CTE

Career & Technical Education

CTE Course Catalog

Huntsville Independent School District

2017-2018

Mance Park Middle School
Huntsville High School

Table of Contents

MIDDLE SCHOOL COURSES

Emerging Academy of Agriculture Science

Introduction to Horticulture
Introduction to Horticulture is an introduction to the principles and practices involved in the development, production and use of horticultural crops. As well as, major aspects of forage crop production for example, cultural practices, sustainable agriculture use, seed production, harvest, and livestock utilization. The course especially emphasizes characteristics of important grasses and legumes.
Local Course #: M984
TEA #: 82600100
Course Code: INTROHORT
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Introduction to Animal Science
Introduction to Animal Science is an Introduction to the animal and livestock industries, production systems, and market. Includes animal breeds, breeding and selection, anatomy, physiology, nutrition, growth, environment, health and sanitation, products and marketing, and animal behavior.
Local Course #: M985
TEA #: 83600100
Course Code: INTROANIM
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Emerging Academy of Science, Technology, Engineering, Arts, and Mathematics

Robotics I
Students trace the history and development of automation and robotics. They learn about structures, energy transfer, machine automation, and computer control systems. Students acquire knowledge and skills in engineering problem solving and explore requirements for careers in Robotics. They will learn about structures, energy transfer, machine automation, and computer control systems. Utilizing an engineering design approach, students will learn sketching techniques, and use descriptive geometry as a component of design, measurement, and create models and documentation to solve problems.
Local Course #: M811
TEA #: 82600200
Course Code: INTROROBO1
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Robotics II
Students examine the advancements in Robotics. Students acquire a deeper knowledge and skills in engineering problem solving and explore requirements for a careers . Students learn advanced programming and designing skills. Students will continue to use an engineering approach component of design, measurement, and create computerized 3D models and documentation to solve problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.
Local Course #: M812
TEA #: 83600100
Course Code: INTROROBO2
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Digital Media I
Through the study of digital and interactive media, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students earn enhanced experiences in reading, writing, computing, and communication.
Local Course #: M896
TEA #: 82600300
Course Code: DIGIMEDIA1
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Digital Media II
Students use the knowledge and skills earned in Digital Media I and apply it to multimedia projects including the school yearbook, newspaper, and audio/video announcements. This course is intended to complement journalism and broadcast journalism courses.
Local Course #: M897
TEA #:83600300
Course Code: DIGIMEDIA2
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Business Applications I
This course introduces the use of the computer in a business setting. Office applications, the use of the Internet, and searching online database are introduced and discussed. Applications included word processing, spreadsheet, database and graphics programs. Students will learn to use the applications to analyze and solve basic business problems. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and post-secondary education. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.
Local Course #: M876
TEA #: 82600400
Course Code: BUSAPPS1
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Business Applications II
Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheet using charts and graphs, and make an electronic presentation using appropriate multimedia software. Students will identify and practice effective interpersonal and team-building skills involving situations with co-workers, supervisors, and clients.
Local Course #: M877
TEA #: 83600400
Course Code: BUSAPPS2
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Emerging Academy of Hospitality & Tourism

Lifetime Nutrition and Wellness
Nutrition and wellness provides an overview of general nutrition principles and food safety and sanitation. This course is intended to help students make informed choices that promote good health; as well as, creating an interest in careers related to hospitality and tourism, the culinary arts, and restaurant and food and beverage services.
Local Course #: M674
TEA #: 82600500
Course Code: LIFEWELLNUT
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Restaurant Science
Food Science will go into in-depth study of the microbiology of food, food chemistry and the science of nutrition. This is a complementary course to the Science focus on organisms and environments. Students will identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur; distinguish between physical and chemical changes in matter in the digestive system, and differentiate between elements and compounds on the most basic level.
Local Course #: M675
TEA #: 83600500

Course Code: RESTSCI
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Emerging Academy of Health & Human Science

Introduction to Health & Human Science
Introduction to Health Science provides an overview of health support services and healthcare industries. This course is intended to be a complementary course to Life Sciences studied at the same grade level. Students will study cells, organ systems, diffusion, respiration, reproduction, DNA, traits as related to humans and animals.
Local Course #: M676
TEA #: 82600600
Course Code: INTROHHS
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

Human Body Systems
Human Body Systems provides an overview of the major body systems that helps that allows humans to function. This course goes into in-depth study of the skeletal system, muscles and skin, cardiovascular system, respiratory system, digestive and excretory system, nervous system, endocrine system. This course also evaluates infectious and noninfectious diseases and how each body system defends against those diseases.
Local Course #: M677
TEA #: 83600600
Course Code: 83600600
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

College & Career Readiness

Investigating Careers
Students will use decision-making and problem-solving skills for college and career planning. Students will explore valid, reliable educational and career information to learn more about themselves and their interests and abilities. Students integrate skills from academic subjects, information technology, and interpersonal communication to make informed decisions. This course is designed to guide students through the process of investigation and in the development of a college and career achievement plan. Students will use interest inventory software or other tools to explore areas of personal interest. Students will use this information to explore educational requirements for a variety of chosen career paths. Districts have the flexibility of offering career exploration knowledge and skills in a variety of instructional arrangements.
Local Course #: M672
TEA #: 12700410
Course Code: INVESTCAREER
Grade(s): 7
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

College & Career Readiness
The goal of this course is to create a culture of high expectation and continuous improvement that provides middle school students with a foundation for success in high school, future studies, and careers. Students explore college and career planning within specific career cluster(s). The students research labor market information, learn job-seeking skills, and create documents required for employment. Students use self-knowledge to explore and set realistic goals. Districts have the flexibility of offering career exploration knowledge and skills in a variety of instructional arrangements.
Local Course #: M673
TEA #: 12700300
Course Code: COLLEGECAREERERAD
Grade(s): 8
Prerequisite(s): None
MS Credit(s): 1
HS Credit(s): 0

HIGH SCHOOL COURSES

Huntsville High School ACADEMY of AGRICULTURE & MANUFACTURING

ANIMAL SCIENCE

Equine Science (grades 11-12) .5 credit

Like horses? Learn about the basic principles of care and training along with selectin, nutrition, reproduction, health, and management of horses.

Livestock Production (grades 9-12) 1 credit

Work with animals and learn technical skills relating to animal systems, anatomy and physiology, nutrition, reproduction, genetics, pests and diseases, and business management of livestock.

Small Animal Management (grades 9-10) .5 credit

Like pets? If so, this class is for you! Learn about selection, ownership, nutrition, re- production, health and management of a variety of small animals. You will get hands- on experience in working with a variety of small animals such as dogs, cats, birds, hamsters, small mammals and amphibians.

Practicum in Agriculture, Food, and Natural Resources (grades 12) 2 credits

Would you like a job or internship with a local agricultural business? If so, this course is for you! Apply your agriculture skills through internships, job shadowing and/or employment arrangements with local floral design businesses

Principles of Agriculture, Food and Natural Resources (grades 9-10) 1 credit

Students gain agricultural knowledge as they explore areas of animal, plant, food, agribusiness, and environmental sciences. They will develop awareness and under- standing of career opportunities, personal development and leadership.

Wildlife, Fisheries and Ecology Management (grades 9-10) 1 credit

Like the outdoors? Are you interested in hunting and fishing? This course provides the opportunity to learn about boater education, angler education, and hunter education through the Texas Parks and Wildlife.

HORTICULTURE

Floral Design (grades 11-12) 1 Fine Art credit

Want to learn how to make floral arrangements? Learn about flower classification and identification, geometric and specialized floral designs, identification and classification of plants, and the use of artistic elements in floral designs.

Greenhouse Operations and Production (grades 10-12) 1 credit

Students gain plant and nursery management as they explore plants, soil types while developing awareness and understanding of career opportunities and personal development in green house operations.

Horticulture Science (grades 9-12) 1 credit

Take this course if you are interested in learning about ornamental trees and shrubs, plant nutrition, vegetable gardening, home fruit production and garden flowers. Don't be afraid to get your hands dirty!

Landscape Design (grades 9-12) .5 credit

Learn the technical skills involved in the design, construction, and maintenance of planted areas, the beautification of homes grounds and other areas of human habitation and recreation areas.

Practicum in Agriculture, Food, and Natural Resources (grades 12) 2 credits

Would you like a job or internship with a local floral design business? If so, this course is for you! Apply your agriculture skills through internships, job shadowing and/or employment arrangements with local floral design businesses

Principles of Agriculture, Food and Natural Resources (grades 9-10) 1 credit

Students gain agricultural knowledge as they explore areas of animal, plant, food, agribusiness, and environmental sciences. They will develop awareness and under- standing of career opportunities, personal development and leadership.

Turf Management (grades 9-10) .5 credit

This course is designed to develop an understanding of turf grass management techniques and practices. Residential, commercial and athletic settings are included.

Huntsville High School ACADEMY of AGRICULTURE & MANUFACTURING

WELDING

Agricultural Mechanics & Metal Technologies (grades 10-12) 1 credit

If you like to work with your hands, this course is for you! Learn how to use both woodworking and metal working tools and equipment. Learn about plumbing, electrical wiring, concrete construction, carpentry, fencing methods, and welding.

Principles of Agriculture, Food and Natural Resources (grades 9-10) 1 credit

Students gain agricultural knowledge as they explore areas of animal, plant, food, agribusiness, and environmental sciences. They will develop awareness and under- standing of career opportunities, personal development and leadership.

Welding I (grades 11-12) 2 credits

Students will increase their knowledge of welding procedures and skill in project construction. Topics include ox fuel cutting/heating/welding, Shielded Metal Arc Welding, Gas Metal Arc Welding, Flux-cored Arc Welding, plasma arc cutting, safety, and metal fabrication.

Welding II (grades 11-12) 2 credits

After students complete Welding I, students advance their knowledge of welding procedures and skill in project construction to hands-on projects. Topics include ox fuel cutting/heating/welding, Shielded Metal Arc Welding, Gas Metal Arc Welding, Flux-cored Arc Welding, plasma arc cutting, safety, and metal fabrication.

Huntsville High School ACADEMY of ARTS, MEDIA & ENTERTAINMENT

AUDIO & VIDEO PRODUCTION

Audio/Video Production I (grades 10-12) 1 credit

Students will develop digital audio/video production skills using a variety of applications and hardware as they participate in pre-production, production, and post-production stages of video creation.

Audio/Video Production II & Lab (grades 10-12) 2 credits

Students will learn advanced video concepts while working on a variety of projects. In addition to developing advanced knowledge and skills, students are expected to develop an advanced understanding of the industry.

Practicum of Arts, Audio/Video Technology & Comm. (grades 11-12) 2 credits

Students will be expected to develop an increasing understanding of the industry with a focus on apply pre-production, production, and post-production audio and video activities in a studio environment. Instruction will be delivered through lab-based classroom experience and career preparation opportunities.

Principles of Arts, Audio/Video Technology & Comm. (grades 9-10) 1 credit

Students acquire creative aptitudes in computer technology applications as well as develop knowledge and skills to manage opportunities in arts, audio/video production, video game design, fashion design, and multimedia communications.

Huntsville High School ACADEMY of ARTS, MEDIA & ENTERTAINMENT

VIDEO GAME DESIGN AND ANIMATION

Animation I (grades 10-12) 1 credit

The student will use Adobe Flash to create animations and games, then place their work onto a website. They will also create animations for cell phones, industry control panels, company logos, advertising, and local business applications.

Animation II (grades 11-12) 1 credit

Students will use software on a multi-process computer to model light, surface texture, animate, shoot and render characters and projects as directed by the instructor.

Principles of Arts, Audio/Video Technology & Comm. (grades 9-10) 1 credit

Students acquire creative aptitudes in computer technology applications as well as develop knowledge and skills to manage opportunities in arts, audio/video production, video game design, fashion design, and multimedia communications.

Video Game Design I (grades 10-12) 1 credit

Students will design, program, and create functional video games while learning the theory of video game design that aligns with International Game Developers Association.

Video Game Design II (grades 10-12) 1 credit

Students will enhance their design and programming activities to a variety of game developing platforms including JavaScript, JS Arrays, Functions and Conditions, Events, and HTML.

Video Game Design III (grades 11-12) 1 credit

Students will learn video game design and creating apps for mobile devices.

GRAPHIC DESIGN AND ANIMATION

Animation I (grades 10-12) 1 credit

The student will use Adobe Flash to create animations and games, then place their work onto a website. They will also create animations for cell phones, industry control panels, company logos, advertising, and local business applications.

Graphic Design and Illustration I (grades 10-12) 1 credit

Graphic Design and Illustration provides students with entry level skills using current and evolving technologies include Adobe solutions.

Graphic Design and Illustration II (grades 10-12) 1 credit

Graphic Design and Illustration II provides students with advanced skills required in the graphic design field while applying them to real-world freelance graphic jobs.

Practicum in Graphic Design & Illustration (grades 11-12) 2 credits

Students will be expected to develop an advanced technical understanding of the business aspects of graphic design, with emphasis on promoting and retailing. Instruction is delivered through lab-based classroom experiences or career preparation opportunities.

Principles of Arts, Audio/Video Technology & Comm. (grades 9-10) 1 credit

Students acquire creative aptitudes in computer technology applications as well as develop knowledge and skills to manage opportunities in arts, audio/video production, video game design, fashion design, and multimedia communications.

Huntsville High School ACADEMY of ARTS, MEDIA & ENTERTAINMENT

FASHION DESIGN

Fashion Design I (grades 10-12) 1 credit

Students will develop an understanding of fashion and the textile and apparel industries.

Fashion Design II & Lab (grades 10-12) 2 credits

Students will develop an advanced understanding fashion, with emphasis on design and production.

Practicum in Fashion Design (grades 11-12) 2 credits

Students will be expected to develop an advanced technical understanding of the business aspects of fashion, with emphasis on promoting and retailing. Instruction is delivered through lab-based classroom experiences or career preparation opportunities.

Principles of Arts, Audio/Video Technology & Comm. (grades 9-10) 1 credit

Students acquire creative aptitudes in computer technology applications as well as develop knowledge and skills to manage opportunities in arts, audio/video production, video game design, fashion design, and multimedia communications.

Huntsville High School ACADEMY of BUSINESS, MARKETING & FINANCE

ACCOUNTING

Accounting I (grades 10-12) 1 credit

Do you like working with numbers? Students will explore the field of accounting, as well as the economic, financial, technological, international, social, and ethical issues related to the maintenance of financial records.

Accounting II (grades 10-12) 1 credit

Students will continue to explore the field of accounting. Studies will include industry standards and impact of issues in the field. Students will interpret managerial and cost accounting information.

Business Information Management I (grades 10-12) 1 credit

Are you prepared for college? Learn word processing, spreadsheet, presentation, and database skills use Microsoft Office. Students will be given the opportunity to earn certification.

Business Information Management II (grades 10-12) 1 credit

Get ready to use those skills learned in BIM I. Students use word processing, spreadsheets, presentations skills in real-world opportunities. Students will gain experience in business and technical writing.

Principles of Business, Marketing, and Finance (grades 9-10) 1 credit

Students will gain knowledge of the economic concepts involving the private enterprise, marketing of goods and services, advertising, and finances of business. Students will compete in a national stock market game and participate in a virtual business simulation.

Securities and Investments (grades 9-11) 1 credit

As close to Wall Street as you can get in Huntsville! This class focuses on the investment and security side of finance. Students will learn about regulations, investing, and to run a financially secure business. Students will also learn how to manage portfolios that include stocks.

Huntsville High School ACADEMY of BUSINESS, MARKETING & FINANCE

BUSINESS MANAGEMENT

Business Information Management I (grades 10-12) 1 credit

Are you prepared for college? Learn word processing, spreadsheet, presentation, and database skills use Microsoft Office. Students will be given the opportunity to earn certification.

Business Information Management II (grades 10-12) 1 credit

Get ready to use those skills learned in BIM I. Students use word processing, spreadsheets, presentations skills in real-world opportunities. Students will gain experience in business and technical writing.

Human Resources Management (grades 9-11) .5 credit

Students will analyze the primary functions of human resources management, which include recruitment, selection, retention, training, development, and compensation. Topics will include a foundation in the economic, financial, technological, international, social, and ethical aspects of human resource management.

Practicum in Business Management (grades 11-12) 2 credits

Students will be expected to develop an advanced technical understanding of the business aspects of business, with emphasis on business administration. Instruction is delivered through lab-based classroom experiences or career preparation opportunities.

Principles of Business, Marketing, and Finance (grades 9-10) 1 credit

Students will gain knowledge of the economic concepts involving the private enterprise, marketing of goods and services, advertising, and finances of business. Students will compete in a national stock market game and participate in a virtual business simulation.

Virtual Business (grades 10-12) .5 credit

Do you want to own a business? Students will research the components of starting a virtual business. Real-world business experience is simulated using a team project.

MARKETING

Advertising (grades 10-12) .5 credit

Advertising is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media.

Entrepreneurship (grades 9-11) 1 credit

Students will gain the knowledge and skills needed to become an entrepreneur. Students will learn the principles necessary to begin and operate a business. The primary focus of the course is to help students understand the process of analyzing a business opportunity, preparing a business plan, determining feasibility of an idea using research, and developing a plan to organize and promote the business and its products and services.

Fashion Marketing (grades 10-12) 0.5 credit

Fashion Marketing is designed to provide students with knowledge of the various business functions in the fashion industry. Students in Fashion Marketing will gain a working knowledge of promotion, textiles, merchandising, mathematics, selling, visual merchandising, and career opportunities.

Practicum in Marketing (grades 11-12) 2 credits

Practicum in Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students will gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling skills.

Principles of Business, Marketing, and Finance (grades 9-10) 1 credit

Students will gain knowledge of the economic concepts involving the private enterprise, marketing of goods and services, advertising, and finances of business. Students will compete in a national stock market game and participate in a virtual business simulation.

Social Media Marketing (grades 10-12) .5 credit

Social Media Marketing is designed to look at the rise of social media and how marketers are integrating social media tools in their overall marketing strategy. The course will investigate how the marketing community measures success in the new world of social media.

Sports and Entertainment Marketing (grades 10-12) .5 credit

This course provides students with a thorough understanding of marketing concepts and theories in sports and sporting events and entertainment. The course covers basic marketing, sponsorships, event marketing, promotions, and marketing plans.

CONSTRUCTION TECHNOLOGY

Construction Technology I (grades 10-12) 2 credit

Students get an opportunity to learn hands-on with occupational skills in carpentry, electrical wiring, masonry, and/or plumbing.

Construction Technology II (grades 10-12) 2 credit

Students get an opportunity to learn hands-on with occupational skills in carpentry, electrical wiring, masonry, and/or plumbing. Construction Technology II is a continuation of Construction I and provides advanced instruction and practical applications in each area.

Practicum in Construction Technology (grades 11-12) 2 credits

Students will increase their knowledge of construction procedures and skill in project construction. Students use skills learned Construction Technology I and Construction Technology II and apply it to off-site or on-campus construction projects.

Principles of Construction (grades 9-10) 1 credit

Students gain an overview of the various fields of architecture, interior design, and construction science and construction technology. Students use training models to identify career goals in trade and industry.

Huntsville High School ACADEMY of CRIMINAL JUSTICE

LAW ENFORCEMENT

Court Systems & Practices (grades 10-12) 1 credit

This course provides the knowledge and skills necessary to prepare for a career in law enforcement. This course includes the ethical and legal responsibilities, operation of police and emergency telecommunication equipment, and courtroom testimony.

Law Enforcement I (grades 10-12) 1 credit

This course is designed as a study of the history and philosophy of criminal justice and its ethical considerations. Crime is defined. Its nature and impact are explored. Instruction includes an overview of the criminal justice system, law enforcement and the court systems, a study of prosecution and defense, trial processes, and corrections and penal systems. The student will learn basic law enforcement techniques such as handcuffing procedures, traffic stops, and report writing. Student's grades will be a reflection of mastery of information through lecture and hands-on applications.

Law Enforcement II (grades 10-12) 1 credit

This course provides the knowledge and skills necessary to prepare for a career in law enforcement. This course includes the ethical and legal responsibilities, operation of police and emergency telecommunication equipment, and courtroom testimony.

Practicum in Law, Public Safety, Corrections & Security (grades 11-12) 2 credits

This laboratory course is intended to provide the student with a greater understanding of the field of criminology and how it relates to the study of crime and to the nation's criminal justice system. Students will experience internship training by rotating through a variety of law enforcement/criminal justice agencies.

Principles of Law, Public Safety, Corrections & Security (grades 9-10) 1 credit

This course is a study of the nature of criminal law, its philosophical and historical development with major definitions and concepts. Instruction will include the classifications of crimes with the elements of crimes and penalties using Texas statutes as illustrations.

Huntsville High School ACADEMY of Education & Training

TEACHING AND TRAINING

Human Growth and Development (grades 10-12) 1 credit

Human Growth and Development is an examination of human development across the lifespan with emphasis on research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.

Instruction Practices (grades 11-12) 2 credits

This field-based internship provides students with background knowledge of child and adolescent development principles as well as principles of effective teaching practices. Students work under the joint direction and supervision of both a family and consumer sciences teacher and exemplary educators in direct instructional roles with elementary or middle school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers.

Practicum in Education & Training (grades 11-12) 2 credits

Continuation of school teaching internship.

Principles of Education & Training (grades 9-10) 1 credit

Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self-knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

Huntsville High School ACADEMY of Engineering

ROBOTICS

Engineering Design and Presentation I (grades 10-12) 1 credit

Students enrolled in this course will demonstrate knowledge and skills of the process of design 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.

Practicum in STEM (grades 11-12) 2 credits

Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Principles of Applied Engineering (grades 9-10) 1 credit

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.

Robotics I (grades 10-12) 1 credit

Students enrolled in this course will demonstrate knowledge and skills necessary for the robotic and automation industry. Through implementation of the design process, students will transfer advanced academic skills to component designs in a project-based environment. Students will build prototypes or use simulation software to test their designs. Additionally, students explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Robotics II (grades 11-12) 1 credits

In Robotics II, 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.

Huntsville High School ACADEMY of Health Professions

CERTIFIED NURSE ASSISTANT

Medical Terminology (grades 10-12) 1 credit

The Medical Terminology 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.

Practicum in Health Science I - CNA (grades 11-12) 2 credits

Students taking this course are given the opportunity to complete the requirements for and take the Certified Nurse Assistant (CNA) certification examination. This course is designed to develop health-care specific knowledge and skills in effective communications, ethical and legal responsibilities, client care, safety, first aid, and CPR. This course prepares the student for the transition to clinical or work based learning experiences in health care. Fees required for scrubs ($75.00), State Exam ($95.00).

Practicum in Health Science II – Independent Study (grades 11-12) 2 credits

This course is designed to provide students with the knowledge and skills necessary to pass the national pharmacy tech licensing exam. Students will have hands-on experiences for continued knowledge and skill development. The course is taught by different methodologies such as pre-employment laboratory, clinical rotation, and unpaid work based learning.

Principles of Health Science (grades 9-10) 1 credit

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

Huntsville High School ACADEMY of Health Professions

PHARMACY TECHNICIAN

Medical Terminology (grades 10-12) 1 credit

The Medical Terminology 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.

Practicum in Health Science I - CNA (grades 11-12) 2 credits

Students taking this course are given the opportunity to complete the requirements for and take the Certified Nurse Assistant (CNA) certification examination. This course is designed to develop health-care specific knowledge and skills in effective communications, ethical and legal responsibilities, client care, safety, first aid, and CPR. This course prepares the student for the transition to clinical or work based learning experiences in health care. Fees required for scrubs ($75.00), State Exam ($95.00).

Practicum in Health Science II – Pharmacy Tech (grades 11-12) 2 credits

This course is designed to provide students with the knowledge and skills necessary to pass the national pharmacy tech licensing exam. Students will have hands-on experiences for continued knowledge and skill development. The course is taught by different methodologies such as pre-employment laboratory, clinical rotation, and unpaid work based learning..

Principles of Health Science (grades 9-10) 1 credit

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

Huntsville High School ACADEMY of Hospitality & Tourism

CULINARY ARTS

Advanced Culinary Arts (grades 11-12) 2 credits

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.

Culinary Arts (grades 10-12) 2 credit

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking including knife skills. Includes front and back of the house skills and techniques. Focus on safety, sanitation and teamwork.

Introduction to Culinary Arts (grades 10-12) 1 credits

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 skills. 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.

Principles of Hospitality and Tourism (grades 9-10) 1 credit

Student will use knowledge and skills that meet industry standards in the hospitality and tourism industry which encompasses lodging; travel and tourism; recreation, amusements, attractions, and resorts; and restaurants and food and beverage service. The hospitality and tourism industry maintains the largest national employment base in the private sector. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Huntsville High School ACADEMY of Human Services

CHILD GUIDANCE

Child Development (grades 10-12) 1 credits

Child Development is a technical laboratory course that addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children.

Child Guidance (grades 11-12) 2 credits

Child Guidance is a technical laboratory course that addresses the knowledge and skills related to child growth and guidance equipping students to develop positive relationships with children and effective caregiver skills. Students use these skills to promote the well-being and healthy development of children, strengthen a culturally diverse society, and pursue careers related to the care, guidance, and education of children, including those with special needs. Instruction may be delivered through school-based laboratory training or through work-based delivery arrangements such as cooperative education, mentoring, and job shadowing.

Practicum in Human Services (grades 11-12) 2 credits

Practicum in Human Services provides background knowledge and occupation-specific training that focuses on the development of consumer services, early childhood development and services, counseling and mental health services, and family and community-services careers. Content for Practicum in Human Services is designed to meet the occupational preparation needs and interests of students and should be based upon the knowledge and skills selected from two or more courses in a coherent sequence in the human services cluster.

Principles of Human Services (grades 9-10) 1 credit

This laboratory course will enable students to investigate careers in the human services career cluster, including counseling and mental health, early childhood development, family and community, and personal care services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

COSMETOLOGY

Cosmetology I and Lab (grades 11-12) 3 credits

This course is a planned 1000 clock hour, two-year sequence of classroom and laboratory instruction, 500 laboratory clock hours plus 500 academic hours awarded upon the completion of the 1000 laboratory hours; which include required afterschool, weekend, and summer clock hours. Instruction is designed to provide job-specific training for entry-level employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the Texas Department of Licensing and Regulation requirements for licensure upon passing the state examination; which will be taken after the completion of Cosmetology ll. Analysis of career opportunities, requirements, expectations, and development of workplace skills are included.

Cosmetology II and Lab (grades 11-12) 3 credits

This course is a continuation of Cosmetology I. This course is designed to provide advanced training for employment in cosmetology careers. Students apply, combine, and justify knowledge and skills to a variety of settings and problems. The completion of the two-year program meets the Texas Department of Licensing and Regulations Commission requirements for licensure upon passing state exam.

Introduction to Cosmetology (grades 10-11) 1 credits

In Introduction to Cosmetology, students explore careers in the cosmetology industry. To prepare for success, students must have academic and technical knowledge and skills relative to the industry. Students may begin to earn hours toward state licensing requirements.

Principles of Human Services (grades 9-10) 1 credit

This laboratory course will enable students to investigate careers in the human services career cluster, including counseling and mental health, early childhood development, family and community, and personal care services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

Huntsville High School ACADEMY of Information Technology

COMPUTER MAINTENANCE

Computer Maintenance (grades 10-11) 1 credits

First-year instruction includes electricity/electronic theory, computer systems, data-communications, digital electronics, installations, inspections, adjustments, and repair and maintenance. This course prepares the students for the Comp TIA A+ Certification Exam.

Computer Technician Practicum (grades 11-12) 2 credit

Students will be required to pay a $150.00 fee for the Comp TIA A+ Exam. Students gain knowledge and skills in the area of computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to the installation, diagnosis, service, and repair of computer-based technology systems. Students will reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Proper use of analytical skills and application of information technology concepts and standards are essential to prepare students for success in a technology-driven society.

Practicum in Information Technology (grades 11-12) 2 credits

In the Practicum in Information Technology, students will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society.

Principles of Information Technology (grades 9-10) 1 credit

This course will provide an overview of: computer hardware, peripherals, networking, Internet, wireless, and PC security. This course prepares students for the computer maintenance course.

Huntsville High School ACADEMY of Transportation

AUTOMOTIVE TECHNICIAN

Automotive Basics (grades 9-10) 1 credit

Automotive Basics includes knowledge of the basic major automotive systems and the theory and principles of the components that make up each system and how to diagnosing and serving these systems. Automotive Basics includes applicable safety and environmental rules and regulations. In Automotive Basics, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Automotive Tech I: Maintenance and Light Repair (grades 10-12) 2 credit

Automotive Technology I : Maintenance and Light Repair includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course [Automotive Technology I] includes applicable safety and environmental rules and regulations. In Automotive Technology I : Maintenance and Light Repair, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Automotive Tech II: Automotive Service (grades 10-12) 2 credits

Automotive Technology II : Automotive Service includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Practicum in Transportation Systems (grades 11-12) 2 credit

Practicum in Transportation Systems is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or worked based.