

LHHS Career & Technology Education



CERTIFICATIONS OFFERED

*OSHA Safety • American Welding Society • Microsoft Office
Restaurant Manager • Serv Safe • Pharmacy Tech • CNA*

ENDORSEMENTS & PROGRAMS OF STUDY 2017-2018

ANIMAL SCIENCE

Principles of Ag, Food, and Natural Resources
Small Animal Management
Professional Standards in Ag
Wildlife, Fisheries, & Ecology Management
Veterinary Medical Applications
Advanced Animal Science

WELDING

Principles of Ag, Food, and Natural Resources
Ag Mechanics & Metal Technologies
Equipment Design & Fabrication
Equipment Design & Fab Lab and Field Exp.

ARTS, AV/TECHNOLOGY & COMMUNICATIONS

Professional Communications

FASHION DESIGN

Principles of Arts, AV/Tech & Communication
Fashion Design I & II

CULINARY ARTS

Principles of Hospitality and Tourism
Introduction to Culinary Arts
Culinary Arts
Advanced Culinary Arts

BUSINESS MANAGEMENT & ADMINISTRATION

Principles of Business Marketing & Finance
Business Information Management I
Business Management
Advertising Sales/ Sports Entertainment Mktg.
Entrepreneurship
Money Matters
Accounting I & II

LAW & PUBLIC SERVICE

Principles of Law, Public Safety, Corrections & Security
Law Enforcement I
Political Science I & II

CAREER PREPARATION

Career Preparation I & II

HEALTH SCIENCE

Principles of Health Science
Medical Terminology
Anatomy & Physiology
Health Science Theory
Health Science Theory w/ Clinical
CNA or Pharm Tech

DIGITAL MEDIA

Principles of Arts, A/V Tech & Communication
Digital Media
Web Technologies
Video Game Design
Animation I & II

ENGINEERING

Principles of Applied Engineering
Robotics I (II-Future)
Engineering Design & Presentation
I & II (Future)



ENDORSEMENT: BUSINESS & INDUSTRY
Agriculture Science

<p>PRINCIPLES OF AGRICULTURE, FOOD, & NATURAL RESOURCES</p>	<p>Students will develop technical knowledge and skills related to plant and animal systems, food production, mechanical systems, entrepreneurship, leadership, and environmental sciences.</p>
<p>SMALL ANIMAL MANAGEMENT</p>	<p>An overview of the small animal industry, including pet and exotic animals. Topics include species, breeds, animal health, reproduction, genetics, facilities, equipment and marketing.</p>
<p>PROFESSIONAL STANDARDS IN AGRIBUSINESS</p>	<p>Professional Standards in Agribusiness primarily focuses on leadership, communication, employer-employee relations, and problem solving as they relate to agribusiness. To prepare for careers in agribusiness systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to leadership development and the workplace, and develop knowledge and skills regarding agricultural career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.</p>
<p>WILDLIFE, FISHERIES, & ECOLOGY MANAGEMENT</p>	<p>Designed to examine the important of wildlife, outdoor recreation, and ecological concepts with emphasis on wildlife and natural resources.</p>
<p>VET MEDICAL APPLICATIONS</p>	<p>Topics covered in this course include, but are not limited to, veterinary practices as they relate to both large and small animal species.</p>
<p>ADVANCED ANIMAL SCIENCE</p>	<p>This course examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences.</p>



ENDORSEMENT: BUSINESS & INDUSTRY
Welding

<p>PRINCIPLES OF AGRICULTURE, FOOD, & NATURAL RESOURCES</p>	<p>Students will develop technical knowledge and skills related to plant and animal systems, food production, mechanical systems, entrepreneurship, leadership, and environmental sciences.</p>
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<p>AG MECHANICS AND METAL TECHNOLOGIES</p>	<p>This course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.</p>
<p>AGRICULTURAL EQUIPMENT DESIGN & FABRICATION</p>	<p>Students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural equipment design and fabrication. To prepare for success, students reinforce, apply, and transfer their academic knowledge and technical skills in a variety of settings. INDUSTRY CERTIFICATION: OSHA</p>
<p>AGRICULTURAL EQUIPMENT DESIGN & FABRICATION WITH AG LAB & FIELD EXPERIENCE</p>	<p>In this course, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural equipment design and fabrication. To prepare for success, students reinforce, apply, and transfer their academic knowledge and technical skills in a variety of settings. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills and technologies in a variety of settings. Ag Lab and Field Experience is designed to provide students an opportunity to acquire knowledge and skills that meet entry requirements and industry expectations. INDUSTRY CERTIFICATION: American Welding Society / Welding Level I</p>
<div style="display: flex; align-items: center;">  <p>ENDORSEMENT: BUSINESS & INDUSTRY BUSINESS <i>Management & Administration</i></p> </div>	
<p>PRINCIPLES OF BUSINESS, MARKETING, & FINANCE</p>	<p>An introduction course where students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising and product pricing.</p>
<p>BUSINESS INFORMATION MANAGEMENT I</p>	<p>Prepares students to apply technology skills to personal and workplace business situations. Students develop mastery in using MS Office applications; recommended for preparing students for career and college entry. Students will be given the opportunity to take the Microsoft Office Specialist Certification tests. INDUSTRY CERTIFICATIONS: MOS Windows, Excel, Power Point</p>
<p>BUSINESS MANAGEMENT</p>	<p>Designed to familiarize students with the concepts related to business management as well as the functions of management, including planning, organizing, staffing, leading, and controlling. Students will also demonstrate interpersonal and project-management skills.</p>

MONEY MATTERS	Students will gain knowledge and skills necessary to set long-term financial goals through investment, tax planning, asset allocation, risk management, retirement planning, and estate planning.
ADVERTISING SALES	Designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media. The course explores the social, cultural, ethical, and legal issues of advertising, historical influences, strategies, media decision processes as well as integrated marketing communications, and careers in advertising and sales promotion. The course provides an overview of how communication tools can be used to reach target audiences and increase consumer knowledge.
SPORTS ENTERTAINMENT MARKETING	Students will gain a thorough understanding of the marketing concepts and theories that apply to sports and entertainment. The areas this course will cover include basic marketing concepts, publicity, sponsorship, endorsements, licensing, branding, event marketing, promotions, and sports and entertainment marketing strategies.
ACCOUNTING I	In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making.
ACCOUNTING II	In this course, students will continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical actors. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources.
 ENDORSEMENT: BUSINESS & INDUSTRY <i>Culinary Arts</i>	
PRINCIPLES OF HOSPITALITY AND TOURISM	Introduces students to the largest national employment base in the private sector; the hospitality and tourism industry which includes lodging, travel and tourism, recreation, amusements, attractions and resorts, restaurants and food and beverage service.

INTRODUCTION TO CULINARY ARTS	Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.
CULINARY ARTS	Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course. INDUSTRY CERTIFICATION: Serv Safe, OSHA
ADVANCED CULINARY ARTS	Will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards in order to prepare students for success in higher education, certifications, and/or immediate employment. INDUSTRY CERTIFICATION: NRA Restaurant Manager



ENDORSEMENT: BUSINESS & INDUSTRY
Digital Media

PRINCIPLES OF ARTS, AUDIO/VIDEO & TECH, & COMMUNICATIONS	Careers in the Arts, Audio/Video Technology, and Communications career cluster require, in addition to creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.
DIGITAL MEDIA	This course develops proficiencies in designing, importing, and manipulating advanced text, graphics, audio, and video used in presentation management, multimedia productions, publishing systems, and emerging technologies. Students will use Adobe Creative Suite including Photoshop.

WEB TECHNOLOGIES	<p>In this course, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.</p>
VIDEO GAME DESIGN	<p>Video Game Design will allow students to explore one of the largest industries in the global marketplace and the new emerging careers it provides in the field of technology. Students will learn gaming, computerized gaming, evolution of gaming, artistic aspects of perspective, design, animation, technical concepts of collision theory, and programming logic. Students will participate in a simulation of a real video game design team while developing technical proficiency in constructing an original game design.</p>
ANIMATION I	<p>Careers in animation span all aspects of motion graphics. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.</p>
ANIMATION II	<p>Careers in animation span all aspects of motion graphics. Within this context, in addition to continuing to develop technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increased understanding of the history and techniques of the animation industry.</p>
 <p>ENDORSEMENT: BUSINESS & INDUSTRY <i>Fashion Design</i></p>	
PRINCIPLES OF ARTS, AUDIO/VIDEO & TECH, & COMMUNICATION	<p>Careers in the Arts, Audio/Video Technology, and Communications career cluster require, in addition to creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.</p>

FASHION DESIGN I	Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of fashion and the textile and apparel industries.
FASHION DESIGN II	Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to continue developing an understanding of the fashion industry with an increased emphasis on design and construction.
 ENDORSEMENT: STEM (SCIENCE, TECHNOLOGY, ENGINEERING, & MATHEMATICS) <i>Engineering</i>	
PRINCIPLES OF APPLIED ENGINEERING	Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields of engineering and will be able to make informed career decisions. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.
ROBOTICS I	In Robotics I, students will transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.
ROBOTICS II (FUTURE)	In this course, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs.

ENGINEERING DESIGN & PRESENTATION I (FUTURE)	Engineering Design and Presentation I is a continuation of knowledge and skills learned in Principles of Applied Engineering. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs.
ENGINEERING DESIGN & PROBLEM SOLVING II (FUTURE)	Science aims to understand the natural world, while engineering seeks to shape this world to meet human needs and wants. Engineering design takes into consideration limiting factors or "design under constraint." Various engineering disciplines address a broad spectrum of design problems using specific concepts from the sciences and mathematics to derive a solution. The design process and problem solving are inherent to all engineering disciplines.



ENDORSEMENT: PUBLIC SERVICES
Health Science

PRINCIPLES OF HEALTH SCIENCE	The Principles of Health Science provides an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry. The student applies mathematics, science, English language arts, and social studies in health science.
MEDICAL TERMINOLOGY	This course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.
ANATOMY & PHYSIOLOGY	In Anatomy and Physiology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving.

HEALTH SCIENCE THEORY	The Health Science course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will have hands-on experiences for continued knowledge and skill development. *Satisfies HS Health with Endorsement INDUSTRY CERTIFICATION: CPR
HEALTH SCIENCE THEORY WITH HEALTH SCIENCE CLINICAL	This course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Health Science Clinical is designed to provide students an extended opportunity to acquire knowledge and skills that meet entry requirements and industry expectations. INDUSTRY CERTIFICATION: Certified Nurse Assistant or Pharmacy Technician
<div data-bbox="109 553 235 678" data-label="Image"> </div> <div data-bbox="260 574 800 643" data-label="Text"> <p>ENDORSEMENT: PUBLIC SERVICES <i>Law and Public Safety</i></p> </div>	
PRINCIPALS OF LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY	Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.
LAW ENFORCEMENT I	This course is an overview of the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.
POLITICAL SCIENCE I	This course will familiarize the student with political theory through the study of governments; public policies; and political processes, systems, and behavior.

POLITICAL SCIENCE II	This course uses a variety of learning methods and approaches to examine the processes, systems, and political dynamics of the United States and other nations. The dynamic component of this course includes current U.S. and world events.
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ENDORSEMENT: BUSINESS & INDUSTRY

Arts, Av/Technology & Communications

PROFESSIONAL COMMUNICATIONS	Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. INDUSTRY CERTIFICATION: Southwest Airlines Professional Communications
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<p>CAREER PREPARATION <i>Career Development</i></p>	
CAREER PREPARATION I	This course provides opportunities for students to participate in a learning experience that combines classroom instruction with paid business and industry employment experiences and supports strong partnerships among school, business and community stakeholders.
CAREER PREPARATION II	This course develops essential knowledge and skills through advanced classroom instruction with business and industry employment experiences. Career Preparation II maintains relevance and rigor, supports student attainment of academic standards, and effectively prepares students for college and career success.

LIBERTY HILL HIGH SCHOOL CAREER & TECHNOLOGY EDUCATION DEPARTMENT STAFF

CTE DIRECTOR

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