV8.3.1 |
| CVE.CE.4.8 | Identify and explore career possibilities and the Hathaway scholarship. | CV8.1.1  CV8.1.2  CV8.1.3  CV8.1.4  CV8.2.1  CV8.2.2 |
| CVE.CE.4.9 | Investigate the employability skills needed to be successful in a career of interest. | CV8.1.2 |

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| CVE.CE.5 | | Students will analyze how to measure economic performance and why it matters. | Standard Reference |
|  | CVE.CE.5.1 | Explain how gross domestic product and growth is calculated. | CV8.3.2 |
| CVE.CE.5.2 | Identify the phases of a business cycle. | CV8.3.2 |
| CVE.CE.5.3 | Analyze how economic growth is measured | CV8.5.2 |
| CVE.CE.5.4 | Differentiate between frictional, seasonal, structural, and cyclical unemployment. | CV8.3.1 |
| CVE.CE.5.5 | Explain the effects of rising prices or Inflation. | CV8.3.1 |
| CVE.CE.5.6 | Define who is poor, according to government standards and describe the causes of poverty. | CV8.3.1 |

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| CVE.CE.6 | | Students will evaluate the role of government in the economy. | Standard Reference |
|  | CVE.CE.6.1 | Identify the sources of the government's authority to tax. | CV8.3.2 |
| CVE.CE.6.2 | Describe the process of paying individual federal income taxes and spending. | CV8.3.2  CV8.3.3 |
| CVE.CE.6.3 | Analyze how states use a budget to tax and spend. | CV8.3.3 |
| CVE.CE.6.4 | Describe how the federal budget is created. | CV8.3.3 |
| CVE.CE.6.5 | Explain the importance of balancing the federal budget. | CV8.3.2 |
| CVE.CE.6.6 | Analyze the Federal Reserve Act of 1913 and its impact on our economy. |  |

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| CVE.CE.7 | | Students will evaluate the global economy and trade. | Standard Reference |
|  | CVE.CE.7.1 | Evaluate the impact of the unequal distribution of resources. | CV8.3.1  CV8.3.2 |
| CVE.CE.7.2 | Define various types of trade barriers. | CV8.3.3 |
| CVE.CE.7.3 | Explain how exchange rates of world currencies change. | CV8.3.2 |
| CVE.CE.7.4 | Discuss what is meant by developed nations and less developed countries. | CV3.3.2 |

**Digital Communications**

(grades 7-8)

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| Purpose Statement: | Students will create web pages using HTML and CSS coding; create blogs to express their opinion, give advice, and communicate online in an effective and civil manner. They will further create high level presentation skills using appropriate software. Finally, they will enhance their coding skills by creating a video game. |

Benchmarks:

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| CVE.DC.1 | | Students will create blogs to give advice, express their opinion, and communicate online in an effective and civil manner. | Standard Reference |
|  | CVE.DC.1.1 | Create their user profile and initial blog page, using formatting skills. | CV8.2.1  CV8.2.4  CV8.3.4  CV8.5.1 |
| CVE.DC.1.2 | Interact with others while maintaining privacy and internet safety. | CV8.2.2  CV8.2.3 |
| CVE.DC.1.3 | Create hyperlinks to connect to other sites, articles, and images to enhance their point of view. | CV8.2.1  CV8.3.2 |
| CVE.DC.1.4 | Use cross-curricular skills in written communication to give their opinion, provide advice, share an insight, and respond to others’ writings. | CV8.2.1  CV8.2.4  CV8.3.1  CV8.3.4  CV8.4.1  CV8.5.3  CV8.5.4 |

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| CVE.DC.2 | | Students will design a presentation using themes, navigation buttons, transitions, sounds, images, videos, and notes. | Standard Reference |
|  | CVE.DC.2.1 | Research using the internet to find facts and figures from reliable sources. | CV8.2.4  CV8.3.1  CV8.3.3 |
| CVE.DC.2.2 | Apply a theme and transitions to a presentation. | CV8.3.4  CV8.5.3  CV8.5.4 |
| CVE.DC.2.3 | Choose an appropriate slide layout for each slide in the project. | CV8.3.4  CV8.5.3  CV8.5.4 |
| CVE.DC.2.4 | Add images and videos to enhance their presentation. | CV8.3.4  CV8.5.3  CV8.5.4 |
| CVE.DC.2.5 | Create action buttons for an interactive presentation and turn off advance on click. | CV8.3.4  CV8.5.3  CV8.5.4 |
| CVE.DC.2.6 | Add footer and speaker notes. | CV8.3.4  CV8.5.3  CV8.5.4 |
| CVE.DC.2.7 | Present slide show to the class. | CV8.3.4  CV8.5.4  CV8.4.4  CV8.2.1  CV8.2.4  CV8.3.3  CV8.5.3 |

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| CVE.DC.3 | | Students will design and construct a web page, using HTML and CSS code on a topic of interest to them. | Standard Reference |
|  | CVE.DC.3.1 | Storyboard their web page before they build the content in the page. | CV8.2.1  CV8.3.3  CV8.3.4  CV8.4.1  CV8.4.4  CV8.5.1 |
| CVE.DC.3.2 | Create the structure of their web page using an HTML editor (such as brackets), following the formatting guidelines given to them. | CV8.5.4  CV8.5.3  CV8.5.4 |
| CVE.DC.3.3 | Enhance their page by inserting video, pictures, hyperlinks, background, tables, color, and font. | CV8.5.4  CV8.5.3  CV8.5.4 |
| CVE.DC.3.4 | Modify their web page using Cascading Style Sheet coding, CSS, to format the look, function, navigation, and style of their page. Formatting will include a primary and secondary background, headings, subheadings, paragraphs, images, videos, and hyperlinks of text and images. | CV8.5.4  CV8.5.3  CV8.5.4 |
| CVE.DC.3.5 | Add meta tags using keywords to make the content searchable on the internet. | CV8.5.4  CV8.5.3  CV8.5.4 |
| CVE.DC.3.6 | Present their web page to the class, show their coding, and explain any difficulties they had with the project and how they solved the problem. | CV8.3.4  CV8.5.4  CV8.4.4  CV8.2.1  CV8.2.4  CV8.3.3  CV8.5.3 |

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| CVE.DC.4 | | Students will create video games using a program that works with if-then statements. | Standard Reference |
|  | CVE.DC.4.1 | Navigate a game design program. Create agents or elements to interact in the game. | CV8.3.4  CV8.5.1  CV8.5.4  CV8.5.3 |
| CVE.DC.4.2 | Design and create a game board by placing agent or game elements on the board. | CV8.3.4  CV8.5.1  CV8.5.4  CV8.5.3 |
| CVE.DC.4.3 | Design characteristics and function of each agent using if-then statements to show cause and effect. | CV8.3.4  CV8.5.1  CV8.5.4  CV8.5.3 |
| CVE.DC.4.4 | Run the game, correct errors, and check the functionality of logic. | CV8.3.4  CV8.5.1  CV8.5.4  CV8.3.4  CV8.5.3 |

**Entrepreneurship**

(grades 7-8)

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| Purpose Statement: | Students will distinguish characteristics of successful entrepreneurs and evaluate the degree to which they possess those characteristics, analyze conditions and markets, brainstorm and generate ideas for a potential business, and begin the early stages of developing a business plan. |

Benchmarks:

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| CVE.ENT.1 | | Students will examine the role of entrepreneurs in our country’s development and research and present about an entrepreneur of interest. | Standard Reference |
|  | CVE.ENT.1.1 | Identify the unique contributions of entrepreneurs to the economy of a country. | CV8.3.2 |
| CVE.ENT.1.2 | Develop a historical timeline of entrepreneurs throughout history. | CV8.2.4  CV8.4.2  CV8.5.4 |
| CVE.ENT.1.3 | Research an entrepreneur of interest. | CV8.2.4  CV8.3.3  CV8.3.4  CV8.5.2 |
| CVE.ENT.1.4 | Create and share a presentation on an entrepreneur of interest. | CV8.2.1  CV8.2.4  CV8.3.4  CV8.4.2  CV8.4.3  CV8.5.4 |

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| CVE.ENT.2 | | Students will explain what an entrepreneur does, describe characteristics of a successful entrepreneur, and evaluate the degree to which they possess the characteristics and skills required to become an entrepreneur. | Standard Reference |
|  | CVE.ENT.2.1 | Explain the terms entrepreneur and entrepreneurship. | CV8.4.2 |
| CVE.ENT.2.2 | Describe the differences between being an entrepreneur and an employee. | CV8.4.2 |
| CVE.ENT.2.3 | Identify the reasons an individual would want to be an entrepreneur. | CV8.3.2 |
| CVE.ENT.2.4 | Identify the characteristics and skills required to become a successful entrepreneur. | CV8.3.2 |
| CVE.ENT.2.5 | Compare and contrast the risks and benefits of choosing to become an entrepreneur. | CV8.3.2  CV8.4.1 |
| CVE.ENT.2.6 | Assess one’s personal qualifications to become an entrepreneur. | CV8.1.2 |

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| CVE.ENT.3 | | Students will apply economic concepts when making decisions for an entrepreneurial venture. | Standard Reference |
|  | CVE.ENT.3.1 | Define opportunity costs and give examples. | CV8.2.1  CV8.3.2 |
| CVE.ENT.3.2 | Define scarcity. | CV8.2.1  CV8.3.2 |
| CVE.ENT.3.3 | Explain the determinants of supply and demand and how supply and demand markets interact to determine price. | CV8.2.1  CV8.3.2 |
| CVE.ENT.3.4 | Explain why demand is necessary to the success of an entrepreneurial venture. | CV8.2.1  CV8.3.2 |

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| CVE.ENT.4 | | Students will explain that entrepreneurs must establish, maintain, and analyze appropriate records to make business decisions. Evaluate the financial condition of a firm based on business records. | Standard Reference |
|  | CVE.ENT.4.1 | Identify the reasons for keeping business records. | CV8.2.1  CV8.3.1  CV8.3.2 |
| CVE.ENT.4.2 | Identify types of financial records and data presented in each. | CV8.2.1  CV8.3.1  CV8.3.2 |
| CVE.ENT.4.3 | Determine the appropriate records required for a business venture. | CV8.3.1  CV8.3.2 |
| CVE.ENT.4.4 | Describe the impact of incomplete and/or inaccurate business records on a business. | CV8.2.1  CV8.3.1  CV8.3.2 |
| CVE.ENT.4.5 | Research requirements for retention of accounting records and business documents. | CV8.3.2  CV8.4.2  CV8.5.3  CV8.5.4 |
| CVE.ENT.4.6 | Evaluate the financial condition of a firm based on business records. | CV8.3.1  CV8.3.2 |

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| CVE.ENT.5 | | Students will identify the costs of starting a business venture and analyze sources of funding for such a venture. | Standard Reference |
|  | CVE.ENT.5.1 | Determine the costs of starting a business venture. | CV8.3.1  CV8.3.2  CV8.5.4 |
| CVE.ENT.5.2 | Identify projected operational expenses. | CV8.3.1  CV8.3.2  CV8.5.4 |
| CVE.ENT.5.3 | List common sources from which entrepreneurs can secure funding. | CV8.3.2  CV8.5.1 |
| CVE.ENT.5.4 | Explain the advantages and disadvantages of primary sources of borrowing. | CV8.2.1  CV8.3.2  CV8.5.1 |
| CVE.ENT.5.5 | Define the differences between debt and equity financing. | CV8.2.1  CV8.3.2  CV8.5.1 |
| CVE.ENT.5.6 | Identify the major options of funding for a business. | CV8.3.1  CV8.3.2  CV8.4.2 |
| CVE.ENT.5.7 | Describe the criteria that determine an entrepreneur’s credit worthiness and the impact this might have on obtaining a business loan. | CV8.2.1  CV8.3.1  CV8.3.2  CV8.5.1 |

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| CVE.ENT.6 | | Students will analyze how forms of business ownership, government regulations, and legal regulations affect entrepreneurial ventures. | Standard Reference |
|  | CVE.ENT.6.1 | Describe strategies for starting a new business venture (i.e. starting from scratch, buying an existing business, or purchasing a franchise). | CV8.2.1  CV8.3.1  CV8.3.2  CV8.4.4 |
| CVE.ENT.6.2 | Identify the differences between types of business ownership. | CV8.3.1  CV8.3.2 |
| CVE.ENT.6.3 | Define a corporation and explain how it differs from a sole proprietorship and a partnership. | CV8.2.1  CV8.3.2  CV8.4.1 |
| CVE.ENT.6.4 | Define and give examples of franchising. | CV8.2.1  CV8.3.2  CV8.4.1 |
| CVE.ENT.6.5 | Describe the advantages and disadvantages of owning a franchise. | CV8.2.1  CV8.3.2  CV8.4.1 |
| CVE.ENT.6.6 | Describe how government can affect business and give examples of government regulations that affect a business. | CV8.2.1  CV8.3.1  CV8.3.2  CV8.4.1 |
| CVE.ENT.6.7 | Explain reasons for government regulation of businesses. | CV8.2.1  CV8.3.2 |
| CVE.ENT.6.8 | Identify licenses that a small business must obtain. | CV8.3.2 |

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| CVE.ENT.7 | | Students will develop a marketing vision to introduce a product or service. | Standard Reference |
|  | CVE.ENT.7.1 | Discuss the importance of target markets. | CV8.2.1  CV8.3.2  CV8.4.1 |
| CVE.ENT.7.2 | Explain the importance of conducting market research. | CV8.2.1  CV8.3.2 CV8.4.1 |
| CVE.ENT.7.3 | Discuss ways of collecting data. | CV8.2.1  CV8.3.2  CV8.4.1 |
| CVE.ENT.7.4 | Describe the market research process. | CV8.2.1  CV8.3.2  CV8.4.1 |

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| CVE.ENT.8 | | Students will brainstorm and generate ideas for a potential business and analyze the feasibility of the proposed business. Students will begin the early stages of developing a business plan. | Standard Reference |
|  | CVE.ENT.8.1 | Generate ideas for products and/or services to meet consumers’ needs. | CV8.2.1  CV8.2.3  CV8.3.1  CV8.3.2  CV8.3.3 |
| CVE.ENT.8.2 | Generate ideas for potential businesses. | CV8.2.1  CV8.2.3  CV8.3.1  CV8.3.2  CV8.3.3 |
| CVE.ENT.8.3 | List the reasons many businesses fail. | CV8.2.1  CV8.3.2 |
| CVE.ENT.8.4 | Describe the process of creating a business plan. | CV8.2.1  CV8.3.2 |
| CVE.ENT.8.5 | Write a description for a business venture, explain which start-up strategy and type of legal ownership would be used in organizing the business venture. | CV8.2.1  CV8.2.3  CV8.2.4  CV8.3.1  CV8.3.2  CV8.3.3  CV8.3.4  CV8.4.2  CV8.4.4  CV8.5.2  CV8.5.4 |
| CVE.ENT.8.6 | Create a title page, a vision statement, a mission statement, and a business description for a business venture. | CV8.2.1  CV8.2.3  CV8.2.4  CV8.3.1  CV8.3.2  CV8.3.4  CV8.5.2  CV8.5.3  CV8.5.4 |
| CVE.ENT.8.7 | Make a list of experts or people that could be used for the management team to be listed in the Operations section of the business plan. | CV8.2.3  CV8.2.4  CV8.3.1  CV8.3.2  CV8.3.4  CV8.4.2 |

**Integrated Computer Technology**

(grades 7-8)

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| Purpose Statement: | Students will apply digital etiquette and demonstrate responsibility in the use of digital/social media. Students will also develop proficiencies in computer applications (word processing, spreadsheets, and presentation software) and research skills. |

Benchmarks:

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| CVE.ICT.1 | | Students will demonstrate respectful, responsible, and ethical behavior in a digital world. | Standard Reference |
|  | CVE.ICT.1.1 | Identify basic privacy issues associated with technology. | CV8.2.4 |
| CVE.ICT.1.2 | Explain the risks and dangers of sharing personal information in a digital world (e.g., digital footprint, cyberbullying) | CV8.2.4 |
| CVE.ICT.1.3 | Explain the opportunities and the dangers of digital communication. | CV8.2.4 |
| CVE.ICT.1.4 | Explain Internet safety practices. | CV8.2.4 |
| CVE.ICT.1.5 | Explain issues related to security and privacy of electronic information and the importance of protecting personal files. | CV8.2.4 |
| CVE.ICT.1.6 | Describe the personal and legal consequences of illegal and unethical use of information technologies. | CV8.2.4 |
| CVE.ICT.1.7 | Demonstrate the appropriate and legal use of intellectual property. | CV8.2.4  CV8.5.3 |
| CVE.ICT.1.8 | Demonstrate legal and ethical behaviors when using information technologies. | CV8.2.4  CV8.5.3 |

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| CVE.ICT.2 | | Students will comply with copyright laws and fair use policies. | Standard Reference |
|  | CVE.ICT.2.1 | Cite material taken from a source. | CV8.2.4  CV8.5.3 |
| CVE.ICT.2.2 | Identify issues of plagiarism as they apply to information technology. | CV8.2.4 |
| CVE.ICT.2.3 | Summarize fair use policy. | CV8.2.4 |
| CVE.ICT.2.4 | Define hacking in the legal context of issues such as invasion of privacy, unauthorized access, vandalism, and theft. | CV8.2.4  CV8.5.3 |
| CVE.ICT.2.5 | Explain Acceptable Use Policy and what it means to sign such a contract. | CV8.2.4  CV8.5.3 |

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| CVE.ICT.3 | | Students will analyze scenarios related to netiquette, internet safety, and cyberbullying, and generate solutions to help when cyberbullying occurs. | Standard Reference |
|  | CVE.ICT.3.1 | Explore their digital lives, formulate a viewpoint on the role digital media play in their lives, and demonstrate the importance of acting responsibly when carrying out relationships over digital media. | CV8.2.1  CV8.2.4  CV8.3.1  CV8.3.3 |
| CVE.ICT.3.2 | Analyze various online bullying behaviors and generate multiple solutions for helping others when cyberbullying occurs. | CV8.2.1  CV8.2.3  CV8.2.4  CV8.3.1 |

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| CVE.ICT.4 | | Students will demonstrate proficiency in utilizing Word Processing software applications. | Standard Reference |
|  | CVE.ICT.4.1 | Create, edit, and format business letters in block format while applying the tools of the given application. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.4.2 | Create, edit, and format MLA-reports while applying the tools of the given application. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.4.3 | Create, edit, and format flyers while applying the tools of the given application. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.4.4 | Create, edit, and format newsletters while applying the tools of the given application. | CV8.5.4  CV8.2.4  CV8.5.3 |

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| CVE.ICT.5 | | Students will demonstrate proficiency in utilizing Spreadsheet software applications. | Standard Reference |
|  | CVE.ICT.5.1 | Format cells. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.2 | Adjust column width and row height. Insert and delete columns and rows. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.3 | Merge cells and add a title. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.4 | Enter formulas in cells to calculate results using arithmetic operations. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.5 | Total columns using the AutoSum feature. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.6 | Calculate functions of average, count, minimum and maximum values in a range. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.7 | Apply the relative addressing feature in copying formulas to a range of cells. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.5.8 | Sort date in ascending and descending order on selective criteria. | CV8.5.4  CV8.2.4  CV8.5.3 |

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| CVE.ICT.6 | | Students will demonstrate proficiency in utilizing presentation software applications. | Standard Reference |
|  | CVE.ICT.6.1 | Identify features and views of presentation software. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.2 | Apply a theme to a presentation. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.3 | Add date and time to a presentation. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.4 | Navigate and view a presentation. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.5 | Apply bullets and numbers to slides in a presentation. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.6 | Add a table, enter data, and apply borders and shading to the table. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.7 | Add a graph from data in a table to the presentation. | CV8.5.4  CV8.2.4  CV8.5.3 |
| CVE.ICT.6.8 | Apply transitions, animation, sound, and graphics to the presentation. | CV8.5.4  CV8.2.4  CV8.5.3 |

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| CVE.ICT.7 | | Students will locate, access, and evaluate resources to utilize for various class projects. | Standard Reference |
|  | CVE.ICT.7.1 | Identify sources from which they locate, interpret, and extract data in an ethical and appropriate manner. | CV8.2.4  CV8.3.1  CV8.4.2 |
| CVE.ICT.7.2 | Evaluate sources for relevance, bias, timeliness and appropriateness for audience. | CV8.2.4  CV8.3.1  CV8.4.2 |
| CVE.ICT.7.3 | Utilize pertinent information from a variety of sources for class projects. | CV8.2.4  CV8.3.1  CV8.4.2 |

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| CVE.ICT.8 | | Students will create presentations that demonstrate appropriate consideration of audience, purpose, and information to be conveyed. | Standard Reference |
|  | CVE.ICT.8.1 | Organize ideas and develop content. | CV8.2.4  CV8.5.3  CV8.5.4 |
| CVE.ICT.8.2 | Apply bulleting and numbering to the presentation. | CV8.2.4  CV8.5.3  CV8.5.4 |
| CVE.ICT.8.3 | Apply themes, animation, sound, and transition to the presentation. | CV8.2.4  CV8.5.3  CV8.5.4 |
| CVE.ICT.8.4 | Apply the notes feature of the presentation software to enhance the oral presentation. | CV8.2.4  CV8.5.3  CV8.5.4 |
| CVE.ICT.8.5 | Add a table, enter data, and apply borders and shading to the table. | CV8.2.4  CV8.5.3  CV8.5.4 |

**Personal Finance/Career Exploration**

(grades 7-8)

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| Purpose Statement: | Students will evaluate basic economic concepts related to the students’ roles as consumers, producers, and citizens. Students will demonstrate how to shape their own financial lives by developing financial skills for personal and family well-being; such as management of resources, financial services, responsible use of credit, consumer decisions, and consumer rights and responsibilities. Students will assess personal skills, abilities, and aptitudes for making a good career choice, develop an individualized career plan, research a prospective career, and develop strategies to make an effective transition from school to career. |

Benchmarks:

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| CVE/PFCE.1 | | Students will develop and evaluate a spending/savings plan. | Standard Reference |
|  | CVE/PFCE.1.1 | Identify ways in which individuals and families obtain financial resources. | CV8.3.3  CV8.4.4  CV8.5.1 |
| CVE/PFCE.1.2 | Define and categorize expenses as fixed r variable expenses. | CV8.2.1  CV8.3.2 |
| CVE/PFCE.1.3 | Prepare a personal spending diary. | CV8.3.4  CV8.5.2  CV8.5.3 |
| CVE/PFCE.1.4 | Discuss the components of a personal budget, including income, planned saving, and fixed and variable expenses. | CV8.2.1  CV8.3.3  CV8.5.1 |
| CVE/PFCE.1.5 | Explain how to use a budget to manage spending and achieve financial goals. | CV8.2.1  CV8.3.1  CV8.3.3 |
| CVE/PFCE.1.6 | Given a scenario, design a personal budget for a young person living alone. | CV8.3.1  CV8.3.3  CV8.3.4  CV8.5.2 |

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| CVE/PFCE.2 | | Students will analyze options for banking, research plans for spending and saving, and summarize ways to save money. | Standard Reference |
|  | CVE/PFCE.2.1 | Identify various types of financial institutions. | CV8.3.2  CV8.5.1 |
| CVE/PFCE.2.2 | List the basic products and services provided by financial institutions (e.g., savings, checking, credit cards, loans, safe deposit boxes). | CV8.4.1  CV8.4.4 |
| CVE/PFCE.2.3 | Identify the rights and responsibilities associated with using a checking account. | CV8.4.2  CV8.4.4 |
| CVE/PFCE.2.4 | Apply the steps involved in opening and using a checking account. | CV8.3.4  CV8.5.3 |
| CVE/PFCE.2.5 | Compare and contrast the different types of checking accounts offered by various financial institutions. | CV8.3.1  CV8.4.2  CV8.4.4  CV8.5.1 |
| CVE/PFCE.2.6 | Differentiate among types of electronic monetary transactions (e.g., debit cards, ATM, and automatic deposits/payments) offered by various financial institutions. | CV8.4.4  CV8.5.1 |
| CVE/PFCE.2.7 | Evaluate products and services and related costs and fees associated with financial institutions in terms of personal banking needs. | CV8.3.1  CV8.3.3  CV8.3.4  CV8.4.2 |
| CVE/PFCE.2.8 | Compare costs and benefits of online and traditional banking. | CV8.3.1  CV8.4.4  CV8.5.1 |
| CVE/PFCE.2.9 | Analyze privacy and security issues associated with financial transactions. | CV8.3.1  CV8.3.3  CV8.4.4  CV8.5.1 |
| CVE/PFCE.2.10 | Demonstrate the steps involved in the bank reconciliation process. | CV8.3.4  CV8.5.3 |

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| CVE/PFCE.3 | | Students will analyze factors that affect the choice of credit, the cost of credit, and the legal aspects of using credit. | Standard Reference |
|  | CVE/PFCE.3.1 | Describe the advantages, risks and responsibilities associated with using credit. | CV8.2.1  CV8.3.1  CV8.3.3  CV8.5.1 |
| CVE/PFCE.3.2 | Explain the need for a sound credit rating and identify methods of establishing and maintaining a good credit rating. | CV8.3.1  CV8.3.3  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.3 | Evaluate the various methods of financing a purchase, including various sources and types of credit and related costs. | CV8.3.1  CV8.4.2  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.4 | Define interest as a cost of credit and explain why it is charged. | CV8.2.1  CV8.4.1  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.5 | Analyze credit card features and their impact on personal financial planning. | CV8.3.1  CV8.4.2  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.6 | Explain how the amount of principal, the period of the loan, and the interest rate affect the amount of interest charged. | CV8.2.1  CV8.4.1  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.7 | Explain credit reports and describe why they are important to consumers. | CV8.2.1  CV8.3.1  CV8.4.1  CV8.5.1 |
| CVE/PFCE.3.8 | Identify strategies for effective debt management. | CV8.3.1  CV8.3.3  CV8.5.1 |
| CVE/PFCE.3.9 | Compare and contrast the legal aspects of different forms of credit (e.g., title transfer, responsibility limits, collateral requirements, and co-signing). | CV8.3.1  CV8.4.2  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.10 | Describe the legal and illegal types of credit that carry high interest rates. | CV8.2.1  CV8.3.1  CV8.5.1 |
| CVE/PFCE.3.11 | Identify the components listed on a credit report and explain how that information is used and how it is received by and reported from the credit reporting agencies. | CV8.3.1  CV8.4.1  CV8.4.4  CV8.5.1 |
| CVE/PFCE.3.12 | Identify specific steps that consumers can take to minimize their exposure to identify theft, as well as steps that should be taken by a victim of identity theft. | CV8.3.1  CV8.4.2  CV8.4.4  CV8.5.1 |

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| CVE/PFCE.4 | | Students will apply a decision-making model to maximize consumer satisfaction when buying goods and services. | Standard Reference |
|  | CVE/PFCE.4.1 | Distinguish between goods and services. | CV8.4.4 |
| CVE/PFCE.4.2 | Identify alternative sources for purchases. | CV8.3.1  CV8.4.2  CV8.4.4 |
| CVE/PFCE.4.3 | Discuss various ways competition among sellers helps the consumer. | CV8.2.1  CV8.3.1  CV8.4.4  CV8.5.1 |
| CVE/PFCE.4.4 | Use reliable online consumer resources to compare two different makes/models of automobiles and create an electronic presentation summarizing the research. | CV8.2.4  CV8.3.1  CV8.3.4  CV8.4.2  CV8.4.4  CV8.5.3  CV8.5.4 |
| CVE/PFCE.4.5 | Apply a decision-making model to personal buying decisions. | CV8.3.1  CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE/PFCE.4.6 | Define laws that protect the rights of the consumer. | CV8.2.1  CV8.4.4  CV8.5.1 |

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| CVE/PFCE.5 | | Students will analyze choices available to consumers for protection against risk and financial loss. | Standard Reference |
|  | CVE/PFCE.5.1 | Identify risks in life and how to gain protection against the consequences of risk. | CV8.3.1  CV8.5.1 |
| CVE/PFCE.5.2 | Define basic insurance terms *(e.g., deductible, premium, peril, risk)*, and explain how all types of insurance are based on the concept of risk sharing and statistical probability. | CV8.2.1  CV8.4.1 |
| CVE/PFCE.5.3 | Evaluate insurance as a risk management strategy. | CV8.4.2  CV8.4.4  CV8.5.1 |
| CVE/PFCE.5.4 | Explain why insurance needs change throughout the life cycle. | CV8.2.1  CV8.4.4  CV8.5.1 |
| CVE/PFCE.5.5 | Research auto insurance coverages required by the state of Wyoming, as well as other recommended amounts of automobile coverage and create a table reporting the data. | CV8.2.3  CV8.2.4  CV8.3.3  CV8.3.4  CV8.4.2  CV8.4.4  CV8.5.2  CV8.5.3  CV8.5.4 |

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| CVE/PFCE.6 | | Students will assess personal skills, abilities, and aptitudes for making a good career choice; develop an individualized career plan; research a prospective career; and develop strategies to make an effective transition from school to career. | Standard Reference |
|  | CVE/PFCE.6.1 | Assess personal skills, abilities, and aptitudes and personal strengths and weaknesses as they relate to career exploration and development. | CV8.1.2  CV8.3.2 |
| CVE/PFCE.6.2 | Apply knowledge gained through individual assessment to develop a set of goals and an individualized career plan. | CV8.1.2  CV8.3.1  CV8.3.2  CV8.5.2 |
| CVE/PFCE.6.3 | Utilize internet and career resources to research a prospective career. | CV8.1.1  CV8.2.4  CV8.3.2  CV8.4.2  CV8.5.3  CV8.5.4 |
| CVE/PFCE.6.4 | Relate the importance of career readiness skills to career development. | CV8.1.3  CV8.3.2  CV8.4.4 |
| CVE/PFCE.6.5 | Develop strategies to make an effective transition from school to career. | CV8.1.3  CV8.4.2  CV8.4.4  CV8.5.2  CV8.5.4 |
| CVE/PFCE.6.6 | Demonstrate the ability to complete a job application. | CV8.1.4  CV8.3.4  CV8.4.4 |
| CVE/PFCE.6.7 | Begin compiling a list of achievements and experiences including awards, extracurricular activities, community service, as well as references for a resume. | CV8.1.1  CV8.1.4 |
| CVE/PFCE.6.8 | Identify steps to prepare for an interview and demonstrate appropriate interviewing techniques through participation in mock interviews. | CV8.1.1  CV8.1.4  CV8.2.1  CV8.4.4 |
| CVE/PFCE.6.9 | Explain the importance of appropriate interview follow-up techniques. | CV8.1.4  CV8.2.1 |

**Accounting I**

**Computer Accounting**

(grades 9-12)

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| Purpose Statement: | This is a basic course in accounting with a focus on the accounting cycle and financial statements. Students will use double entry accounting procedures in a scenario of a service business as a sole proprietorship and a merchandising corporation. Students will analyze transactions, create financial statements, record transactions in the general journal and transfer transactions from the general journal to the general ledger, record adjustments, create worksheets, record closing entries, record transactions in special journals, and computer and record payroll.  *The Career Technical Student Organization (CTSO) associated with this course: FBLA*  *Professional certification opportunities include: Excel or NACPB Bookkeeper Certification* |

Benchmarks:

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| CVE.AC.1 | | Students will compare for-profit businesses/not-for-profit businesses, and they will identify and distinguish types/forms of business ownership. | Standard Reference |
|  | CVE.AC.1.1 | Research and identify career opportunities in the accounting field. | CV 12.1.1 |
| CVE.AC.1.2 | Compare/contrast accounting to a foreign language. | CV 12.2.1 |
| CVE.AC.1.3 | Compare/contrast for-profit businesses with not-for-profit businesses. | CV 12.2.4 |
| CVE.AC.1.4 | Identify and distinguish different types and forms of businesses. | CV 12.2.4 |
| CVE.AC.1.5 | List characteristics that make someone “professional” including: appropriate personal appearance and grooming, punctual, effective communicator, responsible, honest, and has integrity. | CV12.1.4 |
| CVE.AC.1.6 | Research and evaluate how personal skills, values, and lifestyle goals affect career decisions. | CV12.1.1 |

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| CVE.AC.2 | | Students will analyze business transactions that affect assets, liabilities, owner’s equity, revenues, and expenses for a sole proprietorship-service business. Students will record and post transactions as well as produce a worksheet and financial statements. Students will apply cash controls used to protect cash. | Standard Reference |
|  | CVE.AC.2.1 | Describe/explain the relationship between property and financial claims (equities) and their effects on the accounting equation. | CV 12.4.4 |
| CVE.AC.2.2 | Use T accounts and the six-step method to illustrate and apply the rules of debits and credits and analyze transactions for assets, liabilities, owner’s capital, withdrawals, revenues, expenses. | CV 12.2.3  CV 12.4.4  CV 12.3.2  CV 12.4.3 |
| CVE.AC.2.3 | Verify the balance of the accounting equation after a business transaction has been analyzed and recorded. | CV 12.4.4 |
| CVE.AC.2.4 | Interpret and apply the first four steps of accounting cycle: collect and verify source documents, analyze transactions, record transactions in general journal, and post to general ledger. | CV 12.4.1  CV 12.4.3  CV 12.4.4 |
| CVE.AC.2.5 | Produce steps 5-7 of accounting cycle: trial balance(5), six-column worksheet(6), financial statements(7): income statement, statement of changes in owner’s equity, and balance sheet. | CV 12.4.1  CV 12.4.3  CV 12.4.4 |
| CVE.AC.2.6 | Compute and interpret ratio analysis. | CV 12.4.1  CV 12.4.3  CV 12.4.4 |
| CVE.AC.2.7 | Describe the internal controls used to protect cash  Prepare a check, bank deposit, and reconcile a bank statement. Journalize and post entries relating to bank service charges. | CV 12.3.3  CV 12.4.3  CV 12.4.4 |

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| CVE.AC.3 | | Students will analyze, record, and post payroll-related transactions for a business. Students will prepare payroll registers and prepare an employee’s earnings record. | Standard Reference |
|  | CVE.AC.3.1 | Compute gross pay using different methods. | CV 12.3.1  CV 12.3.3  CV 12.5.4 |
| CVE.AC.3.2 | Explain and compute employee-paid withholdings. |  |
| CVE.AC.3.3 | Prepare payroll registers. |  |
| CVE.AC.3.4 | Prepare an employee’s earnings record. |  |
| CVE.AC.3.5 | Record payroll transactions in the general journal. | CV 12.3.3  CV 12.4.3  CV 12.4.4  CV 12.5.4 |
| CVE.AC.3.6 | Describe the employer’s payroll taxes. |  |
| CVE.AC.3.7 | Compute and complete payroll tax expense forms. |  |
| CVE.AC.3.8 | Record the payment of tax liabilities in the general journal. |  |

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| CVE.AC.4 | | Students will analyze business transactions that affect assets, liabilities, owner’s equity, revenues, expenses, cost of merchandise sold for a corporation-merchandising business. Students will record and post all transactions as well as produce a worksheet and financial statements. | Standard Reference |
|  | CVE.AC.4.1 | Analyze and record transactions related to the sales and purchase of merchandise with cash and on account in special journals. | CV 12.5.1  CV 12.5.4 |
| CVE.AC.4.2 | Post transactions to AP & AR subsidiary ledgers, general ledgers. | CV12.3.4  CV 12.5.4 |
| CVE.AC.4.3 | Verify, foot, total, prove special journals. | CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.AC.4.4 | Produce trial balance, ten-column worksheet, and journalize adjustments. | CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.AC.4.5 | Create end-of-period financial statements: income statement, statement of retained earnings, and balance sheet. | CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.AC.4..6 | Journalize and post closing entries. | CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.AC.4.7 | Prepare post-closing trial balance. | CV 12.5.2  CV 12.5.3  CV 12.5.4 |

**Business Law**

(grades 9-12)

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| Purpose Statement: | Students will compare, contrast, classify and differentiate and hypothesize basic elements, branches, factors and outcomes of business law [including but not limited to: history of law, common law, contract law, personal law, civil law, criminal law, crimes, torts, morals, ethics, equality in law, trial procedures, equity of law and vehicles (buying, leasing, insuring, licensing)]. Students will analyze case studies of crimes, torts, contracts, buying, selling, insurance, employer-employee relations and the legal aspects of renting and owning real estate.  *The Career Technical Student Organization (CTSO) associated with this course: FBLA*  *Professional certification opportunities include: ICEV* |

Benchmarks:

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| CVE.BL.1 | | Students will distinguish and examine ethics in law, various sources of law, streams of law and how they are derived, enforced, adjudicated and viewed/perceived not only domestically but abroad and amongst different cultures and societies. | Standard Reference |
|  | CVE.BL.1.1 | Prioritize how ethical decisions are made and differentiate relationship between law and ethics. | CV 12.2.1 |
| CVE.BL.1.2 | Identify where different sources of laws are derived from and contrast to different cultures. | CV 12.3.4  CV 12.4.2 CV 12.4.3 |
| CVE.BL.1.3 | Categorize crimes into/by classifications and elements. | CV 12.2.4  CV 12.4.4 |
| CVE.BL.1.4 | Illustrate what particular crimes there are and the defenses to those crimes. | CV 12.3.3  CV 12.3.1 |
| CVE.BL.1.5 | Analyze how crime fits within the framework of the law and how it's going to be sentenced. | CV 12.3.2  CV 12.1.1  CV 12.1.2 CV 12.1.4  CV 12.5.1 |
| CVE.BL.1.6 | Appraise problems in society and contrast crime, criminals and law in other cultures. | CV 12.5.3  CV 12.1.3  CV 12.2.3 |
| CVE.BL.1.7 | Investigate harm done to property through crime and differentiate delinquency vs. unruliness. | CV 12.2.1  CV 12.4.1 |
| CVE.BL.1.8 | Interpret the law of torts and classify what would be intentional torts and accidental torts. | CV 12.2.1  CV 12.2.2 |
| CVE.BL.1.9 | Appraise negligence and mitigate of the outcomes of the actions and the disputes that arise. | CV 12.5.2  CV 12.5.4 |
| CVE.BL.1.10 | Classify those things that are encompassed by strict liability. | CV 12.5.2 |
| C.VE.BL.1.11 | Evaluate survival, wrongful death statutes and the remedies for torts. | CV 12.3.2  CV 12.4.4 |
| CVE.BL.1.12 | Differentiate crime - cases that end up in the federal court system, the state court system or working law. | CV 12.5.2  CV 12.5.2  CV 12.4.4 |
| CVE.BL.1.13 | Formulate trial procedures, both civil and criminal. Create procedures to fit these to law and civil life. | CV 12.3.1  CV 12.4.1  CV 12.5.4 |

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| CVE.BL.2 | | Students will categorize and examine the aspects of offer, acceptance, genuine agreement, capacity, consideration and legality for contract law. List the parts of contract law and how they fit together. | Standard Reference |
|  | CVE.BL.2.1 | Show how contracts originate and terminate. | CV 12.3.2  CV 12.3.3 |
| CVE.BL.2.2 | Generate the requirements of offers, acceptance and use within proper language of the law. | CV 12.2.4  CV 12.2.1 |
| CVE.BL.2.3 | Verify mistakes, misrepresentations and outright fraud. Defend genuine agreement. | CV 12.4.2  CV 12.4.3  CV 12.5.2 |
| CVE.BL.2.4 | Explain the differences between law, computer crime, duress and undue influence. | CV 12.4.3  CV 12.3.2 |
| CVE.BL.2.5 | Paraphrase a minor's rights and obligations in terms of capacity. | CV 12.4.1 |
| CVE.BL.2.6 | Confirm other contractual capacity and outline how it works within the law. | CV 12.5.2  CV 12.4.4 |
| CVE.BL.2.7 | Relate consideration within contract law and discern contracts with no consideration. | CV 12.3.2 |
| CVE.BL.2.8 | Describe adequacy of consideration and special applications of consideration apply to case study. | CV 12.3.2  CV 12.4.4 |
| CVE.BL.2.9 | Examine promises enforceable without consideration and how consideration affects everyday life. | CV 12.5.2  CV 12.2.1 |
| CVE.BL.2.10 | Interpret legality in the contractual situation and how it works with law. | CV 12.5.2  CV 12.3.3 |
| CVE.BL.2.11 | Debate agreements that affect legality and are contrary to public policy. | CV 12.3.3  CV 12.3.4 |
| CVE.BL.2.12 | Distinguish what contracts are covered by the statute of frauds. Illustrate what must be in writing. | CV 12.2.1  CV 12.3.3 |
| CVE.BL.2.13 | Establish when contracts end and the use of parol evidence. | CV 12.2.1  CV 12.5.2 |
| CVE.BL.2.14 | Describe discharge by performance, discharge by impossibility and discharge within the law. | CV 12.4.1  CV 12.3.2  CV 12.4.2 |
| CVE.BL.2.15 | Interpret transfer of rights, duties, third parties, breach, remedies, and minimizing damages. | CV 12.5.2  CV 12.2.4  CV 12.4.1 |

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| CVE.BL.3 | | Students examine aspects of obtaining, insuring, servicing and licensing vehicles | Standard Reference |
|  | CVE.BL.3.1 | Relate differences in leasing, renting and purchasing a vehicle. | CV 12.4.4  CV 12.3.3  CV 12.5.3 |
| CVE.BL.3.2 | Differentiate different types of insurance coverages and what is applicable and legally binding. | CV 12.2.4  CV 12.4.2 |
| CVE.BL.3.3 | Compute taxes, fees and other costs oflicensing a vehicle in Wyoming. | CV 12.1.4 |
| CVE.BL.3.4 | Investigate the repairing and upkeep of vehicles. | CV 12.3.2 |

**Business Management**

(grades 9-12)

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| Purpose Statement: | Students will compare, contrast, classify and differentiate and hypothesize basic elements, branches, factors and outcomes of business management [including but not limited to: types of businesses (sole proprietorship / partnership / corporation) managerial styles, ethics, employer law, employee law, hiring - firing law, criminal law, payroll including taxes and deductions, human resource foundations, written communications, morals, ethics, equality in the workplace, insurance regulations, equity of law, discounts, transportation, and reconciling a checkbook. Students will analyze authentic situations, problems, operational procedures and human resource developments pertaining to the business world.  *The Career Technical Student Organization (CTSO) associated with this course: FBLA or FCCLA*  *Professional certification opportunities include: Skills USA Career Essentials/Customer Service* |

Benchmarks:

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| CVE.BM.1 | | Students will distinguish different types of business models (Sole Proprietorship - Partnership - Corporation) and examine ethics in management practices, styles and procedures. They will analyze best practice situations as to how they are derived, enforced, delivered and viewed/perceived from both the employee and the employer end of things. Students will also investigate the stock market and the role that it plays on the US and global economy. | Standard Reference |
|  | CVE.BM.1.1 | Build a vocabulary that details aspects of business models. | CV12.4.1  CV12.4.2 |
| CVE.BM.1.2 | Compare and contrast different types of business models and the pros and cons of such. | CV12.3.3  CV12.4.4 |
| CVE.BM.1.3 | Illustrate different business models as they fit into the US, state and local economies and future trends. | CV12.1.2  CV12.5.3 |
| CVE.BM.1.4 | Analyze and identify what the student's interests are in terms of a business. | CV12.2.1  CV12.3.1  CV12.1.1 |
| CVE.BM.1.5 | Build a vocabulary that details all aspects of managerial styles. | CV12.3.2  CV12.4.2 |
| CVE.BM.1.6 | Compare and contrast different types of managerial styles and how they can strengthen a business. | CV12.5.1  CV12.3.1 |
| CVE.BM.1.7 | Evaluate the student's strengths and weaknesses in terms of the student's managerial style. | CV12.1.1  CV12.1.4  CV12.1.3 |

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| CVE.BM.2 | | Students will determine how payroll (including taxes and other deductions) is completed. They will also compute discounts and billing cycles of business transactions. Students will identify best practice methods for the communications of the day to day activities of a given business. | Standard Reference |
|  | CVE.BM.2.1 | Build a vocabulary that details the logistics of a payroll system for a business. | CV12.3.2  CV12.4.2 |
| CVE.BM.2.2 | Compare and contrast different deductions within a business of both the business and the individual. | CV12.5.1  CV12.3.4 |
| CVE.BM.2.3 | Complete the filing of needed tax forms and codes of a business team member using the needed deductions. | CV12.3.1  CV12.4.3 |
| CVE.BM.2.4 | Outline a sample pay period completion of a team member of a business. | CV12.5.2  CV12.5.2 |
| CVE.BM.2.5 | Build a vocabulary that details the discounts a business might give or receive. | CV12.4.1  CV12.4.2 |
| CVE.BM.2.6 | Design models that show the discounts a business will give or receive. | CV12.4.4  CV12.5.4 |
| CVE.BM.2.7 | Generate the communication documents needed for a business not limited to memos, letters, etc. | CV12.5.3  CV12.2.1 |

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| CVE.BM.3 | | Students will separate the appropriate items to complete the bank checkbook items including opening an account, filling out deposit slips, writing checks and reconciling the account at the end of the cycle. | Standard Reference |
|  | CVE.BM.3.1 | Build a vocabulary that details aspects of a checking account for either business or personal. | CV12.4.1  CV12.4.2 |
| CVE.BM.3.2 | Generate checking account needs including opening an account, deposits, checks, reconciliation. | CV12.4.3  CV12.2.1 |
| CVE.BM.3.3 | Complete the cycle of a checking account. | CV12.4.2  CV12.5.3 |

**Computer I**

**Computer Literature**

(grades 9-12)

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| Purpose Statement: | Students will apply integrated software skills common in the business world. Students will start at a beginning level and build to an intermediate level using an integrated software suite, such as Microsoft Office. Applications will include: word processing, spreadsheets, database, presentations, and several lessons that integrate two or more applications. |

Benchmarks:

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| CVE.C1.1 | | Students will demonstrate and apply beginning to intermediate skills in Microsoft Office applications, and produce projects for word processing, presentation, database, desktop publishing and spreadsheet. | Standard Reference |
|  | CVE.C1.1.1 | Create, edit and format documents. | CV 12.4.1 |
| CVE.C1.1.2 | Create spreadsheets, formulas, functions and charts. | CV 12.4.4 |
| CVE.C1.1.3 | Create databases, build and use queries, forms and reports. | CV 12.4.4  CV 12.4.3 |
| CVE.C1.1.4 | Develop presentations, insert objects, customize and animate slides. | CV 12.4.1  CV 12.4.3  CV 12.4.4 |
| CVE.C1.1.5 | Integrate data between Word, Excel, and PowerPoint. | CV 12.5.1  CV 12.5.2  CV 12.5.4 |
| CVE.C1.1.6 | Produce desktop publishing documents. | CV 12.5.1  CV 12.5.2  CV 12.5.4 |
| CVE.C1.1.7 | Evaluate the appearance of individuals in the workforce and illustrate appropriate dress for a given occupation. | CV12.1.4 |

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| CVE.C1.2 | | Students will interpret the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical. | Standard Reference |
|  | CVE.C1.2.1 | Cultivate and manage their digital identities and reputations and predict the consequences of their actions in the digital world. | CV 12.5.1 |
| CVE.C1.2.2 | Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. | CV 12.5.3 |
| CVE.C1.2.3 | Manage the ethical responsibility of and respect for the rights and obligations of using and sharing intellectual property. | CV 12.5.3 |
| CVE.C1.2.4 | Manage their personal data to maintain digital privacy and security and utilize data-collection technology used to track their navigation online. | CV 12.5.1 |
| CVE.C1.2.5 | List characteristics that make someone “professional” including: appropriate personal appearance and grooming, punctual, effective communicator, responsible, honest, and has integrity. | CV12.1.4 |

**Personal Finance**

**Personal Finance/Careers**

(grades 9-12)

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| Purpose Statement: | Students will evaluate basic economic concepts related to the students’ roles as consumers, producers, and citizens. Students will demonstrate how to shape their own financial lives, positively influence government and business economic policies and participate fully in the economic system of the United States. Students will develop financial skills for personal and family well-being; such as management of resources, financial services, responsible use of credit, consumer decisions, and consumer rights and responsibilities.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.PF.1 | | Students will explore job and career options, produce completed job applications, resumes and cover letters. | Standard Reference |
|  | CVE.PF.1.1 | Describe the different categories of work and compare and contrast strategies to use for finding a job. | CV12.1.1  CV12.1.2  CV12.1.4 |
| CVE.PF.1.2 | Complete a job application with the proper information. Critique real examples of and explain key strategies to maximize the effectiveness of a resume and cover letter. Create their own resume and cover letter. | CV12.1.4  CV12.2.1  CV12.3.1  CV12.4.1 |
| CVE.PF.1.3 | Identify characteristics of an effective interview strategy (e.g., positive and negative responses to questions). Practice appropriate follow-up after an interview. | CV12.1.4  CV12.2.1  CV12.3.1 |
| CVE.PF.1.4 | Examine how economic and other conditions affect income and career opportunities and the need for lifelong training and education. | CV12.1.1  CV12.1.2  CV12.1.3  CV12.3.1  CV12.3.2  CV12.3.4 |

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| CVE.PF.2 | | Students will describe the purpose of taxes, explain how taxes are paid and demostrate how to file taxes. | Standard Reference |
|  | CVE.PF.2.1 | Explain where income taxes are collected from and how they provide revenue for public expenses. Identify common misconceptions about taxes and state the correct facts. | CV12.3.1  CV12.3.2 |
| CVE.PF.2.2 | Read a pay stub and summarize the different deductions. Compare how different types of income are taxed. Summarize why making contributions to a Roth IRA with their earnings and/or tax refunds can be a good saving strategy. | CV12.3.1  CV12.3.2 |
| CVE.PF.2.3 | Demonstrate how to file taxes and make payments if taxes are owed. | CV12.3.3  CV12.4.2  CV12.4.3 |
| CVE.PF.2.4 | Distinguish between different tax forms and the situations where each needs to be used. | CV12.2.4  CV12.3.3  CV12.4.2  CV12.4.3 |

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| CVE.PF.3 | | Students will investigate basics of banking, research plans for spending and saving, and summarize ways to save money. | Standard Reference |
|  | CVE.PF.3.1 | Investigate basics of checking accounts and practice the variety of ways to conduct various banking activities (e.g. direct deposit, write a check, use an ATM, person-to-person payment, deposit, withdrawal). | CV12.2.4  CV12.4.2  CV12.4.3  CV12.5.1 |
| CVE.PF.3.2 | Compare and contrast the advantages and disadvantages of using online and mobile banking. Explore common checking account fees and how to avoid them. Examine how overdraft protection works and the impact of overdraft fees. Identify ways to protect a checking account. | CV12.2.4  CV12.4.2 |
| CVE.PF.3.3 | Identify reasons for saving, how much to save, strategies to enable saving, and compare saving and investing. | CV12.3.1  CV12.3.4 |
| CVE.PF.3.4 | Identify everyday obstacles experienced when trying to save money. Explore why it is important to maintain an emergency fund. Identify various rules of thumb and strategies to save money and determine whether a direct deposit or manually saving is the better strategy. | CV12.3.1  CV12.3.2  CV12.3.4 |
| CVE.PF.3.5 | Describe how compound interest works to increase savings and the impact of inflation on savings. | CV12.3.2  CV12.4.2 |
| CVE.PF.3.6 | Compare and contrast different savings vehicles such as a savings account, CD, and money market account. | CV12.4.2  CV12.4.3 |

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| CVE.PF.4 | | Students will contrast the costs and benefits of various types of credit, Interpret credit reports, appraise strategies to avoid or correct debt management problems and summarize consumer credit laws. | Standard Reference |
|  | CVE.PF.4.1 | Identify the major types of credit and their characteristics. Summarize and correctly use the three basic components of lines of credit: principal, interest rate, and term. | CV12.3.2  CV12.4.2 |
| CVE.PF.4.2 | Describe how a credit card works in terms of making purchases, managing payments, and avoiding interest charges. | CV12.3.2  CV12.4.2  CV12.4.3 |
| CVE.PF.4.3 | Review the Schumer Box and credit card agreement to understand key terms before signing up for a credit card. Interpret the fine print of a credit card offer and how to avoid credit marketing schemes. | CV12.3.2  CV12.4.2 |
| CVE.PF.4.4 | Discuss how amortization works. Assess different kinds of loans and why it can be difficult to qualify for a loan. Describe the basics of how payday and auto title loans work and what role they play in the financial landscape. | CV12.3.1  CV12.3.2  CV12.4.2 |
| CVE.PF.4.5 | Recognize the main terms of auto loans and how they may impact monthly payment amounts. Generate steps to take if a car loan is no longer affordable. | CV12.3.2  CV12.4.2 |
| CVE.PF.4.6 | Discuss what a mortgage is and why most Americans require one to finance a home. Evaluate how down payment, term, and principal influence the overall cost of a mortgage and the size of monthly payments. | CV12.3.1  CV12.4.2 |
| CVE.PF.4.7 | Investigate ways to begin establishing credit. Interpret a credit report and how long each data type is retained and understand which people or organizations may review your credit report and why. Describe how credit score impacts the ability to borrow money and at what rate. | CV12.2.4  CV12.3.2  CV12.4.3 |
| CVE.PF.4.8 | Interpret key components of the Fair Credit Reporting Act and the Equal Credit Opportunity Act and how they impact lenders and borrowers. | CV12.4.2  CV12.4.3 |
| CVE.PF.4.9 | Investigate different types of identity theft and how they might occur. | CV12.2.2  CV12.3.1  CV12.3.2 |
| CVE.PF.4.10 | Evaluate the consequences for not paying one’s debts and how to pay down debt. | CV12.2.2  CV12.3.1  CV12.3.4 |

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| CVE.PF.5 | | Students will explore how investing may build wealth and help meet financial goals and investigate investment alternatives, and demonstrate how to buy and sell investments. | Standard Reference |
|  | CVE.PF.5.1 | Compare saving and investing and when to use each strategy. | CV12.3.1  CV12.3.2  CV12.3.4 |
| CVE.PF.5.2 | Summarize the relationship between risk and return and how it applies to investing. | CV12.3.2 |
| CVE.PF.5.3 | Explain the stock market, the basics of how it functions, and how investors interact with a stock exchange. | CV12.3.1  CV12.3.2  CV12.4.2  CV12.4.3 |
| CVE.PF.5.4 | Discover how much is needed to save to achieve their savings goals for retirement and compare features for various retirement accounts (e.g. 401(k)s, Roth I.R.A.s and Traditional I.R.A.s). | CV12.3.1  CV12.3.2  CV12.3.4  CV12.4.2  CV12.4.3 |

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| CVE.PF.6 | | Students will explore common types of risks and basic risk management methods and justify reasons to use different kinds of insurance (i.e. property, liability, health, disability, long-term care and life insurance). | Standard Reference |
|  | CVE.PF.6.1 | Identify risks and protection strategies. Explain the basics of how insurance companies operate. | CV12.3.2 |
| CVE.PF.6.2 | Describe basic information about distinct insurance policy types and discern commonalities between different types of insurance. | CV12.3.2  CV12.4.2 |
| CVE.PF.6.3 | List factors that determine auto insurance premiums. Investigate the main types of auto insurance policies. Explain deductible, out-of-pocket expenses, and what insurance will pay for in different situations. | CV12.3.2  CV12.4.2 |
| CVE.PF.6.4 | Explore the fundamentals of how health insurance works. Distinguish between premiums and out-of-pocket expenses and their relationship in paying for health coverage. Compare and contrast the benefits of employer-sponsored health insurance and other ways to enroll. | CV12.3.1  CV12.3.2  CV12.4.2 |

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| CVE.PF.7 | | Students will categorize the responsibilities associated with personal finance decisions, use reliable resources when making financial decisions and make criterion-based financial decisions by systematically considering alternatives and consequences. They will investigate the requirements of contractual obligations, control personal information and critique personal financial plans. | Standard Reference |
|  | CVE.PF.7.1 | Research the average costs of all expenses associated with a post-secondary education. Differentiate and evaluate various types of financial aid, student loans and alternatives as a means of paying for post-secondary education. | CV12.1.2  CV12.1.3  CV12.3.1  CV12.3.2 |
| CVE.PF.7.2 | Recommend steps to take to prepare for student loan repayment. Explain the different loan repayment options available to them. Interpret the consequences of not making student loan payments. | CV12.3.2  CV12.3.4 |
| CVE.PF.7.3 | Track and evaluate spending habits and expenses. Determine what priorities and financial goals are. Demonstrate how a budget can help achieve financial goals. | CV12.3.1  CV12.5.2 |
| CVE.PF.7.4 | Investigate what budgeting is and why it is important. Identify typical cost categories that are included in an adult budget. Describe the importance of calculating one’s net worth and how budgeting can help increase net worth. | CV12.3.4 |
| CVE.PF.7.5 | Explore the difference between gross income and net income. Defend the importance of using net income when budgeting. Construct a salary-based budget. | CV12.3.4  CV12.4.2  CV12.5.2 |
| CVE.PF.7.6 | Investigate “cost of living” and why it changes depending on location. Devise what steps are needed to find and rent an apartment. Explore renter’s insurance and rental agreements. Predict the advantages and disadvantages of living with roommates. | CV12.3.1  CV12.3.2 |
| CVE.PF.7.7 | Research the initial, recurring, and potential other costs that come with owning a car. Identify alternatives to car ownership and the costs associated with these options. | CV12.3.1  CV12.3.2  CV12.5.2 |
| CVE.PF.7.8 | Discover a variety of strategies to save money on groceries. Calculate the unit price on common grocery items and use it as a part of the decision making process. Plan a food budget that takes both groceries and dining out into consideration. | CV12.3.4  CV12.5.2 |
| CVE.PF.7.9 | Investigate common budgetary mistakes to avoid. Compare and contrast budgetary needs and wants and how these change from person to person. Discover strategies to use when trying to determine a need from a want. | CV12.3.1  CV12.5.2 |

**Digital Information Technology**

(grades 9-12)

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| Purpose Statement: | Students will compare computer applications, practice web design, utilize emerging technologies and operating systems, and develop skills in project management, including communication methods. Students will analyze Information Technology careers and what skills they need to pursue those careers. Students will analyze how different skills relate to various career paths. |

Benchmarks:

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| CVE.DIT.1 | | Students will analyze different components (i.e. hardware, software, file naming and structure, and maintenance) needed to keep technology running efficiently. | Standard Reference |
|  | CVE.DIT.1.1 | Evaluate different computer hardware, peripherals, and operating systems. | CV12.1.4  CV12.5.3 |
| CVE.DIT.1.2 | Assess the importance of file management, evaluate different places to save or back-up files, and identify various types of file extensions. | CV12.4.2  CV12.4.4  CV12.5.1 |
| CVE.DIT.1.3 | Apply computer maintenance skills (i.e. basic diagnosing and troubleshooting techniques.) | CV12.3.3  CV12.5.4 |
| CVE.DIT.1.4 | Analyze the different types of networks, how they work, and their pros and cons. | CV12.4.2  CV12.5.3 |
| CVE.DIT.1.5 | Practice appropriate keyboarding techniques and safe ergonomics. | CV12.4.4  CV12.5.3 |
| CVE.DIT.1.6 | Compare and contrast features of different email accounts and word processing applications. Apply basic features needed to complete word processing documents (i.e. visually appealing, enhancements, spell check, comments, and tracking). | CV12.1.4  CV12.2.1  CV12.4.1  CV12.5.3 |

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| CVE.DIT.2 | | Students will analyze ethical issues in the workplace, awareness of workplace essentials (i.e. customer service, human relations, ethics, procedures and policies). They will analyze emerging technologies in the global marketplace, practice constructive criticism, conflict resolution and project management in the workplace. | Standard Reference |
|  | CVE.DIT.2.1 | Analyze copyright licensing, piracy, public domain, and ethical behavior. They will also apply ethical decision-making practices. | CV12.2.2  CV12.2.4  CV12.4.3 |
| CVE.DIT.2.2 | Discuss how to apply workplace essentials (customer service, business ethics, rules and regulations, and human relations) along with personal and interpersonal skills needed to be successful in the workplace. | CV12.1.4  CV12.2.1  CV12.2.2  CV12.2.4  CV12.3.1 |
| CVE.DIT.2.3 | Analyze emerging technologies and their impact on the global marketplace. | CV12.3.1  CV12.3.2  CV12.3.4  CV12.5.1 |
| CVE.DIT.2.4 | Analyze and demonstrate constructive criticism, problem resolution, and basic project management skills. | CV12.4.3 |

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| CVE.DIT.3 | | Students will use features available in spreadsheet programs, databases, and mail merge. | Standard Reference |
|  | CVE.DIT.3.1 | Use terminology needed to understand different concepts regarding spreadsheets. Create and format cell data, demonstrate how to merge and split cells, how to insert hyperlinks, and how to use autocomplete and autofill. | CV12.1.4  CV12.4.2  CV12.4.3  CV12.4.4 |
| CVE.DIT.3.2 | Create formulas and use functions to make their work easier. | CV12.1.4  CV12.4.2  CV12.4.4 |
| CVE.DIT.3.3 | Demonstrate how to use charts and tables to make their content more visually appealing. | CV12.1.4  CV12.4.4 |
| CVE.DIT.3.4 | Analyze databases and how they can be used to perform different tasks. | CV12.1.4  CV12.3.2  CV12.4.4 |

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| CVE.DIT.4 | | Students will apply important web terminology, and internet protocol. They will explore behind-the-scenes of the internet, and browser security. Students will conduct and cite research on the web. | Standard Reference |
|  | CVE.DIT.4.1 | Analyze internet protocol and what makes up the internet, intranet, and extranet. | CV12.1.4  CV12.4.3 |
| CVE.DIT.4.2 | Analyze a GUI and how it works. Analyze browser security settings and how to get the most out of an internet search. | CV12.4.4 |
| CVE.DIT.4.3 | Compare and contrast web-based and mobile applications along with the appropriate use of social networking sites, blogs, and collaborative tools. | CV12.1.4  CV12.4.4 |
| CVE.DIT.4.4 | Analyze what makes up a URL and associated protocols. Analyze different types of internet networks. | CV12.4.4 |
| CVE.DIT.4.5 | Compare and contrast various online reference materials. Read and comprehend technical and non-technical resources, and how to cite sources used on the internet. | CV12.1.4  CV12.4.2 |

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| CVE.DIT.5 | | Students will analyze and develop a web page, (i.e. storyboarding, HTML coding, editing, publishing). Students will also demonstrate how a WYSIWYG can be used to assist in creating a web page. | Standard Reference |
|  | CVE.DIT.5.1 | Use basic HTML terminology, analyze parts of a webpage, and then create their own webpage. | CV12.4.1  CV12.4.4  CV12.5.4 |
| CVE.DIT.5.2 | Apply color theory and analyze how it applies to web-page design, and storyboarding. | CV12.4.4  CV12.4.1 |
| CVE.DIT.5.3 | Edit images, add images to a webpage, and use WYSIWYG software. | CV12.4.4  CV12.5.4 |

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| CVE.DIT.6 | | Students will evaluate presentation software and use the applications to present information in a meaningful and engaging format. | Standard Reference |
|  | CVE.DIT.6.1 | Utilize presentation software to create engaging presentations. | CV12.1.4  CV12.2.1  CV12.4.1  CV12.4.3 |
| CVE.DIT.6.2 | Enhance presentations by inserting images and videos. | CV12.1.4  CV12.5.3  CV12.5.4 |
| CVE.DIT.6.3 | Analyze how the use of colors can add to or take away from the impact of their presentation. | CV12.5.3  CV12.5.4 |
| CVE.DIT.6.4 | Compare and contrast the appropriate and inappropriate use of animations and transitions in a presentation. | CV12.5.3  CV12.5.4 |

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| CVE.DIT.7 | | Students will assess career opportunities and utilize IT skills both in the IT industry and in everyday jobs. Students will analyze and practice how to showcase these skills when writing a cover letter and résumé and when interviewing. | Standard Reference |
|  | CVE.DIT.8.1 | Discuss skills employers are looking for in future employees and how students should pay attention to local and global trends in the workforce when deciding their career path. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.DIT.8.2 | Analyze the importance of showcasing talents in a résumé and cover letter. Practice how to prepare themselves for an interview and what to do afterwards. | CV12.1.4 |
| CVE.DIT.8.3 | Analyze career resources, the importance of a career growth plan, and how to find the right mentor in the workplace. | CV12.1.1  CV12.1.2  CV12.1.3 |

**Web Page Design I**

(grades 9-12)

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| Purpose Statement: | Students will design, develop, test, implement, update, and evaluate web pages using HTML and CSS code. They will create sticky websites, websites so rich in content and features, and so well organized, that visitors “stick around” viewing the content and come back often.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: Adobe Dreamweaver (Certiport) Second Class* |

Benchmarks:

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| CVE.WEB1.1 | | Students will edit existing web pages to learn the basic layout and formatting of web pages using an HTML web page editor. | Standard Reference |
|  | CVE.WEB1.1.1 | View a web page and its source code to analyze the structure of the style and body sections of the document. | CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2 |
| CVE.WEB1.1.2 | Adjust the color of the background, heading, subheading, and paragraphs in the style section. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.3 | Change the colors of the elements using hex coding. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.4 | Change the width of elements and the font family of the text. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.5 | Change the font size of the heading, subheading, and paragraphs. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.6 | Change the font size of one paragraph in the document. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.7 | Adjust the text alignment of the heading, subheading, and paragraphs. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.8 | Change the alignment of an image to left, right, or center. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.1.9 | Use padding to change the spacing around an object. | CV.12.5.1  CV12.5.3  CV12.5.4 |

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| CVE.WEB1.2 | | Students will design and construct a web page using HTML and CSS coding. | Standard Reference |
|  | CVE.WEB1.2.1 | Storyboard their web page before they build the content in the page. | CV12.2.1  CV12.4.1  CV12.4.4  CV12.5.1 |
| CVE.WEB1.2.2 | Create the structure of their web page using a HTML editor, such as brackets.io, following the formatting guidelines given to them. | CV12.4.4  CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.2.3 | Enhance their page by inserting video, pictures, hyperlinks, background, tables, color, and font. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.2.4 | Create Cascading Style Sheet section, CSS, to format the look, function, navigation, and style of their page. Formatting will include a primary and secondary background, headings, subheadings, paragraphs, images, videos, and hyperlinks of text and images. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.2.5 | Add meta tags using keywords to make the content searchable on the internet. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.2.6 | Present their web page to the class, show their coding, and explain any difficulties they had with the project and how they solved the problem. | CV12.2.1  CV12.3.4  CV12.5.3  CV12.5.4 |
| CVE.WEB1.2.7 | Create a “class” to format a single element differently than similar elements. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.2.8 | Present their web page to the class, show their coding, and explain any difficulties they had with the project and how they solved the problem. | CV12.2.1  CV12.3.4  CV12.5.3  CV12.5.4 |

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| CVE.WEB1.3 | | Students will design, construct and format a website with three pages which are linked with hyperlinks. | Standard Reference |
|  | CVE.WEB1.3.1 | By applying skills learned students will create four pages on a topic of their choice. | CV12.3.1  CV12.3.3  CV12.4.4  CV12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.3.2 | Create hyperlinked text and images to pages on the web using html code. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.3.3 | Create professional backgrounds using images for the primary background and color for the secondary background. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.3.4 | Create a table to enhance the presentation of information. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.3.5 | Format an unordered list with bullet points and an ordered list using numbers. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.3.6 | Create a “class” to format a single element differently then similar elements. | CV.12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.3.7 | Present their web page to the class, show their coding, and explain any difficulties they had with the project and how they solved the problem. | CV12.2.1  CV12.3.4  CV12.5.3  CV12.5.4 |

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| CVE.WEB1.4 | | Students will create a three page website about their future to include research on a chosen career and the college or technical school of their choice. Students will create a page on their hopes and dreams for the future. | Standard Reference |
|  | CVE.WEB1.4.1 | Use the skills learned in the above benchmarks to create three pages on their career and life. | CV12.3.1  CV12.3.3  CV12.4.4  CV12.5.1  CV12.5.3  CV12.5.4 |
| CVE.WEB1.4.2 | For the first page they will research a career of their choice using the Bureau of Labor Statistics, bls.gov. They need to find the entry level requirements, expected salary, number of people currently employed and the future outlook for job growth. | CV12.2.1  CV12.2.2  CV12.2.4  CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3 |
| CVE.WEB1.4.3 | For the second page they will research a college or trade school that will prepare them for their career. They will research the cost and requirement of the degree or training. | CV12.2.1  CV12.2.2  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.2 |
| CVE.WEB1.4.4 | Tell about the history of the school or any other points of interest. | CV12.2.1  CV12.2.2  CV12.2.4  CV12.3.3  CV12.4.2 |
| CVE.WEB1.4.5 | Page three they will tell about their hopes and dreams for the future to set achievable goals and targets for their future. | CV12.2.1  CV12.2.2  CV12.2.4  CV12,3,1  CV12.3.3  CV12.3.4  CV12.4.2 |
| CVE.WEB1.4.6 | Present their web page to the class, show their coding, and explain any difficulties they had with the project and how they solved the problem. | CV12.2.1  CV12.3.4  CV12.5.3  CV12.5.4 |

**Child Development**

(grades 7-8)

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| Purpose Statement: | Students will interpret positive family relationships and evaluate the family as a whole. Students will the compare and contrast the role of the family and analyze the development of children from conception to preschool age. Students will apply safety and health practices when interacting with children. |

Benchmarks:

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| CVE.CD.1 | | Students will evaluate the significance of family and its effect on the well-being of individuals and society. | Standard Reference |
|  | CVE.CD.1.1 | Identify characteristics of different family structures including family types and the family life cycle. | CV8.2.1  CV8.3.1  CV8.3.4 |
| CVE.CD.1.2 | Explain the effects of family on individuals and society. | CV8.2.1  CV8.3.1 |
| CVE.CD.1.3 | Identify the strengths of the family and how to make it stronger. | CV8.2.1  CV8.3.1  CV8.3.4 |
| CVE.CD.1.4 | Determine factors that contribute to healthy and unhealthy relationships. | CV8.2.1  CV8.3.1  CV8.4.3 |
| CVE.CD.1.5 | Recognize the role of family in teaching culture, traditions and societal expectations. | CV8.1.4  CV8.2.1  CV8.3.4  CV8.4.3 |

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| CVE.CD.2 | | Students will identify the effects of parenting roles and responsibilities on strengthening the well-being of individuals and families. | Standard Reference |
|  | CVE.CD.2.1 | Identify the roles and responsibilities of parents. | CV8.1.4  CV8.2.2  CV8.3.4 |
| CVE.CD.2.2 | Identify parenting practices that maximize human growth and development, including positive guidance techniques. | CV8.2.1  CV8.2.2  CV8.3.2 |
| CVE.CD.2.3 | Identify the characteristics of safe, quality childcare. | CV8.3.4  CV8.4.3 |
| CVE.CD.2.4 | Identify the types of child abuse and the legal rights of parents and children. | CV8.2.4  CV8.4.3 |
| CVE.CD.2.5 | Demonstrate the ability to care for a simulated infant child. | CV8.1.4  CV8.2.2  CV8.3.4 |

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| CVE.CD.3 | | Students will demonstrate knowledge of human development from conception through preschool age. | Standard Reference |
|  | CVE.CD.3.1 | Identify positive and negative behaviors that affect health throughout the life span. | CV8.2.4  CV8.3.2  CV8.3.4  CV8.4.3 |
| CVE.CD.3.2 | Summarize the human conception process. | CV8.2.2  CV8.3.2  CV8.3.4 |
| CVE.CD.3.3 | Identify characteristics of prenatal development, signs of pregnancy, and risks of teen pregnancy. | CV8.2.3  CV8.3.1  CV8.3.2  CV8.4.3 |
| CVE.CD.3.4 | Identify the stages of childbirth. | CV8.3.2  CV8.3.4  CV8.4.3 |
| CVE.CD.3.5 | Analyze the effect of heredity and environment on human growth and development. | CV8.3.4  CV8.5.2 |
| CVE.CD.3.6 | Research existing theories in child development. | CV8.2.2  CV8.5.3 |

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| CVE.CD.4 | | Students will produce a children’s book appropriate to child development. | Standard Reference |
|  | CVE.CD.4.1 | Describe the growth and development of a newborn to age one. | CV8.3.4  CV8.2.3  CV8.5.4 |
| CVE.CD.4.2 | Describe the growth and development of a toddler. | CV8.3.4  CV8.2.2  CV8.2.3  CV8.5.4 |
| CVE.CD.4.3 | Describe the growth and development of a preschool age child. | CV8.3.4  CV8.2.3  CV8.5.4 |

**Skills for Healthy Living**

(grades 7-8)

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| Purpose Statement: | Students will examine factors that impact personal development and gain an understanding of healthy relationships at home, school, and in the community. Students will demonstrate effective communication skills at home, school, and in the community. Students will demonstrate nutrition and wellness practices that enhance individual and family well-being. Students will apply life and resource management practices to human, economic and environmental resources. Students will be aware of and demonstrate professionalism and employability skills. |

Benchmarks:

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| CVE.SHL.1 | | Students will analyze factors that influence individual, family and community life. | Standard Reference |
|  | CVE.SHL.1.1 | Identify and apply the decision-making process. | CV8.3.1  CV8.3.3 |
| CVE.SHL.1.2 | Demonstrate knowledge of stress management strategies for family, work, and community settings. | CV8.2.1  CV8.3.2 |
| CVE.SHL.1.3 | Set goals for lifelong learning (i.e., short-term, intermediate, and long-term goals). | CV8.3.3  CV8.3.4 |
| CVE.SHL.1.4 | Be knowledgeable of and demonstrate awareness of characteristics of an effective leader. | CV8.2.3  CV8.2.4 |

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| CVE.SHL.2 | | Students will analyze ways to build and maintain healthy family, school, and community relationships. | Standard Reference |
|  | CVE.SHL.2.1 | Analyze functions and expectations of various types of relationships. | CV8.3.1  CV8.3.3 |
| CVE.SHL.2.2 | Identify skills and components of respectful healthy relationships. | CV8.3.1 |
| CVE.SHL.2.3 | Develop ways to improve family relationships, school relationships, and community relationships. | CV8.2.1 |
| CVE.SHL.2.4 | Analyze processes for building and maintaining interpersonal relationships. | CV8.2.1  CV8.3.3 |

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| CVE.SHL.3 | | Students will apply effective communication skills in family, school and in the community. | Standard Reference |
|  | CVE.SHL.3.1 | Recognize and demonstrate verbal and nonverbal behaviors and attitudes that contribute to effective communication. | CV8.2.1  CV8.2.2 |
| CVE.SHL.3.2 | Demonstrate communication skills that contribute to positive relationships. | CV8.2.1  CV8.2.2 |
| CVE.SHL.3.3 | Examine barriers to communication in family, school and in community settings. | CV8.2.1  CV8.2.2 |
| CVE.SHL.3.4 | Demonstrate awareness of ethical principles of communication in family, school, and community settings, including the ethical use of communication technology. | CV8.2.1  CV8.2.3  CV8.2.4 |

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| CVE.SHL.4 | | Students will analyze how food choices can impact one’s health and lifestyle. | Standard Reference |
|  | CVE.SHL.4.1 | Analyze food choices that meet nutritional guidelines. | CV8.3.2 |
| CVE.SHL.4.2 | Explore factors that affect kitchen safety, sanitation and management. | CV8.3.3 |
| CVE.SHL.4.3 | Demonstrate ways to prepare simple healthy meals and snacks. | CV8.3.4 |

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| CVE.SHL.5 | | Students will analyze life and resource management skills to incorporate throughout the lifespan. | Standard Reference |
|  | CVE.SHL.5.1 | Analyze effective money management skills. | CV8.3.3 |
| CVE.SHL.5.2 | Describe the importance of family housing. | CV8.3.1 |
| CVE.SHL.5.3 | Apply elements and principles of design to personal space. | CV8.3.1  CV8.3.2  CV8.3.4 |
| CVE.SHL.5.4 | Develop skills to keep home and personal space clean and safe. | CV8.3.1 |
| CVE.SHL.5.5 | Investigate the employability skills needed to be successful in a career of interest through a guest speaker. | CV8.1.2 |

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| CVE.SHL.6 | | Students will demonstrate professionalism and employability skills. | Standard Reference |
|  | CVE.SHL.6.1 | Develop personal goals and a time management plan. | CV8.1.4 |
| CVE.SHL.6.2 | Explore ways to balance the responsibilities of family, school and work. | CV8.1.4 |
| CVE.SHL.6.3 | Research different job avenues to identify job opportunities. | CV8.1.1  CV8.1.4 |
| CVE.SHL.6.4 | Demonstrate job-keeping skills for the workplace. | CV8.1.1  CV8.1.4 |
| CVE.SHL.6.5 | Produce written communication skills appropriate to the setting. | CV8.1.1  CV8.1.4 |

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| CVE.SHL.7 | | Students will analyze and demonstrate skills to incorporate through textile development. | Standard Reference |
|  | CVE.SHL.7.1 | Develop skills in clothing care and maintenance. | CV8.3.1  CV8.3.4 |
| CVE.SHL.7.2 | Analyze fashion trends and peer influences on clothing. | CV8.2.3  CV8.3.2 |
| CVE.SHL.7.3 | Develop skills for clothing construction. | CV8.3.1  CV8.3.2 |
| CVE.SHL.7.4 | Apply skills working with machine and hand construction of items. | CV8.3.1  CV8.3.2 |

**Foods and Wellness I**

(grades 7-8)

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| Purpose Statement: | Students will evaluate the safety and sanitation of a kitchen, show proper technique of kitchen tools and equipment and evaluate food choices using MyPlate guidelines. |

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| CVE.FW1.1 | | Students will evaluate the safety of a kitchen, explain the sanitation procedures of keeping food safe to eat, and identify the sources, symptoms, and treatment of food poisoning. | Student Reference |
|  | CVE.FW1.1.1 | List how to prevent injuries and first aid procedures in the kitchen. | CV 8.2.4  CV 8.3.1 |
| CVE.FW1.1.2 | Sort what products are appropriate to put on a fire and grease fire in the kitchen to extinguish them. | CV 8.3.3 |
| CVE.FW1.1.3 | Examine and illustrate a dangerous kitchen and list the unsafe and unsanitary things. | CV 8.3.1 |
| CVE.FW1.1.4 | Explain and demonstrate proper food handling such as hand washing, personal hygiene, appropriate attire, cross-contamination and danger zone temperatures. | CV 8.1.4  CV 8.2.2  CV 8.3.1  CV 8.4.2  CV 8.5.3 |
| CVE.FW1.1.5 | Diagnose the top six common foodborne illnesses that we can receive when we consume contaminated food. | CV 8.3.1  CV 8.3.4  CV 8.4.1 |
| CVE.FW1.1.6 | Demonstrate proper knife handling and cutting skills. | CV 8.3.3  CV 8.3.4  CV 8.4.2 |

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| CVE.FW1.2 | | Students will name basic kitchen tools and their purpose, define basic cooking vocabulary, identify the parts of a recipe, use kitchen conversions in a recipe, and summarize how microwaves cook food. | Student Reference |
|  | CVE.FW1.2.1 | Label and describe the name and purpose of each of the kitchen tools and equipment. | CV 8.2.4  CV 8.3.2 |
| CVE.FW1.2.2 | Match cooking terms with their definitions. | CV 8.3.2  CV 8.4.2 |
| CVE.FW1.2.3 | Analyze and describe the purpose of different parts of a recipe. | CV 8.3.2  CV 8.5.3 |
| CVE.FW1.2.4 | Calculate the amounts of ingredient measurements for a recipe that are doubled and halved. | CV 8.3.1  CV 8.3.3 |
| CVE.FW1.2.5 | Reiterate how microwaves cook food using electromagnetic wave. | CV 8.4.2  CV 8.4.4 |

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| CVE.FW1.3 | | Students will compose a personal MyPlate and explain the FDA’s dietary guidelines and sort food into the correct food group. | Student Reference |
|  | CVE.FW1.3.1 | Create a MyPlate specific for their needs. | CV 8.3.3  CV 8.4.1  CV 8.5.2  CV 8.5.4 |
| CVE.FW1.3.2 | Report the FDA’s guidelines for their specific age range, gender, and physical activity level. | CV 8.2.4  CV 8.4.1  CV 8.4.4 |
| CVE.FW1.3.3 | Categorize food into the grains group and explain the leavening agent of quick breads. | CV 8.3.2  CV 8.4.2 |
| CVE.FW1.3.4 | Categorize food into the Fruits and Vegetables groups and debate the definition of fruits and vegetables. | CV 8.3.2  CV 8.4.2 |
| CVE.FW1.3.5 | Categorize food into the protein group and label parts of an egg. | CV 8.3.2  CV 8.4.2 |
| CVE.FW1.3.6 | Categorize food into the Dairy group and explain the process of pasteurization and homogenization. | CV 8.3.2  CV 8.4.2 |
| CVE.FW1.3.7 | Categorize food into the Sugars and Fats group and explain how these affect the body. | CV 8.3.2  CV 8.4.2 |

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| CVE.FW1.4 | | Students will label and describe the parts of the digestive system, report on the pros and cons and functions of each of the macro- and micro-nutrients, and explain the benefit of why the body needs them. | Student Reference |
|  | CVE.FW1.4.1 | Label the organs and parts of the body that are involved with digestion. | CV 8.3.3  CV 8.5.1 |
| CVE.FW1.4.2 | Categorize both the macro and micro nutrients into their correct category. | CV 8.4.1 |
| CVE.FW1.4.3 | Label and describe the digestive system track. | CV 8.3.1  CV 8.5.1 |
| CVE.FW1.4.4 | Summarize the main function, recommended daily allowance and the upper limits of each major nutrients. | CV 8.2.4 |
| CVE.FW1.4.5 | Describe the consequences of over-or-under-consumption of the major nutrients. | CV 8.2.1  CV 8.3.1  CV 8.3.3 |

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| CVE.FW1.5 | | Students will evaluate food labels and explain if they are a good source of nutrients. | Student Reference |
|  | CVE.FW1.5.1 | Label and explain the different parts of a food label. | CV 8.3.1  CV 8.4.2 |
| CVE.FW1.5.2 | Define the terms found on food labels such as low-in, reduced, less, light, good source of, organic/natural, high source of, 100% juice. | CV 8.3.1 |
| CVE.FW1.5.3 | Compare and contrast multiple labels. | CV 8.2.4  CV 8.3.1  CV 8.3.3  CV 8.4.1  CV 8.4.4 |
| CVE.FW1.5.4 | Choose a food label and analyze its content to determine if it is a healthy choice for their diet. | CV 8.3.1 |

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| CVE.FW1.6 | | Student will explore careers within the foods industry. | Student Reference |
|  | CVE.FW1.6.1 | Record the different types of careers including the education level, salary, duties and outlook. | CV 8.1.1  CV 8.1.2  CV 8.1.3 |
| CVE.FW1.6.2 | Collect data and create a presentation on a career that interests them within the foods industry. | CV 8.1.4 |

**Foods and Wellness II**

(grades 7-8)

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| Purpose Statement: | Students will create a food business using consumerism principles. Students will analyze the purpose of ingredients in yeast breads, classify the different cuts of meat and describe the basic ingredients and assembly for salads, soups, sauces, pies and tarts. |

Benchmarks:

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| CVE.FW2.1 | | Students will prepare a recipe using the basic principles they learned from Foods I and perform knife safety skills. | Standard Reference |
|  | CVE.FW2.1.1 | Prepare a recipe demonstrating the skills they learned in Foods I (i.e. safety and sanitation, kitchen tools, cooking terms, parts of a recipe and MyPlate). | CV 8.3.1  CV 8.3.2  CV 8.5.3 |
| CVE.FW2.1.2 | Review knife safety skills and perform several new level 2 cuts (small, medium, large dice, julienne, batonnet, paysanne, mince). | CV 8.3.3  CV 8.4.2  CV 8.5.3  CV 8.5.4 |

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| CVE.FW2.2 | | Students will develop and execute a business plan for a food shop. | Standard Reference |
|  | CVE.FW2.2.1 | Create a meal budget using current prices. | CV 8.2.4  CV 8.3.2 |
| CVE.FW2.2.2 | List and explain shopping guidelines. | CV 8.3.1  CV 8.4.2 |
| CVE.FW2.2.3 | Research different advertising and selling tactics. | CV 8.2.4  CV 8.3.4  CV 8.4.4 |
| CVE.FW2.2.4 | Plan, prepare and execute a business plan for their food shop. | CV 8.2.1  CV 8.2.3  CV 8.3.2  CV 8.4.1  CV 8.4.3  CV 8.5.4 |

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| CVE.FW2.3 | | Students will explain and demonstrate correct cooking techniques for yeast breads, protein, soups, salads and pies. | Standard Reference |
|  | CVE.FW2.3.1 | Perform proper mixing, kneading, rising/resting, rolling and cooking techniques for yeast bread. | CV 8.2.3  CV 8.4.2  CV 8.5.3 |
| CVE.FW2.3.2 | Categorize each meat (i.e. beef, pork, poultry, seafood), explain correct cooking methods and list their proper final cooking temperature. | CV 8.2.4 |
| CVE.FW2.3.3 | Build and arrange a salad based on the principles of freshness, color, texture and ingredients. | CV 8.4.2 |
| CVE.FW2.3.4 | List the differences between cream and stock soups. | CV 8.4.2 |
| CVE.FW2.3.5 | Discuss the purpose of a single and double shell for pies. | CV 8.5.3 |

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| CVE.FW2.4 | | Students will set the table correctly and demonstrate proper manners that should take place at the table. | Standard Reference |
|  | CVE.FW2.4.1 | Differentiate between formal and informal table settings. | CV 8.4.2  CV 8.5.1 |
| CVE.FW2.4.2 | Name and describe the purpose of the appropriate dinnerware, glassware and silverware. | CV 8.4.3  CV 8.5.1 |
| CVE.FW2.4.3 | Individually demonstrate how to set a proper table. | CV 8.5.3  CV 8.5.4 |
| CVE.FW2.4.4 | Perform different ways to garnish plates. | CV 8.5.3 |
| CVE.FW2.4.5 | List proper table manners and explain why they are important. | CV 8.3.1 |
| CVE.FW2.4.6 | Critique a video/real life scenario of proper table manners. | CV 8.3.3 |
| CVE.FW2.4.7 | List the do’s and don’ts of table service. | CV 8.5.3 |

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| CVE.FW2.5 | | Students will analyze food choices and availability, preparation and presentation of foods in other countries of the world and compare and contrast them to the United States. | Standard Reference |
|  | CVE.FW2.5.1 | Research the available food, traditional recipes, and meal time customs of one other country of the world. | CV 8.2.4  CV 8.3.1  CV 8.5.2 |
| CVE.FW2.5.2 | Compare and contrast their selected country’s customs to the United States’ customs. | CV 8.3.3  CV 8.4.1  CV 8.4.3 |
| CVE.FW2.5.3 | Justify which of the countries has a better meal plan for the health benefit of the body. | CV 8.2.1 |

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| CVE.FW2.6 | | Students will explore careers within the foods industry and present a career of interest. | Standard Reference |
|  | CVE.FW2.6.1 | Record the different types of careers including the education level, salary, duties and outlook. | CV 8.1.1  CV 8.1.2  CV 8.1.3 |
| CVE.FW2.6.2 | Collect data and create a presentation on a career that interests them within the foods industry. | CV 8.1.4 |

**Introduction to Food Science**

(grades 7-8)

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| Purpose Statement: | Students will conduct experiments on food using the scientific method to gather data and compile reports including information of pH levels, major nutrients and microbiology. |

Benchmarks:

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| CVE.FS.1 | | Students will label kitchen tools, demonstrate how to use the equipment correctly, demonstrate appropriate attire and behaviors for labs and kitchen safety. | Standard Reference |
|  | CVE.FS.1.1 | Draw and describe appropriate attire for working in the lab. | CV 8.3.1 |
| CVE.FS.1.2 | List ways to prevent injuries and fires, how to treat injuries and proper ways to put out kitchen/grease fires. | CV 8.2.4  CV 8.3.3 |
| CVE.FS.1.3 | Identify and name kitchen tools and equipment found in the kitchen. | CV 8.4.2 |
| CVE.FS.1.4 | Demonstrate knife skills by proper knife selection, knife handling and cutting skills. | CV 8.5.1  CV 8.5.3  CV 8.5.4 |

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| CVE.FS.2 | | Students will conduct experiments using the Scientific Method to collect data on chemical bonding, phase change, pH levels and sensory characteristics. | Standard Reference |
|  | CVE.FS.2.1 | Define FDA, USDA and HACCP and research governmental regulations involved in these agencies. | CV 8.2.4 |
| CVE.FS.2.2 | Debate the Natural vs. Organic topic. | CV 8.2.2  CV 8.3.1 |
| CVE.FS.2.3 | Illustrate the scientific method process and explain what should occur at each step. | CV 8.3.1 |
| CVE.FS.2.4 | Explain how molecular compounds are made and process of phase changes. | CV 8.3.2 |
| CVE.FS.2.5 | Categorize foods by pH levels and describe the importance of knowing the pH levels in our food. | CV 8.4.2 |
| CVE.FS.2.6 | Conduct a sensory experiment by including physical influences, appearance, flavor and textures. | CV 8.2.3  CV 8.4.3  CV 8.5.4 |

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| CVE.FS.3 | | Students will identify the structures of carbohydrates, lipids and proteins and distinguish their chemical changes. | Standard Reference |
|  | CVE.FS.3.1.1 | Illustrate the Farm-to-Table process of food. | CV 8.3.1  CV 8.4.2 |
| CVE.FS.3.2 | Define the main purpose of water, carbohydrates, protein, vitamins and minerals. | CV 8.3.2 |
| CVE.FS.3.3 | Compare and contrast simple carbs to complex carbs. | CV 8.3.1 |
| CVE.FS.3.4 | Explain the differences between fatty acids, unsaturated, polyunsaturated, monounsaturated, saturated and trans fats. | CV 8.3.3 |
| CVE.FS.3.5 | Describe the process of hydrogenation, rancidity, melting point, solidification point, smoke point and flash point. | CV 8.3.2 |
| CVE.FS.3.6 | Identify protein structures (i.e. amino acids) and complete and incomplete proteins. | CV 8.4.2 |
| CVE.FS.3.7 | Analyze the effect of enzymes, catalyst and coagulation in protein foods. | CV 8.4.4 |
| CVE.FS.3.8 | Compare and contrast fat-soluble vs water-soluble and major minerals vs. minor minerals. | CV 8.3.1 |

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| CVE.FS.4 | | Students will determine proper food preparation, processing, additives, and preservation. | Standard Reference |
|  | CVE.FS.4.1 | Compare the difference of colloidal dispersions, emulsions and suspensions in food. | CV 8.3.1 |
| CVE.FS.4.2 | Explain the growth process and uses of bacteria, fungus, molds, yeasts and fermentation. | CV 8.3.3 |
| CVE.FS.4.3 | Illustrate the factory packaging lines for food including governmental regulations, pH levels, packaging products and labeling. | CV 8.3.1  CV 8.4.2 |
| CVE.FS.4.4 | Hypothesize the physical and chemical changes food will undergo when going through the preservation process (i.e. canning, freezing, dehydration). | CV 8.3.1  CV 8.3.3  CV 8.4.2 |
| CVE.FS.4.5 | Identify substitutes and additives in foods and explain their purpose. | CV 8.4.2 |

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| CVE.FS.5 | | Students will plan, create and execute a self-driven experiment of their choice on food. | Standard Reference |
|  | CVE.FS.5.1 | Ask and present a question. | CV 8.3.1 |
| CVE.FS.5.2 | Research information that connects to their question. | CV 8.4.3 |
| CVE.FS.5.3 | Create and write a hypothesis. | CV 8.4.1  CV 8.4.3 |
| CVE.FS.5.4 | Perform the experiment and collect data. | CV 8.5.3  CV 8.5.4 |
| CVE.FS.5.5 | Analyze data from experiment. | CV 8.4.1 |
| CVE.FS.5.6 | Report and present the results to class. | CV 8.3.4 |

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| CVE.FS.6 | | Student will explore careers within the foods industry and present on a career of interest. | Standard Reference |
|  | CVE.FS.6.1 | Record the different types of careers including the education level, salary, duties and outlook. | CV 8.1.1  CV 8.1.2  CV 8.1.3 |
| CVE.FS.6.2 | Collect data and create a presentation on a career that interests them within the foods industry. | CV 8.1.4 |

**Exploring Childhood I**

(grades 10-12)

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| Purpose Statement: | Students will explore child development theories and development from birth to preschool. Students will evaluate the significant roles and responsibilities of families and parents. Students will investigate factors that impact human growth and development from conception to preschool age.  *The Career Technical Student Organization (CTSO) associated with this course: FCCLA*  *Professional certification opportunities include: AAFCS Education* |

Benchmarks:

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| CVE.EC1.1 | | Students will investigate child development theories. | Standard Reference |
|  | CVE.EC1.1.1 | Define child development. | CV12.2.3 |
| CVE.EC1.1.2 | Explain developmental domains (i.e., physical, intellectual, social, and emotional) | CV12.2.3  CV 12.4.1 |
| CVE.EC1.1.3 | Research child development theories in relation to birth to preschool age. | CV12.2.3  CV12.3.3  CV12.4.1 |

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| CVE.EC1.2 | | Students will evaluate the significance of families and parents. | Standard Reference |
|  | CVE.EC1.2.1 | Compare and contrast different family structures and parenting styles. | CV12.3.3 |
| CVE.EC1.2.2 | Identify the components of the family life cycle. | CV12.3.3 |
| CVE.EC1.2.3 | Explain the effects of family on individuals and society. | CV12.3.3 |
| CVE.EC1.2.4 | Classify factors that contribute to healthy and unhealthy relationships. | CV12.2.1  CV 12.4.1 |
| CVE.EC1.2.5 | Distinguish cultures, traditions and societal expectations in different families. | CV12.3.3  CV 12.4.1 |
| CVE.EC1.2.6 | Discuss the importance of communication in a family and in a parenting role. | CV12.3.3 |
| CVE.EC1.2.7 | Investigate child abuse and neglect and the current laws related to parenting. | CV12.3.1  CV12.3.2  CV12.3.4  CV 12.4.1 |
| CVE.EC1.3 | | Students will investigate human development from conception to birth. | Standard Reference |
|  | CVE.EC1.3.1 | Define vocabulary for conception and pregnancy. | CV12.5.2 |
| CVE.EC1.3.2 | Compare and contrast behaviors that affect health throughout pregnancy. | CV 12.5.2 |
| CVE.EC1.3.3 | Summarize the human conception process. | CV 12.5.2 |
| CVE.EC1.3.4 | Discuss characteristics of prenatal development. | CV12.2.1 |
| CVE.EC1.3.5 | Identify the stages of childbirth. | CV12.2.1 |
| CVE.EC1.3.6 | Analyze the effect of heredity and environment on human growth and development. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.3.4 |

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| CVE.EC1.4 | | Students will describe physical, intellectual, social, and emotional development from newborn through preschool age children. | Standard Reference |
|  | CVE.EC1.4.1 | Identify the growth and development of a newborn to age one. | CV12.3.1  CV12.3.3  CV12.3.4 |
| CVE.EC1.4.2 | Describe the growth and development of a toddler. | CV12.3.1  CV12.3.3  CV12.3.4 |
| CVE.EC1.4.3 | Explain the growth and development of a preschool age child. | CV12.3.1  CV12.3.3  CV12.3.4 |

**Exploring Childhood II**

(grades 10-12)

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| Purpose Statement: | Students will differentiate instruction for diverse learners in an educational environment. Students will plan for instruction using various learning strategies. Students will explore various careers working with preschool age children. Students will use professional standards when working with preschool children.  *The Career Technical Student Organization (CTSO) associated with this course: FCCLA*  *Professional certification opportunities include: AAFCS Education* |

Benchmarks:

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| CVE.EX2.1 | | Students will explore educational theories, philosophies and learning strategies in education. | Standard Reference |
|  | CVE.EX2.1.1 | Describe major theories of education and their significance regarding teaching and learning. | CV 12.3.2  CV 12.3.4 |
| CVE.EX2.1.2 | Explore and summarize educational philosophies. | CV 12.3.2  CV 12.3.4  CV 12.4.4 |
| CVE.EX2.1.3 | Select learning strategies that are age appropriate for preschool age children. | CV12.3.2  CV12.3.2 |

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| CVE.EX2.2 | | Students will compare and diverse learners in an educational environment. | Standard Reference |
|  | CVE.EX2.2.1 | Define diversity and identify ways people are diverse (e.g., culture, ethnicity, race, gender, linguistic, religion, social/economic, disability, etc.) | CV 12.3.2  CV 12.3.4 |
| C.2VE.EX2.2 | Research and apply instructional strategies to meet the needs of diverse students. | CV 12.3.4 |
| CVE.EX2.2.3 | Explain the importance of connecting educational content to diverse populations of learners. | CV 12.3.2  CV 12.3.4 |

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| CVE.EX2.3 | | Students will plan and prepare educational practices and instructions. | Standard Reference |
|  | CVE.EX2.3.1 | Name the types of information included in the educational standards for the state. | CV 12.2.2  CV 12.5.1 |
| CVE.EX2.3.2 | Interpret the components of an effective lesson plan, pacing guide, instructional units, and curriculum. | CV 12.3.4  CV 12.5.2 |
| CVE.EX2.3.3 | Explain the benefits and limitations of technology in the learning environment. | CV 12.3.4  CV 12.5.2 |
| CVE.EX2.3.4 | Describe various instructional methods (direct, small group, inquiry-based etc.). | CV 12.3.4  CV 12.5.2 |
| CVE.EX2.3.5 | Explain how assessment relates to learning. | CV 12.2.2  CV 12.5.3 |

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| CVE.EX2.4 | | Students will apply concepts required in early childhood education to run a preschool program for children 3-5. | Standard Reference |
|  | CVE.EX2.4.1 | Create an instructional unit with individual lesson plans for preschool age children using instructional strategies and meeting the needs of diverse learners. | CV12.2.3  CV 12.4.1 |
| CVE.EX2.4.2 | Generate instruction to meet children’s developmental needs and interests. | CV12.2.3  CV12.3.3  CV 12.4.1 |
| CVE.EX2.4.3 | Apply the components of a safe and healthy learning environment for children. | CV12.2.3  CV 12.5.2 |
| CVE.EX2.4.4 | Demonstrate communication skills when working with adults, peers, and children. | CV12.2.3  CV 12.4.1 |
| CVE.EX2.4.5 | Apply professional standards and laws related to working with children. | CV12.2.3  CV 12.4.1  CV 12.5.2 |

**Education and Training**

(grades 10-12)

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| Purpose Statement: | Students will interact with elementary students and work directly with an elementary classroom teacher. In this capacity, the student will observe young students in classroom situations, work one-on-one with students from diverse populations, assist with both small and large groups of students, and observe and demonstrate professional practices.  *Note: Students may be required to have a background check before they are placed in the classroom.*  *The Career Technical Student Organization (CTSO) associated with this course: FCCLA*  *Professional certification opportunities include: AAFCS Education* |

Benchmarks:

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| CVE.EDU.1 | | Students will identify and explain the challenges and rewards of becoming a teacher in today’s society. | Standard Reference |
|  | CVE.EDU.1.1 | Identify the challenges of teaching. | CV12.2.2  CV12.3.1  CV12.3.4 |
| CVE.EDU.1.2 | Explain the benefits of teaching. | CV12.2.2  CV12.3.1  CV12.3.4 |
| CVE.EDU.1.3 | Investigate what society expects of teacher. | CV12.2.2  CV12.3.1  CV12.3.3 |
| CVE.EDU.1.4 | Identify how to become a highly qualified teacher. | CV12.1.1  CV12.1.2  CV12.1.4  CV12.2.2 |

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| CVE.EDU.2 | | Students will analyze career paths, opportunities, and benefits of pursuing careers in education. | Standard Reference |
|  | CVE.EDU.2.1 | Describe specific work environments, salary, and benefits of education careers. | CV12.1.2  CV12.1.4  CV12.4.2 |
| CVE.EDU.2.2 | Demonstrate professionalism and employability skills. | CV12.1.1  CV12.1.2  CV12.1.4  CV12.4.2 |
| CVE.EDU.2.3 | Explain the purpose of, describe the parts of, and prepare a letter of application. | CV12.1.4  CV12.4.2 |
| CVE.EDU.2.4 | List the guidelines for and prepare a resume. | CV12.1.4  CV12.4.2 |
| CVE.EDU.2.5 | Describe the letter of reference and explain why it is useful to job applicants. | CV12.1.4  CV12.4.2 |
| CVE.EDU.2.6 | Describe what it means to be punctual in the workplace (i.e. arrive early enough to begin working at the start time), and demonstrate punctuality in class. | CV12.1.4  CV12.4.2 |
| CVE.EDU.2.6 | Perform self-assessments, research, and explore a career, set the career goals, create a plan for achieving goals, and describe the relationship of Family and Consumer Sciences coursework to the selected career. | FCCLA |

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| CVE.EDU.3 | | Students will analyze what teachers do each day in the educational setting to assess it as a full-time profession. | Standard Reference |
|  | CVE.EDU.3.1 | Identify the expectations of teachers on a daily basis in the classroom. | CV12.1.4  CV12.2.1  CV12.3.4 |
| CVE.EDU.3.2 | Interpret the knowledge and skills needed to be a successful educator. | CV12.1.1  CV12.1.4  CV12.2.1  CV12.3.4 |
| CVE.EDU.3.3 | Assess teaching as a full-time profession. | CV12.1.4  CV12.2.1  CV12.3.4 |

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| CVE.EDU.4 | | Students will analyze the role of schools in today’s society to identify characteristics of successful schools and identify social problems that affect schools. | Standard Reference |
|  | CVE.EDU.4.1 | Identify the responsibility of schools in today’s society. | CV12.2.1  CV12.3.3 |
| CVE.EDU.4.2 | Analyze the characteristics of successful schools. | CV 12.2.1  CV12.3.3 |
| CVE.EDU.4.3 | Identify social problems that affect schools and place students at risk. | CV12.2.1  CV12.3.3 |

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| CVE.EDU.5 | | Students will analyze educational theories and philosophies to develop their own philosophy. | Standard Reference |
|  | CVE.EDU.5.1 | Identify why a philosophy of education is important to teachers. | CV12.3.3  CV12.4.1  CV12.4.2 |
| CVE.EDU.5.2 | Describe the major theories of education and their significance regarding teaching and learning. (e.g., Piaget, Erikson, Gardner, Maslow, Vygotsky, etc.) | CV12.3.3  CV12.4.1  CV12.4.2 |
| CVE.EDU.5.3 | Explore and summarize the various branches of educational philosophies (e.g., Constructivism, Behaviorism, Essentialism, Progressivism, etc.). | CV12.3.3  CV12.4.1  CV12.4.2 |
| CVE.EDU.5.4 | Develop an educational philosophy. | CV12.3.3  CV12.4.1  CV12.4.2 |

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| CVE.EDU.6 | | Students will analyze the history of education to describe the evolution of schools and educational legislation. | Standard Reference |
|  | CVE.EDU.6.1 | Describe the contributions of influential historical figures in education (Benjamin Franklin, Thomas Jefferson, Horace Mann, John Dewey, Maria Montessori, etc.). | CV12.3.3  CV 12.4.2 |
| CVE.EDU.6.2 | Describe the evolution of schools (public, private, charter, magnet, Career and Technical education, online, and home school). | CV12.3.3  CV 12.4.2 |
| CVE.EDU.6.3 | Analyze the evolution of educational legislation (e.g., Civil Rights Act, title One, Section 504, IEP, Vocational Education, etc.). | CV12.3.3  CV 12.4.2 |

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| CVE.EDU.7 | | Students will compare and contrast state and federal governance of U.S. schools and opportunities for financing public schools. | Standard Reference |
|  | CVE.EDU.7.1 | Identify the powers that influence states in governing schools. | CV12.1.1  CV12.5.1  CV12.3.3 |
| CVE.EDU.7.2 | Explain how the federal government influences education. | CV12.5.1  CV12.3.3 |
| CVE.EDU.7.3 | Analyze how schools are financed in the United States. | CV 12.1.1  CV12.5.1  CV12.3.3 |

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| CVE.EDU.8 | | Students will explore and demonstrate ethical practices (e.g. confidentiality, impartiality, equity, privacy, cybersecurity, etc.) and research legal issues in the education system. | Standard Reference |
|  | CVE.EDU.8.1 | Investigate and evaluate educational practices (lesson plans, attendance, procedures, classroom management, etc.). | CV12.2.1  CV12.4.2  CV12.3.3  CV12.3.4  CV12.5.1 |
| CVE.EDU.8.2 | Identify the legal rights of a teacher. | CV12.2.1  CV12.4.2  CV12.3.3  CV12.2.4 |
| CVE.EDU.8.3 | Demonstrate professionalism in the educational setting. | CV12.2.1  CV12.4.2  CV12.3.3  CV12.2.4  CV12.5.1 |
| CVE.EDU.8.4 | Research federal, state, and local education laws. | CV12.4.2  CV12.3.3  CV12.2.4  CV12.5.1 |

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| CVE.EDU.9 | | Students will analyze student diversity and the needs of exceptional learners. | Standard Reference |
|  | CVE.EDU.9.1 | Analyze how a student’s needs change as they develop. | CV12.3.3  CV12.3.4  CV12.4.3  CV12.5.1 |
| CVE.EDU.9.2 | Identify the defining characteristics of exceptional learners, including children with disabilities and children with gifted abilities. | CV12.3.3  CV12.3.4  CV12.4.3  CV12.5.1 |
| CVE.EDU.9.3 | Define specially designed instruction as it relates to special education. | CV12.3.3  CV12.3.4  CV12.4.3  CV12.5.1 |
| CVE.EDU.9.4 | Analyze an Individual Education Plan (IEP) and the legal responsibilities associated with IEP’s. | CV12.3.3  CV12.3.4  CV12.4.3  CV12.5.1 |
| CVE.EDU.9.5 | Explain the benefits of inclusive practices in support of exceptional learners. | CV12.3.3  CV12.3.4  CV12.4.3  CV12.5.1 |

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| CVE.EDU.10 | | Students will analyze curriculum standards and student learning, and develop a high-quality classroom assessment. | Standard Reference |
|  | CVE.EDU.10.1 | Explain what role standards will play in your classroom. | CV12.2.1  CV12.3.4  CV12.4.2 |
| CVE.EDU.10.2 | Explain standards-based education. | CV12.3.4  CV12.4.2 |
| CVE.EDU.10.3 | Compare and contrast methods used to assess student learning. | CV12.2.1  CV12.3.4  CV12.4.2 |
| CVE.EDU.10.4 | Develop a high-quality classroom assessment. | CV12.2.1  CV12.3.4  CV12.4.2 |
| CVE.EDU.10.5 | Demonstrate their ability to use knowledge and skills gained from their environment in an occupational early childhood program. Plan and present an activity related to the theme. | FCCLA |
| CVE.EDU.10.6 | Explore the education and training fields through research and hands-on experiences. Prepare a portfolio of the teaching training career, prepare and execute a complete lesson/workshop plan and oral presentation. | FCCLA |

**Kitchen Basics**

(grades 9-12)

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| Purpose Statement: | Students will apply basic food safety and sanitation. Students will demonstrate introductory cooking skills. Students will practice correct procedures for measuring ingredients while cooking simple recipes. Students will discuss and display how to budget for meals, grocery shop, and organize a kitchen. |

Benchmarks:

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| CVE.KB.1 | | Students will apply basic safety and sanitation techniques, determine why they are using the technique, and demonstrate it during their labs. | Standard Reference |
|  | CVE.KB.1.1 | Recall appropriate food temperatures and food safety terminology. | CV12.5.1 |
| CVE.KB.1.2 | List the major causes of food contamination and recognize signs of food contamination. | CV12.3.1 |
| CVE.KB.1.3 | Evaluate your and your teammate’s ability to provide a clean and safe kitchen work environment. | CV12.2.1 |
| CVE.KB.1.4 | Clean and sanitize work surfaces and equipment. | CV12.1.4 |
| CVE.KB.1.5 | Demonstrate safety around a kitchen (i.e handling knives and equipment, first aid procedures, operating a stove). | CV12.1.4  CV12.2.4 |
| CVE.KB.1.6 | Produce six uniform pieces for each knife cut meeting industry standards and demonstrate the proper safety and sanitation procedures. | FCCLA |

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| CVE.KB.2 | | Students will identify the parts of the recipe, demonstrate how to measure various ingredients, use basic cooking and baking terms, and use cooking and baking equipment. | Standard Reference |
|  | CVE.KB.2.1 | Identify the seven different parts of a recipe and explain the importance of each part. | CV12.4.2  CV12.4.3 |
| CVE.KB.2.2 | Accurately measure using the correct measuring tool for different ingredients (i.e. wet vs dry, TBS vs tsp). | CV12.4.1  CV12.4.2 |
| CVE.KB.2.3 | Determine the correct equipment needed for the specific task. | CV12.4.3 |
| CVE.KB.2.4 | Demonstrate the different cooking and baking terminology used in recipes. | CV12.2.2  CV12.4.3 |
| CVE.KB.2.5 | Solve common culinary arts problems using math skills including measurements, fractions, decimals, conversions, yield percents and costs. | FCCLA |

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| CVE.KB.3 | | Students will plan and prepare simple, well balanced meals while working in a team within the given amount of time. | Standard Reference |
|  | CVE.KB.3.1 | Identify staple ingredients and the purpose in the kitchen. | CV12.5.2 |
| CVE.KB.3.2 | Create a food budget while comparing brands, stores, and quantity for the best unit price. | CV12.3.4  CV12.5.2 |
| CVE.KB.3.3 | Select quality food products (i.e. fresh produce and meats). | CV12.3.3  CV12.5.2 |
| CVE.KB.3.4 | Interpret a food label (i.e. serving size, ingredients, and nutrient facts). | CV12.3.1  CV12.3.2 |
| CVE.KB.3.5 | Display responsibility in the kitchen by performing the selected tasks, job, and/or activities. | CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.KB.3.6 | Display appropriate time management skills during a cooking lab to ensure the product is finished in a timely manner. | CV12.2.2 |
| CVE.KB.3.7 | Plan and prepare simple, well balanced meals and prepare a list of ingredients and determine quantities needed for the recipe. | CV12.5.2 |
| CVE.KB.3.8 | Work as a member of a team to produce a quality meal using industrial culinary arts/food service techniques and equipment. Teams of participants must develop a plan for the time allotted, prepare menu items given to them at the time of the event, and present their prepared items. | FCCLA |

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| CVE.KB.4 | | Students will produce a variety of food products using staple kitchen ingredients. Students will identify healthy meal choices while creating simple, well balanced meals. Students will apply recipe modifications to store bought foods. | Standard Reference |
|  | CVE.KB.4.1 | Demonstrate egg safety and at least two ways to cook eggs (scrambled, fried). | CV12.5.1  CV12.5.2 |
| CVE.KB.4.2 | Follow a recipe to produce quick, easy snacks. | CV12.5.1  CV12.5.2 |
| CVE.KB.4.3 | Create simple well-balanced meals. | CV12.5.1  CV12.5.2 |
| CVE.KB.4.4 | Apply recipe modifications to store bought food. | CV12.5.1  CV12.5.2 |
| CVE.KB.4.5 | Analyze the cooking process after completing the cooking lab for improvements and successes. | CV12.5.1  CV12.5.2 |

**Culinary Arts I**

(grades 10-12)

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| Purpose Statement: | Students will apply knowledge of ingredients and measurements to create meals successfully. Students will demonstrate appropriate safety and sanitation procedures in the kitchen following HACCP guidelines. Students will evaluate a finished product and suggest improvements when needed. Students will implement the proper techniques for thawing, preparing, cooking, and holding, displaying, serving, transporting, cooling, and reheating food various times throughout the year. Students will be able to demonstrate proper knife techniques and produce products that are the correct size.  *The Career Technical Student Organization (CTSO) associated with this course: FCCLA*  *Professional certification opportunities include: ServSafe Management* |

Benchmarks:

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| CVE.CUL1.1 | | Students will apply basic safety and sanitation techniques, determine why they are using the technique, and demonstrate it during their labs. | Standard Reference |
|  | CVE.CUL1.1.1 | Recall appropriate food temperatures and food safety terminology. | CV12.5.1 |
| CVE.CUL1.1.2 | Recall the major causes of food contamination and recognize signs of food contamination. | CV12.3.1 |
| CVE.CUL1.1.3 | Evaluate your and your teammate’s ability to provide a clean and safe kitchen work environment. | CV12.2.1 |
| CVE.CUL1.1.4 | Demonstrate and apply both cleaning and sanitizing for work surfaces and equipment. | CV12.1.4 |
| CVE.CUL1.1.5 | Complete the HACCP guidelines certification. | CV12.1.4  CV12.2.1  CV12.3.1  CV12.5.1 |

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| CVE.CUL1.2 | | Students will identify the parts of the recipe, demonstrate how to measure various ingredients, use basic cooking terms, and use cooking equipment. | Standard Reference |
|  | CVE.CUL1.2.1 | Identify the seven different parts of a recipe and explain the importance of each part. | CV12.4.2  CV12.4.3 |
| CVE.CUL1.2.2 | Select the correct measuring tool for different ingredients (i.e. wet vs dry, TBS vs tsp). | CV12.4.1  CV12.4.2 |
| CVE.CUL1.2.3 | Determine the correct equipment needed for the specific task. | CV12.4.3 |
| CVE.CUL1.2.4 | Demonstrate the different cooking terminology used in recipes. | CV12.2.2  CV12.4.3 |
| CVE.CUL1.2.5 | Solve common culinary arts problems using math skills including measurement, fractions, decimals, conversion, yield percents, and costs. | FCCLA |

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| CVE.CUL1.3 | | Students will demonstrate proper knife cuts, the four-step method of cutting, and knife safety. Students will demonstrate proper cooking techniques to create soups, salads, and sandwiches. | Standard Reference |
|  | CVE.CUL1.3.1 | Show the four-step cutting method to demonstrate various knife cuts, as well as properly sharpening different types of knives. | CV12.5.3 |
| CVE.CUL1.3.2 | Identify compatible sizes, textures, and colors of ingredients to create a soup and salad. | CV12.3.3 |
| CVE.CUL1.3.3 | Distinguish differences between different categories of salads, sandwiches and soups and prepare them accordingly. | CV12.5.4 |
| CVE.CUL1.3.4 | Produce six uniform pieces for each knife cut meeting industry standards and demonstrate proper safety and sanitation procedures. | FCCLA |

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| CVE.CUL1.4 | | Students will explore careers within the foods industry and present a career of interest. Students will explore food history and theorize the future of the industry. | Standard Reference |
|  | CVE.CUL1.4.1 | Analyze the different types of careers including the education level, salary, duties and five year outlook. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CUL1.4.2 | Construct an informational presentation (ex. brochure) on a career that interests them within the foods industry. | CV12.1.4 |
| CVE.CUL1.4.3 | Investigate and discuss the major changes throughout history concerning food, including revelations throughout different eras, and hypothesize what the future may hold in the food industry. | CV12.3.2 |
| CVE.CUL1.4.4 | Perform self-assessments, research and explore a career, set the career goals, create a plan for achieving goals, and describe the relationship of Family and Consumer Sciences coursework to the selected career. | FCCLA |

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| CVE.CUL1.5 | | Students will identify and produce each of the five modern mother sauces. Students will use and differentiate between herbs and spices. | Standard Reference |
|  | CVE.CUL1.5.1 | Compare and contrast the uses and optimal storage for various herbs and spices. | CV12.3.3 |
| CVE.CUL1.5.2 | Classify ingredients as an herb or a spice. | CV12.5.1 |
| CVE.CUL1.5.3 | Create dishes using each of the five mother sauces. | CV12.5.1 |
| CVE.CUL1.5.4 | Assemble various sauces beginning with a mother sauce base and adding complimentary herbs and spices. | CV12.5.4 |

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| CVE.CUL1.6 | | Students will analyze a variety of breakfast foods and the value in different preparations. | Standard Reference |
|  | CVE.CUL1.6.1 | List common breakfast protein choices, their characteristics, and proper preparation. | CV12.4.3 |
| CVE.CUL1.6.2 | Demonstrate at least five ways to cook eggs. | CV12.3.3 |
| CVE.CUL1.6.3 | List the food items commonly served in quick-service breakfasts. | CV12.5.2 |

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| CVE.CUL1.7 | | Students will properly identify, select, use, and maintain food production equipment. | Standard Reference |
|  | CVE.CUL1.7.1 | Identify common kitchen and commercial kitchen tools and appliances and demonstrate their proper care and maintenance. | CV12.2.4 |
| CVE.CUL1.7.2 | Differentiate between the basic types of pots and pans and their common uses. | CV12.2.4 |
| CVE.CUL1.7.3 | Compare the different heat sources used in a kitchen. | CV12.4.3 |
| CVE.CUL1.7.4 | Select and use appropriate tools and smallwares for specific tasks. | CV12.3.3 |

**Culinary Arts II**

(grades 10-12)

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| Purpose Statement: | Students will analyze the advantages and disadvantages for a variety of foodservice and hospitality careers, describe different types of foodservice and the importance of each, summarize some of the pitfalls of starting a new restaurant, and produce cuisines from around the world using knowledge of their cultures. Students will demonstrate good customer relations skills, professionalism, and employability skills and compare the success rates of franchises versus other private businesses. Students will categorize a variety of grains and starches, as well as demonstrate proper preparation of meat, poultry, fish and shellfish.  *The Career Technical Student Organization (CTSO) associated with this course: FCCLA* |

Benchmarks:

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| CVE.CUL2.1 | | Students will apply basic safety and sanitation techniques, determine why they are using the technique, and demonstrate it during their labs. | Standard Reference |
|  | CVE.CUL2.1.1 | Recall appropriate food temperatures and food safety terminology. | CV12.5.1 |
| CVE.CUL2.1.2 | List the major causes of food contamination and recognize signs of food contamination. | CV12.3.1 |
| CVE.CUL2.1.3 | Evaluate your and your teammate’s ability to provide a clean and safe kitchen work environment. | CV12.2.1 |
| CVE.CUL2.1.4 | Demonstrate and apply both cleaning and sanitizing for work surfaces and equipment. | CV12.1.4 |

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| CVE.CUL2.2 | | Students will analyze different countries’ cuisines, prepare meals using the native foods, and compare and contrast a country’s cuisine to the United States. | Standard Reference |
|  | CVE.CUL2.2.1 | Research commonly eaten food, traditional recipes, and meal time customs of one other country of the world. | CV12.2.4  CV12.3.1  CV12.5.2 |
| CVE.CUL2.2.2 | Compare and contrast their selected country’s data to the United States’ data. | CV12.2.3  CV12.4.1 |
| CVE.CUL2.2.3 | Prepare a food using proper techniques in the country of their choosing. | CV12.2.3 |
| CVE.CUL2.3 | | Students will investigate different career paths in the foodservice industry, analyze proper techniques to excel in customer service, communication, professionalism and employability. | Standard Reference |
|  | CVE.CUL2.3.1 | Investigate the different types of careers including the education level, salary, duties and five year outlook. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CUL2.3.2 | Debate proper customer service skills using various scenarios. | CV12.1.3 |
| CVE.CUL2.3.3 | Demonstrate proper communication and professionalism in the foodservice industry. | CV12.1.4 |
| CVE.CUL2.3.4 | Perform self-assessments, research, and explore a career, set career goals, create a plan for achieving goals, and describe the relationship of Family and Consumer Sciences coursework to the selected career. | FCCLA |

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| CVE.CUL2.4 | | Students will assess different types of meats and poultry, classify them, explain the processes for grading and inspecting them, and prepare each of the four main types correctly. | Standard Reference |
|  | CVE.CUL2.4.1 | Explain the different kinds, classes, and market forms of poultry, as well as how it is inspected and graded. | CV12.5.1 |
| CVE.CUL2.4.2 | Identify the structure and cuts of meats, including beef, pork, lamb. | CV12.4.2 |
| CVE.CUL2.4.3 | Summarize the details of meat inspection, grading, handling, storage, and quality characteristics for poultry, beef, pork, lamb, and veal. | CV12.4.2  CV12.5.3 |
| CVE.CUL2.4.4 | Demonstrate proper preparation methods for dry and moist cooking poultry, beef, pork and lamb. | CV12.3.3 |
| CVE.CUL2.4.5 | Safely fabricate a chicken into eight pieces, meeting industry standards and demonstrating proper safety and sanitation procedures. | FCCLA |

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| CVE.CUL2.5 | | Students identify various types, composition, structures, gradings, market forms, and cooking methods for fish, seafood, and shellfish. | Standard Reference |
|  | CVE.CUL2.5.1 | Describe the composition, structure and grading of fish, seafood and shellfish. | CV12.4.2 |
| CVE.CUL2.5.2 | Differentiate between types of mollusks, crustaceans, and other types of seafood and fish. | CV12.3.1 |
| CVE.CUL2.5.3 | Describe the different market forms of fish, seafood, and shellfish. | CV12.4.2 |
| CVE.CUL2.5.4 | Demonstrate proper cooking methods for fish, shellfish, and seafood. | CV12.3.3 |

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| CVE.CUL2.6 | | Students will categorize different pastas, potatoes, grains and legumes, identify various methods of preparing these foods and demonstrate optimal cooking methods depending on the dish being prepared. | Standard Reference |
|  | CVE.CUL2.6.1 | Describe different varieties and characteristics of pastas, potatoes, grains and legumes and identify common ones. | CV12.4.3 |
| CVE.CUL2.6.2 | Identify the correct methods to selecting, receiving and storing potatoes, legumes and grains. | CV12.5.3 |
| CVE.CUL2.6.3 | Demonstrate various cooking methods used for grains, potatoes, and legumes. | CV12.3.3 |
| CVE.CUL2.6.4 | Demonstrate the best ways to cook and serve pastas. | CV12.3.3 |

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| CVE.CUL2.7 | | Students will develop a restaurant business in one of the eight categories, determining cost control, purchasing, inventory, menus, decor, and marketing. | Standard Reference |
|  | CVE.CUL2.7.1 | Create a business plan for a restaurant. | CV12.1.2  CV12.1.4  CV12.3.2 |
| CVE.CUL2.7.2 | Differentiate different needs from the back of the house and the front of the house. | CV12.2.2 |
| CVE.CUL2.7.3 | Determine cost control, purchasing, inventory, decor and marketing. | CV12.1.1  CV12.1.2 |
| CVE.CUL2.7.4 | Create a menu for a restaurant using descriptive words and realistic costs. | CV12.3.3  CV12.5.4 |
| CVE.CUL2.7.5 | Create, test, and develop a marketing strategy for an original prototype formula which fits into the annual food product scenario as identified by the national FCCLA. Demonstrate their knowledge of food science, nutrition, food preparation safety, and product marketing. | FCCLA |
| CVE.CUL2.7.6 | Develop a plan for a small business using Family and Consumer Sciences skills and sound business practices. | FCCLA |

**Professional Baking**

(grades 10-12)

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| Purpose Statement: | Students will apply knowledge of ingredients and measurements to create baked goods and specialty desserts. Students will analyze the advantages and disadvantages of baking careers and explore the pros and cons of operating a bakery. Students will demonstrate appropriate safety and sanitation procedures in the kitchen and evaluate a finished product and suggest improvement when needed.  *The Career Technical Student Organization (CTSO) associated with this course: FCCLA* |

Benchmarks:

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| CVE.PB.1 | | Students will apply basic safety and sanitation techniques, determine why they are using the technique, and demonstrate it during their labs. | Standard Reference |
|  | CVE.PB.1.1 | Recall appropriate food temperatures and food safety terminology. | CV12.5.1 |
| CVE.PB.1.2 | List the major causes of food contamination and recognize signs of food contamination. | CV12.3.1 |
| CVE.PB.1.3 | Evaluate your and your teammate’s ability to provide a clean and safe kitchen work environment. | CV12.2.1 |
| CVE.PB.1.4 | Clean and sanitize work surfaces and equipment. | CV12.1.4 |

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| CVE.PB.2 | | Students will differentiate the leavening agents used in quick breads vs yeast breads, identify the importance of each ingredient used in the dough, demonstrate different terminology used in bread making, and create various types of breads. | Standard Reference |
|  | CVE.PB.2.1 | Compare the leavening agents used in quick breads vs yeast breads. | CV12.5.1 |
| CVE.PB.2.2 | Identify the importance of each ingredient used in bread dough. | CV12.5.1 |
| CVE.PB.2.3 | Demonstrate different terms used in bread making (kneading, proofing, etc.). | CV12.5.2 |
| CVE.PB.2.4 | Prepare different types of bread. | CV12.2.2 |

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| CVE.PB.3 | | Students will categorize pies, explain the functions of the ingredients, and prepare fillings under each category. | Standard Reference |
|  | CVE.PB.3.1 | Identify the different categories of pies. | CV12.5.1 |
| CVE.PB.3.2 | Determine which pie filling goes with each category. | CV12.5.1 |
| CVE.PB.3.3 | Explain the functions of different ingredients found in pie crusts and fillings. | CV12.5.1 |
| CVE.PB.3.4 | Prepare pie fillings under each category. | CV12.2.2 |

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| CVE.PB.4 | | Compare and contrast the eight categories of cookies, analyze the ingredients used in them, and diagnose mistakes that can occur while preparing them. | Standard Reference |
|  | CVE.PB.4.1 | Compare and contrast the eight categories of cookies. | CV12.5.1 |
| CVE.PB.4.2 | Analyze the importance of various ingredients used in preparing cookies. | CV12.4.3 |
| CVE.PB.4.3 | Diagnose what went wrong with cookies when scenarios are given, and evaluate their own cookies. | CV12.3.1  CV12.4.3 |

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| CVE.PB.5 | | Students will identify functions of ingredients in cakes, determine possible problems during cake construction, distinguish between different frostings, and construct their own cupcakes. | Standard Reference |
|  | CVE.PB.5.1 | Identify ingredient functions for cake assembly. | CV12.5.1 |
| CVE.PB.5.2 | Determine problems that may occur during cake construction. | CV12.3.1 |
| CVE.PB.5.3 | Distinguish between different frostings and determine which one works best with different cakes. | CV12.5.1 |
| CVE.PB.5.4 | Construct their own cupcake. | CV12.2.2 |
| CVE.PB.5.5 | Produce cake decorations using pastry arts equipment and techniques. Prepare and present a sample board based on specifications. | FCCLA |

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| CVE.PB.6 | | Students will demonstrate proper cooking techniques when creating specialty desserts. | Standard Reference |
|  | CVE.PB.6.1 | Recognize the different categories of specialty desserts. | CV12.2.1 |
| CVE.PB.6.2 | Compare and contrast the various temperatures of cooking with sugar. | CV12.3.3 |
| CVE.PB.6.3 | Demonstrate plating techniques and garnishing desserts. | CV12.3.3 |
| CVE.PB.6.4 | Demonstrate their baking and pastry skills through the preparation of a quick break, choux pastry, shaped yeast bread, and cake skills. Develop a plan for the time allotted, prepare menu items given to them and present prepared items. | FCCLA |
| CVE.PB.6.5 | Create and showcase artistic skills in utilizing an assortment of fruits and vegetables to design and create an interesting food art item. | FCCLA |

**CTE General Shop 6th Grade**

(Farson)

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| Purpose Statement: | Students will demonstrate safety, identify tools, safely use tools and care of tools, complete projects in woods, drafting, building using kits, while using problem solving techniques. |

Benchmarks:

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| CTE. GS6.1 | | Students will apply the problem solving steps with teamwork and conflict resolution through a variety of problems. | Standard Reference |
|  | CTE. GS6.1.1 | Explain the purpose of technology in the world today. | CV8.3.1  CV8.5.1 |
| CTE. GS6.1.2 | Apply teamwork and conflict resolution skills. | CV8.2.1  CV8.2.2  CV8.2.3 |
| CTE. GS6.1.3 | Apply problem solving steps. | CV8.3.3  CV8.3.4  CV8.2.2  CV8.2.4 |
| CTE. GS6.1.4 | Evaluate steps and share solution with peers. | CV8.3.4  CV8.2.1 |
| CTE. GS6.1.5 | Analyze how the problem solving process relates to work skills. | CV8.3.3  CV8.3.4 |
| CTE. GS6.1.6 | Explain the working process of business and political areas and how they affect careers. | CV8.3.2 |
| CTE. GS6.1.7 | Discuss employability skills/needs and make list of five important ones. | CV8.1.4 |

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| CTE. GS6.2 | | Students will perform safe practices and procedures while in the shop. | Standard Reference |
|  | CTE. GS6.2.1 | Hand tool safety. | CV8.5.3 |
| CTE. GS6.2.2 | Know name of each tool (55 common ones). | CV8.5.3 |
| CTE. GS6.2.3 | Know what each tool does. | CV8.5.3 |
| CTE. GS6.2.4 | Match tool to job. | CV8.5.3 |
| CTE. GS6.2.5 | Demonstrate skill to use tool properly. | CV8.5.3 |
| CTE. GS6.2.6 | Know safety rules for small hand tools- like cordless drill and orbital sanders. | CV8.5.3 |

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| CTE. GS6.3 | | SAFETY IN THE SHOP (section 2) | Standard Reference |
|  | CTE. GS6.3.1 | Shop safety. | CV8.5.3 |
| CTE. GS6.3.2 | Wear safety glasses when in shop. | CV8.5.3 |
| CTE. GS6.3.3 | Demonstrate safety zones practice. | CV8.5.3 |
| CTE. GS6.3.4 | Clean up and put tools away. | CV8.5.3 |
| CTE. GS6.3.5 | Follow general shop safety rules. | CV8.5.3 |
| CTE. GS6.3.6 | Select purchase a replace tools. | CV8.5.3 |
| CTE. GS6.3.7 | Maintain margin of safety when using tools. | CV8.5.3 |

\*Teacher will select from the following benchmarks depending on time and schedule:

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| CTE. GS6.4 | | Students will produce a drawing with a drafting program that will be used for another unit such as woodworking (using sketch-up currently). | Standard Reference |
|  | CTE. GS6.4.1 | Become familiar with icons-method of drawing with drafting program. | CV8.5.3 |
| CTE. GS6.4.2 | Demonstrate use of icons to complete drafting assignments. | CV8.5.3  CV8.5.4 |
| CTE. GS6.4.3 | Edit assignments. | CV8.5.3  CV8.5.3 |
| CTE. GS6.4.4 | Research project ideas to match constraints. | CV8.3.1 |
| CTE. GS6.4.5 | Develop own drawings from research ideas. | CV8.2.4  CV8.3.4 |
| CTE. GS6.4.6 | Share with others/give presentation. | CV8.2.2 |
| CTE. GS6.4.7 | Explore one career-related pathway. | CV8.1.2 |

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| CTE. GS6.5 | | Students will produce a woodworking project, with introduction of woodworking processes (i.e. build a hand tool project). | Standard Reference |
|  | CTE. GS6.5.1 | Complete the planning steps (i.e. drawings, plans and bill of materials). | CV8.3.4 |
| CTE. GS6.5.2 | Learn how to process wood to width and length. | CV8.5.3 |
| CTE. GS6.5.3 | Understand and follow plans. | CV8.5.3 |
| CTE. GS6.5.4 | Select materials and hardware. | CV8.5.3 |
| CTE. GS6.5.5 | Process materials to match bill of material and plans. | CV8.5.3 |
| CTE. GS6.5.6 | Assemble project. | CV8.5.3 |
| CTE. GS6.5.7 | Sand and finish project. | CV8.5.3 |
| CTE. GS6.5.8 | Write a reflection paper and rubric grading. | CV8.4.3 |
| CTE. GS6.5.9 | Explore one career-related pathway. | CV8.1.1 |
| CTE. GS6.5.10 | Conduct a personal inventory. | CV8.1.2 |
| CTE. GS6.5.11 | Prepare a self-improvement plan. | CV8.1.3 |

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| CTE. GS6.6 | | Students will build structures and machines to better understand how items work (e.g., build a city or machines from Legos, knex, and other kits). | Standard Reference |
|  | CTE. GS6.6.1 | Build teamwork. | CV8.3.4  CV8.2.1 |
| CTE. GS6.6.2 | Follow directions. | CV8.2.3 |
| CTE. GS6.6.3 | Use problem solving steps. | CV8.2.3 |
| CTE. GS6.6.4 | Share solutions with peers. | CV8.2.2 |

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| CTE. GS6.7 | | Students will apply simple machines to solve a problem. | Standard Reference |
|  | CTE. GS6.7.1 | Become familiar with the six simple machines (gears, wheel and axle, lever, pulley, screw, and wedge). | CV8.3.3 |
| CTE. GS6.7.2 | Select which simple machines would be best to use to do work and identify how simple machines are used in everyday life/situations. | CV8.3.4 |
| CTE. GS6.7.3 | Apply and decide which simple machines to use to solve a problem. | CV.8.3.4 |
| CTE. GS6.7.4 | Use problem solving activities to come up with a solution. | CV.8.2.2 |
| CTE. GS6.7.5 | Present solution to others. | CV.8.2.3 |

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| CTE. GS6.8 | | Students will use coding to problem solve activities (create projects) and evaluate the effectiveness of theirs and their peers’ solutions. | Standard Reference |
|  | CTE. GS6.8.1 | Define what coding is and give examples. | CV8.5.4 |
| CTE. GS6.8.2 | Interpret the “if-then” statement. | CV8.3.4 |
| CTE. GS6.8.3 | Analyze what coding lines say and mean. | CV8.3.4 |
| CTE. GS6.8.4 | Solve problems using coding (for example create a game) using technology. | CV8.3.4  CV8.4.2 |
| CTE. GS6.8.5 | Evaluate peers coding projects to determine success or offer additional solutions. | CV8.2.3 |
| CTE. GS6.8.6 | Share with class solutions to problem. | CV8.2.2 |
| CTE. GS6.8.7 | Explore career related options. | CV8.1.1  CV8.1.2  CV8.1.3  CV8.1.4 |
| CTE. GS6.8.8 | Identify technical and digital systems, discuss ethical uses, and discuss relationships to systems globally. | CV8.3.3 |

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| CTE. GS6.9 | | Student will use robots and other technologies to demonstrate how they work, how to operate them, how to program them and how to use them for problem solving activities. | Standard Reference |
|  | CTE. GS6.9.1 | Explain the history of robots and other technologies. |  |
| CTE. GS6.9.2 | Summarize what robots and/or other technologies can do. | CV8.3.4 |
| CTE. GS6.9.3 | Build and operate a robot and/or other technologies. | CV8.3.4 |
| CTE. GS6.9.4 | Apply a program to do an assignment using robots and/or other technology. | CV8.3.4 |
| CTE. GS6.9.5 | Use robots or tech to solve a problem. | CV8.3.4 |
| CTE. GS6.9.6 | Explore one career-related pathway. | CV8.1.1  CV8.1.2 |
| CTE. GS6.9.7 | Identify skills needed for employability. | CV8.1.3  CV8.1.4 |

**CTE General Shop 7th Grade**

(Farson)

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| Purpose Statement: | Students will demonstrate safety, identify tools, safely use tools and care of tools, complete projects in woods, drafting, construction, transportation and manufacturing using problem solving techniques. |

Benchmarks:

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| CTE. GS7.1 | | Students will apply the problem solving steps with teamwork and conflict resolution through a variety of problems. | Standard Reference |
|  | CTE. GS7.1.1 | Explain the purpose of technology in the world today. | CV8.3.1  CV8.5.1 |
| CTE. GS7.1.2 | Apply teamwork and conflict resolution skills. | CV8.2.1  CV8.2.2  CV8.2.3 |
| CTE. GS7.1.3 | Apply problem solving steps. | CV8.3.3  CV8.3.4  CV8.2.2  CV8.4.3  CV8.2.4  CV8.4.2 |
| CTE. GS7.1.4 | Evaluate steps and share solution with peers. | CV8.3.4  CV8.2.1  CV8.4.1 |
| CTE. GS7.1.5 | Analyze how the problem solving process relates to work skills. | CV8.3.3  CV8.3.4 |

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| CTE. GS7.2 | | Students will perform safe practices and procedures while in the shop. | Standard Reference |
|  | CTE. GS7.2.1 | Hand tool safety. | CV8.5.3 |
| CTE. GS7.2.2 | Know name of each hand tool (55 common ones). | CV8.5.3 |
| CTE. GS7.2.3 | Know what each hand tool does. | CV8.5.3 |
| CTE. GS7.2.4 | Match hand tool to job. | CV8.5.3 |
| CTE. GS7.2.5 | Demonstrate skill to use hand tool properly. | CV8.5.3 |
| CTE. GS7.2.6 | Power tool safety. | CV8.5.3 |
| CTE. GS7.2.7 | Know the safety rules (pass safety test). | CV8.5.3 |
| CTE. GS7.2.8 | Demonstrate how to use power tool safely. | CV8.5.3 |
| CTE. GS7.2.9 | Apply and use power tool in project. | CV8.5.3 |
| CTE. GS7.2.10 | Follow safety rules when using power tools. | CV8.5.3 |

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| CTE. GS7.3 | | SAFETY IN THE SHOP (section 2) | Standard Reference |
|  | CTE. GS7.3.1 | Shop safety. | CV8.5.3 |
| CTE. GS7.3.2 | Wear safety glasses when in shop. | CV8.5.3 |
| CTE. GS7.3.3 | Demonstrate safety zones practice. | CV8.5.3 |
| CTE. GS7.3.4 | Clean up and put tools away. | CV8.5.3 |
| CTE. GS7.3.5 | Follow general shop safety rules. | CV8.5.3 |
| CTE. GS7.3.6 | Select purchase a replace tools. | CV8.5.3 |
| CTE. GS7.3.7 | Maintain margin of safety when using tools. | CV8.5.3 |

\*Teacher will select from the following depending on time and schedule:

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| CTE. GS7.4 | | Students will produce a drawing with a drafting program that will be used for another unit such as woodworking (using sketch-up currently). | Standard Reference |
|  | CTE. GS7.4.1 | Become familiar with icons-method of drawing with drafting program. | CV8.5.3 |
| CTE. GS7.4.2 | Demonstrate use of icons to complete drafting assignments. | CV8.5.3  CV8.5.4 |
| CTE. GS7.4.3 | Edit assignments. | CV8.5.3  CV8.5.4 |
| CTE. GS7.4.4 | Research project ideas to match constraints. | CV8.3.1 |
| CTE. GS7.4.5 | Develop own drawings from research ideas. | CV8.2.4  CV8.3.4 |
| CTE. GS7.4.6 | Share with others/give presentation. | CV8.2.2 |
| CTE. GS7.4.7 | Explore one career-related pathway. | CV8.1.1  CV8.1.2  CV8.1.3 |
| CTE. GS7.4.8 | Demonstrate an awareness of employability skills. | CV8.1.4 |
| CTE. GS7.4.9 | Demonstrate an awareness of working process of business-political systems and how they affect careers. | CV8.3.2 |

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| CTE. GS7.5 | | Students will produce a woodworking project, with increased skill and knowledge of woodworking processes, including the use of power tools. | Standard Reference |
|  | CTE. GS7.5.1 | Complete the planning steps (i.e. drawings, plans and bill of materials). | CV8.3.4  CV8.5.2 |
| CTE. GS7.5.2 | Learn how to process wood to width and length. | CV8.5.3 |
| CTE. GS7.5.3 | Understand and follow plans. | CV8.5.3 |
| CTE. GS7.5.4 | Select materials and hardware. | CV8.5.3 |
| CTE. GS7.5.5 | Process material to match bill of materials and plans. | CV8.5.3 |
| CTE. GS7.5.6 | Distinguish different joints- when used, where used and tools used to make them. | CV8.5.3 |
| CTE. GS7.5.7 | Assemble project. | CV8.5.3 |
| CTE. GS7.5.8 | Sand and finish project. | CV8.5.3 |
| CTE. GS7.5.9 | Write a reflection paper and rubric grading. | CV8.5.3 |
| CTE. GS7.5.10 | Explore one career-related pathway with input from a personal interest inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS7.5.11 | Prepare a self-improvement plan. | CV8.1.3  CV8.1.4 |

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| CTE. GS7.6 | | Students will build a construction project by interpreting and executing plans. | Standard Reference |
|  | CTE. GS7.6.1 | List construction vocabulary. |  |
| CTE. GS7.6.2 | List different types of construction. | CV8.3.4 |
| CTE. GS7.6.3 | List items needed before construction starts. | CV8.3.4 |
| CTE. GS7.6.4 | Interpret floor plans | CV8.3.4 |
| CTE. GS7.6.5 | Research floor plans and house designs. | CV8.3.4 |
| CTE. GS7.6.6 | Draw own floor plans to meet requirements and constraints. | CV8.3.4 |
| CTE. GS7.6.7 | Follow floor plans to build a model house. | CV8.3.4 |
| CTE. GS7.6.8 | Share with class project including problem had and how they were solved. | CV8.2.2 |
| CTE. GS7.6.9 | Explore career related path with input from a personal inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS7.6.10 | Identify skills needed for employability. | CV8.1.4 |

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| CTE. GS7.7 | | Students will apply simple machines to solve a problem. | Standard Reference |
|  | CTE. GS7.7.1 | Become familiar with the six simple machines (i.e. gears, wheel and axle, lever, pulley, screw, and wedge). | CV8.3.4 |
| CTE. GS7.7.2 | Select which simple machines would be best to use to do work and identify how simple machines are used in everyday life/situations. | CV8.3.4 |
| CTE. GS7.7.3 | Apply and decide which simple machines to use to solve a problem. | CV8.3.4 |
| CTE. GS7.7.4 | Use problem solving activities to come up with a solution. | CV8.3.4 |
| CTE. GS7.7.5 | Present solution to others. | CV8.2.2 |

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| --- | --- | --- | --- |
| CTE. GS7.8 | | Students will use coding to problem solving activities (create projects) and evaluate the effectiveness of theirs and their peers’ solutions. | Standard Reference |
|  | CTE. GS7.8.1 | Define what coding is and be able to give examples. | CV8.5.4 |
| CTE. GS7.8.2 | Interpret the “if-then” statement. | CV8.3.4 |
| CTE. GS7.8.3 | Analyze what coding lines say and mean. | CV8.3.4 |
| CTE. GS7.8.4 | Solve problems using coding (for example create a game). | CV8.3.4 |
| CTE. GS7.8.5 | Evaluate peers’ coding projects to determine success or offer additional solutions. | CV8.3.4 |
| CTE. GS7.8.6 | Share with class solutions to problem. | CV8.2.2 |
| CTE. GS7.8.7 | Explore career related options with input from personal inventory. | CV8.1.1  CV8.1.2  CV8.1.3  CV8.1.4 |

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| CTE. GS7.9 | | Student will use robots and other technologies to demonstrate how they work, how to operate them, how to program them, and how to use them for problem solving activities. | Standard Reference |
|  | CTE. GS7.9 | Explain the history of robots and other technologies. |  |
| CTE. GS7.9 | Summarize what robots and/or other technologies can do. | CV8.3.4 |
| CTE. GS7.9 | Build and operate a robot and/or other technologies. | CV8.3.4 |
| CTE. GS7.9 | Apply a program to do an assignment using robots and/or other technology. | CV8.3.4 |
| CTE. GS7.9 | Use robots or technology to solve a problem. | CV8.3.4 |
| CTE. GS7.9 | Explore one career-related pathway. | CV8.1.1  CV8.1.2 |
| CTE. GS7.9 | Identify skills needed for employability. | CV8.1.3  CV8.1.4 |

**CTE General Shop 8th Grade**

(Farson)

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| Purpose Statement: | Students will demonstrate safety, identify tools, safely use tools and care of tools, complete projects in woods, drafting, construction, transportation and manufacturing using problem solving techniques. |

Benchmarks:

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| --- | --- | --- | --- |
| CTE. GS8.1 | | Students will apply the problem solving steps with teamwork and conflict resolution through variety of problems. | Standard Reference |
|  | CTE. GS8.1.1 | Explain purpose of technology in the world today. | CV8.3.1  CV.5.1 |
| CTE. GS8.1.2 | Apply teamwork and conflict resolution skills. | CV8.2.1  CV8.2.2  CV8.2.3 |
| CTE. GS8.1.3 | Apply problem solving steps. | CV8.3.3  CV8.3.4  CV8.2.2  CV8.2.4 |
| CTE. GS8.1.4 | Evaluate steps and share solution with peers. | CV8.3.4  CV8.2.1 |
| CTE. GS8.1.5 | Analyze how problem solving process relates to work skills. | CV8.3.3  CV8.3.4 |

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| CTE. GS8.2 | | Students will perform safe practices and procedures while in the shop. | Standard Reference |
|  | CTE. GS8.2.1 | Hand tool safety. | CV8.5.3 |
| CTE. GS8.2.2 | Know name of each hand tool (75 common ones). | CV8.5.3 |
| CTE. GS8.2.3 | Know what each hand tool does. | CV8.5.3 |
| CTE. GS8.2.4 | Match hand tool to job. | CV8.5.3 |
| CTE. GS8.2.5 | Demonstrate skill to use hand tool properly. | CV8.5.3 |
| CTE. GS8.2.6 | Power tool safety. |  |
| CTE. GS8.2.7 | Know the safety rules (pass safety test). | CV8.5.3 |
| CTE. GS8.2.8 | Demonstrate how to use power tool safely. | CV8.5.3 |
| CTE. GS8.2.9 | Apply and use power tool in project. | CV8.5.3 |
| CTE. GS8.2.10 | Follow safety rules when using tools. | CV8.5.3 |

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| CTE. GS8.3 | | SAFETY IN THE SHOP (section 2) | Standard Reference |
|  | CTE. GS8.3.1 | Shop safety. | CV8.5.3 |
| CTE. GS8.3.2 | Wear safety glasses when in shop. | CV8.5.3 |
| CTE. GS8.3.3 | Demonstrate safety zones practice. | CV8.5.3 |
| CTE. GS8.3.4 | Clean up and put tools away. | CV8.5.3 |
| CTE. GS8.3.5 | Follow general shop safety rules. | CV8.5.3 |
| CTE. GS8.3.6 | Select purchase a replace tools. | CV8.5.3 |
| CTE. GS8.3.7 | Maintain margin of safety when using tools. | CV8.5.3 |

Teacher will select from the following depending on time and schedule:

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| --- | --- | --- | --- |
| CTE. GS8.4 | | Students will produce a drawing with a drafting program that will be used for another unit such as woodworking. | Standard Reference |
|  | CTE. GS8.4.1 | Become familiar with icons-method of drawing with drafting program. | CV8.5.3 |
| CTE. GS8.4.2 | Demonstrate use of icons to complete drafting assignments. | CV8.5.3  CV8.5.4 |
| CTE. GS8.4.3 | Be able to edit assignments. | CV8.5.3  CV8.5.4 |
| CTE. GS8.4.4 | Research project ideas to match constraints. | CV8.3.1 |
| CTE. GS8.4.5 | Develop own drawings from research ideas. | CV8.2.4  CV8.3.4 |
| CTE. GS8.4.6 | Share with others/give presentation. | CV8.2.2 |
| CTE. GS8.4.7 | Explore one career-related pathway with input from personal inventory. | CV8.1.1  CV8.1.2  CV8.1.3 |
| CTE. GS8.4.8 | Demonstrate an awareness of employability skills/habits. | CV8.1.4 |
| CTE. GS8.4.9 | Demonstrate an awareness of working process of business-political systems and how they affect careers. | CV8.3.2 |

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| CTE. GS8.5 | | Students will produce a woodworking project, with increased skill and knowledge of woodworking processes. | Standard Reference |
|  | CTE. GS8.5.1 | Complete the planning steps (i.e. drawings, plans and bill of materials). | CV8.3.4 |
| CTE. GS8.5.2 | Process wood to width and length. | CV8.5.3 |
| CTE. GS8.5.3 | Understand and follow plans. | CV8.5.3 |
| CTE. GS8.5.4 | Select materials and hardware. | CV8.5.3 |
| CTE. GS8.5.5 | Process materials to match bill of materials and plans. | CV8.5.3 |
| CTE. GS8.5.6 | Distinguish different joints- when used, where used and tools used to make them. | CV8.5.3 |
| CTE. GS8.5.7 | Assemble of project. | CV8.5.3 |
| CTE. GS8.5.8 | Sand and finish of project. | CV8.5.3 |
| CTE. GS8.5.9 | Write a reflection paper and rubric grading. | CV8.5.3 |
| CTE. GS8.5.10 | Explore one career-related pathway with input from personal inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS8.5.11 | Prepare a self-improvement plan. | CV8.1.3 |

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| CTE. GS8.6 | | Students will build a construction project by interpreting and executing plans, to include framing and basic electrical skills. | Standard Reference |
|  | CTE. GS8.6.1 | List construction vocabulary. |  |
| CTE. GS8.6.2 | List different types of construction. | CV8.3.4 |
| CTE. GS8.6.3 | List items needed before construction starts. | CV8.3.4 |
| CTE. GS8.6.4 | Interpret floor plans. | CV8.3.4 |
| CTE. GS8.6.5 | Illustrate floor framing methods. | CV8.3.4 |
| CTE. GS8.6.6 | Illustrate wall framing with door/window openings. | CV8.3.4 |
| CTE. GS8.6.7 | Demonstrate how to wire an outlet, a switch, and a light fixture. | CV8.3.4 |
| CTE. GS8.6.8 | Explore career related path with input from a personal inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS8.6.9 | Identify skills needed for employability. | CV8.1.4 |

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| CTE. GS8.7 | | Students will apply and produce a transportation project using the problem solving steps. | Standard Reference |
|  | CTE. GS8.7.1 | List transportation vocabulary. |  |
| CTE. GS8.7.2 | Illustrate different types of transportation. | CV8.3.4 |
| CTE. GS8.7.3 | Analyze importance of transportation. | CV8.3.4 |
| CTE. GS8.7.4 | Create a transportation project using problem solving methods. | CV8.3.4 |
| CTE. GS8.7.5 | Paraphrase related math/science principles. | CV8.4.1 |
| CTE. GS8.7.6 | Explore a career-related path with input from personal inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS8.7.7 | Identify skills needed for employability. | CV8.1.3  CV8.1.4 |
| CTE. GS8.7.8 | Identify sources to locate data in ethical- appropriate manner. | CV8.4.2 |

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| CTE. GS8.8 | | Students will match different manufacturing methods for a student-selected idea to make and sell item as a class project. | Standard Reference |
|  | CTE. GS8.8.1 | List manufacturing vocabulary (example inventory, supply and demand, etc). |  |
| CTE. GS8.8.2 | Outline history of manufacturing. | CV8.4.1 |
| CTE. GS8.8.3 | List different methods of manufacturing. | CV8.4.1 |
| CTE. GS8.8.4 | Relate how new technology is impacting manufacturing. | CV8.4.1 |
| CTE. GS8.8.5 | Generate class manufacturing idea. | CV8.5.3 |
| CTE. GS8.8.6 | Do class presentation to board of directors and select final item to make and sell. | CV8.2.2  CV8.4.3  CV8.2.3  CV8.5.2 |
| CTE. GS8.8.7 | Produce class project to sell. | CV8.3.4 |
| CTE. GS8.8.8 | Sell class product and analyze profits. | CV8.3.4 |
| CTE. GS8.8.9 | Explore career related pathways with input from personal inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS8.8.10 | Identify skills needed for employability. | CV8.1.3 |

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| CTE. GS8.9 | | Student will demonstrate understanding of robots and other technologies: how they work, how to operate them, how to program them, and how to use them for problem solving activities. | Standard Reference |
|  | CTE. GS8.9.1 | Relate the history of robots and other technologies. |  |
| CTE. GS8.9.2 | Relate what robots and/or other technologies can do. |  |
| CTE. GS8.9.3 | Demonstrate how to operate a robot and/or other technologies. | CV8.3.4 |
| CTE. GS8.9.4 | Apply a program to do an assignment. | CV8.3.4 |
| CTE. GS8.9.5 | Apply robots or technology to solve a problem. | CV8.3.4 |
| CTE. GS8.9.6 | Explore one career-related pathway with input from personal inventory. | CV8.1.1  CV8.1.2 |
| CTE. GS8.9.7 | Identify skills needed for employability. | CV8.1.3  CV8.1.4 |

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| CTE. GS8.10 | | Students will discuss and analyze different energies produced in the state. | Standard Reference |
|  | CTE. GS8.10.1 | Identify different kinds of energy in the state of Wyoming. |  |
| CTE. GS8.10.2 | Analyze the impacts different kinds of energy have on the state of Wyoming and the earth. | CV8.4.1 |
| CTE. GS8.10.3 | Produce an energy-relate project using problem solving methods. | CV8.3.4 |
| CTE. GS8.10.4 | Share project with class. | CV8.2.2 |
| CTE. GS8.10.5 | Explore a career-related path with input from personal inventory. | CV8.1.1  CV8.1.2  CV8.1.3 |
| CTE. GS8.10.6 | Identify skills needed for employment. | CV8.1.4 |

**Career and Technology Exploration I**

(Farson grades 9-12)

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| Purpose Statement: | Students will apply fundamental skills to create woodworking, small engine, construction and welding projects. |

Benchmarks:

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| CTE.CTE1.1 | | Students will apply the problem solving steps with teamwork and conflict resolution through a variety of problems. | Standard Reference |
|  | CTE.CTE1.1.1 | Apply teamwork and conflict resolution skills. | CV12.2.1 |
| CTE.CTE1.1.2 | Apply the problem solving steps. | CV12.2.2 |
| CTE.CTE1.1.3 | Evaluate steps and share solution with peers. | CV12.2.2  CV12.2.3 |
| CTE.CTE1.1.4 | Analyze how problem solving process relates to work skills. | CV12.2.4 |

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| CTE.CTE1.2 | | Students will perform safe practices and procedures while in the shop. | Standard Reference |
|  | CTE.CTE1.2.1 | Hand tool safety. |  |
| CTE.CTE1.2.2 | Know name of each hand tool (85 common ones). | CV12.3.3 |
| CTE.CTE1.2.3 | Know what each hand tool does. | CV12.3.3 |
| CTE.CTE1.2.4 | Match hand tool to job. | CV12.3.3 |
| CTE.CTE1.2.5 | Demonstrate skill to use tool properly. | CV12.3.3 |
| CTE.CTE1.2.6 | Power tool safety. |  |
| CTE.CTE1.2.7 | Know the safety rules (pass safety test). | CV12.3.3 |
| CTE.CTE1.2.8 | Demonstrate how to use power tool safely. | CV12.3.3 |
| CTE.CTE1.2.9 | Apply and use power tool in project. | CV12.3.3 |
| CTE.CTE1.2.10 | Follow safety rules when using tools. | CV12.3.3 |

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| CTE.CTE1.3 | | Students will progress and increase their knowledge and skill of woodworking. They will chose their own project to build. | Standard Reference |
|  | CTE.CTE1.3.1 | Plan their project. The steps include a drawing with dimensions, step by step plans, and completing a bill of materials. | CV12.5.1  CV12.5.2 |
| CTE.CTE1.3.2 | Identify and apply new joints or techniques in project (i.e. use *new* joints or technique). | CV12.5.2 |
| CTE.CTE1.3.3 | Follow plans and bill of materials. | CV12.5.2 |
| CTE.CTE1.3.4 | Finish project according to plans and follow correct procedures. | CV12.5.3 |
| CTE.CTE1.3.5 | Critique project with class- explaining problem solving steps/revisions taken. | CV12 2.2 |
| CTE.CTE1.3.6 | Identify joints by name, when/where used and tools to make them and apply them in project where appropriate (i.e. identify *all* joints, not just new ones). | CV12.5.4  CV12.3.3 |
| CTE.CTE1.3.7 | Research and evaluate career-related paths based on student interest. | CV12.1.1  CV12.1.2  CV12.1.3  CV12.1.4 |

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| CTE.CTE1.4 | | Student will identify the fundamentals of a small engine including the four strokes, the internal parts (name and purpose), tools used, and the systems of the engines (lubrication, fuel, exhaust, etc.) Students will take apart an engine and put it back together. | Standard Reference |
|  | CTE.CTE1.4.1 | Categorize where small engines are used (home, work, on jobsites, etc.). | CV12.3.1  CV12.5.2 |
| CTE.CTE1.4.2 | Identify and be able to draw the four strokes intake, compression, power and exhaust. Know what is happening in each stroke, what is open or closed, what is moving, etc. | CV12.5.2 |
| CTE.CTE1.4.3 | Summarize necessary items needed for small engines to operate. | CV12.5.2 |
| CTE.CTE1.4.4 | Identify specialty tools needed for small engine work (for example compression test, spark plug tester, etc.). Know name and how/when to use them. | CV12.5.2  CV12.5.3  CV12.4.2 |
| CTE.CTE1.4.5 | Take apart an engine down to the block. | CV12.4.4 |
| CTE.CTE1.4.6 | Identify internal parts of an engine including the name and purpose (piston, valves, connecting rod, etc.) | CV12.4.3  CV12.4.2 |
| CTE.CTE1.4.7 | Put engine back together. | CV12.4.3 |
| CTE.CTE1.4.8 | Complete a reflection paper on unit. | CV12.4.1 |
| CTE.CTE1.4.9 | Research and evaluate career-related paths based on student interest. | CV12 1.1  CV12 1.2  CV12 1.3  CV12 1.4 |

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| CTE.CTE1.5 | | Students will identify the fundamentals of construction including the terms, tools used, and know how to frame floors, walls, door/window openings, etc. Students will build a model structure. | Standard Reference |
|  | CTE.CTE1.5.1 | Identify and apply common construction vocabulary. | CV12.4.2 |
| CTE.CTE1.5.2 | Identify and apply common construction tools including both hand tools and power tools. | CV12.4.2 |
| CTE.CTE1.5.3 | Identify and apply framing techniques for floor, walls, door/ window openings, and roofing systems. | CV12.4.3 |
| CTE.CTE1.5.4 | Interpret floor plans. | CV12.4.3 |
| CTE.CTE1.5.5 | Build model according to plans. | CV12.4.4 |
| CTE.CTE1.5.6 | Apply problem solving techniques as needed. | CV12.2.4 |
| CTE.CTE1.5.7 | Share completed project with peers and evaluate project vs plans. | CV12.2.1 |
| CTE.CTE1.5.8 | Research and evaluate career-related paths based on student interest. | CV12 1.1  CV12 1.2  CV12 1.3  CV12 1.4 |

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| CTE.CTE1.6 | | Students will identify fundamentals of different welding techniques including brazing, soldering, gas, arc and wire-feed. Students will identify cutting methods including chop saw, gas cutting, grinder and plasma cutter. | Standard Reference |
|  | CTE.CTE1.6.1 | Identify and apply safety procedures (PPE and safety rules) for different welding techniques including solder, braze, gas, arc, and wire-feed. | CV12.4.1  CV12.4.2 |
| CTE.CTE1.6.2 | Identify and apply correct procedures for different welding techniques. | CV12 5.4  CV12.4.2 |
| CTE.CTE1.6.3 | Identify when/where to use different welding techniques. | CV12 5.4  CV12.4.3 |
| CTE.CTE1.6.4 | Compare/contrast good and bad welding techniques of their welds (width of bead, height of bead, ripples, etc.). | CV12 5.1  CV12.4.4 |
| CTE.CTE1.6.5 | Complete baseline assignments for each technique. | CV12.4.4 |
| CTE.CTE1.6.6 | Research and evaluate career-related paths based on student interest. | CV12 1.1  CV12 1.2  CV12 1.3  CV12 1.4 |
| CTE.CTE1.6.7 | Identify trends in welding careers, new systems and issues involving welding. | CV12.3.2 |
| CTE.CTE1.6.8 | Produce a small welding project including a drawing, bill of materials, self-reflection paper when done, and impacts of project. | CV12.3.4 |

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| CTE.CTE1.7 | | Student will identify employability skills to prepare for and keep jobs | Standard Reference |
|  | CTE.CTE1.7.1 | Classify general job skills needed for all jobs (being on time, ethical, etc) | CV12.1.4 |
| CTE.CTE1.7.2 | Classify specific job skills related to specific careers (skills needed for welding, construction, etc) | CV12.1.3  CV12.1.4 |
| CTE.CTE1.7.3 | Complete personal inventory and develop plan of improvement for employability skills | CV12.1.1  CV12.1.2 |

**Career and Technology Exploration II**

(Farson grades 10-12)

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| Purpose Statement: | Students will review fundamentals for woodworking, small engines, construction and welding. Then students will select one area to concentrate on and increase their knowledge and skills in by making more complex project. Students will work independently on their projects. |

Benchmarks:

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| CTE.CTE2.1 | | Students will apply the problem solving steps. | Standard Reference |
|  | CTE.CTE2.1.1 | Apply teamwork and conflict resolution skills. | CV12.2.1 |
| CTE.CTE2.1.2 | Apply problem solving steps. | CV12.2.2 |
| CTE.CTE2.1.3 | Evaluate steps and share solution with peers. | CV12.2.2  CV12.2.3 |
| CTE.CTE2.1.4 | Analyze how problem solving process relates to work skills. | CV12.2.4 |

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| CTE.CTE2.2 | | Students will perform safe practices and procedures while in the shop. | Standard Reference |
|  | CTE.CTE2.2.1 | Hand tool safety. |  |
| CTE.CTE2.2.2 | Know name of each hand tool (85 common ones). | CV12.3.3 |
| CTE.CTE2.2.3 | Know what each hand tool does. | CV12.3.3 |
| CTE.CTE2.2.4 | Match hand tool to job. | CV12.3.3 |
| CTE.CTE2.2.5 | Demonstrate skill to use tool properly. | CV12.3.3 |
| CTE.CTE2.2.6 | Power tool safety |  |
| CTE.CTE2.2.7 | Know the safety rules (pass safety test). | CV12.3.3 |
| CTE.CTE2.2.8 | Demonstrate how to use power tool safely. | CV12.3.3 |
| CTE.CTE2.2.9 | Apply and use power tool in project. | CV12.3.3 |
| CTE.CTE2.2.10 | Follow safety rules when using tools. | CV12.3.3 |

\*Students will choose from the following concentrations to independently create a project:

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| CTE.CTE2.3 | | Students will progress and increase their knowledge and skill of woodworking. They will chose their own project to build. This should be a more complex project than what they have done before. | Standard Reference |
|  | CTE.CTE2.3.1 | Plan their project. The steps include a drawing with dimensions, step by step plans, and completing a bill of materials. | CV12.5.1  CV12.5.2 |
| CTE.CTE2.3.2 | Identify and apply new joints or techniques in project (i.e. use *new* joints or technique). | CV12.5.2 |
| CTE.CTE2.3.3 | Follow plans and bill of materials. | CV12.5.2 |
| CTE.CTE2.3.4 | Finish project according to plans and follow correct procedures. | CV12.5.3 |
| CTE.CTE2.3.5 | Critique project with class explaining problem solving steps/revisions taken. | CV12.2.2 |
| CTE.CTE2.3.6 | Identify joints by name, when/where used and tools to make them and apply them in project where appropriate (i.e. identify *all* joints, not just new ones). | CV12.5.4  CV12.3.3 |
| CTE.CTE2.3.7 | Share/teach a new woodworking technique to peers. | CV12.2.4  CV12.3.3 |
| CTE.CTE2.3.8 | Research new or current trends in industry and share with class. | CV12.2.4 |
| CTE.CTE2.3.9 | Develop career paths based on student interest/needs. | CV12.1.1  CV12.1.2  CV12.1.3  CV12.1.4 |

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| CTE.CTE2.4 | | Students will bring in a small engine to repair/rebuild. The engine needs to be a small enough size to fit in the shop. | Standard Reference |
|  | CTE.CTE2.4.1 | Analyze the problem (what is wrong with the engine). | CV12.3.1  CV12.3.3 |
| CTE.CTE2.4.2 | Read and understand repair manual for engine working on (get manual if don’t have one). | CV12.3.3 |
| CTE.CTE2.4.3 | Formulate repair plans to include parts needed and tools needed to finish job. | CV12.3.3 |
| CTE.CTE2.4.4 | Purchase own parts for repair of engine | CV12.3.3 |
| CTE.CTE2.4.5 | Do repairs as needed following correct assembly procedures. | CV12.3.3 |
| CTE.CTE2.4.6 | Test repairs and troubleshoot problems as needed. | CV12.3.1  CV12.3.3 |
| CTE.CTE2.4.7 | Share a technique with peer as related to repairs. | CV12.2.3  CV12.2.4 |
| CTE.CTE2.4.8 | Research new or current trends in industry and share with class. | CV12.5.4 |
| CTE.CTE2.4.9 | Develop career paths based on student interest/needs. | CV12.1.1  CV12.1.2  CV12.1.3  CV12.1.4 |

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| CTE.CTE2.5 | | Students will identify the fundamentals of construction including the terms, tools used, and know how to frame floors, walls, door/window openings, etc. Students will build a model or full size structure. | Standard Reference |
|  | CTE.CTE2.5.1 | Select a project to build (either model or full size building). | CV12.4.2 |
| CTE.CTE2.5.2 | Develop or find plans for building. | CV12.4.2 |
| CTE.CTE2.5.3 | Complete bill of materials with costs. | CV12.4.3 |
| CTE.CTE2.5.4 | Identify and apply common construction tools including both hand tools and power tools. | CV12.4.3 |
| CTE.CTE2.5.5 | Identify and apply framing techniques for floor, walls, door/ window openings, and roofing systems. | CV12.4.3 |
| CTE.CTE2.5.6 | Interpret floor plans. | CV12.4.3 |
| CTE.CTE2.5.7 | Build according to plans. | CV12.4.3 |
| CTE.CTE2.5.8 | Apply problem solving techniques as needed. | CV12.4.2 |
| CTE.CTE2.5.9 | Research new or current trends in industry and share with class. | CV12.3.2 |
| CTE.CTE2.5.10 | Share completed project with peers and evaluate project vs plans. | CV12.2.2  CV12.2.3 |
| CTE.CTE2.5.11 | Develop career paths based on student interest/needs. | CV12.1.1  CV12.1.2  CV12.1.3  CV12.1.4 |

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| CTE.CTE2.6 | | Students will make their own project using one or more different welding techniques. Students will need to increase skill and knowledge regarding one or more different welding techniques. | Standard Reference |
|  | CTE.CTE2.6.1 | Identify and apply safety procedures (PPE and safety rules) for different welding techniques including solder, braze, gas, arc, and wire-feed. | CV12.4.1  CV12.4.2 |
| CTE.CTE2.6.2 | Identify and apply correct procedures for different welding techniques. | CV12.4.2  CV12.4.3 |
| CTE.CTE2.6.3 | Identify when/where to use different welding techniques. | CV12.4.3 |
| CTE.CTE2.6.4 | Compare/contrast good and bad welding techniques of their welds (width of bead, height of bead, ripples, etc.). | CV12.3.1 |
| CTE.CTE2.6.5 | Create plans for project including a drawing with dimensions and completed bill of materials. | CV12.4.4 |
| CTE.CTE2.6.6 | Purchase material for project. | CV12.4.3 |
| CTE.CTE2.6.7 | Build project according to correct procedures. | CV12.4.3 |
| CTE.CTE2.6.8 | Share with peers a welding technique. | CV12.2.3 |
| CTE.CTE2.6.9 | Research new or current trends in industry and share with class. | CV12.5.3  CV12.5.1 |
| CTE.CTE2.6.10 | Develop career paths based on student interest/needs. | CV12.1.1  CV12.1.2  CV12.1.3  CV12.1.4 |

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| CTE.CTE2.7 | | Student will identify employability skills to prepare for and keep jobs. | Standard Reference |
|  | CTE.CTE2.7.1 | Classify general job skills needed for all jobs (being on time, ethical, etc.) | CV12.1.1 |
| CTE.CTE2.7.2 | Classify specific job skills related to specific careers (skills needed for welding, construction, etc.). | CV12.1.2  CV12.1.3 |
| CTE.CTE2.7.3 | Complete a personal inventory and develop a plan of improvement for employability skills. | CV12.1.4 |

**Auto Technology I**

(grades 10-12)

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| Purpose Statement: | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards, basic tools and equipment, basic engine, basic transmission service, steering and alignment, brake systems, starting and charging systems, vehicle electrical system, employability skills and budgeting.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.AT1.1 | | Students will identify and demonstrate safety rules in the auto shop. | Standard Reference |
|  | CVE.AT1.1.1 | Be on time and demonstrate the ability finish projects and take pride in their work. | CV12.1.4 |
| CVE.AT1.1.2 | Show safe operation of all shop equipment and hand tools used in standard automotive repair. | CV12.5.3  CV12.1.4 |
| CVE.AT1.1.3 | Show personal safety in the auto shop. | CV12.5.3  CV12.1.4 |
| CVE.AT1.1.4 | Show safety procedures for the different auto systems. | CV12.5.3 |

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| CVE.AT1.2 | | Students will explore and repair the various system components of the different automotive systems. | Standard Reference |
|  | CVE.AT1.2.1 | Distinguish the basic system concepts between the different makes of automobiles today. | CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |
| CVE.AT1.2.2 | Show and identify the different systems on automobiles. | CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |
| CVE.AT1.2.3 | Explore and repair the various system components of the different automotive systems. | CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |

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| CVE.AT1.3 | | Students will diagnose and repair a problem while demonstrating safe and appropriate job procedures, processes, and skills. | Standard Reference |
|  | CVE.AT1.3.1 | Apply job procedures, processes, and skills. | CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT1.3.2 | Diagnose problems on an automotive system, repair the issue, and evaluate the project. | CV12.3.1  CV12.3.3  CV12.4.3  CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT1.3.3 | Show how to order parts. | CV12.5.2  CV12.3.4  CV12.2.1 |
| CVE.AT1.3.4 | Show safety procedures throughout the project and cleanup after the job. | CV12.5.3 |

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| CVE.AT1.4 | | Students will use test equipment on an automotive system and repair problems using database programs and other sources for procedures. | Standard Reference |
|  | CVE.AT1.4.1 | Operate a diagnostic computer to test for problems on automotive systems. Repair the problem following the proper procedures. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT1.4.2 | Apply safety procedures while working on automotive systems. | CV12.5.3  CV12.1.4 |
| CVE.AT1.4.3 | Use other sources to interpret procedures in repairing automotive systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT1.4.4 | Show how to retrieve information from database programs for automotive repair systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |

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| CVE.AT1.5 | | Students will use the proper procedures in repairing an automotive system. | Standard Reference |
|  | CVE.AT1.5.1 | Show how to repair the different types of automotive systems. | CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |
| CVE.AT1.5.2 | Apply safety procedures on automotive systems. | CV12.5.3  CV12.1.4 |

**Auto Technology II**

(grades 10-12)

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| Purpose Statement: | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards for Intermediate Systems Diagnostics, Service, and Repair. Students will focus on more specific areas such as system diagnosis, advanced service, maintenance, and repair. Students will also concentrate on support systems such as engine performance, braking, steering, cooling, and electrical/electronic components.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.AT2.1 | | Students will demonstrate safety in the auto shop. | Standard Reference |
|  | CVE.AT2.1.1 | Be on time and demonstrate the ability finish the project and take pride in their work. | CV12.1.4 |
| CVE.AT2.1.2 | Identify safety rules and use them in the auto shop. | CV12.5.3  CV12.1.4 |
| CVE.AT2.1.3 | Demonstrate safe operation of all shop equipment and hand tools used in standard automotive repair. | CV12.5.3  CV12.1.4 |
| CVE.AT2.1.4 | Demonstrate personal safety in the auto shop. | CV12.5.3  CV12.1.4 |

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| CVE.AT2.2 | | Students will identify and repair the different types of automotive systems. | Standard Reference |
|  | CVE.AT2.2.1 | Identify a basic concept of each of the automotive systems and make repairs to each system. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT2.2.2 | Demonstrate safety procedure on the different automotive system. | CV12.5.3  CV12.1.4 |

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| CVE.AT2.3 | | Students will demonstrate how and where to find repair procedures on the different automotive systems. | Standard Reference |
|  | CVE.AT2.3.1 | Identify and repair various components of the different automotive systems. | CV12.4.4  CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |
| CVE.AT2.3.2 | Demonstrate using safety procedures on the different automotive system. | CV12.5.3  CV12.1.4 |

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| CVE.AT2.4 | | Students will identify job procedures, processes, and skills. | Standard Reference |
|  | CVE.AT2.4.1 | Demonstrate job procedures, practices, and skills needed in auto repair. | CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT2.4.2 | Diagnose problems on automotive systems and follow procedures repair. | CV12.3.1  CV12.3.3  CV12.4.3  CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT2.4.3 | Demonstrate how to order parts for projects. | CV12.5.2  CV12.3.4  CV12.2.1 |
| CVE.AT2.4.4 | Conduct safety aspects and cleanup after the jobs. | CV12.5.3 |

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| CVE.AT2.5 | | Students will use test equipment on automotive system. | Standard Reference |
|  | CVE.AT2.5.1 | Operate a diagnostic computer to test for problems on automotive systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT2.5.2 | Use safety procedures for repairing automotive systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT2.5.3 | Use other sources to interpret procedures in repairing automotive systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT2.5.4 | Demonstrate how to retrieve information from database programs for automotive repair systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT2.5.5 | Diagnose and repair the different types of automotive systems on the different makes of automobiles. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |

**Auto Technology III**

(grades 10-12)

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| Purpose Statement: | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards Intermediate and some Advance Systems Diagnostics, Service, and Repair. Students will focus on more specific areas such as system diagnosis, advanced service, maintenance, and repair. Students will also concentrate on other support systems such as engine performance, performance braking, steering, cooling, and electrical/electronic, exhaust, frame and body components.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.AT3.1 | | Students will demonstrate safety in the auto shop. | Standard Reference |
|  | CVE.AT3.1.1 | Be on time and demonstrate the ability finish the project and take pride in their work. | CV12.1.4 |
| CVE.AT3.1.2 | Identify safety rules and use them in the auto shop. | CV12.5.3  CV12.1.4 |
| CVE.AT3.1.3 | Demonstrate safe operation of all shop equipment and hand tools used in standard automotive repair. | CV12.5.3  CV12.1.4 |
| CVE.AT3.1.4 | Demonstrate personal safety in the auto shop. | CV12.5.3  CV12.1.4 |

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| CVE.AT3.2 | | Students will identify and repair the different types of automotive systems. | Standard Reference |
|  | CVE.AT3.2.1 | Identify an intermediate and some advance concept of each of the automotive systems and make repairs to each system. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT3.2.2 | Demonstrate safety procedures on the different automotive systems. | CV12.5.3  CV12.1.4 |

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| CVE.AT3.3 | | Students will demonstrate how and where to find repair procedures on the different automotive systems. | Standard Reference |
|  | CVE.AT3.3.1 | Identify and repair various components of the different automotive systems. | CV12.4.4  CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |
| CVE.AT3.3.2 | Demonstrate using safety procedures on the different automotive systems. | CV12.5.3  CV12.1.4 |

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| CVE.AT3.4 | | Students will identify job procedures, processes, and skills. | Standard Reference |
|  | CVE.AT3.4.1 | Demonstrate job procedures, practices, and skills needed in auto repair. | CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT3.4.2 | Diagnose problems on automotive systems and follow procedures repair. | CV12.3.1  CV12.3.3  CV12.4.3  CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT3.4.3 | Demonstrate how to order parts for projects. | CV12.5.2  CV12.3.4  CV12.2.1 |
| CVE.AT3.4.4 | Conduct safety aspects and cleanup after the jobs. | CV12.5.3 |

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| CVE.AT3.5 | | Students will use test equipment on automotive systems. | Standard Reference |
|  | CVE.AT3.5.1 | Operate a diagnostic computer to test for problems on automotive systems. | CV12.1.4  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT3.5.2 | Use safety procedures for repairing automotive systems. | CV12.1.4  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT3.5.3 | Use other sources to interpret procedures in repairing automotive systems. | CV12.1.4  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT3.5.4 | Demonstrate how to retrieve information from database programs for automotive repair systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT3.5.5 | Diagnose and repair the different types of automotive systems on the different makes of automobiles. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |

**Auto Technology IV**

(grades 10-12)

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| Purpose Statement: | Students will apply theory, knowledge, and skills necessary to understand automotive shop safety, industry employment and standards in the Advance Systems Diagnostics, Service, and Repair. Students will focus on more things such as system diagnosis, advanced service, maintenance, and repair. Students will also concentrate on other support systems such as engine performance, performance braking, steering, cooling, and electrical/electronic, exhaust, frame and body components.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.AT4.1 | | Students will demonstrate safety in the auto shop. | Standard Reference |
|  | CVE.AT4.1.1 | Be on time and demonstrate the ability to finish the project and take pride in their work. | CV12.1.4 |
| CVE.AT4.1.2 | Identify safety rules and use them in the auto shop. | CV12.5.3  CV12.1.4 |
| CVE.AT4.1.3 | Demonstrate safe operation of all shop equipment and hand tools used in standard automotive repair. | CV12.5.3  CV12.1.4 |
| CVE.AT4.1.4 | Demonstrate personal safety in the auto shop. | CV12.5.3  CV12.1.4 |

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| CVE.AT4.2 | | Students will identify and repair the different types of automotive systems. | Standard Reference |
|  | CVE.AT4.2.1 | Identify an advanced concept of each of the automotive systems and make repairs to each system. | CV12.1.4  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT4.2.2 | Demonstrate safety procedures on the different automotive systems. | CV12.5.3  CV12.1.4 |

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| CVE.AT4.3 | | Students will demonstrate how and where to find repair procedures on the different automotive systems. | Standard Reference |
|  | CVE.AT4.3.1 | Identify and repair various components of the different automotive systems. | CV12.4.4  CV12.5.1  CV12.4.3  CV12.2.1  CV12.3.4 |
| CVE.AT4.3.2 | Demonstrate using safety procedures on the different automotive systems. | CV12.5.3  CV12.1.4 |

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| CVE.AT4.4 | | Students will identify job procedures, processes, and skills. | Standard Reference |
|  | CVE.AT4.4.1 | Demonstrate job procedures, practices, and skills needed in auto repair. | CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT4.4.2 | Diagnose problems on automotive systems and follow procedures repair. | CV12.3.1  CV12.3.3  CV12.4.3  CV12.1.4  CV12.5.1  CV12.5.2  CV12.5.3  CV12.4.4 |
| CVE.AT4.4.3 | Demonstrate how to order parts for projects. | CV12.5.2  CV12.3.4  CV12.2.1 |
| CVE.AT4.4.4 | Conduct safety aspects and cleanup after the jobs. | CV12.5.3 |

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| CVE.AT4.5 | | Students will use test equipment on automotive systems. | Standard Reference |
|  | CVE.AT4.5.1 | Operate a diagnostic computer to test for problems on advanced automotive systems. | CV12.1.4  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT4.5.2 | Use safety procedures for repairing automotive systems. | CV12.1.4  CV12.2.4  CV12.3.1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT4.5.3 | Use other sources to interpret procedures in repairing automotive systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT4.5.4 | Demonstrate how to retrieve information from database programs for automotive repair systems. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |
| CVE.AT4.5.5 | Diagnose and repair the different types of automotive systems on the different makes of automobiles. | CV12.1.4  CV12.2.4  CV12,3,1  CV12.3.3  CV12.4.3  CV12.5.3 |

**Consumer Autos**

(grades 10-12)

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| Purpose Statement: | Students will apply knowledge and skills necessary to be a responsible vehicle owner. Students will build this knowledge and skill set in the classroom and Auto Shop environment. Students will articulate and demonstrate aspects of properly owning and maintaining a vehicle. |

Benchmarks:

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| CVE.CA.1 | | Students will display shop safety while in the shop environment. | Standard Reference |
|  | CVE.CA.1.1 | Identify the safety hazards associated with the auto shop. | CV 12.5.3 |
| CVE.CA.1.2 | Safely navigate and work in the auto shop with a variety of tools and equipment following set safety guidelines and procedures. | CV 12.5.3 |

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| CVE.CA.2 | | Students will demonstrate employability skills in the classroom and shop environment. | Standard Reference |
|  | CVE.CA.2.1 | Demonstrate work ethic and employability skills such as: punctuality, responsibility, integrity, productivity, task completion, and teamwork. | CV 12.2.1-4 |

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| CVE.CA.3 | | Students will demonstrate proper jacking procedures. | Standard Reference |
|  | CVE.CA.3.1 | Utilize proper personal protective equipment when jacking a vehicle. | CV 12.4.2 |
| CVE.CA.3.2 | Articulate and demonstrate proper jacking procedures. | CV 12.1.4 |

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| CVE.CA.4 | | Students will install, change, rotate, and plug tires. | Standard Reference |
|  | CVE.CA.4.1 | Articulate the differences in tires (sizes, ratings, types). | CV 12.3.3 |
| CVE.CA.4.2 | Properly install tire chains/cables. | CV 12.3.4 |
| CVE.CA.4.3 | Articulate and demonstrate the proper procedures to change/rotate a vehicle's tire(s). | CV 12.2.4 |
| CVE.CA.4.4 | Articulate and demonstrate how to properly plug a tire. | CV 12.3.4 |

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| CVE.CA.5 | | Students will demonstrate preparedness for driving in winter conditions. | Standard Reference |
|  | CVE.CA.5.1 | Compile a list of tools/materials that should be included in a proper Winter car kit and explain why each item is needed. | CV 12.2.4 |
| CVE.CA.5.2 | Explain and demonstrate how to properly install tire chains/cables. | CV 12.1.3 |

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| CVE.CA.6 | | Students will demonstrate vehicular fluids change and check procedures. | Standard Reference |
|  | CVE.CA.6.1 | Explain and demonstrate proper engine oil change procedures. | CV 12.5.3  CV 12.5.2 |
| CVE.CA.6.2 | List the 6 common fluids that require periodic checks and maintenance. | CV 12.5.2 |
| CVE.CA.6.3 | Identify and explain different fluid types. | CV 12.3.2 |

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| CVE.CA.7 | | Students will diagnose basic vehicular electrical systems. | Standard Reference |
|  | CVE.CA.7.1 | Identify the basic dash service indicator lights. | CV 12.3.3 |
| CVE.CA.7.2 | Locate fuse boxes and properly explain/demonstrate how to check/change a fuse. | CV 12.3.3 |
| CVE.CA.7.3 | Properly splice wires together. | CV 12.3.3 |

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| CVE.CA.8 | | Students will demonstrate and explain Interior and Exterior Vehicle Care. | Standard Reference |
|  | CVE.CA.8.1 | Explain and demonstrate proper exterior vehicle washing. | CV 12.3.3 |
| CVE.CA.8.2 | Explain and demonstrate proper interior detailing. | CV 12.5.2 |

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| CVE.CA.9 | | Students will demonstrate proper vehicle routine checks. | Standard Reference |
|  | CVE.CA.9.1 | Explain and demonstrate proper preventative maintenance checks. | CV 12.2.4 |
| CVE.CA.9.2 | Explain and demonstrate how to locate proper service intervals. | CV 12.2.4 |

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| CVE.CA.10 | | Students will gather and analyze the correct documentation and paperwork needed for owning a vehicle. | Standard Reference |
|  | CVE.CA.10.1 | Articulate how to properly insure and register a vehicle. | CV 12.3.1 |
| CVE.CA.10.2 | Articulate the purpose and types of insurance available. | CV 12.3.1 |
| CVE.CA.10.3 | Identify the different categories of drivers licenses. | CV 12.3.1 |

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| CVE.CA.11 | | Students will properly demonstrate procedures dealing with trailer knowledge and towing of a trailer(s). | Standard Reference |
|  | CVE.CA.11.1 | Articulate and demonstrate the procedures necessary to properly hitch a trailer. | CV 12.3.3 |
| CVE.CA.11.2 | Perform basic wiring repair. | CV 12.5.3 |

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| CVE.CA.12 | | Students will demonstrate and explain vehicle brake basics. | Standard Reference |
|  | CVE.CA.12.1 | Explain the difference between disk and drum brakes. | CV 12.4.2 |
| CVE.CA.12.2 | Inspect and check brake systems. | CV 12.4.2 |

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| CVE.CA.13 | | Students will properly identify and demonstrate basic Tool Identification. | Standard Reference |
|  | CVE.CA.13.1 | Identify what tools are needed to perform basic maintenance tasks on vehicles. | CV 12.4.2 |

**Computer Aided Drafting I**

(grades 9-12)

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| Purpose Statement: | Students will apply accepted drafting standards in mechanical and architectural drafting. 2D drawing techniques will be learned through the use of AutoCad software.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.CAD1.1 | | Students will set up and create drafting templates. | Standard Reference |
|  | CVE.CAD1.1.1 | Create and use prototype drawing files. | CV12.2.4  CV12.4.1 |
| CVE.CAD1.1.2 | Set units, limits, and dimensioning styles in order to create a variety of prototype drawing templates. | CV12.2.4  CV12.4.1 |
| CVE.CAD1.1.3 | Create and edit border and title blocks appropriate for a variety of drawing templates. | CV12.2.4  CV12.4.1 |

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| CVE.CAD1.2 | | Students will use a variety of drawing tools appropriate to task. | Standard Reference |
|  | CVE.CAD1.2.1 | Create accurate lines, arcs and circles to complete a 3- view drawing, using absolute, polar and relative methods of point entry. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD1.2.2 | Edit drawn entities using a variety of methods, tools and commands appropriate to task. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD1.2.3 | Construct orthographic projections, given isometric or partial views of three dimensional objects. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD1.2.4 | Appropriately dimension multi-view drawings according to standardized accepted dimensioning techniques. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.CAD1.3 | | Students will use a variety of edit tools appropriate to task. | Standard Reference |
|  | CVE.CAD1.3.1 | Edit drawn entities using a variety of methods and commands. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD1.3.2 | Use AutoCAD commands and tools to edit lines, arcs and circles to specific sizes and locations. |  |
| CVE.CAD1.3.3 | Use AutoCAD commands and tools to edit lines, arcs and circles to complete a variety of three view drawings. |  |

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| CVE.CAD1.4 | | Students will use a variety of advanced drawing tools to complete a variety of three view drawings. | Standard Reference |
|  | CVE.CAD1.4.1 | Use advanced AutoCAD commands and tools to complete a variety of three view drawings quickly and accurately. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD1.4.2 | Appropriately dimension multi-view drawings according to standardized/ accepted dimensioning techniques. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.CAD1.5 | | Students will present a viable plan for achieving occupational goals. | Standard Reference |
|  | CVE.CAD1.5.1 | Research a career of choice including prerequisite skills, educational requirements and working conditions. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD1.5.2 | Evaluate personal strengths and weaknesses with regard to chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD1.5.3 | Develop a viable plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD1.5.4 | Research and report out on an occupation of choice. | CV12.2.1  CV12.2.2 |

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| CVE.CAD1.5 | | Students will develop and demonstrate work and employability skills. | Standard Reference |
|  | CVE.CAD1.5.1 | Students will develop and demonstrate daily work and employability skills. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4 |

**Computer Aided Drafting II**

(grades 9-12)

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| Purpose Statement: | Students will apply accepted drafting standards in the construction of 3D mechanical sectioning, working drawings, technical illustration, and the geometric construction using SOLIDWORKS software. This course serves as an introduction to 3D Drafting.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.CAD2.1 | | Students will use appropriate tools within CAD software (i.e. AutoCAD) to create sectioned mechanical drawings to acceptable drafting standards. | Standard Reference |
|  | CVE.CAD2.1.1 | Develop and demonstrate daily work and employability skills including punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4  CV12.5.3 |
| CVE.CAD2.1.2 | Use appropriate tools within CAD software (i.e. AutoCAD) to create full section mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.1.3 | Use appropriate tools within CAD software (i.e. AutoCAD) to create half section mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.1.4 | Use appropriate tools within CAD software (i.e. AutoCAD) to create broken section mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.1.5 | Use appropriate tools within CAD software (i.e. AutoCAD) to create revolved section mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.1.6 | Use appropriate tools within CAD software (i.e. AutoCAD) to create offset section mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |

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| CVE.CAD2.2 | | Students will use appropriate tools with in within CAD software (i.e. AutoCAD) to create auxiliary mechanical drawings to acceptable drafting standards. | Standard Reference |
|  | CVE.CAD2.2.1 | Use appropriate tools within CAD software (i.e. AutoCAD) to create depth auxiliary views on mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.2.2 | Use appropriate tools within CAD software (i.e. AutoCAD) to create width auxiliary views on mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.2.3 | Use appropriate tools within CAD software (i.e. AutoCAD) to create height auxiliary views on mechanical drawings to acceptable drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |

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| CVE.CAD2.3 | | Students will use appropriate tools within CAD software (i.e. AutoCAD) to create geometric construction and line developments to acceptable drafting standards. | Standard Reference |
|  | CVE.CAD2.3.1 | Use appropriate tools within CAD software (i.e. AutoCAD) to create geometric construction and parallel line developments to acceptable drafting standards | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.3.2 | Use appropriate tools within CAD software (i.e. AutoCAD) to create geometric construction and radial line developments to acceptable drafting standards | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |

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| CVE.CAD2.4 | | Students will use appropriate tools within CAD software (i.e. AutoCAD) to create pictorial drawings and technical illustrations to acceptable drafting standards. | Standard Reference |
|  | CVE.CAD2.4.1 | Use appropriate tools within CAD software (i.e. AutoCAD) to create isometric and oblique drawings to acceptable drafting standards. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.4.2 | Use appropriate tools within CAD software (i.e. AutoCAD) to create assembly drawings to acceptable drafting standards. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |

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| CVE.CAD2.5 | | Students will use appropriate tools within CAD software (i.e. AutoCAD) to create working drawings to acceptable drafting standards. | Standard Reference |
|  | CVE.CAD2.5.1 | Use advanced commands and tools within CAD software (i.e. AutoCAD) to complete a variety of three view working drawings quickly and accurately. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |
| CVE.CAD2.5.2 | Appropriately dimension multi view drawings according to standardized/ accepted dimensioning techniques. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.4 |

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| CVE.CAD2.6 | | Students will write a paper and present a viable plan for achieving occupational goals. | Standard Reference |
|  | CVE.CAD2.6.1 | Research a career of choice including prerequisite skills, educational requirements and working conditions. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD2.6.2 | Evaluate personal strengths and weakness with regard to chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD2.6.3 | Develop a viable plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD2.6.4 | Complete both written paper and oral presentation of occupation. | CV12.2.1  CV12.2.2 |

**Computer Aided Drafting III**

(grades 9-12)

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| Purpose Statement: | This course is designed for the student who exhibits an intense interest in computer aided drafting, and/or who wishes to pursue a drafting related career. Students may specialize in either mechanical, architectural drafting or three dimensional drafting.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.CAD3.1 | | Students will develop good work habits and employability skills. | Standard Reference |
|  | CVE.CAD3.1.1 | Develop and demonstrate daily work and employability skills including punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4  CV12.5.3 |

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| CVE.CAD3.2 | | Students will use a variety of advanced drawing tools to complete a variety of upper level mechanical, architectural or three-dimensional drawings | Standard Reference |
|  | CVE.CAD3.2.1 | Use appropriate drawing tools to complete a variety of upper level mechanical drawings to accepted drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD3.2.2 | Use appropriate drawing tools to complete a variety of architectural drawings to accepted drafting standards and building codes.  Includes: Floor plan, foundation plan, elevations, framing and roof plans, kitchen and bath details, and a plot plan | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD3.2.3 | Use appropriate drawing tools to complete a variety of three dimensional drawings to accepted drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.CAD3.3 | | Students will write a paper and present a viable plan for achieving occupational goals. | Standard Reference |
|  | CVE.CAD3.3.1 | Research a career of choice including prerequisite skills, educational requirements and working conditions. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD3.3.2 | Evaluate personal strengths and weakness with regard to chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD3.3.3 | Develop a viable plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD3.3.4 | Complete both written paper and oral presentation of occupation. | CV12.2.1  CV12.2.2 |

**Computer Aided Drafting IV**

(grades 9-12)

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| Purpose Statement: | This course is designed for the student who exhibits an intense interest in computer aided drafting, and/or who wishes to pursue a drafting related career. Students may specialize in either mechanical, architectural drafting or three dimensional drafting. Designed as a capstone class for students that want to pursue a career in design or engineering.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.CAD4.1 | | Students will develop professional work habits and employability skills. | Standard Reference |
|  | CVE.CAD4.1.1 | Develop and demonstrate daily work and employability skills including punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4  CV12.5.3 |

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| CVE.CAD4.2 | | Students will use a variety of advanced 2 dimensional drawing techniques to create a project using the laser engraver. | Standard Reference |
|  | CVE.CAD4.2.1 | Use appropriate drawing tools to complete a variety of upper level mechanical drawings to accepted drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD4.2.2 | Use appropriate drawing tools to complete a variety of upper level mechanical drawings to accepted drafting standards. |  |

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| CVE.CAD4.3 | | Students will use a variety of advanced drawing tools to complete a variety of upper level Architectural. | Standard Reference |
|  | CVE.CAD4.3.1 | Use appropriate drawing tools to complete a variety of architectural drawings to accept drafting standards and building codes. Includes: Floor plan, foundation plan, elevations, framing and roof plans, kitchen and bath details, and a plot plan. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.CAD4.3.2 | Create a 3D model of their floor plan. Students will demonstrate their knowledge of scale. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3 |

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| CVE.CAD4.4 | | Students will create a 3 Dimensional project that can be produced using 3D printing technology. | Standard  Reference |
|  | CVE.CAD4.4.1 | Demonstrate use of appropriate drawing tools to complete a variety of three dimensional drawings to accepted drafting standards. | CV12.3.1  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4 |
| CVE.CAD4.4.2 | Convert 2D drawing files to 3D surfaces | CV12.5.3  CV12.5.4 |
| CVE.CAD4.4.3 | Demonstrate the ability to create “gCode” with appropriate slicing software. | CV12.5.2 |
| CVE.CAD4.4.4 | Demonstrate the ability to properly load and unload filament into a 3D Printer |  |

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| CVE.CAD4.5 | | Students will write a paper and present a viable plan for achieving occupational goals. | Standard  Reference |
|  | CVE.CAD4.5.1 | Choose and research a career of choice including prerequisite skills, educational requirements and working conditions. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD4.5.2 | Evaluate personal strengths and weaknesses with regard to chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD4.5.3 | Develop a viable plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.CAD4.5.4 | Complete both written paper and oral presentation of occupation. | CV12.2.1  CV12.2.2 |
| CVE.CAD4.5.5 | Complete a job shadowing experience related to metalworking (when possible). | CV12.1.3  CV12.2.1  CV12.4.1 |

**Solid Works (3D Drafting)**

**3D Drafting**

(grades 9-12)

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| Purpose Statement: | Students will create and design 3D solid objects in a virtual environment using Solid Works software. |

Benchmarks:

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| CVE.3DD.1 | | Students will construct ***simple one or two*** *step* 3D modeled objects to size and material specifications, using a variety of appropriate sketch tools, features, commands and methods, given partial views of three dimensional objects. | Standard Reference |
|  | CVE.3DD.1.1 | Develop and demonstrate daily work and employability skills including: punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4 |
| CVE.3DD.1.2 | Select appropriate units of length, weight and time based on task at hand. | CV12.3.2  CV12.3.3 |
| CVE.3DD.1.3 | Select appropriate planes or surfaces to draw on relative to the task and shape of object. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.4 | Create lines using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.5 | Create arcs using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.6 | Create circles using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.7 | Create rectangles and squares using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.8 | Define sketches to .001” using smart dimension tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.9 | Create a feature from a defined sketch using the Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.10 | Create a feature from a defined sketch using the Revolve Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.11 | Create a feature from a defined sketch using the Subtract Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.1.12 | Create a feature from a defined sketch using the Subtract Revolve Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.3DD.2 | | Students will construct ***complex three or more*** *step* 3D modeled objects to size and material specifications, using a variety of appropriate sketch tools, features, commands and methods, given partial views of three dimensional objects.  *Note: this benchmark is intended to be repeated for multiple complex drawings. The steps remain the same, but should be repeated with increasingly complex drawings* | Standard Reference |
|  | CVE.3DD.2.1 | Select appropriate units of length, weight and time based on task at hand. | CV12.3.2  CV12.3.3 |
| CVE.3DD.2.2 | Select appropriate planes or surfaces to draw on relative to the task and shape of object. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.3 | Create lines using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.4 | Create arcs using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.5 | Create circles using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.6 | Create rectangles, squares using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.7 | Define sketches to .001” using smart dimension tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.8 | Create a feature from a defined sketch using the Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.9 | Create a feature from a defined sketch using the Revolve Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.10 | Create a feature from a defined sketch using the Subtract Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.3DD.2.11 | Create a feature from a defined sketch using the Subtract Revolve Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.3DD.3 | | Students will research, evaluate, and compare career options to develop and present a plan for achieving occupational goals. | Standard Reference |
|  | CVE.3DD.3.1 | Research a career of choice, prerequisite skills, educational requirements, etc. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.3DD.3.2 | Determine personal strengths and weakness with-in chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.3DD.3.3 | Develop a plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.3DD.3.4 | Complete both written paper and oral presentation of occupation | CV12.2.1  CV12.2.2 |

**Image Editing**

(grades 9-12)

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| Purpose Statement: | Students will manipulate and create digital photographic images using photo editing software. |

Benchmarks:

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| CVE.IMG.1 | | Students will create and manipulate basic assigned artwork using a variety of appropriate editing and adjusting tools, commands and methods using photo editing software (e.g., Photoshop). | Standard Reference |
|  | CVE.IMG.1.1 | Develop and demonstrate daily work and employability skills including punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4  CV12.5.3 |
| CVE.IMG.1.2 | Use appropriate size, pixels and resolution for their work area. | CV12.3.2  CV12.3.3 |
| CVE.IMG.1.3 | Make and edit selections using appropriate selection tools. | CV12.3.1  CV12.3.3  CV12.3.4  CV12.4.4  CV12.5.1  CV12.5.2  CV12.5.4 |
| CVE.IMG.1.4 | Use and manipulate layers with-in a file to produce desired effects in an image. | CV12.3.1  CV12.3.3  CV12.3.4  CV12.4.4  CV12.5.1  CV12.5.2  CV12.5.4 |

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| CVE.IMG.2 | | Students will repair or correct problematic digital images using a variety of appropriate editing and adjusting tools, commands and methods using photo editing software (e.g., Photo Shop). | Standard Reference |
|  | CVE.IMG.2.1 | Identify appropriate repair tools and navigate the photo editing software to find them including selection tools, healing tools, clone stamp, dodge, burn and sponge as well as editing and image adjustment menus. | CV12.4.2 |
| CVE.IMG.2.2 | Repair, and/or correct problematic digital images, using proper tools with-in the photo editing software. | CV12.3.1  CV12.3.3  CV12.3.4  CV12.4.4  CV12.5.1  CV12.5.2  CV12.5.4 |

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| CVE.IMG.3 | | Students will enhance, modify and/or layer digital images using a variety of appropriate editing and adjusting tools, commands and methods using Photo Shop software. | Standard Reference |
|  | CVE.IMG.3.1 | Identify appropriate tools and navigate the photo editing software to find them including selection tools, healing tools, clone stamp, dodge, burn and sponge as well as editing and image adjustment menus. | CV12.4.2 |
| CVE.IMG.3.2 | Enhance, scale, modify and/or layer digital images, using appropriate tools, commands and methods with-in the photo editing software. | CV12.3.1  CV12.3.3  CV12.3.4  CV12.4.4  CV12.5.1  CV12.5.2  CV12.5.4 |

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| CVE.IMG.4 | | Students will apply special effects to digital images using a variety of appropriate editing and adjusting tools, commands and methods using photo editing software. | Standard Reference |
|  | CVE.IMG.4.1 | Identify and locate appropriate filters, blending modes and special effects in Photoshop and apply them to achieve desired effects. | CV12.4.2 |
| CVE.IMG.4.2 | Combine images, use filters and blend modes to apply special effects using appropriate filters and tools with-in the photo-editing software. | CV12.3.1  CV12.3.3  CV12.3.4  CV12.4.4  CV12.5.1  CV12.5.2  CV12.5.4 |

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| CVE.IMG.5 | | Students will apply text, color and create simple artwork using a variety of appropriate editing and adjusting tools, commands and methods using photo editing software. | Standard Reference |
|  | CVE.IMG.5.1 | Identify and locate appropriate text tools, brushes, and color selection tools in the photo editing software and apply them to achieve desired effects. | CV12.4.2 |
| CVE.IMG.5.2 | Add text, color, and apply special effects, using filters and blend modes, adjusting tools, commands and methods with-in the photo editing software. | CV12.3.1  CV12.3.3  CV12.3.4  CV12.4.4  CV12.5.1  CV12.5.2  CV12.5.4 |

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| CVE.IMG.6 | | Students will research, evaluate and compare career options, to develop and present a plan for achieving occupational goals. | Standard Reference |
|  | CVE.IMG.6.1 | Research a career of choice, prerequisite skills, educational requirements, etc. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.IMG.6.2 | Determine personal strengths and weakness with-in chosen occupation | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.IMG.6.3 | Develop a plan for achieving occupational goals | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.IMG.6.4 | Complete both written paper and oral presentation of occupation | CV12.2.1  CV12.2.2 |

**Robotics I**

(grades 9-12)

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| Purpose Statement: | Students will learn about the applications of robotics in society and industry. The students will learn about the application of gears, motors, and transmission control systems. The students who participate in this class will design and build three robots: basic mobility and control, advanced control and manipulation, and a wireless video RC robot. Each project will be designed around a challenge requiring the utilization of the Engineering Design Loop.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: OSHA 10/21 Century, Solid Works, CAD* |

Benchmarks:

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| CVE.ROB.1 | | Students will use Laboratory Safety Procedures | Standard Reference |
|  | CVE.ROB.1.1 | Identify and describe Laboratory Safety Procedures | CV12.5.3 |
| CVE.ROB.1.2 | Identify and describe soldering safety | CV12.5.3 |
| CVE.ROB.1.3 | Identify and describe rotary hand tool safety | CV12.5.3 |

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| CVE.ROB.2 | | Students will interpret and evaluate general knowledge concerning robotic systems. This will include the types of robots and how their parts work together. | Standard Reference |
|  | CVE.ROB.2.1 | Learn about the history of the robot from gear ration, wheels, motion, drive systems, servos, motors, design, sensors, switches, C.A.D. and evaluation of a design. | CV12.4.1  CV12.4.2  CV12.4.3 |

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| CVE.ROB.3 | | Students will produce a square bot to evaluate mobility of gears and wheels. Students will also evaluate motion, and energy usage effect on motor output. | Standard Reference |
|  | CVE.ROB.3.1 | Design a basic Square Bot design that will be utilized throughout the while semester. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.3.2 | Utilize different parts when designing their robot. | CV12.5.2 CV12.5.3  CC12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.3.3 | Learn what source powers their robot. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.3.4 | Demonstrate how wheels help improve their mobility. | CV12.5.2 CV12.5.3  Cv12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.3.5 | Learn what interface the robot system will utilize. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB.4 | | Students will produce an autonomous robot to navigate a maze utilizing Robot. | Standard Reference |
|  | CVE.ROB.4.1 | Utilize a software system that will help program their robots for different challenges. | CV12.5.2 CV12.5.3  Cv12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.4.2 | Utilize timing and testing to enhance their skills. | CV12.5.2 CV12.5.3  Cv12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB.5 | | Students will design and produce an advanced mobility robot for competition. | Standard Reference |
|  | CVE.ROB.5.1 | Draw / design a robot for competitive challenges. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.5.2 | Enhance their control skills. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB.5.3 | Evaluate times to enhance their skills in the competition(s) | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

**Robotics II**

(grades 9-12)

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| Purpose Statement: | Students will extend their knowledge on how Robotics affect and impact society. The students will further enhance their skills about the application of gears, motors, and transmission control systems. The students who participate in this class will design and build robots that incorporate design restrictions such as: weight distribution, leverage and gear ratio. Each project will be designed around a challenge requiring the utilization of the Engineering Design Loop and follow the requirements of presentation and documentation that a competitive organization requires.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.ROB2.1 | | Students will demonstrate proper safety practices. | Standard Reference |
|  | CVE.ROB2.1.1 | Identify and explain Laboratory Safety Procedures. | CV12.5.3 |
| CVE.ROB2.1.2 | Identify and explain soldering safety. | CV12.5.3 |
| CVE.ROB2.1.3 | Identify and explain rotary hand tool safety. | CV12.5.3 |

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| CVE.ROB2.2 | | Students will interpret and evaluate more advanced knowledge concerning robotic systems. This will include the types of robots and how their parts work together. | Standard Reference |
|  | CVE.ROB2.2.1 | Research how weight distribution, gear ratio and stability affect machines and robots. | CV12.4.2 |
| CVE.ROB2.2.2 | Demonstrate how different drive systems work within a machine and robot | CV12.4.2 |
| CVE.ROB2.2.3 | Demonstrate how motors, sensors, switches and servers affect machinery when moving or articulating. | CV12.4.2 |
| CVE.ROB2.2.4 | Demonstrate how important structure design is to the functionality of a project | CV12.4.2 |
| CVE.ROB2.2.5 | Design their robot on paper or in a C.A.D software and evaluate it in written form. | CV12.4.1  CV12.4.3 |

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| CVE.ROB2.3 | | Students will produce a Bot Base that revolves around maneuverability, stability and gear ratio that models heavy machinery and cranes. | Standard Reference |
|  | CVE.ROB2.3.1 | Design a base structure that will be utilized throughout the year in different competitions. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.3.2 | Evaluate and utilize different parts to design their robot. | CV12.5.2 CV12.5.3 |
| CVE.ROB2.3.3 | Demonstrate how much energy is needed or utilized in their project. | CV12.5.4 CV12.4.4 |
| CVE.ROB2.3.4 | Decide what how their robot moves depending on their track or wheel system. | CV12.1.4 CV12.1.2 |
| CVE.ROB2.3.5 | Either use one or multiple interface systems depending on their project design. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB2.4 | | Students will produce a robot within guidelines that preform in a course to challenge various aspects of design. | Standard Reference |
|  | CVE.ROB2.4.1 | Design and program to fit the challenge at hand. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.4.2 | Evaluate their robot through a Pre-test and Post-test. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB2.5 | | Students will design and produce an advanced mobility robot for competition. (This competition may happen in class against the other groups (ClawBot / Competition Related Games.)) | Standard Reference |
|  | CVE.ROB2.5.1 | Draw a Robot design (Drafting). | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.5.2 | Enhance their skills based on the skills required to the competition. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.5.3 | Adapt to different interfaces. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.5.4 | Evaluate their times and better their skills. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB2.6 | | Students will produce a robot base that incorporates maneuverability / Team work for multiple drivers on one bot at one time. | Standard Reference |
|  | CVE.ROB2.6.1 | Design and explain their roles and design. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.6.2 | Evaluate and enhance their robotic control skills. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.6.3 | Enhance their skills in robotic design interface to accommodate multiple controllers on one project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB2.6.4 | Evaluate their robot design in a challenge as well as reflect on the outcome. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

**Robotics III**

(grades 9-12)

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| Purpose Statement: | Robotics III is a further advanced robotics design and engineering class geared towards competitions in robotics and utilizing STEM principles. Students who participate in this class will build upon what they learned in Robotic I & II and incorporate autonomous control technologies and design aspects that real word robotic engineers encounter. Students will design, build, and test three robotics projects: RC challenge, half RC half autonomous, and fully autonomous utilizing the updated vex controllers.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.ROB3.1 | | Students will demonstrate proper safety practices. | Standard Reference |
|  | CVE.ROB3.1.1 | Identify and explain Laboratory Safety Procedures. | CV12.5.3 |
| CVE.ROB3.1.2 | Identify and explain soldering safety. | CV12.5.3 |
| CVE.ROB3.1.3 | Identify and explain rotary hand tool safety. | CV12.5.3 |

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| CVE.ROB3.2 | | Students will design a Bot Base that is custom to a specific issue in the real world and incorporate better ideas such as: Electronics, Maneuverability, energy consumption and Stance. | Standard Reference |
|  | CVE.ROB3.2.1 | Design a base structure that will be utilized throughout the year in different competitions. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.2.2 | Describe their structures reasoning and define key points throughout the structure. | CV12.5.2  CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.2.3 | Demonstrate how much energy is needed or utilized in their project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.2.4 | Define what drive system they will utilize for their project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.2.5 | Describe what interface they used to make their project operate as intended. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB3.3 | | Students will produce a robot within guidelines that performs in a course to challenge various aspects of design. | Standard Reference |
|  | CVE.ROB3.3.1 | Either use one or multiple interface systems depending on their project design. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.3.2 | Evaluate their robot through a Pre-test and Post-test. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB3.4 | | Students will choose a competition that is utilized in a competitive organization and master their skills in the field. | Standard Reference |
|  | CVE.ROB3.4.1 | Draw a detailed Robot design (Drafting). | CV12.5.2 CV12.5.3  CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.4.2 | Enhance their skills based on the skills required to the competition. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.4.3 | Adapt to different interfaces. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.4.4 | Evaluate their times and help master their skills. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB3.5 | | Students will work together to create a robot that will be displayed around the school that is functional. | Standard Reference |
|  | CVE.ROB3.5.1 | Design and explain their roles and design. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.5.2 | Evaluate and enhance their robotic control skills. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.5.3 | Enhance their skills in robotic design interface to accommodate multiple controllers on one project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB3.5.4 | Evaluate their robot design in a challenge as well as reflect on the outcome. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

**Robotics IV**

(grades 9-12)

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| Purpose Statement: | Robotics IV is a further advanced robotics design and engineering class geared towards competitions in robotics and utilizing STEM principles. Students who participate in this class will build upon what they learned in Robotic I & II, III and incorporate autonomous control technologies and further programming enhancements. Students will design, build, and test at least three robotics projects: RC challenge, half RC half autonomous, and fully autonomous utilizing robotic programs and design strategies.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.ROB4.1 | | Students will demonstrate proper safety practices. | Standard Reference |
|  | CVE.ROB4.1.1 | Identify and explain Laboratory Safety Procedures. | CV12.5.3 |
| CVE.ROB4.1.2 | Identify and explain soldering safety. | CV12.5.3 |
| CVE.ROB4.1.3 | Identify and explain rotary hand tool safety. | CV12.5.3 |

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| CVE.ROB4.2 | | Students will interpret and evaluate more advanced knowledge concerning robotic systems. This will include the types of robots and how their parts work together. | Standard Reference |
|  | CVE.ROB4.2.1 | Explain in detail their knowledge of the mechanics and structure will impact their Design. | CV12.4.1  CV12.4.3 |

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| CVE.ROB4.3 | | Students will design a robot that can fully function with programming and functional to use on a consumer aspect. | Standard Reference |
|  | CVE.ROB4.3.1 | Design a base structure that will be utilized throughout the year in different competitions. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.3.2 | Describe in writing their structures reasoning and define key points throughout the structure with a sketch or rendering of their project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.3.3 | Calculate their power usage. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.3.4 | Implement multiple drive systems in their project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.3.5 | Evaluate the interface system used in the project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB4.4 | | Students will design and produce an advanced mobility robot for competition. (This competition may happen in class against the other groups (Competition Related Games.) | Standard Reference |
|  | CVE.ROB4.4.1 | Draw a detailed Robot design (Drafting). | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.4.2 | Enhance their skills based on the skills required to the competition. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.4.3 | Adapt to different interfaces. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.4.4 | Evaluate their times and help master their skills. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB4.5 | | Students will design a robot that can fully function with programming and functional to use on a consumer aspect. | Standard Reference |
|  | CVE.ROB4.5.1 | Design a base structure that will be utilized throughout the year in different competitions. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.5.2 | Describe in writing their structures reasoning and define key points throughout the structure with a sketch or rendering of their project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.5.3 | Calculate their power usage. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.5.4 | Implement multiple drive systems in their project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.5.5 | Evaluate the interface system used in the project. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

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| CVE.ROB4.6 | | Students will explore job areas related to the industry whether it is local or nationally offered. This will correlate with funding required by the District. | Standard Reference |
|  | CVE.ROB4.6.1 | Choose an internship or apprenticeship. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.6.2 | Collect hours and/or time in a log. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.6.3 | Reflect/evaluate the outcome. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |
| CVE.ROB4.6.4 | Take knowledge learned and brainstorm a robot that relates to a concept they learned during the internship or apprenticeship. | CV12.5.2 CV12.5.3  CV12.5.4 CV12.4.4  CV12.1.4 CV12.1.2  CV12.5.1 CV12.3.1  CV12.3.2 CV12.2.1  CV12.2.4 CV12.2.2  CV12.3.4 |

**Pre-Engineering**

(grades 9-12)

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| Purpose Statement: | Students will work through the engineering design loop with an emphasis on science, technology, engineering and mathematics activities and problem solving. Students will also have an opportunity to use their drawings in computer aided manufacturing applications.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.PEN.1 | | Students will work through each step of the design loop with a design or creation of their own. Apply the engineering problem solving process to solve basic engineering design and analysis problems. | Standard Reference |
|  | CVE.PEN.1.1 | Develop and demonstrate daily work and employability skills including: punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4 |
| CVE.PEN.1.2 | Define the problem or issue to be addressed, identify the need and target population. | CVC12.3.1 |
| CVE.PEN.1.3 | Research the problem from a variety of credible resources. Identify both the requirements and the constraints. | CVC12.3.2 |
| CVE.PEN.1.4 | Brainstorm and develop possible solutions. | CVC12.3.2  CVC12.3.3 |
| CVE.PEN.1.5 | Evaluate all possibilities and select the most promising solution. Refine their solution. | CVC12.3.2  CVC12.3.3  CVC12.3.4  CVC12.4.3 |
| CVE.PEN.1.6 | Construct a prototype or model, test or evaluate their design, if possible. Develop and refine their idea. | CVC12.4.4  CVC12.5.2  CVC12.5.4 |
| CVE.PEN.1.7 | Create a technical working drawing to communicate their design or concept. | CVC12.4.2  CVC12.5.3 |
| CVE.PEN.1.8 | Upgrade finished design and redesign considerations. | CVC12.3.2  CVC12.3.3  CVC12.3.4  CVC12.4.3 |

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| CVE.PEN.2 | | Students will create a minimum of two LASER personal projects or prototypes. | Standard Reference |
|  | CVE.PEN.2.1 | Create a working file to necessary specifications using appropriate software. | CVC12.3.1  CVC12.3.2  CVC12.3.3  CVC12.4.2  CVC12.4.4  CVC12.5.2  CVC12.5.3  CVC12.5.4 |
| CVE.PEN.2.2 | Convert the file to machine tool paths. | CVC12.3.1  CVC12.3.2  CVC12.4.2  CVC12.4.4  CVC12.5.3  CVC12.5.4 |
| CVE.PEN.2.3 | Set individual machine parameters. | CVC12.3.1  CVC12.3.2  CVC12.4.2  CVC12.4.4  CVC12.5.3  CVC12.5.4 |

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| CVE.PEN.3 | | Students will create a minimum of one 3D Printer personal project or prototype. | Standard Reference |
|  | CVE.PEN.3 | Create a working file to necessary specifications using appropriate software. | CVC12.3.1  CVC12.3.2  CVC12.3.3  CVC12.4.2  CVC12.4.4  CVC12.5.2  CVC12.5.3  CVC12.5.4 |
| CVE.PEN.3 | Convert the file to machine tool paths. | CVC12.3.1  CVC12.3.2  CVC12.4.2  CVC12.4.4  CVC12.5.3  CVC12.5.4 |
| CVE.PEN.3 | Set individual machine parameters. | CVC12.3.1  CVC12.3.2  CVC12.4.2  CVC12.4.4  CVC12.5.3  CVC12.5.4 |

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| CVE.PEN.4 | | Students will create a minimum of one CNC Milling personal project or prototype. | Standard Reference |
|  | CVE.PEN.4.1 | Create a working file to necessary specifications using appropriate software. | CVC12.3.1  CVC12.3.2  CVC12.3.3  CVC12.4.2  CVC12.4.4  CVC12.5.2  CVC12.5.3  CVC12.5.4 |
| CVE.PEN.4.2 | Convert the file to machine tool paths. | CVC12.3.1  CVC12.3.2  CVC12.4.2  CVC12.4.4  CVC12.5.3  CVC12.5.4 |
| CVE.PEN.4.3 | Set individual machine parameters. | CVC12.3.1  CVC12.3.2  CVC12.4.2  CVC12.4.4  CVC12.5.3  CVC12.5.4 |

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| CVE.PEN.5 | | Students will research, evaluate, and compare career options to develop and present a plan for achieving occupational goals. | Standard Reference |
|  | CVE.PEN.5.1 | Research a career of choice, prerequisite skills, educational requirements, etc. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.PEN.5.2 | Determine personal strengths and weakness with-in chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.PEN.5.3 | Develop a plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.PEN.5.4 | Complete both written paper and oral presentation of occupation. | CV12.2.1  CV12.2.2 |

**Introduction to Metal Technology I**

(grades 7-8)

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| Purpose Statement: | Students will explore and apply various forms of metalworking skills such as sheet metal, arc welding, machine tool technology, and wrought iron while safely completing skills tests and projects. |

Benchmarks:

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| CVE.IM1.1 | | Students will accurately and efficiently read and use various measurement tools used in the metals shop within the scope of what they are working on. | Standard Reference |
|  | CVE.IM1.1.1 | Read a ruler to within a 1/16 of an inch and show the ability to reduce fractions to decimal form.  *Example 1/4”=.25* | CV8.1.4  CV8.2.2  CV8.2.4  CV8.5.4  CV8.5.3 |
| CVE.IM1.1.2 | Divide a fraction in half.  *Example 3/4”=3/8”* | CV8.1.4  CV8.5.4  CV8.5.3 |
| CVE.IM1.1.3 | Research, use and identify measurement practices used on individual projects. | CV8.2.4  CV8.2.1  CV8.3.4  CV8.5.4 |

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| CVE.IM1.2 | | Students will demonstrate and apply general shop safety, hand tool safety, and individual equipment safety. | Standard Reference |
|  | CVE.IM1.2.1 | Demonstrate safe practices at all times while in the metals lab. | CV8.1.4  CV8.2.1  CV8.2.4  CV8.5.3  CV8.5.1 |
| CVE.IM1.2.2 | Demonstrate safety when using hand tools, portable power tools, and stationary equipmenet. | CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.4.2 |

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| CVE.IM1.3 | | Students will identify and apply basic sheet metal skills which include sheet metal pattern development use and application, sheet metal terms, safety, and the application of sheet metal practices. | Standard Reference |
|  | CVE.IM1.3.1 | Sheet metal hand tool identification. | CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.3.2 | Use and apply the sheet metal pan and box brake. | CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.3.3 | Use and apply the sheet metal squaring shear. | CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.3.4 | Use and apply various sheet metal fasteners. | CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.3.5 | Construct three different assigned sheet metal projects chosen by the instructor. | CV8.3.4  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4 |

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| CVE.IM1.4 | | Students will demonstrate and apply basic introduction to SMAW (Shielded Metal Arc Welding) which will include safety, terminology, careers, and its applications. | Standard Reference |
|  | CVE.IM1.4.1 | Apply arc welding hand tool and portable power tool identification and safe uses. This will include items such as the metal chop saw, pedestal grinder, palm grinder, chipping hammer, wire brush, and other related items that may be used in the arc welding unit. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.4.2  CV8.4.3  CV8.2.4 |
| CVE.IM1.4.2 | Demonstrate safe welding practices while attempting to proficiently weld a correct weld bead on a piece of mild steel that is 3/8” thick, 3/4” wide, and 2” long. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.4.2  CV8.4.3  CV8.2.4  CV8.1.4 |
| CVE.IM1.4.3 | Research and identify some of the skills welders are required to have in the workforce. | CV8.4.2  CV8.3.3  CV8.3.1  CV8.2.4 |

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| CVE.IM1.5 | | Students will show basic introduction skills involved with machine tool technology by focusing on the use of the metal lathe. | Standard Reference |
|  | CVE.IM1.5.1 | Apply beginning lathe safety and applications (Facing, Turning, Countersink, and Knurling). | CV8.5.1  CV8.5.3  CV8.5.4  CV8.4.2  CV8.4.3  CV8.2. |
| CVE.IM1.5.2 | Interpret and identify lathe part identification. | CV8.2.4  CV8.3.4  CV8.5.4 |
| CVE.IM1.5.3 | Apply basic lathe setups for facing, turning, countersink, and knurling. | CV8.2.4  CV8.5.4  CV8.5.3  CV8.1.4  CV8.3.4  CV8.3.3 |
| CVE.IM1.5.4 | Construct a small project on the metal lathe by turning down a 1” dia. X 5” long piece of aluminum to the instructors specs. | CV8.3.4, CV8.5.1, CV8.5.2,  CV8.5.3,  CV8.5.4 |
| CVE.IM1.5.5 | Research and identify some of the skills a machinist is required to know while using the lathe in the workforce. | CV8.4.2,  CV8.3.3,  CV8.3.1, CV8.2.4 |

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| CVE.IM1.6 | | Students will use and apply basic introduction skills and terminology that are used in wrought iron in relation to projects completed in class. | Standard Reference |
|  | CVE.IM1.6.1 | Use and safely apply heat from a gas forge or oxyacetylene to aid in changing the shape of most metals. | CV8.2.4  CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.6.2 | Use and apply the metal bender. | CV8.2.4  CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.6.3 | Use and apply hand tools and portable power tools used in the processes of wrought iron. | CV8.5.1  CV8.5.3  CV8.5.4 |
| CVE.IM1.6.4 | Create a project to demonstrate their ability to use several different pieces of equipment, hand tools, and resources. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.4.2  CV8.4.3  CV8.2.4  CV8.1.4  CV8.3.4  CV8.3.3  CV8.2.1 |

**Introduction to Metal Technology II**

(grades 7-8)

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| Purpose Statement: | Students will explore and apply advanced forms of metalworking skills such as sheet metal, arc welding, machine tool technology, and wrought iron while safely completing skills tests and individual personal projects. |

Benchmarks:

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| CVE.IM2.1 | | Students will accurately and efficiently read measurement on all of the measurement tools which are applied to the content relevant to the metals II class. | Standard Reference |
|  | CVE.IM2.1.1 | Reduce measurement fractions to a decimal form. | CV8.2.4  CV8.1.4  CV8.5.4  CV8.5.3 |
| CVE.IM2.1.2 | Read a micrometer to the nearest .001 of an inch and show the relationship between micrometer measurements and decimal form from dividing a fraction from measurement.  *Example 1/2”=.500 which you would say five hundred thousandths of an inch.* | CV8.1.4  CV8.5.4  CV8.5.3 |
| CVE.IM2.1.3 | Divide measurement fractions in half.  *Example 1/4”=1/8”* | CV8.2.4  CV8.2.1 |

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| CVE.IM2.2 | | Students will apply advanced sheet metal skills while constructing an individual project. They will use and apply identification skills, terminology, safety, and hands on trades. | Standard Reference |
|  | CVE.IM2.2.1 | Demonstrate hand tool & portable power tool safety, identification and proper use. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4 |
| CVE.IM2.2.2 | Demonstrate and apply sheet metal working skills, equipment, and hand tool identification and correct use. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4 |
| CVE.IM2.2.3 | Apply and demonstrate the use of sheet metal fasteners in relation to their sheet metal projects. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4 |
| CVE.IM2.2.4 | Create a sheet metal project using all tools, equipment, and skills covered in the class within a two week period. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3,  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |

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| CVE.IM2.3 | | Students will use and apply the principles of machine tool technology which encompasses the use of the lathe and vertical mill. Students will apply a variety of skills in the construction of a personal project which they have learned through demonstrations, text, discussions, applications and video. | Standard Reference |
|  | CVE.IM2.3.1 | Apply identification skills over the various components of the metal lathe. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4 |
| CVE.IM2.3.2 | Show the various setups and procedures for the different forms of cutting techniques performed on the metal lathe and vertical mill (milling, drilling, facing, turning, countersink, and knurling). | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.3.1  CV8.3.3 |
| CVE.IM2.3.3 | Demonstrate safe and proper procedures, and clean up while using the machine tool equipment. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.3.1  CV8.3.3 |
| CVE.IM2.3.4 | Show the application and use of the micrometer in relation to processes used in machine tool technology. | CV8.2.4  CV8.5.4 |
| CVE.IM2.3.5 | Research and demonstrate problem solving skills associated with the use of the metal lathe. | CV8.4.2  CV8.3.3  CV8.3.1  CV8.2.4  CV8.3.1 |
| CVE.IM2.3.6 | Construct a project by using the metal lathe and vertical mill. | CV8.3.4  CV8.5.3  CV8.5.4 |

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| CVE.IM2.4 | | Students will demonstrate advanced fundamentals used in arc welding. Students will demonstrate their understanding about safety, terminology, correct practices, careers and the identification of various components. | Standard Reference |
|  | CVE.IM2.4.1 | Test weld a fillet pad using 1/8” 6013 welding rod on a piece of mild steel which is 3/8” x 2” x 3”. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |
| CVE.IM2.4.2 | Safely use and apply various hand tools, portable power tools, and equipment during the arc welding unit. This will include the metal chop saw, pedestal grinder, palm grinder, chipping hammer, wire brush, and wire wheel. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.4.2 |

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| CVE.IM2.5 | | Students will apply the basic skills needed in the process of Oxyacetylene welding. | Standard Reference |
|  | CVE.IM2.5.1 | Demonstrate safety practices involved with oxyacetylene welding. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4 |
| CVE.IM2.5.2 | Use related hand tools and equipment which will include the use of the floor shear, wire wheel and etc. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.4. |
| CVE.IM2.5.3 | Perform a satisfactory weld by welding two pieces of 1/8” x 3/4” x 2” mild steel strap together without the use of filler rod. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |

**Power Mechanics**

(grades 7-8)

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| Purpose Statement: | Students will explore and apply various forms of power mechanic principles while safely completing lab units and hands on practices within the auto shop. |

Benchmarks:

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| CVE.PM.1 | | Students will apply the principles involving simple machines and their functions. | Standard reference |
|  | CVE.PM.1.1 | Define and use terminology in relations to simple machines. Terms such as equilibrium, force, friction and etc. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.5.3  CV8.5.4  CV8.4.3 |
| CVE.PM.1.2 | Apply the principles behind the first class lever and be able to demonstrate its effectiveness through calculated ratios and construction. Students will follow a manual through steps and instructions and construct a first class lever while being able to prove how a first class lever is used to give a gain in force. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.5.3  CV8.5.4  CV8.4.3 |
| CVE.PM.1.3 | Apply the principles behind the second class lever and demonstrate its effectiveness through calculated ratios and construction. Students will follow a manual through steps and instructions and construct a second class lever and prove how a second class lever is used to give a gain in force. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.5.3  CV8.5.4  CV8.4.3 |
| CVE.PM.1.4 | Apply the principles behind the third class lever and demonstrate its effectiveness through calculated ratios and construction. Students will follow a manual through steps and instructions and construct a third class lever and prove how a third class lever is used to give a gain in distance traveled. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.5.3  CV8.5.4  CV8.4.3 |
| CVE.PM.1.5 | Provide a basic understanding while working with gears and pulleys. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.5.3  CV8.5.4  CV8.4.3 |

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| CVE.PM.2 | | Students will demonstrate the basic fundamentals of the four stroke and two stroke engine. Students will disassemble a two cylinder engine and successfully reassemble as they learn about all of the different parts and functions of the various parts and pieces while also exploring careers. | Standard reference |
|  | CVE.PM.2.1 | Apply and demonstrate hand tool identification in relation to auto mechanics. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.4.3  CV8.5.3  CV8.5.4 |
| CVE.PM.2.2 | Apply and identify the four functions of a four stroke engine. Intake, compression, power, and exhaust. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.4.3  CV8.5.3  CV8.5.4 |
| CVE.PM.2.3 | Identify and troubleshoot an engines 12 volt electrical system and ignition by using applied tools and equipment. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.4.3  CV8.5.3  CV8.5.4 |
| CVE.PM.2.4 | Identify and apply a basic understanding of a simple carbureted fuel system associated with their engines they will be working on. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.4.3  CV8.5.3  CV8.5.4 |
| CVE.PM.2.5 | Apply and identify the basics of troubleshooting concepts in relation to auto mechanics. | CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4  CV8.4.3  CV8.5.3  CV8.5.4 |

**Introduction to Welding**

(grades 7-8)

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| Purpose Statement: | Students will apply the beginning principles and fundamentals of Shielded Metal Arc Welding. |

Benchmarks:

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| CVE.IW.1 | | Students will test weld filler pads using various sized welding rods. Students will demonstrate and use safety, terminology, correct practices, and identification of various components in arc welding. | Standard Reference |
|  | CVE.IW.1.1 | Safely use and apply various hand tools, portable power tools, and equipment during the arc welding unit. This will include the metal chop saw, pedestal grinder, palm grinder, chipping hammer, wire brush, and wire wheel. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.4.2 |
| CVE.IW.1.2 | Test weld a fillet pad using 1/8” 7018 welding rod on a piece of mild steel which is 3/8” x 2” x 3”. | CV8.3.4,  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3,  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |
| CVE.IW.1.3 | Test weld a fillet pad in the vertical position using 3/32” 7018 welding rod on a coupon made of mild steel which measures ⅜” x 2” x 3”. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |
| CVE.IW.1.4 | Test weld a fillet weld in the flat position using 3/32” 7018 welding rod on two pieces of mild steel positioned 90 degrees to one another. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |

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| CVE.IW.2 | | Students will apply the basic skills needed in the process of Oxyacetylene welding. | Standard Reference |
|  | CVE.IW.2.1 | Safely use and apply various hand tools, portable power tools, and equipment during the oxyacetylene welding unit. This will include the metal chop saw, pedestal grinder, palm grinder, floor shear, wire brush, and wire wheel. | CV8.5.1  CV8.5.3  CV8.5.4  CV8.2.4  CV8.2.1  CV8.1.4  CV8.4.2 |
| CVE.IW.2.2 | Perform a satisfactory weld by welding two pieces of 1/8” x 3/4” x 2” mild steel strap together without the use of filler rod. Length of unit approximately 2 weeks. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |
| CVE.IW.2.3 | Perform a satisfactory weld by welding two pieces of 1/8” x 3/4” x 2” mild steel strap together with the use of filler rod. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |
| CVE.IW.2.4 | Perform a satisfactory cut using the oxyacetylene cutting torch on a piece of mild steel that is ⅜” in thickness. | CV8.3.4  CV8.3.3  CV8.5.1  CV8.5.2  CV8.5.3  CV8.5.4  CV8.1.4  CV8.1.2  CV8.2.4  CV8.2.1  CV8.4.4  CV8.4.2 |

**Metal Technology**

(grades 9-12)

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| Purpose Statement: | An introductory course focused on Metal working. Students will gain an understanding of how metalworking impacts the environment, society, and economy. Students will develop a foundation in essential abilities and attitudes that will in turn expand their occupational opportunities in the world of metalworking.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USSA* |

Benchmarks:

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| CVE.MTC.1 | | Fundamental machining skills | Standard Reference |
|  | CVE.MTC.1.1 | Comply with safe and efficient work practices. | CV 12.5.3 |
| CVE.MTC.1.2 | Comply with general shop safety rules and procedures in their awareness of OSHA safety in the workplace. | CV 12.5.3  CV 12.4.3  CV 12.2.2 |
| CVE.MTC.1.3 | Operate lab equipment, power tools, and hand tools according to safety guidelines. | CV 12.5.3  CV 12.4.3 |
| CVE.MTC.1.4 | Locate and interpret safety data sheets (SDS). | CV 12.5.3  CV 12.4.3 |
| CVE.MTC.1.5 | Demonstrate knowledge of safety by completing a written safety test and receiving at minimum of 90% on each test. | CV 12.5.3  CV 12.4.2 |

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| CVE.MTC.2 | | Students will perform job-related math calculations. | Standard Reference |
|  | CVE.MTC.2.1 | Accurately perform job related decimal and fraction calculations. | CV 12.2.1  CV 12.4.2. |
| CVE.MTC.2.2 | Measure materials and compare measurements with their working drawing. (plans) | CV 12.3.2  CV 12.4.3 |
| CVE.MTC.2.3 | Solve basic math layout skills using various measuring instruments in the lab/shop. | CV 12.3.2 |

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| CVE.MTC.3 | | Students will perform measuring operations. | Standard Reference |
|  | CVE.MTC.3.1 | Read and measure with steel rules and calipers, micrometers, vernier tools and dial indicators. | CV 12.3.2  CV 12.4.3  CV 12.2.2. |

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| CVE.MTC.4 | | Students will perform maintenance on machines and tools. | Standard Reference |
|  | CVE.MTC.4 | Inspect work areas to assure a safe working environment. | CV 12.5.3  CV 12.4.2 |
| CVE.MTC.4 | Clean and store hand tools, cutters, fixtures, jigs, and attachments. | CV 12.4.2  CV 12.4.3 |
| CVE.MTC.4 | Inspect and repair hand tools. | CV 12.5.3  CV 12.4.3 |
| CVE.MTC.4 | Inspect equipment for safe operational conditions. | CV 12.5.3  CV 12.4.3 |

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| CVE.MTC.5 | | Students will perform bench work skills. | Standard Reference |
|  | CVE.MTC.5 | Identify proper hand tools, usage, and applications. | CV 12.4.3  CV 12.4.2 |
| CVE.MTC.5 | Use proper hammer types, proper punches, stamps, and chisels. | CV 12.4.2  CV 12.4.3  CV 12.4.1 |
| CVE.MTC.5 | Use proper assembly tools. | CV 12.3.2  CV 12.4.3  CV 12.4.2 |

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| CVE.MTC.6 | | Students will cut threads using hand taps and dies. | Standard Reference |
|  | CVE.MTC.6.1 | Discuss safety precautions/procedures for threading with taps and dies. | CV 12.5.3  CV 12.3.2 |
| CVE.MTC.6.2 | Identify the use of the three taps used for threading a “blind hole”. | CV 12.3.2  CV 12.4.2  CV 12.4.1 |
| CVE.MTC.6.3 | Demonstrate the procedure for cutting internal and external threads with a tap and die. | CV 12.3.2  CV 12.4.2 |
| CVE.MTC.6.4 | Explain the correct procedure to align a tap with the “hole”. | CV 12.3.2  CV 12.4.2 |

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| CVE.MTC.7 | | Students will set up and operate pedestal grinders. | Standard Reference |
|  | CVE.MTC.7.1 | Comply with safe and efficient work practices associated with the pedestal grinder. | CV 12.5.3  CV 12.4.2  CV 12.4.1 |
| CVE.MTC.7.2 | Identify parts of the grinder and know their functions. | CV 12.3.2  CV 12.4.2 |
| CVE.MTC.7.3 | Understand and select proper wheel types, set up tool rests, dress grinding wheel, and mount grinding wheels. | CV 12.5.3  CV 12.4.2  CV 12.4.1 |

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| CVE.MTC.8 | | Students will set up and operate lathes. | Standard Reference |
|  | CVE.MTC.8.1 | Identify the parts of the lathe. | CV 12.5.2  CV 12.4.3 |
| CVE.MTC.8.2 | Comply with safe and efficient work practices while operating the lathe. And pass written safety test with at least a 90% accuracy. | CV 12.5.3  CV 12.4.3  CV 12.4.2 |
| CVE.MTC.8.3 | Set up lathes and face work pieces held in chucks. | CV 12.3.2  CV 12.4.1  CV 12.4.2 |
| CVE.MTC.8.4 | Rough cut and finish cut with the lathers, perform lathe deburring operations, align lathe centers, drill with the lathes, and knurl parts with the lathes. | CV 12.3.2.  CV 12.4.2  CV 12.4.3 |

**Metal Technology II**

(grades 9-12)

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| Purpose Statement: | Students will work safely and efficiently in the metal shop constructing a variety of metal projects including sheet metal working and fabrication, machining, MIG welding, and foundry. Students will design and construct personal projects.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA or FFA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.MTC2.1 | | Students will demonstrate and apply safety principles in the machine shop. | Standard Reference |
|  | CVE.MTC2.1.1 | Safely navigate and work in the machine shop with a variety of tools and equipment following set safety guidelines and procedures. | CV 12.5.1  CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.MTC2.1.2 | Identify the safety hazards associated with the machine shop. | CV 12.5.1  CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.MTC2.1.3 | Articulate and demonstrate the proper safety protocols for the various machine shop equipment. | CV 12.5.1  CV 12.5.2  CV 12.5.3  CV 12.5.4 |

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| CVE.MTC2.2 | | Students will demonstrate employability skills in the classroom and shop environment. | Standard Reference |
|  | CVE.MTC2.2.1 | Develop and demonstrate daily work and employability skills including: Attendance, safety, punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV 12.2.1  CV 12.2.2  CV 12.2.3  CV 12.2.4 |

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| CVE.MTC2.3 | | Students will perform job-related math calculations. | Standard Reference |
|  | CVE.MTC2.3.1 | Accurately articulate and demonstrate job related decimal and fraction calculations. | CV 12.4.2 |
| CVE.MTC2.3.2 | Solve basic math layout skills using various measuring instruments. | CV 12.3.2 |

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| CVE.MTC2.4 | | Students will perform measuring operations. | Standard Reference |
|  | CVE.MTC2.4.1 | Articulate and demonstrate how to read and measure: Steel rules, calipers, micrometers, vernier tools, and dial indicators. | CV 12.2.2.  CV 12.3.2  CV 12.4.3 |

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| CVE.MTC2.5 | | Students will perform maintenance on equipment, machines, and tools. | Standard Reference |
|  | CVE.MTC2.5.1 | Articulate and demonstrate how to inspect work areas to assure a safe working environment. | CV 12.4.2  CV 12.5.3 |
| CVE.MTC2.5.2 | Articulate and demonstrate how to inspect equipment for safe operation. | CV 12.4.3  CV 12.5.3 |
| CVE.MTC2.5.3 | Articulate and demonstrate how to properly clean and store hand tools, equipment, and tooling. | CV 12.4.2  CV 12.4.3 |

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| CVE.MTC2.6 | | Students will perform bench work skills. | Standard Reference |
|  | CVE.MTC2.6.1 | Identify hand tools and articulate their usage and application. | CV 12.4.2  CV 12.4.3 |
| CVE.MTC2.6.2 | Identify the proper type of hammer, punch, stamp, and/or chisel for a particular application. | CV 12.4.1  CV 12.4.2  CV 12.4.3 |
| CVE.MTC2.6.3 | Articulate and demonstrate the use of proper assembly tools. | CV 12.3.2  CV 12.4.2  CV 12.4.3 |

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| CVE.MTC2.7 | | Students will set up and operate machine shop equipment. | Standard Reference |
|  | CVE.MTC2.7.1 | Comply with safe and efficient work practices associated with various machine shop equipment. | CV 12.4.1  CV 12.4.2  CV 12.5.3 |
| CVE.MTC2.7.2 | Identify the parts and components of the equipment and articulate the functions. | CV 12.3.3 |
| CVE.MTC2.7.3 | Articulate and demonstrate the proper tooling choice and manipulation for particular operations on various machine shop equipment. | CV 12.4.1  CV 12.4.2  CV 12.5.3 |

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| CVE.MTC2.8 | | Students will demonstrate fundamental machining skills. | Standard Reference |
|  | CVE.MTC2.8.1 | Demonstrate safe and efficient work practices while complying with general shop safety rules and procedures. | CV 12.2.2  CV 12.4.3  CV 12.5.3 |
| CVE.MTC2.8.2 | Demonstrate their ability to machine parts and components to predetermined specifications. | CV 12.3.2  CV 12.4.1  CV 12.4.2  CV 12.5.2 |

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| CVE.MTC2.9 | | Students will demonstrate project planning, design, and construction. | Standard Reference |
|  | CVE.MTC2.9.1 | Demonstrate safe and efficient work practices while complying with general shop safety rules and procedures. | CV 12.2.2  CV 12.4.3  CV 12.5.3 |
| CVE.MTC2.9.2 | Demonstrate their ability to plan, design, and construct various metal projects. | CV 12.3.1  CV 12.3.2  CV 12.4.1  CV 12.4.2  CV 12.5.2 |

**Metals Technology III**

(grades 9-12)

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| Purpose Statement: | Students will work safely and efficiently in the workshop constructing a variety of metal projects. Areas covered will include sheet metal working, machining, MIG welding, and foundry. Students will have the opportunity to design and construct personal projects. Students in this course will further refine the metalworking skills they have developed in Metals Technology I and II. Skills include: Research and project development, basic drafting, advanced sheet metal working, advanced machining, and advanced foundry.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.MTC3.1 | | Students will demonstrate and apply safety principles in the machine shop. | Standard Reference |
|  | CVE.MTC3.1.1 | Safely navigate and work in the machine shop with a variety of tools and equipment following set safety guidelines and procedures. | CV 12.5.1  CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.MTC3.1.2 | Identify the safety hazards associated with the machine shop. | CV 12.5.1  CV 12.5.2  CV 12.5.3  CV 12.5.4 |
| CVE.MTC3.1.3 | Articulate and demonstrate the proper safety protocols for the various machine shop equipment. | CV 12.5.1  CV 12.5.2  CV 12.5.3  CV 12.5.4 |

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| CVE.MTC3.2 | | Students will demonstrate employability skills in the classroom and shop environment. | Standard Reference |
|  | CVE.MTC3.2.1 | Develop and demonstrate daily work and employability skills including: Attendance, safety, punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV 12.2.1  CV 12.2.2  CV 12.2.3  CV 12.2.4 |

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| CVE.MTC3.3 | | Students will perform job-related math calculations. | Standard Reference |
|  | CVE.MTC3.3.1 | Accurately articulate and demonstrate job related decimal and fraction calculations. | CV 12.4.2 |
| CVE.MTC3.3.2 | Solve basic math layout skills using various measuring instruments. | CV 12.3.2 |

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| CVE.MTC3.4 | | Students will perform measuring operations. | Standard Reference |
|  | CVE.MTC3.4.1 | Articulate and demonstrate how to read and measure: Steel rules, calipers, micrometers, vernier tools, and dial indicators. | CV 12.2.2.  CV 12.3.2  CV 12.4.3 |

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| CVE.MTC3.5 | | Students will perform maintenance on equipment, machines, and tools. | Standard Reference |
|  | CVE.MTC3.5.1 | Articulate and demonstrate how to inspect work areas to assure a safe working environment. | CV 12.4.2  CV 12.5.3 |
| CVE.MTC3.5.2 | Articulate and demonstrate how to inspect equipment for safe operation. | CV 12.4.3  CV 12.5.3 |
| CVE.MTC3.5.3 | Articulate and demonstrate how to properly clean and store hand tools, equipment, and tooling. | CV 12.4.2  CV 12.4.3 |

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| CVE.MTC3.6 | | Students will perform bench work skills. | Standard Reference |
|  | CVE.MTC3.6.1 | Identify hand tools and articulate their usage and application. | CV 12.4.2  CV 12.4.3 |
| CVE.MTC3.6.2 | Identify the proper tools and equipment needed for particular applications. | CV 12.4.1  CV 12.4.2  CV 12.4.3 |
| CVE.MTC3.6.3 | Articulate and demonstrate the use of proper assembly tools. | CV 12.3.2  CV 12.4.2  CV 12.4.3 |

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| CVE.MTC3.7 | | Students will be able to set up and operate machine shop equipment. | Standard Reference |
|  | CVE.MTC3.7.1 | Comply with safe and efficient work practices associated with various machine shop equipment. | CV 12.4.1  CV 12.4.2  CV 12.5.3 |
| CVE.MTC3.7.2 | Identify the parts and components of equipment and articulate the functions. | CV 12.3.3 |
| CVE.MTC3.7.3 | Articulate and demonstrate the proper tooling choice and manipulation for particular operations on various machine shop equipment. | CV 12.4.1  CV 12.4.2  CV 12.5.3 |

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| CVE.MTC3.8 | | Students will be able to demonstrate intermediate machining skills. | Standard Reference |
|  | CVE.MTC3.8.1 | Students will be able to demonstrate safe and efficient work practices while complying with general shop safety rules and procedures. | CV 12.2.2  CV 12.4.3  CV 12.5.3 |
| CVE.MTC3.8.2 | Students will be able to demonstrate their ability to machine parts and components to predetermined specifications. | CV 12.3.2  CV 12.4.1  CV 12.4.2  CV 12.5.2 |

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| CVE.MTC3.9 | | Students will be able to demonstrate intermediate level project planning, design, and construction. | Standard Reference |
|  | CVE.MTC3.9.1 | Students will be able to demonstrate safe and efficient work practices while complying with general shop safety rules and procedures. | CV 12.2.2  CV 12.4.3  CV 12.5.3 |
| CVE.MTC3.9.2 | Students will be able to demonstrate their ability to plan, design, and construct various metal projects. | CV 12.3.1  CV 12.3.2  CV 12.4.1  CV 12.4.2  CV 12.5.2 |

**Metals Technology IV**

(grades 9-12)

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| Purpose Statement: | Students will work safely and efficiently in the workshop constructing a variety of metal projects including sheet metal working, machine work, CAM (Computer Aided Manufacturing) softwares, CNC (Computer Numerically Controlled) machine set-up and development.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.MTC4.1 | | Students will apply the principles of shop safety. | Standard Reference |
|  | CVE.MTC4.1.1 | Demonstrate with safe and efficient work practices. | CV 12.5.3 |
| CVE.MTC4.1.2 | Demonstrate with general shop safety rules and procedures in their awareness of OSHA safety in the workplace | CV 12.5.3  CV 12.4.3  CV 12.2.2 |
| CVE.MTC4.1.3 | Operate lab equipment, power tools, and hand tools according to safety guidelines | CV 12.5.3  CV 12.4.3 |
| CVE.MTC4.1.4 | Demonstrate knowledge of safety by completing a written safety test and receiving a 100% on EACH safety exam | CV 12.5.3  CV 12.4.2 |

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| CVE.MTC4.2 | | Students will calculate job-related math calculations. | Standard Reference |
|  | CVE.MTC4.2.1 | Accurately perform job related decimal and fraction calculations using a calculator. | CV 12.2.1  CV 12.4.2. |
| CVE.MTC4.2.2 | Measure materials and compare measurements with their working drawing. Measures accurately to .001” | CV 12.3.2  CV 12.4.3 |
| CVE.MTC4.2.3 | Solve basic math layout skills using various measuring instruments in the lab/shop; including steel rulers, calipers, and micrometers. | CV 12.3.2 |

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| CVE.MTC4.3 | | Students will perform precision measuring operations. | Standard Reference |
|  | CVE.MTC4.3.1 | Read and measure with steel rules and calipers, micrometers, vernier tools and dial indicators. | CV 12.3.2  CV 12.4.3  CV 12.2.2. |

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| CVE.MTC4.4 | | Students will cut threads using a Lathe. | Standard Reference |
|  | CVE.MTC4.4.1 | Demonstrate set up of cutting tools | CV 12.3.2  CV 12.4.2 |
| CVE.MTC4.4.2 | Perform precise manual thread cutting operations to and accuracy of +- .010” | CV 12.3.2  CV 12.4.2 |
| CVE.MTC4.4.3 | Rough cut and finish cut with the lathers, perform lathe deburring operations, align lathe centers, drill with the lathes, and knurl parts with the lathes. | CV 12.3.2.  CV 12.4.2  CV 12.4.3 |

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| CVE.MTC4.5 | | Students will create a minimum of one CNC Milling personal project or prototype. | Standard Reference |
|  | CVE.MTC4.5.1 | Create a working file to necessary specifications using appropriate CAM software. | CVC12.3.1 CVC12.3.2 |
| CVE.MTC4.5.2 | Demonstrate, through the use of software, the ability to create appropriate tool paths. | CVC12.3.2 CVC12.3.3 CVC12.4.2 CVC12.4.4 |
| CVE.MTC4.5.3 | Convert CAD files to “Gcode files”. | CVC12.3.2 |
| CVE.MTC4.5.4 | Demonstrate the ability to set (control) machine limits. Set the machine to “0” (Home) without damaging or “crashing” the machine. | CVC12.4.2 CVC12.4.4 CVC12.5.3 CVC12.5.4 |
| CVE.MTC4.5.5 | Create 3D files using CAD software and perform basic machining skills on the objects. (CNC equipment) | CVC12.4.4 |

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| CVE.MTC4.6 | | Students will research, evaluate, and compare career options to develop and present a plan for achieving occupational goals. | Standard Reference |
|  | CVE.MTC4.6.1 | Research a career of choice, prerequisite skills, educational requirements, etc. | CV12.1.1 CV12.1.2  CV12.1.3 |
| CVE.MTC4.6.2 | Determine personal strengths and weaknesses with-in chosen occupation. | CV12.2.1 CV12.2.2 |
| CVE.MTC4.6.3 | Develop a plan for achieving occupational goals. | CV12.1.1 CV12.1.2 CV12.1.3 |
| CVE.MTC4.6.4 | Complete both written paper and oral presentation of occupation. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.MTC4.6.5 | Complete a job shadowing experience related to metalworking (when possible). | CV12.1.3  CV12.2.1  CV12.4.1 |

**Welding I**

(grades 9-12)

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| Purpose Statement: | This class will serve as an introduction to the welding industry with an emphasis on safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA or FFA* |

Benchmarks:

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| CVE.WLD.1 | | Students will apply the principles of shop safety. | Standard Reference |
|  | CVE.WLD.1.1 | Apply basic shop safety skills. | CV12.5.3 |
| CVE.WLD.1.2 | Apply oxy acetylene safety. | CV12.5.3 |
| CVE.WLD.1.3 | Apply grinding safety. | CV12.5.3 |
| CVE.WLD.1.4 | Apply SMAW safety. | CV12.5.3 |
| CVE.WLD.1.5 | Describe what it means to be punctual in the workplace (i.e. arrive early enough to begin working at the start time), and demonstrate punctuality in class. | CV12.1.4  CV12.5.3 |
| CVE.WLD.1.6 | List characteristics that make someone ready to work including appropriate personal appearance and grooming, punctual, good communicator, responsible, honest, and integrity. | CV12.1.4 |
| CVE.WLD.1.7 | Prioritize PPE for personal purchase based on level of learning. | CV12.5.3  CV12.1.4 |

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| CVE.WLD.2 | | Students will apply basic oxy acetylene welding (OAW) practices. | Standard Reference |
|  | CVE.WLD.2.1 | Produce an OAW butt joint in the flat position. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.2.2 | Produce a OAW braze weld bead on mild steel in the flat position. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.2.3 | Produce an OAW braze weld a lap joint in the flat position. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD.3 | | Students will apply basic oxy acetylene cutting practices. | Standard Reference |
|  | CVE.WLD.3.1 | Produce a Layout and cut a 6" plate pattern. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.3.2 | Produce a flame beveled cut on mild steel using a straight line track burner. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD.4 | | Students will apply basic Shielded Metal Arc Welding (SMAW) practices. | Standard Reference |
|  | CVE.WLD.4.1 | Complete a strike and restart an arc and crater and backfill at the edge while running a bead on mild steel plate applying proper practices. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.2 | Build a Produce a pad on mild steel plate in the flat position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.3 | Produce a pad on mild steel plate in the flat position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.4 | Produce a weld fillet weld to specifications; tee joint in the flat position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.5 | Produce a weld fillet weld to specifications; weld multi-pass tee joint in the flat position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.6 | Produce a weld fillet weld to specifications; weld tee joint in the flat position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.7 | Produce a weld fillet weld to specifications; weld multi-pass tee joint in the flat position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD.4.8 | Produce a weld fillet weld to specifications; weld tee joint in the flat position with E-7018 and a weave cover pass. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD.5 | | Students will demonstrate employability skills | Standard Reference |
|  | CVE.WLD.5.1 | Show up to class on time. | CV12.1.4 |
| CVE.WLD.5.2 | Come to class prepared for work. | CV12.1.4 |
| CVE.WLD.5.3 | Work the entire time in class managing their time properly. | CV12.1.4 |
| CVE.WLD.5.4 | Clean-up at the end of the period. | CV12.1.4 |

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| CVE.WLD.6 | | Students will build a practical welding assignment. (welded assembly from drawing). *This is a practice for competitions in Skills USA.* | Standard Reference |
|  | CVE.WLD.6.1 | Read welding blueprints and assemble practical welding project. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

**Welding II**

(grades 9-12)

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| Purpose Statement: | This class will serve as a continuation of Welding I with an emphasis on safety, worksite safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA or FFA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.WLD2.1 | | Students will apply the principles of shop safety. | Standard Reference |
|  | CVE.WLD2.1.1 | Basic shop safety. | CV12.5.3 |
| CVE.WLD2.1.2 | Oxy Acetylene safety. | CV12.5.3 |
| CVE.WLD2.1.3 | Grinding safety. | CV12.5.3 |
| CVE.WLD2.1.4 | SMAW safety. | CV12.5.3 |
| CVE.WLD2.1.5 | Describe what it means to be punctual in the workplace (i.e. arrive early enough to begin working at the start time), and demonstrate punctuality in class. | CV12.1.4  CV12.5.3 |
| CVE.WLD2.1.6 | List characteristics that make someone ready to work including appropriate personal appearance and grooming, punctual, good communicator, responsible, honest, and integrity. | CV12.1.4 |
| CVE.WLD2.1.7 | Prioritize PPE for personal purchase based on level of learning and professionalism. | CV12.1.4  CV12.5.3 |

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| CVE.WLD2.2 | | Students will apply oxy acetylene welding (OAW) practices. | Standard Reference |
|  | CVE.WLD2.2.1 | Weld a butt joint in the horizontal position. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.2.2 | Weld a butt joint in the vertical position. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.2.3 | Weld a butt joint in the overhead position. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD2.3 | | Students will apply oxy acetylene cutting practices. | Standard Reference |
|  | CVE.WLD2.3.1 | Make a hand bevel on pipe. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.3.2 | Make a flame beveled cut on mild steel using a straight line track burner. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.3.3 | Bevel pipe using pipe beveling tool | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD2.4 | | Students will apply Shielded Metal Arc Welding practices.(SMAW) (F2) | Standard Reference |
|  | CVE.WLD2.4.1 | Weld to specifications a fillet weld tee joint in the horizontal position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.4.2 | Weld to specifications a fillet weld multi-pass tee joint in the horizontal position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.4.3 | Weld t Weld to specifications a fillet weld tee joint in the horizontal position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.4.4 | Weld to specifications a fillet weld multi-pass tee joint in the horizontal position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD2.5 | | Students will apply Gas Metal Arc Welding practices. (GMAW)(F2) | Standard Reference |
|  | CVE.WLD2.5.1 | Weld to specifications a fillet weld tee joint in the horizontal position with hard wire. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.5.2 | Weld to specifications a fillet weld tee joint in the horizontal position with hard wire. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.5.3 | Weld to specifications a fillet weld multi-pass tee joint in the horizontal position with Duel Shield. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD2.5.4 | Weld to specifications a fillet weld multi-pass tee joint in the horizontal position with Duel Shield. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD2.6 | | Students will build a practical welding assignment. (welded assembly from drawing). *This is a practice for competitions in Skills USA.* | Standard Reference |
|  | CVE.WLD2.6.1 | Read welding blueprints and assemble practical welding project. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD2.7 | | Students will demonstrate employability skills | Standard Reference |
|  | CVE.WLD2.7.1 | Show up to class on time. | CV12.1.4 |
| CVE.WLD2.7.2 | Come to class prepared for work. | CV12.1.4 |
| CVE.WLD2.7.3 | Work the entire time in class managing their time properly. | CV12.1.4 |
| CVE.WLD2.7.4 | Clean-up at the end of the period. | CV12.1.4 |

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| CVE.WLD2.8 | | Students will complete the certification OSHA 10. | Standard Reference |
|  | CVE.WLD2.8.1 | Complete the appropriate certification skills and assessments for each of the aforementioned certification level coursework. | CV12.3.3 |

**Welding III**

(grades 9-12)

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| Purpose Statement: | This class will serve as a continuation of Welding 2 with an emphasis on safety, worksite safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects. Concentrating on vertical and overhead welding.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA or FFA* |

Benchmarks:

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| CVE.WLD3.1 | | Students will apply the principles of shop safety. | Standard Reference |
|  | CVE.WLD3.1.1 | Basic shop safety. | CV12.5.3 |
| CVE.WLD3.1.2 | Oxy Acetylene safety. | CV12.5.3 |
| CVE.WLD3.1.3 | Grinding safety. | CV12.5.3 |
| CVE.WLD3.1.4 | SMAW safety. | CV12.5.3 |

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| CVE.WLD3.2 | | Students will demonstrate employability skills | Standard Reference |
|  | CVE.WLD3.2.1 | Show up to class on time. | CV12.1.4 |
| CVE.WLD3.2.2 | Come to class prepared for work. | CV12.1.4 |
| CVE.WLD3.2.3 | Work the entire time in class managing their time properly. | CV12.1.4 |
| CVE.WLD3.2.4 | Clean-up at the end of the period. | CV12.1.4 |

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| CVE.WLD3.3 | | Students will apply oxy acetylene cutting practices. | Standard Reference |
|  | CVE.WLD3.3.1 | Make a hand bevel on pipe. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.3.2 | Make a flame beveled cut on mild steel using a straight line track burner. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.3.3 | Bevel pipe using pipe beveling tool | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.3.3 | Plasma Cut Steel/Aluminum and stainless steel | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD3.4 | | Students will apply Shielded Metal Arc Welding practices.(SMAW) (F3/F4) | Standard Reference |
|  | CVE.WLD3.4.1 | Weld to specifications a fillet weld tee joint in the overhead position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.4.2 | Weld to specifications a fillet weld multi-pass tee joint in the overhead position with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.4.3 | Weld to Weld to specifications a fillet weld tee joint in the vertical and overhead position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.4.4 | Weld to specifications a fillet weld multi-pass tee joint in the vertical and overhead position with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD3.5 | | Students will apply Gas Metal Arc Welding practices. (GMAW)(F3/F4) | Standard Reference |
|  | CVE.WLD3.5.1 | Weld to specifications a fillet weld tee joint in the vertical and overhead position with hard wire. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.5.2 | Weld to specifications a fillet weld tee joint in the vertical and overhead position with hard wire. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD3.5.3 | Weld to specifications a fillet weld multi-pass tee joint in the vertical and overhead position with Duel Shield. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD3.6 | | Students will build a practical welding assignment. (welded assembly from drawing). *This is a practice for competitions in Skills USA.* | Standard Reference |
|  | CVE.WLD3.6.1 | Read welding blueprints and assemble practical welding project. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

**Welding IV**

(grades 9-12)

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| Purpose Statement: | This class will serve as a continuation of Welding 3 with an emphasis on safety, worksite safety and working to specifications. Instruction could take place through lectures, small group instruction individual and group activities/projects. Concentrating on MIG welding for production on assembly projects. This is also where students may participate in job shadowing.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA or FFA* |

Benchmarks:

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| CVE.WLD4.1 | | Students will apply the principles of shop safety. | Standard Reference |
|  | CVE.WLD4.1.1 | Basic shop safety. | CV12.5.3 |
| CVE.WLD4.1.2 | Oxy Acetylene safety. | CV12.5.3 |
| CVE.WLD4.1.3 | Grinding safety. | CV12.5.3 |
| CVE.WLD4.1.4 | SMAW safety. | CV12.5.3 |

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| CVE.WLD4.2 | | Students will demonstrate employability skills | Standard Reference |
|  | CVE.WLD4.2.1 | Show up to class on time. | CV12.1.4 |
| CVE.WLD4.2.2 | Come to class prepared for work. | CV12.1.4 |
| CVE.WLD4.2.3 | Work the entire time in class managing their time properly. | CV12.1.4 |
| CVE.WLD4.2.4 | Clean-up at the end of the period. | CV12.1.4 |

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| CVE.WLD4.3 | | Students will reflect and examine dealing with the public in the activities of the business professionals how those services are delivered on a daily basis. | Standard Reference |
|  | CVE.WLD4.3.1 | Partner with various business partners, students choose to job shadow. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.WLD4.3.2 | Compare and contrast interaction with the business partners and communicate effectively. | CV12.1.4  CV12.2.1 |
| CVE.WLD4.3.3 | Determine professional communication (verbal/written) with business partners. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.WLD4.3.4 | Demonstrate JS and class punctuality (arrive early enough to begin working at the start time). | CV12.1.4 |
| CVE.WLD4.3.5 | Summarize job shadowing experiences in written format, which will be in the form of a blog. | CV12.1.3  CV12.2.1  CV12.4.1 |

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| CVE.WLD4.4 | | Students will apply Oxyacetylene/Plasma cutting practices. | Standard Reference |
|  | CVE.WLD4.4.1 | Make a hand bevel on pipe. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.4.2 | Make a flame beveled cut on mild steel using a straight line track burner. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.4.3 | Demonstrate basic operation of a CNC plasma cutter. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.4.4 | Make a flame beveled/plasma cut on mild steel, alum, etc. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD4.5 | | Students will build a large project as determined by resources in the class. (welded assembly from drawing). *This is a practice for competitions in Skills USA.* | Standard Reference |
|  | CVE.WLD4.5.1 | Read welding blueprints and assemble a large welding project as a group. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD4.6 | | Students will apply Shielded Metal Arc Welding practices. (SMAW) (F1/F2/F3/F4) | Standard Reference |
|  | CVE.WLD4.6.1 | Weld to specifications a fillet weld tee joint in all positions with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.6.2 | Weld to specifications a fillet weld multi-pass tee joint in all positions with E-6010. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.6.3 | Weld t Weld to specifications a fillet weld tee joint in all positions with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.6.4 | Weld to specifications a fillet weld multi-pass tee joint in all positions with E-7018. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

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| CVE.WLD4.7 | | Students will apply Gas Metal Arc Welding practices. (GMAW & FCAW)(F1/F2/F3/F4). | Standard Reference |
|  | CVE.WLD4.7.1 | Weld to specifications a fillet weld tee joint in all positions with hard wire. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |
| CVE.WLD4.7.2 | Weld to specifications a fillet weld multi-pass tee joint in all positions with Duel Shield. | CV12.5.2  CV12.4.4  CV12.1.4  CV12.5.1  CV12.3.1  CV12.3.2 |

**Introduction to Furniture Making**

(grade 8)

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| Purpose Statement: | Students will gain a basic understanding of the principles and skills needed to construct a small furniture project. They must complete both Introduction to Woods Technology I and II prior to taking this class. |

Benchmarks:

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| CVE.IFURN.1 | | Lab organization and safety skills. | Standard Reference |
|  | CVE.IFURN.1.1 | Identify and safely operate all shop equipment needed for the completion of their project. | CV 12.5.3 |
| CVE.IFURN.1.2 | Operate lab equipment according to safety guidelines. | CV 12.5.3 |
| CVE.IFURN.1.3 | Identify and wear appropriate PPE’s needed in for the lab/shop activities. | CV 12.5.3  CV 12.5.2 |

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| CVE.IFURN.2 | | Manual and power tools | Standard Reference |
|  | CVE.IFURN.2.1 | Identify both hand and power tools and their appropriate usage. | CV 12.5.3  CV 12.5.2  CV 12.4.1 |
| CVE.IFURN.2.2 | Take written safety test on hand tool identification. Students will achieve a 90% or better on these test. | CV 12.5.3  CV 12.4.1 |

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| CVE.IFURN.3 | | Fundamental design | Standard Reference |
|  | CVE.IFURN.3.1 | Interpret basic elements of print reading the working drawings used for their project | CV 12.5.3  CV 12.4.1 |
| CVE.IFURN.3.2 | Identify standard measure units and scaling techniques, read the tape to 1/16th of an inch, and calculate all needed math related to the project. | CV 12.4.1  CV 12.4.4 |
| CVE.IFURN.3.3 | Demonstrate proper use of precision measuring tools. | CV 12.4.1  CV 12.4.4 |

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| CVE.IFURN.4 | | Materials and hardware | Standard Reference |
|  | CVE.IFURN.4.1 | Identify, describe and discuss various materials, fasteners and methods, adhesives and method and hardware. | CV12.5.3  CV12.4.1 |

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| CVE.IFURN.5 | | Manufacturing process | Standard Reference |
|  | CVE.IFURN.5.1 | Identify and describe the needed manufacturing processes being performed. | CV 12.5.3  CV 12.5.2 |
| CVE.IFURN.5.2 | Discuss, identify and demonstrate the following manufacturing operations: milling operations, joinery techniques, assembly, finishing, and installation. | CV 12.4.1  CV 12.4.4 |

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| CVE.IFURN.6 | | Career exploration | Standard Reference |
|  | CVE.IFURN.6.1 | Discuss the employment opportunities in the industry. | CV 12.5.3  CV 12.5.2 |
| CVE.IFURN.6.2 | Explore education and training for careers in the industry, locally and nationally. | CV 12.5.2 |

**Introduction to Woods Technology I**

(grades 7-8)

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| Purpose Statement: | Students will apply basic woodworking skills to produce several required projects that incorporates safety, measurement, and a variety of woodworking processes. |

Benchmarks:

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| CVE.IWT1.1 | | Students will perform needed calculations related to measurement, and read the tape measure to a 1/16 of an inch. | Standard Reference |
|  | CVE.IWT1.1.1 | Read the tape measure to 1/16” for accuracy. | CV12.2.1 |
| CVE.IWT1.1.2 | Demonstrate accurate measurements with skills boards project. (length, thickness, layout for drilling holes, rabbet and dado joints) | CV.12.5.3 |

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| CVE.IWT1.2 | | Students will apply and demonstrate the essentials of safety in the wood shop. | Standard Reference |
|  | CVE.IWT1.2.1 | Demonstrate and apply general safety for the woodshop. | CV12.2.1  CV12.5.3 |
| CVE.IWT1.2.2 | Demonstrate and apply general power tool safety that applies to all hand and stationary power tools. | CV12.2.1  CV12.5.3 |
| CVE.IWT1.2.3 | Demonstrate and apply specific safety rules for each stationary power tool (planer, band saw, drill press, jointer, wood lathe, sanders, router table, scroll saw, etc.). | CV12.2.1  CV12.5.3 |
| CVE.IWT1.2.4 | Demonstrate and apply specific safety for power hand tools (hand sanders, drill motor, and router). | CV12.2.1  CV12.5.3 |

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| CVE.IWT1.3 | | Students will create a basic working drawing, and plan of procedure for the drawing. | Standard Reference |
|  | CVE.IWT1.3.1 | Demonstrate and apply the use of scale related to drawings. | CV12.5.2 |
| CVE.IWT1.3.2 | Develop/draw a simple working drawing. | CV12.5.2 |
| CVE.IWT1.3.3 | Develop a given plan of procedure. | CV12.5.2 |

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| CVE.IWT1.4 | | Students will safely gain proficiency in the proper use of a variety of hand and power tools found in the wood shop. | Standard Reference |
|  | CVE.IWT1.4.1 | Demonstrate basic hand tool use (measuring tools, chisels, planes, etc.). | CV12.2.1  CV12.5.3 |
| CVE.IWT1.4.2 | Demonstrate the proper use and procedures related to the shop stationary tools (jointers, surface plane, drill press, band saw, scroll saw, and router table). | CV12.2.1  CV12.5.3 |
| CVE.IWT1.4.3 | Demonstrate the proper use and procedures related to power hand tools (drill motors, sanders, router, and saws). | CV12.2.1  CV12.5.3 |

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| CVE.IWT1.5 | | Students will build two basic woods projects (examples include a skills board demonstrating the proper safe use of tools, cutting board, wooden utensil and basic lathe project such as decorations, mallets, bowls and pen, etc.). | Standard Reference |
|  | CVE.IWT1.5.1 | Demonstrate the proper use and procedures related to cutting, planing, and jointing of needed materials. | CV12.2.1  CV12.5.2  CV12.5.3 |
| CVE.IWT1.5.2 | Demonstrate and apply the proper use and procedures related to assembly of the project. | CV12.2.1  CV12.5.2  CV12.5.3 |
| CVE.IWT1.5.3 | Demonstrate the proper use and procedures related to sanding of the project. | CV12.2.1  CV12.5.2  CV12.5.3 |
| CVE.IWT1.5.4 | Demonstrate the proper use and procedures related to application of stains and finish to the project. | CV12.2.1  CV12.5.2  CV12.5.3 |

*When all required projects have been completed and if time permits:*

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| CVE.IWT1.6 | | Students will construct a small additional project. This project will reinforce skills learned from the required projects and learn new skills not covered in the first two projects. | Standard Reference |
|  | CVE.IWT1.6.1 | Plan development and estimate costs. |  |
| CVE.IWT1.6.2 | Cut, plane, and fit the project parts. | CV12.5.3 |
| CVE.IWT1.6.3 | Laminate and assemble the project. | CV12.5.3 |
| CVE.IWT1.6.4 | Properly sand the project. | CV12.5.3 |
| CVE.IWT1.6.5 | Apply a stain and finish to the project. | CV12.5.3  CV12.5.2 |

**Introduction to Woods Technology II**

(grades 7-8)

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| Purpose Statement: | Students will apply both newly learned skills as well as skills gained in the Introduction to Woodworking 1 class to produce two required advanced wood projects that incorporate safety, measurement, tool use, and project construction. |

Benchmarks:

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| CVE.IWT2.1 | | Students will perform needed calculations and accuracy of measurement related to the completion of required projects. | Standard Reference |
|  | CVE.IWT2.1.1 | Read the tape measure to 1/16” for accuracy, calculate board feet, and the cost of a project including adding 10% for waste. | CV8.4.4  CV8.3.2 |
| CVE.IWT2.1.2 | Solve calculations related to simple geometry (bisecting angles, figuring the angles of geometric shapes, etc.). | CV8.4.4  CV8.3.2 |
| CVE.IWT2.1.3 | Accurately measure and cut rabbet and dado joints for projects that demonstrate accurate fit of these and other wood joints. | CV8.5.4 |

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| CVE.IWT2.2 | | Students will apply and demonstrate the essentials of safety in the wood shop. | Standard Reference |
|  | CVE.IWT2.2.1 | Demonstrate and apply general safety for the woodshop. | CV12.2.1  CV12.5.3 |
| CVE.IWT2.2.2 | Demonstrate and apply general power tool safety that applies to all hand and stationary power tools. | CV12.2.1  CV12.5.3 |
| CVE.IWT2.2.3 | Demonstrate and apply specific safety rules for each stationary power tool (planer, band saw, drill press, jointer, wood lathe, sanders, router table, scroll saw, etc.). | CV12.2.1  CV12.5.3 |
| CVE.IWT2.2.4 | Demonstrate and apply specific safety for power hand tools (hand sanders, drill motor, and router). | CV12.2.1  CV12.5.3 |

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| CVE.IWT2.3 | | Students will create a basic working drawing, and plan of procedure for the drawing. | Standard Reference |
|  | CVE.IWT2.3.1 | Demonstrate and apply the use of scale related to drawings. | CV8.4.4  CV8.5.3 |
| CVE.IWT2.3.2 | Develop/draw a simple working drawing. | CV8.4.4  CV8.5.3 |
| CVE.IWT2.3.3 | Develop a given plan of procedure. | CV8.4.4  CV8.3.2  CV8.5.2 |
| CVE.IWT2.3.4 | Secure the proper amount of materials needed for their project (apply of both calculations and W.D/plan of procedure). | CV8.4.4  CV8.3.2  CV8.5.2 |

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| CVE.IWT2.4 | | Students will gain basic proficiency in the use of a variety of hand and power tools used in the wood shop. | Standard Reference |
|  | CVE.IWT2.4.1 | Identify and properly and safely use all basic hand and power tools present in the wood shop. | CV8.5.3 |
| CVE.IWT2.4.2 | Demonstrate advanced techniques and safety related to the wood lathe. | CV8.5.3 |

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| CVE.IWT2.5 | | Students will build two basic woods projects. (*examples include a turned bowl and curved top chest*). | Standard Reference |
|  | CVE.IWT2.5.1 | Demonstrate the proper use and procedures related to basic cutting, planing, and jointing of needed materials. | CV8.3.3  CV8.3.4  CV8.5.4  CV8.5.3 |
| CVE.IWT2.5.2 | Demonstrate the proper use and procedures related to jointery, lamination/, and assembly of the project. | CV8.3.3  CV8.3.4  CV8.5.4  CV8.5.3 |
| CVE.IWT2.5.3 | Demonstrate the proper use and procedures related to sanding of the project including proper sequence and methods. | CV8.3.3  CV8.3.4  CV8.5.4  CV8.5.3 |
| CVE.IWT2.5.4 | Demonstrate the proper use and procedures related to the application of stains and finish to the project.   * Wipe, spray, and brush application techniques. * Types of finishes and stains. | CV8.3.3  CV8.3.4  CV8.5.4  CV8.5.3 |

*When all required projects have been completed and if time permits:*

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| CVE.IWT2.6 | | Students will construct a small additional project. This project will reinforce skills learned from the required projects and learn new skills not covered in the first two projects. | Standard Reference |
|  | CVE.IWT2.6.1 | Cut, plane, and fit the project parts. | CV8.2.1  CV8.2.2  CV8.2.3  CV8.2.4  CV8.3.4 |
| CVE.IWT2.6.2 | Laminate and assemble the project. | CV8.2.1  CV8.2.4  CV8.3.4 |
| CVE.IWT2.6.3 | Properly sand the project. | CV8.2.1  CV8.3.4 |
| CVE.IWT2.6.4 | Apply a stain and finish to the project. | CV8.2.1  CV8.3.4 |

**Woods Technology**

(grades 9-12)

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| Purpose Statement: | Students will apply general safety procedures and safety rules as they participate in lab activities. Students will interpret measurements using 1/16th and 1/8th inch increments and use the three-step process to create woodworking projects. |

Benchmarks:

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| CVE.WT.1 | | Students will apply a high level of understanding of general safety and machine safety as they work as an independent woodworking student. | Standard Reference |
|  | CVE.WT.1.1 | Apply general safety and power machine safety procedures in everyday class performance. | CV12.5.3  CV12.5.2 |
| CVE.WT.1.2 | Create a presentation on safety and apply these to work skills in the lab. | CV12.5.3  CV12.5.2 |

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| CVE.WT.2 | | Students will demonstrate the proper use of hand tools as they complete required practical exercises. | Standard Reference |
|  | CVE.WT.2.1 | Identify which hand tools to use for various tasks and call the tools by their proper names. | CV12.4.1 |
| CVE.WT.2.2 | Perform hand tool maintenance by using the tools safely and putting them in a proper storage area. | CV12.5.3 |

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| CVE.WT.3 | | Students will perform a series of exercises and demonstrate safe and proper use of power machines. | Standard Reference |
|  | CVE.WT.3.1 | Identify power equipment and demonstrate a basic understanding of service maintenance. | CV12.5.3  CV12.5.2 |
| CVE.WT.3.2 | Demonstrate safety procedures when using power machines. | CV12.5.3 |

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| CVE.WT.4 | | Students will read a ruler within a tolerable degree of accuracy. | Standard Reference |
|  | CVE.WT.4.1 | Measure materials accurately to within 1/16th of an inch. | CV12.3.3  CV12.5.2 |
| CVE.WT.4.2 | Read 1/16th and 1/8th increments on all measuring tools in the lab. | CV12.3.3  CV12.5.2 |
| CVE.WT.4.3 | Measure materials of various lengths. | CV12.3.3  CV12.5.2 |

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| CVE.WT.5 | | Students will use the three step process to guide them in completing a woodworking project. | Standard Reference |
|  | CVE.WT.5.1 | Produce a working drawing/ simple sketch. | CV12.5.2  CV12.5.3 |
| CVE.WT.5.2 | Produce a plan of procedure for completing their project. | CV12.5.2  CV12.5.3 |
| CVE.WT.5.3 | Produce a bill of materials which will show all materials needed and the cost of the material. | CV12.5.2  CV12.5.3 |

**Introduction to Construction**

(grades 9-12)

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| Purpose Statement: | An introductory course focused on construction technology. Students will gain an understanding of how construction technologies impacts the environment, society, and economy. Student will develop an foundation in essential abilities and attitudes that will in turn expand their occupational opportunities in the world of construction.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.CON.1 | | Students will observe and follow safety practices in the lab/shop. | Standard Reference |
|  | CVE.CON.1.1 | Identify potential safety hazards and follow general laboratory safety practices. | CV 12.5.2  CV 12.5.3 |
| CVE.CON.1.2 | Define and list OSHA safe working procedures that apply to building trades work assignments. | CV 12.5.2  CV 12.5.3 |
| CVE.CON.1.3 | Use personal protective equipment according to manufacturer rules and regulations. | CV 12.5.2  CV 12.5.3 |
| CVE.CON.1.4 | Follow correct procedures when using any power machines, any hand or power tools. | CV 12.5.2  CV 12.4.1 |

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| CVE.CON.2 | | Building Materials and Energy Conservation | Standard Reference |
|  | CVE.CON.2.1 | Define terms, characteristics, select, identify, and discuss the following materials and strategies: Lumber, Plywood, Millwork, Energy-saving construction and building construction. | CV 12.5.3  CV 12.4.1  CV 12.4.4 |
| CVE.CON.2.2 | Discuss the importance of “r”-factor in building construction. | CV 12.5.2 |
| CVE.CON.2.3 | Explain the functions and advantages of various types of insulation. | CV 12.5.2  CV 12.5.3 |

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| CVE.CON.3 | | Math and Measurement Skills | Standard Reference |
|  | CVE.CON.3.1 | Identify terms associated with basic math and identify symbols used in math problems. | CV 12.5.3  CV 12.5.2 |
| CVE.CON.3.2 | Distinguish among types of fractions, reduce fractions, add-subtract-multiply and divide fractions. | CV 12.5.2 |
| CVE.CON.3.3 | Identify terms used in basic geometry, estimate cubic yards. | CV 12.5.2 |
| CVE.CON.3.4 | Identify terms associated with measuring, identify basic measuring tools used by carpenters, describe measuring methods used to square lines. | CV 12.4.4  CV 12.4.1 |

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| CVE.CON.4 | | Students will read blueprints and use drawing skills. | Standard Reference |
|  | CVE.CON.4.1 | Identify types of drawings usually included in a set of plans. | CV 12.5.3  CV 12.5.2 |
| CVE.CON.4.2 | Identify selected symbols commonly used on plans. | CV 12.5.2 |
| CVE.CON.4.3 | Accurately use an architect’s scale. | CV 12.5.2 |

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| CVE.CON.5 | | Students will use and maintenance hand and power tools. | Standard Reference |
|  | CVE.CON.5.1 | Explain the care and safe use of hand tools, match hand tools to their correct uses and demonstrate proper care and safe use of carpentry hand tools. | CV 12.5.3  CV 12.4.1  CV 12.4.4 |
| CVE.CON.5.2 | Identify terms associated with power tools, explain general safety pertaining to power tools, operate safely portable and stationary power tools. | CV 12.5.3  CV 12.4.1  CV 12.4.4 |
| CVE.CON.5.3 | Complete a written safety test with 90% efficiency. | CV 12.5.2 |

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| CVE.CON.6 | | Site Preparation and forming | Standard Reference |
|  | CVE.CON.6.1 | Identify terms associated with leveling instruments and uses of a builder’s level. | CV 12.4.1  CV 12.4.4 |
| CVE.CON.6.2 | Identify the use of a transit, establish elevation reference points from benchmark, locate and square corners, set grade stakes, correctly mark a story pole, install batter boards and establish “grade”. | CV 12.5.2  CV 12.4.1  CV 12.4.4 |

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| CVE.CON.7 | | Framing | Standard Reference |
|  | CVE.CON.7.1 | Identify terms associated with frame floors and sill installation, wall and partition members, frame a single story structure, and metal framing systems. | CV 12.4.4  CV 12.4.1 |
| CVE.CON.7.2 | Demonstrate the ability to layout a floor system, roof system, wall system and siding. | CV 12.4.4  CV 12.4.1 |
| CVE.CON.7.3 | Estimate the types of materials to be used in the floor, wall and roof systems. | CV 12.4.1 |
| CVE.CON.7.4 | Estimate all materials need for constructing a wood structure and the cost of all materials. | CV 12.4.1 |
| CVE.CON.7.5 | Demonstrate/layout any and all “rough” opening for all windows and doors. | CV 12.5.2  CV 12.4.4 |

**Furniture Making I & II**

(grades 9-12)

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| Purpose Statement: | Students will analyze how changes in technology regarding furniture construction impacts the environment, society, and economy. Students will develop a foundation in essential abilities that will in turn expand their occupational opportunities in the world of furniture making.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.FURN.1 | | Students will demonstrate daily lab organization and safety skills. | Standard Reference |
|  | CVE.FURN.1.1 | Demonstrate knowledge of OSHA and their role in the workplace safety. | CV12.5.3  CV 12.5.2 |
| CVE.FURN.1.2 | Operate lab equipment according to safety guidelines. | CV 12.5.3 |
| CVE.FURN.1.3 | Identify and wear appropriate clothing for lab/shop activities. | CV 12.5.3  CV 12.5.2 |
| CVE.FURN.1.4 | Locate and interpret safety data sheets. | CV 12.53 |

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| CVE.FURN.2 | | Students will operate manual and power tools. | Standard Reference |
|  | CVE.FURN.2.1 | Identify hand tools and their appropriate usage. | CV 12.5.3  CV 12.5.2 |
| CVE.FURN.2.2 | Demonstrate safe handling and use of appropriate tools. | CV 12.4.1 |
| CVE.FURN.2.3 | Identify power tools and equip. And their appropriate usage. | CV 12.4.1  CV 12.4.4 |
| CVE.FURN.2.4 | Demonstrate the proper techniques and safe handling in using these tools. | CV 12.4.1  CV 12.4.4 |

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| CVE.FURN.3 | | Students will create a fundamental design. | Standard Reference |
|  | CVE.FURN.3.1 | Interpret basic elements of print reading (i.e. blue- print reading and working drawings). | CV 12.5.3  CV 12.4.1 |
| CVE.FURN.3.2 | Identify standard measure units and scaling techniques. | CV 12.4.1  CV 12.4.4 |
| CVE.FURN.3.3 | Measure to the nearest 1/16th inch with a tape measure. | CV 12.4.1  CV 12.4.4 |
| CVE.FURN.3.4 | Demonstrate proper use of precision measuring tools. | CV 12.4.1  CV 12.4.4 |
| CVE.FURN.3.5 | Use mathematical concepts to add, subtract, multiply and divide fractions, decimals and whole numbers. | CV 12.5.3  CV 12.4.1 |
| CVE.FURN.3.6 | Determine the cost of materials needed for a furniture project. | CV 12.4.1 |

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| CVE.FURN.4 | | Students will select materials and hardware for use on projects. | Standard Reference |
|  | CVE.FURN.4.1 | Identify, describe and discuss various materials, fasteners and methods, adhesives and method and hardware. | CV12.5.3  CV 12.4.1 |

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| CVE.FURN.5 | | Students demonstrate manufacturing processes. | Standard Reference |
|  | CVE.FURN.5.1 | Identify and describe the current manufacturing processes. | CV 12.5.3  CV 12.5.2 |
| CVE.FURN.5.2 | Discuss, identify and demonstrate the following manufacturing operations: milling operations, joinery techniques, assembly, finishing, and installation. | CV 12.4.1  CV 12.4.4 |

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| CVE.FURN.6 | | Students will research career opportunities in our community and region. | Standard Reference |
|  | CVE.FURN.6.1 | Discuss the employment opportunities in the industry. | CV 12.5.3  CV 12.5.2 |
| CVE.FURN.6.2 | Explore education and training for careers in the industry, locally and nationally. | CV 12.5.2 |

**Cabinet Making**

(grades 9-12)

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| Purpose Statement: | Students will apply advanced skills in machine woodworking and hand craftsmanship. Students will implement advanced design skills in door and drawer construction while working with team members and customers.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.CAB.1 | | Students will identify tools and safely use all power equipment in the woodshop. | Standard Reference |
|  | CVE.CAB.1.1 | Identify and demonstrate how to use hand tools properly. | CV12.5.3  CV12.5.2 |
| CVE.CAB.1.2 | Identify power tools and demonstrate proper safe use of equipment. | CV 12.5.2 |

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| CVE.CAB.2 | | Students will read and develop blueprints. | Standard Reference |
|  | CVE.CAB.2.1 | Demonstrate how to read cabinet blueprints and diagrams. | CV.12.5.1 |
| CVE.CAB.2.2 | Create a sketch of a cabinet (isometric drawing). | CV.12.5.3 |
| CVE.CAB.2.3 | Create a top, front, side drawing of a cabinet to scale (mechanical drawing) for shop use. | CV.12.5.3 |

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| CVE.CAB.3 | | Students will determine proper material and cut lists for project. | Standard Reference |
|  | CVE.CAB.3.1 | Calculate material needed in board feet for cabinets and all hardware for cabinet. | CV12.4.2 |
| CVE.CAB.3.2 | Implement how to purchase materials for projects. | CV.124.2 |

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| CVE.CAB.4 | | Students will develop, construct and install custom cabinets | Standard Reference |
|  | CVE.CAB.4.1 | Demonstrate the parts of a cabinet and how to assemble. | CV.12.4.1 |
| CVE.CAB.4.2 | Demonstrate how to assemble and attach face frame to the cabinet. | CV.12.4.2 |
| CVE.CAB.4.3 | Demonstrate how to build doors and drawers for cabinets and install. | CV.12.4.3 |

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| CVE.CAB.5 | | Students will learn the different types of moldings. | Standard Reference |
|  | CVE.CAB.5.1 | Analyze the different types of moldings by name and shape and what they are used for. | CV.12.3.1 |
| CVE.CAB.5.2 | Demonstrate how to install all types of moldings. | CV.12.4.2 |

**Energy Tech I**

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| Purpose Statement: | Students will be introduced to a variety of career opportunities in business and industry to equip them with the background to make sound choices for their futures. It will provide 10th grade students with a strong, college-prep curriculum as well as industry-related courses of study.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.ET1.1 | | Students will investigate and develop 21st century skills including: networking, enthusiasm, professionalism, communication skills, teamwork, critical thinking, and problem solving. | Standard Reference |
|  | CVE.ET1.1.1 | Demonstrate making a good first impression. | CV 12.2.1 |
| CVE.ET1.1.2 | Demonstrate the Seven Norms of Collaboration. | CV 12.2.1 |
| CVE.ET1.1.3 | Develop and perform public speaking skills. | CV 12.2.1 |
| CVE.ET1.1.4 | Identify networking skills. | CV 12.2.1 |
| CVE.ET1.1.5 | Apply critical thinking and problem solving skills. | CV 12.3.1 |
| CVE.ET1.1.6 | Evaluate their performance throughout the year based on characteristics of professionalism. Identify specific ways that they can strengthen these characteristics throughout high school. | CV 12.1.4 |

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| CVE.ET1.2 | | Students will develop a career plan and apply skills to seek, obtain, and maintain a career. | Standard Reference |
|  | CVE.ET1.2.1 | Describe what it means to be punctual in the workplace (i.e. arrive early enough to begin working at the start time), and demonstrate punctuality in class. | CV12.1.4 |
| CVE.ET1.2.2 | Create a career plan. | CV 12.1.1  CV 12.4.1 |
| CVE.ET1.2.3 | Analyze career/job postings based on qualifications and preferences. | CV 12.4.2  CV 12.4.3 |
| CVE.ET1.2.4 | Complete a job application. | CV 12.4.1 |
| CVE.ET1.2.5 | Create a resume. | CV 12.4.1 |
| CVE.ET1.2.6 | Write a cover letter to demonstrate interest in a job. | CV 12.4.1 |
| CVE.ET1.2.7 | Compile a list of references to accompany resume and cover letter. | CV 12.4.1 |
| CVE.ET1.2.8 | Demonstrate skills for a job interview as both the interviewer and interviewee. | CV 12.4.1 |

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| CVE.ET1.3 | | Students will research, examine and differentiate the ten sources of energy. | Standard Reference |
|  | CVE.ET1.3.1 | Identify and describe the ten sources of energy. | CV 12.4.2  CV 12.4.3 |
| CVE.ET1.3.2 | Compare and contrast ten sources of energy. | CV 12.2.1  CV 12.2.3 |
| CVE.ET1.3.3 | Debate merits and drawbacks of each energy source. | CV 12.2.1  CV 12.2.2  CV 12.2.3 |
| CVE.ET1.3.4 | Create oral/written presentations of assigned energy source using news broadcasting format. | CV 12.2.1  CV 12.2.3  CV 12.3.3 |

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| CVE.ET1.4 | | Students will utilize hands-on practical experiences to accomplish an introductory review of online learning and the terminology involved. | Standard Reference |
|  | CVE.ET1.4.1 | Discuss the components of an online classroom community compared to a face-to-face community and identify ways in which they will participate effectively. | CV 12.2.1  CV 12.2.4 |
| CVE.ET1.4.2 | Identify the myths associated with online learning, and compare the differences between the myths and the facts. | CV 12.2.1  CV 12.2.4 |
| CVE.ET1.4.3 | Apply time management principles by tracking their daily activities, and they will recognize the relationship between time management and stress management. | CV 12.2.2 |
| CVE.ET1.4.4 | Develop their online communication, online writing, and online reading skills by following appropriate asynchronous discussion, journal, email, and class activity guidelines. | CV 12.2.1  CV 12.2.4  CV 12.4.1 |
| CVE.ET1.4.5 | Give feedback to their peers using appropriate guidelines. | CV 12.2.1  CV 12.2.4  CV 12.4.1 |
| CVE.ET1.4.6 | Evaluate their technology needs and recognize technology's role in their online learning. | CV 12.4.2  CV 12.4.3 |
| CVE.ET1.4.7 | Reflect on challenges that may be associated with online learning, and students will identify areas of personal learning and growth. | CV 12.1.4  CV 12.4.3 |
| CVE.ET1.4.8 | Incorporate the principles and concepts learned to create an online learning guide. | CV 12.2.1  CV 12.3.3  CV 12.4.1  CV 12.4.3 |

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| CVE.ET1.5 | | Students will investigate, explore, and manage electricity as it relates to uses in the home, the power grid, and emissions costs. | Standard Reference |
|  | CVE.ET1.5.1 | Find energy usage for a wide range of appliances. | CV 12.4.3  CV 12.5.1 |
| CVE.ET1.5.2 | Examine the effects of time-sensitive pricing plans on energy cost. | CV 12.4.3  CV 12.5.1 |
| CVE.ET1.5.3 | Manage a small power system that simulates the power demands of different communities and the generation potential of different power plants. | CV 12.4.3  CV 12.5.1 |
| CVE.ET1.5.4 | Find the costs of providing power while weighing the emissions of different power plants. | CV 12.4.3  CV 12.5.1 |

**Energy Tech II**

(grades 9-12)

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| Purpose Statement: | General topics of instruction will include hydro, solar, weatherization, gas, oil, and wind power. Our goal is to provide our students with a foundation of skills and knowledge in these areas. Instruction will include both lecture based and hands on learning activities as well on-site tours, mentoring (job shadowing) and guest lectures. Students can expect to work both independently and also in small groups. You will be expected to participate, ask questions when necessary, and also be a good listener. |

Benchmarks:

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| CVE.ET2.1 | | Students will use Laboratory Safety Procedures. | Standard Reference |
|  | CVE.ET2.1.1 | Utilize proper PPE. | CV12.5.3 |
| CVE.ET2.1.2 | Show proper grinding procedures. | CV12.5.3 |
| CVE.ET2.1.3 | Demonstrate safe cutting procedures. | CV12.5.3 |
| CVE.ET2.1.4 | Describe what it means to be punctual in the workplace (i.e. arrive early enough to begin working at the start time), and demonstrate punctuality in class. | CV12.1.4  CV12.5.3 |
| CVE.ET2.1.5 | List characteristics that make someone ready to work including appropriate personal appearance and grooming, punctual, good communicator, responsible, honest, and integrity. | CV12.1.4 |
| CVE.ET2.1.6 | Prioritize PPE for personal purchase based on level of learning. | CV12.5.3  CV12.1.4 |

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| CVE.ET2.2 | | Students will understand and be able to utilize measurement devices and evaluate when each is necessary. | Standard Reference |
|  | CVE.ET2.2.1 | Utilize a scale. | CV12.5.3 |
| CVE.ET2.2.2 | Utilize a vernier caliper. | CV12.5.3 |
| CVE.ET2.2.3 | Utilize a micrometer. | CV12.5.3 |
| CVE.ET2.2.4 | Utilize a protractor. | CV12.5.3 |
| CVE.ET2.2.5 | Utilize a screw plate. | CV12.5.3 |
| CVE.ET2.2.6 | Utilize a digital multimeter. | CV12.5.3 |

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| CVE.ET2.3 | | Students will identify and evaluate the usage of solar systems. | Standard Reference |
|  | CVE.ET2.3.1 | Analyze single solar panel output. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.3.2 | Evaluate wiring energy generation sources in series and parallel. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.3.3 | Construct a lighting circuit utilizing solar energy. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.3.4 | Evaluate the effects of filtered/shaded light to solar panel output. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.3.5 | Evaluate the effects of volume of light on solar panel output. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.ET2.4 | | Students will identify and evaluate the usage of wind power. | Standard Reference |
|  | CVE.ET2.4.1 | Analyze site data from research study to propose windmill construction | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.4.2 | Evaluate energy production from different pre-made propellers. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.4.3 | Evaluate wind direction and volume as related to energy production. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.4.4 | Construct windmill blades of student design and test output. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.ET2.5 | | Students will identify and evaluate the usage of hydrogen fuel cell systems. | Standard Reference |
|  | CVE.ET2.5.1 | Assembly of fuel cell system utilizing PEM and gas catchment system. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.5.2 | Successfully perform hydrogen separation utilizing PEM and test hydrogen separation evaluating exhaust. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.5.3 | Generate energy utilizing the PEM and evaluate energy output. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.ET2.6 | | Students will identify and evaluate the usage of hydro power systems. | Standard Reference |
|  | CVE.ET2.6.1 | Construct an energy generation system utilizing magnets and copper wire. Connect energy generation system to create hydro power generation system. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.6.2 | Test and evaluate hydro power generation system. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.6.3 | Determine how the student created energy generation system could be utilized in different methods. | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.ET2.7 | | Residential uses of energy | Standard Reference |
|  | CVE.ET2.7.1 | Evaluate energy usage wiring in series and parallel | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.7.2 | Utilization of solar charge controllers | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.7.3 | Utilization of power inverters | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.7.4 | Construction of wired receptacle | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.7.5 | Construction of lighting circuits | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.ET2.7.6 | Assembly of a residential breaker box | CV12.5.4  CV12.5.3  CV12.5.2  CV12.5.1  CV12.4.3  CV12.4.3  CV12.4.4  CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.ET2.8 | | Students will design and construct a research and design project. (mini senior project) | Standard Reference |
|  | CVE.ET2.8.1 | Research necessary methods and materials for project completion. | CV 12.3.1  CV 12.3.3  CV 12.4.2  CV 12.4.3  CV 12.4.4 |
| CVE.ET2.8.2 | Evaluate scholarly sources and their relationship to senior project. | CV 12.3.3  CV 12.5.1  CV 12.5.3  CV 12.5.4 |
| CVE.ET2.8.3 | Conduct interview(s) with prospective project sources. | CV 12.2.1  CV 12.2.2  CV 12.2.3  CV 12.3.1 |
| CVE.ET2.8.4 | Complete grant application for project materials. | CV 12.4.1  CV 12.4.3  CV 12.4.4 |
| CVE.ET2.8.5 | Collaborate with project partner(s) to meet common goals. | CV 12.2.1  CV 12.2.2  CV 12.2.3 |
| CVE.ET2.8.6 | Design and present final project. | CV 12.2.3  CV 12.2.4  CV 12.3.1  CV 12.4.1 |
| CVE.ET2.8.7 | Assess personal contributions to project as well as assess teammate(s) contributions. | CV 12.2.1  CV 12.2.2  CV 12.2.3 |
| CVE.ET2.8.8 | Research necessary methods and materials for project completion. | CV 12.3.1  CV 12.3.3  CV 12.4.2  CV 12.4.3  CV 12.4.4 |
| CVE.ET2.8.9 | Evaluate scholarly sources and their relationship to senior project. | CV 12.3.3  CV 12.5.1  CV 12.5.3  CV 12.5.4 |
| CVE.ET2.8.10 | Conduct interview(s) with prospective project sources. | CV 12.2.1  CV 12.2.2  CV 12.2.3  CV 12.3.1 |

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| CVE.ET2.9 | | Students will set up/ create templates. | Standard Reference |
|  | CVE.ET2.9.1 | Create and use prototype drawing files. | CV12.3.2  CV12.3.3 |

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| CVE.ET2.10 | | Students will use a variety of drawing tools appropriate to task. | Standard Reference |
|  | CVE.ET2.10.1 | Create lines, arcs and circles, using absolute, polar and relative methods of point entry. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.ET2.11 | | Students will develop the ability to use a variety of edit tools appropriate to task. | Standard Reference |
|  | CVE.ET2.11.1 | Develop the ability to edit drawn entities using a variety of methods and commands. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.ET2.12 | | Students will develop the ability to appropriately dimension drawings. | Standard Reference |
|  | CVE.ET2.12.1 | Develop the ability to appropriately dimension multi view drawings according to standardized/ accepted dimensioning techniques. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

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| CVE.ET2.13 | | Students will research a career of choice. | Standard Reference |
|  | CVE.ET2.13.1 | Research a career of choice, prerequisite skills, educational requirements, etc. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.ET2.13.2 | Determine personal strengths and weakness with-in chosen occupation. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.ET2.13.3 | Develop a plan for achieving occupational goals. | CV12.1.1  CV12.1.2  CV12.1.3 |
| CVE.ET2.13.4 | Complete both written paper and oral presentation of occupation. | CV12.2.1  CV12.2.2 |

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| CVE.ET2.14 | | Students will construct ***simple one or two*** *step* 3D modeled objects to size and material specifications, using a variety of appropriate sketch tools, features, commands and methods, given partial views of three dimensional objects. | Standard Reference |
|  | CVE.ET2.14.1 | Develop and demonstrate daily work and employability skills including: punctuality, responsibility, integrity, productivity, task completion, working together, and care and maintenance of equipment. | CV12.1.4  CV12.2.2  CV12.2.3  CV12.2.4 |
| CVE.ET2.14.2 | Select appropriate units of length, weight and time based on task at hand. | CV12.3.2  CV12.3.3 |
| CVE.ET2.14.3 | Select appropriate planes or surfaces to draw on relative to the task and shape of object. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.4 | Create lines using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.5 | Create arcs using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.6 | Create circles using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.7 | Create rectangles and squares using appropriate sketch tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.8 | Define sketches to .001” using smart dimension tools. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.9 | Create a feature from a defined sketch using the Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.10 | Create a feature from a defined sketch using the Revolve Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.11 | Create a feature from a defined sketch using the Subtract Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |
| CVE.ET2.14.12 | Create a feature from a defined sketch using the Subtract Revolve Base/Boss Extrude tool. | CV12.3.1  CV12.3.2  CV12.3.3  CV12.4.2  CV12.4.3  CV12.4.4  CV12.5.2  CV12.5.3  CV12.5.4 |

**Energy Tech III**

(grades 9-12)

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| Purpose Statement: | Students will complete this as the capstone course in the Energy Resources Academy sequence. Students will complete college, job, and scholarship applications. Students will update their career plan including educational requirements and employment documents, and they will demonstrate employability skills.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: OSHA 10* |

Benchmarks:

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| CVE.ET3.1 | | Students will update their career plan and apply skills to seek, obtain, and maintain a career. | Standard Reference |
|  | CVE.ET3.1.1 | Update career plan including educational requirements and employment documents, and they will demonstrate employability skills. | CV 12.1.1  CV 12.1.4  CV 12.4.1 |
| CVE.ET3.1.2 | Analyze career/job postings based on qualifications and preferences. | CV 12.4.2  CV 12.4.3 |
| CVE.ET3.1.3 | Complete/review a job application. | CV 12.4.1 |
| CVE.ET3.1.4 | Update resume. | CV 12.4.1 |
| CVE.ET3.1.5 | Update/review a cover letter to demonstrate interest in a job. | CV 12.4.1 |
| CVE.ET3.1.6 | Update list of references to accompany resume and cover letter. | CV 12.4.1 |
| CVE.ET3.1.7 | Demonstrate skills for a job interview as both the interviewer and interviewee. | CV 12.4.1 |
| CVE.ET3.1.8 | Evaluate their performance throughout the year based on characteristics of professionalism. Identify specific ways that they can strengthen these characteristics throughout high school. | CV 12.1.4 |

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| CVE.ET3.2 | | Students will research, conduct, and summarize job shadowing experiences for school year. | Standard Reference |
|  | CVE.ET3.2.1 | Generate a list of prospective community business partners to job shadow. | CV 12.1.3  CV 12.2.1  CV 12.4.1 |
| CVE.ET3.2.2 | Compare and contrast forms of communication including verbal, non-verbal, and written, and evaluate samples to determine whether the written comes across as professional. | CV12.1.4  CV12.2.1 |
| CVE.ET3.2.3 | Write a professional phone script to communicate with prospective business partner(s). | CV 12.1.3  CV 12.2.1  CV 12.4.1 |
| CVE.ET3.2.4 | Compose professional email script to communicate with prospective business partner(s). | CV 12.1.3  CV 12.2.1  CV 12.4.1 |
| CVE.ET3.2.5 | Describe what it means to be punctual in the workplace (i.e. arrive early enough to begin working at the start time), and demonstrate punctuality in class. | CV 12.1.4 |
| CVE.ET3.2.6 | Schedule job shadowing experiences with prospective business partner(s). | CV 12.2.1  CV 12.2.2  CV 12.2.3  CV 12.4.3 |
| CVE.ET3.2.7 | Summarize job shadowing experiences in written format. | CV 12.1.3  CV 12.2.1  CV 12.4.1 |
| CVE.ET3.2.8 | Write thank you card to business partner(s). | CV 12.1.3  CV 12.2.1  CV 12.4.1 |

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| CVE.ET3.3 | | Students will research and evaluate the cost of attending college. | Standard Reference |
|  | CVE.ET3.3.1 | Define college budget terminology. | CV 12.4.2 |
| CVE.ET3.3.2 | Produce a budget to determine income sources and expenses. | CV 12.4.2  CV 12.4.3  CV 12.5.2 |
| CVE.ET3.3.3 | Label and summarize ways to earn extra summer cash for college. | CV 12.5.1  CV 12.4.1  CV 12.4.3 |
| CVE.ET3.3.4 | Analyze and describe top two and bottom two reading skills. | CV 12.4.3 |
| CVE.ET3.3.5 | Compare/contrast three different schools and the costs associated with each institution. | CV 12.5.1  CV 12.4.1  CV 12.4.3 |

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| CVE.ET3.4 | | Students will design, construct, and present a capstone senior project. | Standard Reference |
|  | CVE.ET3.4.1 | Research necessary methods and materials for project completion. | CV 12.3.1  CV 12.3.3  CV 12.4.2  CV 12.4.3  CV 12.4.4 |
| CVE.ET3.4.2 | Evaluate scholarly sources and their relationship to senior project. | CV 12.3.3  CV 12.5.1  CV 12.5.3  CV 12.5.4 |
| CVE.ET3.4.3 | Conduct interview(s) with prospective project sources. | CV 12.2.1  CV 12.2.2  CV 12.2.3  CV 12.3.1 |
| CVE.ET3.4.4 | Complete grant application for project materials. | CV 12.4.1  CV 12.4.3  CV 12.4.4 |
| CVE.ET3.4.5 | Collaborate with project partner(s) to meet common goals. | CV 12.2.1  CV 12.2.2  CV 12.2.3 |
| CVE.ET3.4.6 | Design and present final project. | CV 12.2.3  CV 12.2.4  CV 12.3.1  CV 12.4.1 |
| CVE.ET3.4.7 | Assess personal contributions to project as well as assess teammate(s) contributions. | CV 12.2.1  CV 12.2.2  CV 12.2.3 |

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| CVE.ET3.5 | | Students will develop financial literacy skills related to: credit, insurance, taxes, money management, and payroll. | Standard Reference |
|  | CVE.ET3.5.1 | Compare/contrast different credit cards. | CV12.1.4  CV12.2.1 |
| CVE.ET3.5.2 | Analyze various types of insurance and how they relate to them personally. | CV 12.4.3 |
| CVE.ET3.5.3 | Compute payroll and income taxes. | CV 12.4.2  CV 12.4.3  CV 12.4.4  CV 12.5.1  CV 12.5.2 |
| CVE.ET3.5.4 | Operate and maintain a checking account. | CV 12.4.2  CV 12.4.3  CV 12.4.4  CV 12.5.1  CV 12.5.2 |
| CVE.ET3.5.5 | Maintain and calculate daily spending. | CV 12.4.2  CV 12.4.3  CV 12.4.4  CV 12.5.1  CV 12.5.2 |
| CVE.ET3.5.6 | Inventory personal assets and apply present and future value of those assets. | CV 12.4.1  CV 12.4.3 |
| CVE.ET3.5.7 | Verify the four hidden costs associated with purchasing a vehicle (FIRM-fuel/insurance/repairs/maintenance). | CV 12.4.3 |
| CVE.ET3.5.8 | Identify and prioritize the four ways that personal money can be used (Save, Spend, Invest, Give). | CV 12.5.1 |

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| CVE.ET3.6 | | Students will design, construct, test, and present a roller coaster. | Standard Reference |
|  | CVE.ET3.6.1 | Research and select a roller coaster design/theme. | CV 12.3.1  CV 12.3.3  CV 12.4.2  CV 12.4.3  CV 12.4.4 |
| CVE.ET3.6.2 | Design roller coaster. | CV 12.2.3  CV 12.2.4  CV 12.3.1  CV 12.4.1 |
| CVE.ET3.6.3 | Formulate and shop for list of materials to construct coaster. | CV 12.5.1  CV 12.5.2 |
| CVE.ET3.6.4 | Build roller coaster. | CV 12.2.3  CV 12.2.4  CV 12.3.1  CV 12.3.4  CV 12.5.4 |
| CVE.ET3.6.5 | Differentiate between responsibility and integrity and explain why both contribute to being respected. Evaluate scenarios and suggest how responsibility and integrity could be improved. | CV12.1.4  CV12.2.2 |
| CVE.ET3.6.6 | Test roller coaster for final assessment. | CV 12.4.4  CV 12.5.1 |
| CVE.ET3.6.7 | Assess personal contributions to project as well as assess teammate(s) contributions. | CV 12.2.1  CV 12.2.2  CV 12.2.3 |

**Fire Law Leadership I**

(grades 9-12)

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| Purpose Statement: | This class is structured around the Career Academy National Standards of Practice. Students will analyze a variety of career opportunities regarding all facets of law, fire and military. Students will work with local employers as well as being able to assist in obtaining employment after graduation, and pursue higher education. Students are able to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. They student will also complete the WWCC Intro To Online Learning which will also build strong alliances with the skills needed for the trends of technology today. The students will also complete the certification courses of Wyoming Game and Fish Hunter Safety and the Wyoming Highway Patrol's Alive at 25.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.FLL1.1 | | Students will investigate and develop 21st century skills including: networking, enthusiasm, professionalism, communication skills, teamwork, critical thinking and problem solving. | Standard Reference |
|  | CVE.FLL1.1.1 | Demonstrate making a great first impression. | CV 12.2.1 |
| CVE.FLL1.1.2 | Demonstrate the 'Seven Norms Of Collaboration'. | CV 12.2.1 |
| CVE.FLL1.1.3 | Apply public speaking skills. | CV 12.2.1 |
| CVE.FLL1.1.4 | Identify networking skills. | CV 12.2.1 |
| CVE.FLL1.1.5 | Apply critical thinking and problem solving skills. | CV 12.2.1 |
| CVE.FLL1.1.6 | Evaluate their performance throughout the year based on characteristics of professionalism. | CV 12.3.1 |
| CVE.FLL1.1.7 | Identify specific ways to strengthen work ethic, timeliness and employability skills. | CV 12.1.4 |

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| CVE.FLL1.2 | | Students will develop a career plan and apply skills to seek, obtain, and maintain a career. | Standard Reference |
|  | CVE.FLL1.2.1 | Create a career plan and path to get there. | CV 12.1.1  CV 12.4.1 |
| CVE.FLL1.2.2 | Describe what it means to be punctual in the workplace. | CV 12.1.4 |
| CVE.FLL1.2.3 | Demonstrate punctuality in class. | CV 12.1.4 |
| CVE.FLL1.2.4 | Analyze career/job postings based on qualifications and preferences Analyze career/job postings based on qualifications and preferences. | CV 12.4.2  CV 12.4.3 |
| CVE.FLL1.2.5 | Complete a job application. Create a resume and letters of application. | CV 12.4.1 |
| CVE.FLL1.2.6 | Demonstrate skill level in a job interview as both the interviewer and interviewee. | CV 12.4.1 |

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| CVE.FLL1.3 | | Students will investigate, explore, and define fire and law vocabulary as it relates to uses in the home, the work place and their daily lives. | Standard Reference |
|  | CVE.FLL1.3.1 | Build a vocabulary that details aspects of fire, law and leadership including military. | CV 12.4.1  CV 12.4.2 |
| CVE.FLL1.3.2 | Compare and contrast different types of law and fire agencies and the benefits of all of them. | CV 12.3.3  CV 12.4.4 |
| CVE.FLL1.3.3 | Illustrate different business models as they fit into various FLLA entities. | CV 12.1.2  CV 12.5.3 |

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| CVE.FLL1.4 | | Students will utilize hands-on practical experiences to accomplish an introductory review of online learning and the terminology involved. | Standard Reference |
|  | CVE.FLL1.4.1 | Discuss the online class compared to a face-to-face and ID ways to participate effectively. | CV 12.2.1  CV 12.2.4 |
| CVE.FLL1.4.2 | Apply time management skills by tracking daily activities. | CV 12.2.2 |
| CVE.FLL1.4.3 | Recognize the relationship between time management and stress management. | CV 12.2.2 |
| CVE.FLL1.4.4 | Develop online communication (writing, journaling and email) per syllabus guidelines. | CV 12.2.1  CV 12.2.4  CV 12.4.1 |
| CVE.FLL1.4.5 | Give feedback to their peers using appropriate guidelines. | CV 12.2.1  CV 12.2.4  CV 12.4.1 |
| CVE.FLL1.4.6 | Reflect on challenges associated with online learning. Identify areas of learning and growth. | CV 12.1.4  CV 12.4.3 |
| CVE.FLL1.4.7 | Incorporate the principles and concepts learned to create an online learning guide. | CV 12.2.1  CV 12.3.3  CV 12.4.1 |
| CVE.FLL1.4.8 | Evaluate technology needs and recognize technology's role in online learning. | CV 12.4.2  CV 12.4.3 |

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| CVE.FLL1.5 | | Students will investigate and explore day to day activities as they relate to the activities of all fire, law, military and leadership entities. | Standard Reference |
|  | CVE.FLL1.5.1 | Reflect on the class visitation by the area business professionals | CV 12.2.2  CV 12.2.4 |
| CVE.FLL1.5.2 | Reflect on the class visitation to the job site of business professionals | CV 12.5.1 |
| CVE.FLL1.5.3 | Analyze activities to hands on demonstrations of professionals | CV 12.5.3 |

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| CVE.FLL1.6 | | Students will complete the certification coursework for WGF Hunter Safety, WHP Alive @ 25 and the US Military practice ASVAB. | Standard Reference |
|  | CVE.FLL1.6.1 | Complete the given mandated test to pass this certification | CV 12.3.3 |

**Fire Law Leadership II**

(grades 9-12)

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| Purpose Statement: | This class is structured around the Career Academy National Standards of Practice. Students will continue exploration a variety of career opportunities regarding all facets of law, fire and military. Students will work hand in hand (job shadowing) with local employers as well as enhancing employment opportunities for future reference. Students are able to continue to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. They student will also complete the certification coursework for the appropriate year (1st Aid/CPR - ICS 100 - ICS 800 - HAZMAT Awareness).  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: FEMA Series: ICS – 100, 200, 700, 800* |

Benchmarks:

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| CVE.FLL2.1 | | Students will distinguish and examine ethics in law and fire, various sources statutes and how they are derived, enforced, adjudicated and delivered to citizens. | Standard Reference |
|  | CVE.FLL2.1.1 | Relate differences in enforcing law and dealing with the public. | CV12.4.4  CV12.3.3  CV12.5.3 |
| CVE.FLL2.1.2 | Compare and contrast different types of law enforcement and fire prevention/fighting. | CV12.2.4  CV12.4.2 |
| CVE.FLL2.1.3 | Compute pump pressures, taxation and logistics of law and fire. | CV12.1.4 |
| CVE.FLL2.1.4 | Investigate the repairing and upkeep of fire and law vehicles. | CV12.3.2 |
| CVE.FLL2.1.5 | Distinguish what territories are covered by an entity. Illustrate the boundaries. | CV12.2.1  CV12.3.3 |
| CVE.FLL2.1.6 | Establish when public contacts end and the needed follow up. | CV12.2.1  CV12.5.2 |
| CVE.FLL2.1.7 | Describe discharge by performance and other mandatory reporting paperwork. | CV12.4.1  CV12.3.2  CV12.4.2 |

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| CVE.FLL2.2 | | Students will reflect and examine dealing with the public in the activities of the business professionals how those services are delivered on a daily basis. | Standard Reference |
|  | CVE.FLL2.2.1 | Partner with community business partners to job shadow. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.FLL2.2.2 | Compare and contrast interaction with the business partners and communication effectively. | CV12.1.4  CV12.2.1 |
| CVE.FLL2.2.3 | Determine professional communication (verbal/ written) with business partners. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.FLL2.2.4 | Demonstrate JS and class punctuality (arrive early enough to begin working at the start time). | CV12.1.4 |
| CVE.FLL2.2.5 | Summarize job shadowing experiences in written format. | CV12.1.3  CV12.2.1  CV12.4.1 |

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| CVE.FLL2.3 | | Students will complete the certification work for HAZMAT awareness, ICS 100 & 800 and 1st aid/CPR. | Standard Reference |
|  | CVE.FLL2.3.1 | Students will complete the given mandated test to pass this certification. | CV 12.3.3 |

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| CVE.FLL2.4 | | Students will analyze the United States civil and criminal legal systems to distinguish differences between those systems. | Standard Reference |
|  | CVE.FLL2.4.1 | Compare and contrast criminal law and civil law. | SS12.1.4 |
| CVE.FLL2.4.2 | Compare and contrast common law and statutory law. | SS12.1.4 |
| CVE.FLL2.4.3 | Explain what constitutes a crime and debate what the various causes of crime may be. | SS12.1.4 |
| CVE.FLL2.4.4 | Illustrate the procedures within the criminal justice system. | SS12.1.4 |
| CVE.FLL2.5 | | Students will analyze, evaluate, and/or synthesize multiple sources of information in diverse formats and media in order to assess guilt or innocence. | Standard Reference |
|  | CVE.FLL2.5 | Analyze evidence on a case to determine guilt or innocence. | SS12.6.1 |
| CVE.FLL2.5 | Examine the course of events to determine whether the outcome may have been different when provided more evidence. | SS12.6.1 |
| CVE.FLL2.5 | Categorize evidence into supporting evidence and “bad” evidence. | SS12.6.1 |

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| CVE.FLL2.6 | | Students will illustrate the structures, and classify the key players, of both the United States and Wyoming court systems. | Standard Reference |
|  | CVE.FLL2.6.1 | Illustrate the structure of the U.S. Court System. | SS12.1.5 |
| CVE.FLL2.6.2 | Determine the sources of law in the U.S. | SS12.1.5 |
| CVE.FLL2.6.3 | Illustrate the structure of the Wyoming court system. | SS12.1.5 |
| CVE.FLL2.6.4 | Classify the key players of the court system (i.e. Prosecuting Attorney, Defense Attorney, Judge, Jury, etc.) | SS12.1.5 |

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| CVE.FLL2.7 | | Students will analyze and evaluate the ways various correctional facilities meet human needs and concerns. | Standard Reference |
|  | CVE.FLL2.7.1 | Analyze the corrections system in the U.S to explain how they meet human needs and concerns. | SS12.2.1 |
| CVE.FLL2.7.2 | Categorize the various levels of corrections within the U.S. correctional system. | SS12.2.1 |
| CVE.FLL2.7.3 | Evaluate the corrections system and propose changes that could be made within it. | SS12.2.1 |

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| CVE.FLL2.8 | | Students will analyze the historical development of the United States Constitution and how it has shaped the criminal system in the U.S. | Standard Reference |
|  | CVE.FLL2.8.1 | Classify rights guaranteed in the U.S. constitution to citizen’s rights within criminal cases. | SS12.1.3 |
| CVE.FLL2.8.2 | Analyze past and present Supreme Court cases and their impact on the U.S. legal system. | SS12.1.3 |
| CVE.FLL2.8.3 | Apply knowledge of the amendments to legal situations in the United States. | SS12.1.3 |
| CVE.FLL2.8.4 | Analyze unique freedoms, rights, and responsibilities of living in a democratic society and the impact of those within the criminal system. | SS12.1.1 |

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| CVE.FLL2.9 | | Students will given significant current event within the criminal system, compare and contrast the actions of the people or groups involved. | Standard Reference |
|  | CVE.FLL2.9.1 | Compare and contrast the use of the death penalty in the U.S., looking at current events, various state and federal laws, political ideology, religious beliefs, and moral beliefs. | SS12.4.3 |
| CVE.FLL2.9.2 | Investigate the impact of the drug trade and drug cartels on modern U.S. society and its impact on the U.S. Criminal. | SS12.4.3 |
| CVE.FLL2.9.3 | Compare and contrast the juvenile justice system with the adult justice system by looking at current events affecting both. | SS12.4.3 |

**Fire Law Leadership III**

(grades 9-12)

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| Purpose Statement: | This class is structured around the Career Academy National Standards of Practice. Students will finalize a variety of career opportunities regarding all facets of law, fire and military in what is their capstone year. Students will work with local professional in an extensive job shadowing as well as being able to assist in obtaining employment after graduation, and pursue higher education. Students are able to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. The students will also demonstrate proficiency of their certification coursework which is ICS 200, ICS 700, WWCC EMR, Red Card Fire Certification, and Firefighter 1.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| CVE.FLL3.1 | | Students will update their career plan and apply skills to seek, obtain, and maintain a career. | Standard Reference |
|  | CVE.FLL3.1.1 | Update career plan including educational and employment documents. | CV12.1.1  CV12.1.4  CV12.4.1 |
| CVE.FLL3.1.2 | Demonstrate employability skills both in and out of the classroom. | CV12.1.1  CV12.1.4  CV12.4.1 |
| CVE.FLL3.1.3 | Analyze career/job opportunities based on qualifications and preferences. | CV12.4.2  CV12.4.3 |
| CVE.FLL3.1.4 | Complete a job application. Create a resume and letters of application. | CV12.4.1 |
| CVE.FLL3.1.5 | Update list of references to accompany resume and cover letter. | CV 12.4.1 |
| CVE.FLL3.1.6 | Demonstrate skills for a job interview as both the interviewer and interviewee. | CV 12.4.1 |
| CVE.FLL3.1.7 | Evaluate performance through the year based on professionalism. ID ways to improve. | CV 12.4.1 |

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| CVE.FLL3.2 | | Students will reflect and examine dealing with the public in the activities of the business professionals how those services are delivered on a daily basis. | Standard Reference |
|  | CVE.FLL3.2.1 | Partner with various business partners students choose to job shadow. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.FLL3.2.2 | Compare and contrast interaction with the business partners and communication effectively. | CV12.1.4  CV12.2.1 |
| CVE.FLL3.2.3 | Determine professional communication (verbal/written) with business partners. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.FLL3.2.4 | Demonstrate JS and class punctuality (arrive early enough to begin working at the start time). | CV12.1.4 |
| CVE.FLL3.2.5 | Summarize job shadowing experiences in written format. | CV12.1.3  CV12.2.1  CV12.4.1 |

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| CVE.FLL3.3 | | Students will research and evaluate the cost of attending college. | Standard Reference |
|  | CVE.FLL3.3.1 | Define college budget terminology. | CV12.4.2 |
| CVE.FLL3.3.2 | Produce an organizer data page to determine income sources and expenses. | CV12.4.2  CV12.4.3  CV12.5.2 |
| CVE.FLL3.3.3 | Analyze and summarize ways to earn expense money for college through jobs. | CV12.5.1  CV12.4.1  CV12.4.3 |
| CVE.FLL3.3.4 | Compare/contrast two or more different schools with costs associated with each institution. | CV12.5.1  CV12.4.1  CV12.4.3 |

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| CVE.FLL3.4 | | Students will design and construct four senior projects that benefit public safety or the betterment of the public (two of the student's choice / one instructor’s choice / one class project). | Standard Reference |
|  | CVE.FLL3.4.1 | Research necessary projects needing completing and all facets that go with them. | CV12.3.1  CV12.4.2  CV12.4.3 |
| CVE.FLL3.4.2 | Conduct interview(s) and background work on prospective projects. | CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.FLL3.4.3 | Complete financial obligations for completing project. | CV12.4.1  CV12.4.3  CV12.4.4 |
| CVE.FLL3.4.4 | Collaborate with project partner(s) to meet common goals. | CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.FLL3.4.5 | Design and present final project. | CV12.2.3  CV12.2.4  CV12.3.1 |
| CVE.FLL3.4.6 | Assesses contributions to project for self and project mates. | CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.FLL3.5 | | Students will develop financial literacy skills related to: credit, insurance, taxes, money management, and payroll. | Standard Reference |
|  | CVE.FLL3.5.1 | Compare/contrast different credit cards and other forms of credit. | CV12.1.4  CV12.2.1 |
| CVE.FLL3.5.2 | Investigate various types of insurance and how it relates to the student. | CV12.4.3 |
| CVE.FLL3.5.3 | Compute payroll with taxes and maintain a checking account. | CV12.4.2  CV12.4.3  CV12.4.4 |
| CVE.FLL3.5.4 | Design a budget and Inventory personal assets for current and present value. | CV12.4.1  CV12.4.3  CV12.5.1 |
| CVE.FLL3.5.5 | Identify and prioritize the ways that personal money can be used (Save, Spend, Invest, Give). | CV12.2.4  CV12.5.1 |
| CVE.FLL3.5.6 | Verify the hidden costs associated with purchasing vehicles, housing, day to day expenses. | CV12.2.1  CV12.2.2  CV12.4.3 |

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| CVE.FLL3.6 | | Students will complete the certification work for ERM, Redcard, ICS 200 & 700 and Firefighter One. | Standard Reference |
|  | CVE.FLL3.6.1 | Complete the given mandated test to pass this certification. | CV 12.3.3 |

**Health Occupations Career Academy I**

(grades 9-12)

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| Purpose Statement: | Students will analyze various medical topics by synthesizing information into smaller portions. Students will utilize introductory medical terms and topics to create projects to share information with their classmates while working on presentation and employability skills.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: Customer Service and/or Soft Skills* |

Benchmarks:

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| CVE.HOCA1.1 | | Students will create an introductory presentation about themselves which will be shared with classmates in order to practice communication skills and using a formal presentation style. | Standard Reference |
|  | CVE.HOCA1.1.1 | Retrieve and organize photos of themselves, their family, and their friends. | CV 12.3 |
| CVE.HOCA1.1.2 | Create an electronic presentation to share visually and orally with their classmates. | CV 12.1 |
| CVE.HOCA1.1.3 | Discuss expectations for being in the academy. | CV 12.1 |
| CVE.HOCA1.1.4 | Discuss various presentation styles available. | CV 12.1 |

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| CVE.HOCA1.2 | | Students will analyze various terms related to the medical field and create a visual presentation exhibiting their understanding of med terms and the human body. | Standard Reference |
|  | CVE.HOCA1.2.1 | Analyze medical terms based on roots, prefixes, and suffixes. | CV 12.5.1 |
| CVE.HOCA1.2.2 | Identify and match Human Anatomy Systems with the correct terminology. | CV 12.2.3 |
| CVE.HOCA1.2.3 | In groups, illustrate a given anatomy system on the human body (for example create a cartoon character and layer it with their assigned system). | CV 12.2.3 |

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| CVE.HOCA1.3 | | Students willproduce various employment documents and compare/contrast various medical jobs/careers. | Standard Reference |
|  | CVE.HOCA1.3.1 | Create a resume, cover letter, letter of application. | CV 12.1.1 |
| CVE.HOCA1.3.2 | Discuss and demonstrate proper interview skills. | CV 12.1.4 |
| CVE.HOCA1.3.3 | Research and evaluate various medical jobs/careers/pathways. Create an employment poster/presentation to communicate specific job requirements and benefits. | CV 12.1.2  CV 12.1.5 |
| CVE.HOCA1.3.4 | List characteristics that make someone “professional” including appropriate personal appearance and grooming, punctual, good communicator, responsible, honest, and has integrity. | CV 12.1.4 |
| CVE.HOCA1.3.5 | Evaluate the appearance of individuals in the workforce and illustrate appropriate dress for a given occupation. | CV 12.1.4 |

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| CVE.HOCA1.4 | | Students will demonstrate basic computer skills by producing various electronic presentations. | Standard Reference |
|  | CVE.HOCA1.4.1 | Create a brochure, table, picture. | CV 12.5.2 |
| CVE.HOCA1.4.2 | Create an electronic presentation (for example Slides, Prezi, PP). | CV 12.5.2 |
| CVE.HOCA1.4.3 | Create a video presentation (for example Youtube, Imovie, etc.). | CV 12.5.2 |

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| CVE.HOCA1.5 | | Students will evaluate various college degrees, certifications, and costs. | Standard Reference |
|  | CVE.HOCA1.5.1 | Compare/Contrast different colleges and costs to attend. | CV 12.1.3 |
| CVE.HOCA1.5.2 | Compare/Contrast different degrees and certifications for specific health care careers. | CV 12.3.3 |
| CVE.HOCA1.5.3 | Practice filling out college applications and financial aid applications. | CV 12.1.3 |

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| CVE.HOCA1.6 | | Students will explore various types of mental ailments and the symptoms and treatments available. | Standard Reference |
|  | CVE.HOCA1.6.1 | Distinguish between the types of mental disorders. | CV 12.2.3 |
| CVE.HOCA1.6.2 | Compare various symptoms of mental disorders. | CV 12.2.3 |
| CVE.HOCA1.6.3 | Compare various treatment options. | CV 12.2.3 |
| CVE.HOCA1.6.4 | Apply concussion protocol to brain injury. | CV 12.1.1 |

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| CVE.HOCA1.7 | | Students will analyze HIPPA, liability, and malpractice rules and regulations. | Standard Reference |
|  | CVE.HOCA1.7.1 | Interpret the meaning of HIPPA. | CV 12.1.1 |
| CVE.HOCA1.7.2 | Analyze the liability issues of medical services. | CV 12.3.3 |
| CVE.HOCA1.7.3 | Debate various medical malpractice cases. | CV 12.3.1 |
| CVE.HOCA1.7.4 | Define ethics and explain why it is important to be ethical in the workplace. Evaluate scenarios and demonstrate ethics in class. | CV 12.1.4  CV 12.2.2 |

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| CVE.HOCA1.8 | | Students will evaluate various physicians and specialty fields. | Standard Reference |
|  | CVE.HOCA1.8.1 | Interpret various vocabulary related to physicians. | CV 12.1.1 |
| CVE.HOCA1.8.2 | Interpret various specialties of different doctors. | CV 12.3.3 |
| CVE.HOCA1.8.3 | Produce a collaborative project based on research of various physicians. | CV 12.3.3 |
| CVE.HOCA1.8.4 | Evaluate the appearance of individuals in the workforce and illustrate appropriate dress for a given occupation. | CV 12.1.4 |

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| CVE.HOCA1.9 | | Students will analyze various types of cancer to include symptoms, survival rate, area of body, number of cases per year. | Standard Reference |
|  | CVE.HOCA1.9 | Distinguish between the different types of cancer in human body. | CV 12.2.3 |
| CVE.HOCA1.9 | Determine various symptoms of different cancers. | CV 12.2.3 |
| CVE.HOCA1.9 | Analyze data to determine number of cases and survival rate. | CV 12.5 |
| CVE.HOCA1.9 | Apply cancer to specific group human anatomy system (for example add a new layer to cartoon character). | CV 12.2.3 |

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| CVE.HOCA1.10 | | Students will complete the college course for credit. | Standard Reference |
|  | CVE.HOCA1.10.1 | Successful completion of college coursework. | CV 12.5 |

**Health Occupations Career Academy II**

(grades 9-12)

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| Purpose Statement: | This class is structured around the Career Academy National Standards of Practice. Students will explore a variety of career opportunities regarding all facets of healthcare through job shadowing opportunities in the community. Students will participate in a student-to-student mentor program that will allow them to gain and demonstrate social skills, including empathy, teamwork, and problem solving with a prescribed conflict resolution method.  Students will learn and apply technical writing skills, as well as understand the governmental structures and processes that impact the medical field. Students who choose to do so will have the opportunity to complete certification coursework as a CNA.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA*  *Professional certification opportunities include: Customer Service and/or Soft Skills* |

Benchmarks:

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| CVE.HOCA2.1 | | Students will identify and model integrity, ethical leadership and effective management skills. | Standard Reference |
|  | CVE.HOCA2.1.1 | Identify employability traits and skills. | CV12.2.2 |
| CVE.HOCA2.1.2 | Determine professionalism when collaborating with business partners and peers. |  |
| CVE.HOCA2.1.3 | Demonstrate effective communication skills with business partners and peers. |  |
| CVE.HOCA2.1.4 | Apply a systematic conflict resolution process when conflict occurs. |  |
| CVE.HOCA2.1.5 | Compare and contrast interaction with the business partners and communicate effectively. |  |

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| CVE.HOCA2.2 | | Students will analyze careers including outlook, salary, needed training, duties and lifestyle utilizing all available resources including mentors and industry experts to present health care careers. | Standard Reference |
|  | CVE.HOCA2.2.1 | Identify career interests and evaluate current knowledge to investigate career paths. | CV12.1.1  CV12.1.2 |
| CVE.HOCA2.2.2 | Analyze a career path and determine the needed skills necessary to become an expert in the field including using available resources. | CV12.1.2 |
| CVE.HOCA2.2.3 | Demonstrate work and employability skills while exploring a variety of career paths during job shadowing opportunities throughout the school year. |  |
| CVE.HOCA2.2.4 | Produce a career fair that informs other students about future careers in health care. |  |
| CVE.HOCA2.2.5 | Identify trends, forecast possibilities, and explore complex systems and issues. |  |

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| CVE.HOCA2.3 | | Students will employ valid and reliable research strategies and apply prior knowledge to solve a problem or complete a project. | Standard Reference |
|  | CVE.HOCA2.3.1 | Identify and define authentic problems and significant questions for investigation. | CV12.3.1 |
| CVE.HOCA2.3.2 | Demonstrate creativity and innovation while considering solutions for an identified problem. | CV12.3.4 |
| CVE.HOCA2.3.3 | Produce a product that provides a solution to the identified problem. |  |

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| CVE.HOCA2.4 | | Students productively complete tasks taking constraints, priorities and resources into account. | Standard Reference |
|  | CVE.HOCA2.4.1 | Identify and define what you need to do to maintain a healthy lifestyle. | CV12.5.4 |
| CVE.HOCA2.4.2 | Evaluate different options available for maintaining a healthy lifestyle. |  |
| CVE.HOCA2.4.3 | Produce innovative solutions or products that assist in maintaining a healthy lifestyle. |  |

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| CVE.HOCA2.5 | | Students plan, develop and organize a health fair that includes clear and coherent writing, appropriate tasks, purposes, and addresses a targeted audience. | Standard Reference |
|  | CVE.HOCA2.5.1 | Investigate health related topics to use to inform the targeted audience. | CV12.4.1 |
| CVE.HOCA2.5.2 | Demonstrate an interactive activity utilizing the information to inform the targeted audience about the health-related topic. |  |
| CVE.HOCA2.5.3 | Illustrate by designing a booth that highlights the important information about your health topic to inform the targeted audience. |  |
| CVE.HOCA2.5.4 | Apply knowledge of the health-related topic by presenting the information to the targeted audience. |  |
| CVE.HOCA2.5.5 | Organize and design health fair materials for the targeted audience. |  |

**Health Occupations Career Academy III**

(grades 10-12)

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| Purpose Statement: | This class is structured around the Career Academy National Standards of Practice. Students will finalize a variety of career opportunities regarding all facets of healthcare in what is their capstone year. Students will work with local professional in an extensive job shadowing as well as being able to assist in obtaining employment after graduation, and pursue higher education. Students are able to compare and contrast career opportunities that allow them to transition to the workforce after graduation. Students will apply career awareness, technical skills, higher self-awareness, verbal and written communication skills, problem-solving skills, improved teamwork skills. The students will also demonstrate proficiency of their certification coursework which is Phlebotomy, CNA, EMT, EMR and BLS.  *The Career Technical Student Organization (CTSO) associated with this course: Skills USA* |

Benchmarks:

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| --- | --- | --- | --- |
| CVE.HOCA3.1 | | Students will update their career plan and apply skills to seek, obtain, and maintain a career. | Standard Reference |
|  | CVE.HOCA3.1.1 | Update career plan including educational and employment documents. | CV12.1.1  CV12.1.4  CV12.4.1 |
| CVE.HOCA3.1.2 | Demonstrate employability skills both in and out of the classroom. | CV12.1.1  CV12.1.4  CV12.4.1 |
| CVE.HOCA3.1.3 | Analyze career/job opportunities based on qualifications and preferences. | CV12.4.2  CV12.4.3 |
| CVE.HOCA3.1.4 | Complete a job application. Create a resume and letters of application. | CV12.4.1 |
| CVE.HOCA3.1.5 | Update list of references to accompany resume and cover letter. | CV 12.4.1 |
| CVE.HOCA3.1.6 | Demonstrate skills for a job interview as both the interviewer and interviewee. | CV 12.4.1 |
| CVE.HOCA3.1.7 | Evaluate performance through the year based on professionalism. In ways to improve. | CV 12.4.1 |

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| CVE.HOCA3.2 | | Students will reflect and examine dealing with the public in the activities of the business professionals how those services are delivered on a daily basis. | Standard Reference |
|  | CVE.HOCA3.2.1 | Partner with various business partners students choose to job shadow. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.HOCA3.2.2 | Compare and contrast interaction with the business partners and communicate effectively. | CV12.1.4  CV12.2.1 |
| CVE.HOCA3.2.3 | Determine professional communication (verbal/written) with business partners. | CV12.1.3  CV12.2.1  CV12.4.1 |
| CVE.HOCA3.2.4 | Demonstrate JS and class punctuality (arrive early enough to begin working at the start time). | CV12.1.4 |
| CVE.HOCA3.2.5 | Summarize job shadowing experiences in written format, which will be in the form of a blog. | CV12.1.3  CV12.2.1  CV12.4.1 |

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| CVE.HOCA3.3 | | Students will research and evaluate the cost of attending college. | Standard Reference |
|  | CVE.HOCA3.3.1 | Define college budget terminology. | CV12.4.2 |
| CVE.HOCA3.3.2 | Produce an organizer data page to determine income sources and expenses. | CV12.4.2  CV12.4.3  CV12.5.2 |
| CVE.HOCA3.3.3 | Analyze and summarize ways to earn expense money for college through jobs. | CV12.5.1  CV12.4.1  CV12.4.3 |
| CVE.HOCA3.3.4 | Compare/contrast two or more different schools with costs associated with each institution. | CV12.5.1  CV12.4.1  CV12.4.3 |

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| CVE.HOCA3.4 | | Students will design and/or continue a senior Capstone project that will be designed with the community in mind. Some projects are continuing projects that are passed down from previous senior groups that have been a success within the community. | Standard Reference |
|  | CVE.HOCA3.4 | Research projects that meet the service requirement for the academy. | CV12.3.1  CV12.4.2  CV12.4.3 |
| CVE.HOCA3.4 | Conduct interview(s) and background work on prospective projects. Students will be expected to complete all necessary components of the project, including funding, contacting business partners and organizing all culminating events. | CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.HOCA3.4 | Complete financial obligations for completing project. | CV12.4.1  CV12.4.3  CV12.4.4 |
| CVE.HOCA3.4 | Collaborate with project partner(s) to meet common goals. | CV12.2.1  CV12.2.2  CV12.2.3 |
| CVE.HOCA3.4 | Design and present final project. | CV12.2.3  CV12.2.4  CV12.3.1 |
| CVE.HOCA3.4 | Assesses contributions to project for self and project mates, including visual evidence of culminating event, how the project affected each of the partners as members of the community. | CV12.2.1  CV12.2.2  CV12.2.3 |

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| CVE.HOCA3.5 | | Students will develop financial literacy skills related to: credit, insurance, taxes, money management, and payroll. | Standard Reference |
|  | CVE.HOCA3.5 | Compare/contrast different credit cards and other forms of credit. | CV12.1.4  CV12.2.1 |
| CVE.HOCA3.5 | Investigate various types of insurance and how it relates to the student. | CV12.4.3 |
| CVE.HOCA3.5 | Compute payroll with taxes and maintain a checking account. | CV12.4.2  CV12.4.3  CV12.4.4 |
| CVE.HOCA3.5 | Design a budget and Inventory personal assets for current and present value. | CV12.4.1  CV12.4.3  CV12.5.1 |
| CVE.HOCA3.5 | Identify and prioritize the ways that personal money can be used (Save, Spend, Invest, Give). | CV12.2.4  CV12.5.1 |
| CVE.HOCA3.5 | Verify the hidden costs associated with purchasing vehicles, housing, day to day expenses. | CV12.2.1  CV12.2.2  CV12.4.3 |

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| CVE.HOCA1.6 | | Students will complete the certification work for BLS, Phlebotomy, EMR, EMT, and CNA. | Standard Reference |
|  | CVE.HOCA1.6.1 | Students will complete the appropriate certification skills and assessments for each of the aforementioned certification level coursework. | CV12.3.3 |

Appendix A

**Sweetwater County School District #1**

**Pacing Guide**

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| Grade/Course: |  | Teacher: |  |

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| --- | --- | --- | --- | --- | --- | --- |
| Code | **Benchmark** | **Time Frame** | **Assessment Period** | | | |
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Appendix B

**Instructional Planning Resource**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **School:** |  | | **Teacher:** |  | | | |
| **Subject/Course:** |  | | **Time required:** |  | | | |
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| **Benchmark:** | | | | | | | |
| **Learning Target:** | | | | | **Standard Reference:** | | |
| **Tech Standard Reference:** | | |
| **Cross-Curricular Standard Reference:** | | |
| Formative Assessment: Oral Written Product Performance | | | | | | | |
| **Criterion:** | | | | | | | |
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| **Context (Relevancy) :** | | | | | | | |
| **Teacher Methods** | | **Student Activities** | | | | **Resources** |
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| **Intervention** | **Enrichment** |
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