
Business and Industry Endorsement



ADVANCED ANIMAL SCIENCE

(State Approved Advanced Science Course)

Meet a class that will take you farther. This course is designed for students who want to deepen their knowledge of the livestock industry. In depth studies include animal industry, anatomy & physiology, and livestock husbandry. Offered spring semester only.

Prerequisite: Successful completion of Small Animal Management and Veterinary Medical Applications.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 1 / 13000700 / CTAG15

ADVANCED PLANT AND SOIL SCIENCE

(State Approved Advanced Science Course)

Get out of the classroom and take a class designed around greenhouse management from germinating seedling to marketing a finished product. Learn the techniques involved with propagation, fertilization, and maintenance. Investigations, laboratory practices, and field exercises will be used to develop an understanding of current plant and soil science.

Prerequisite: Successful completion of Horticulture Science.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 1 / 13002100 / CTAG29

AGRICULTURAL MECHANICS

Ag Mech takes you through an overview of the skills you would need to maintain a farm or homestead. This hands-on class starts off with safety and exploration of the agricultural job market, then goes right into use of power tools, electrical, plumbing, concrete work, carpentry, fencing and working with metals including welding. Once you successfully complete the class you can tackle many repairs on the farm or at home.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 1 / 13002200 / CTAG30

EQUINE SCIENCE

If you like horses, this will be your favorite your class. Students will be exposed to equine science and technology principles that include genetics, anatomy, physiology/nutrition, diseases, pests, and management practices. Topics also include an introduction to the equine industry, various breeds, conformation, selection, care and management, soundness, health, feeding, farrier observation, restraints, general vaccinations and overall managerial duties.

Recommended Prerequisite: Principles of AFNR

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 1 / 13000500 / CTAG13

FLORAL DESIGN

(State Approved as Fine Arts Credit)

Let loose your creative side as this hands-on course takes you through step-by-step instructions of arranging flowers and interior plant designs. Leave this class with the skill to arrange flowers for yourself or for employers. Look forward to designing your projects and taking them home to share with others.

Recommended Prerequisite: Principles of AFNR

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 1 / 13001800 / CTAG26

Technical Certification: Texas Florist High School Floral Certification

HORTICULTURE SCIENCE

Get your hands dirty and develop your green thumb by way of an introduction to horticulture science through hands-on activities, projects, and problems. Learn plant growth and development, nutrition, media selection, plant identification & pest management. Your work will involve the study of the principles of plant anatomy and physiology, taxonomy, and the fundamentals of production and harvesting.

Recommended Prerequisite: Principles of AFNR

Schools: Guthrie

Grades: 10 -12

Credit/Course ID: 1 / 13002000 / CTAG28

LIVESTOCK PRODUCTION

Gain insight and information about the animals that feed our world. This course will provide you an introduction to livestock production including anatomy, nutrition, health care and information specific to the species. If you are interested in livestock judging this is for you.

Recommended Prerequisite: Principles of AFNR

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 1 / 13000300 / CTAG11

OIL & GAS PRODUCTION 1

Interested in the Oil and Gas industry then this is the class for you! Students enrolled in this course will be able to identify specific career opportunities in the oil and gas industry, and the skills, abilities, tools, certification, and safety measures associated with each career. Students will also be provided with an understanding of components, systems, equipment, production, and safety regulations associated with oil and gas well production and maintenance.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 1 / N1300254 / CTAG50

OIL & GAS PRODUCTION 2

Oil and Gas Production 2 students will deepen their knowledge gained in Oil and Production 1. Students enrolled in this course will be able to identify and determine potential career opportunities in the oil and gas industry, he/ she are interested in potentially pursuing. They will continue to expand knowledge and the skills, abilities, tools, certification, and safety measures associated with each career. Students will also be provided with an understanding of components, systems, equipment, production, and safety regulations associated with oil and gas well production and maintenance.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 1 / N1300255 / CTAG51

PRINCIPLES OF AGRICULTURE, FOOD & NATURAL RESOURCES (AFNR)

Don't think agriculture affects you? Get ready for this eye opening class! Learn how food, clothing, shelter, transportation, medicine and modern-day conveniences rely on agricultural products. Students will also explore how agriculture affects government & international trade.

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 1 / 13000200 / CTAG10

SMALL ANIMAL MANAGEMENT

Learn what a valuable role dogs, cats, hamsters, birds, and reptiles play in our society. Develop knowledge and skills pertaining to the selection, nutrition, grooming, reproduction, health, and management of small animals. Live animals are used in classroom demonstrations.

Recommended Prerequisite: Principles of AFNR

Schools: Guthrie

Grades: 9 -12

Credit/Course ID: 1 / 13000400 / CTAG12

VETERINARY MEDICAL APPLICATIONS

Explore the basics of the veterinary medical profession and know what goes on behind the scenes of a vet clinic. You will gain skills that technicians need to know, like handling a wide variety of animals, assisting clients, office management and legal issues. Learn common ailments and treatments as well as emergency care techniques.

Classroom demonstrations will use live animals.

Prerequisite: Successful completion of Livestock Production or Small Animal Management

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 1 / 13000600 / CTAG14

Technical Certification: Certified Vet Assistant Level 1 (12th grade)

WILDLIFE, FISHERIES, & ECOLOGY MANAGEMENT

This course is designed for students who love the great outdoors. Learn how to identify, manage and conserve wildlife and their ecology. Students can acquire state certification in Hunter's Education.

Recommended Prerequisite: Principles of Agriculture, Food and Natural Resources

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 1 / 13001500 / CTAG23

Technical Certification: Texas Hunters Education Certification, Texas Boaters Education Certification



ARCHITECTURE AND CONSTRUCTION CLUSTER

ARCHITECTURAL DESIGN

Want to design your future as an architect? Start your sophomore year at the Guthrie Center for potentially three years of architectural study. Projects are designed to build your portfolio and resume so that you are the best candidate for the college program of your choice. In your first year of study, you will learn networking techniques, art practices, technical drafting and beginning computer aided drafting skills. You will learn the lettering styles used by architects, how to do an "as-built", how to read a blueprint, how to edit a commercial tenant improvement

set of documents and compete in a student design competition. Start building your dream today!

Prerequisite: Successful completion/concurrent enrollment in Geometry.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13004600 / CAC12A & CAC12B

ARCHITECTURAL DESIGN 2 | ADVANCED

Carry on the dream by taking a second year of architectural study. Building upon knowledge and skills successfully mastered in Architectural Design, you will learn about residential design. You will study building codes, interior design, room relationships and sizes, exterior design, conservation and environmental design and framing methods. Projects added to your portfolio will include designing a kitchen, preparing presentation materials using advanced computer aided drawing skills, specifying appliances and materials, and building a scaled model and competing in a student design competition. Continue to construct your future today.

Prerequisite: Successful completion of Architectural Design with teacher recommendation

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13004700 / CAC22A & CAC22B

Technical Certification: AUTODESK Certified User: AutoCad

ARCHITECTURAL DESIGN 3 | PRACTICUM

Planning for achievement towards a degree in architecture involves a developed portfolio, skilled instruction, dedication and hard work. This year binds together the previous two years of instruction. Students will receive instruction about safety, career opportunities, architectural soft skills, work ethics, student design competition, and college architectural design study. In addition, students will have the talent to create a senior design project to add to their developing portfolio. The foundation is laid for success in an exciting career in Architecture.

Prerequisite: Architectural Design 2 with teacher recommendation

Schools: Guthrie

Grades: 12

Credit/Course ID: 2 / 13004800 / CAC82A & CAC82B

Technical Certification: AUTODESK Certified User: REVIT

CONSTRUCTION TECHNOLOGY

Construction is one of the fastest growing fields in Houston. Come be a part of it! Discover what is needed to enter the workforce as a carpenter, building maintenance supervisor or prepare for a post secondary degree in construction management, architecture or engineering. Through hands on activities, skills in safety tool usage, building materials, codes and framing are experienced.

Schools: SWHS, NHS

Grades: 10-12

Credit/Course ID: 1 / 13005100 / CAC14A & CAC14B

CONSTRUCTION TECHNOLOGY 2 | ADVANCED

Advanced Construction Technology is a second level course where you continue the skills acquired from Construction Technology. You will be introduced to exterior and interior finish out skills, cabinetry, and other construction trades such as electrical and plumbing.

Prerequisite: Successful completion of Construction Technology

Schools: SWHS, NHS

Grades: 11-12

Credit/Course ID: 2 / 13005200 / CAC24A & CAC24B

INTERIOR DESIGN

Are you creative? Do you enjoy art? Are you interested in construction? Interior Design will give you the opportunity to develop the fundamental skills needed to create functional along with beautiful living environments. You will learn about the many facets of Interior Design including: the elements & principles of design, color theory, materials, furniture, space planning, furniture arranging, the trends and issues of interior design & housing. You will apply concepts by hands-on activities related to residential to commercial aspects within the construction industry.

Schools: MHS, SWHS, SHS

Grades: 10-12

Credit/Course ID: 1 / 13004300 / CAC11A & CAC11B

JACK OF ALL TRADES

Whatever you do to earn a living, chances are you will live in or own a home and be responsible for making repairs and keeping it in good condition. If you make lots of money you can just hire people to do it for you, but most people end up trying to fix it themselves. This class will address routine repairs and maintenance around the home using only the tools you will might find in a toolbox or workbench at home. You will identify, plan and solve real problems and should finish the class thinking you are a do-it-yourself expert.

Schools: NHS, SWHS

Grades: 9 -12

Credit/Course ID: 1 / 13004200 / CAC10A & CAC10B


**ARTS, AV COMMUNICATIONS AND
TECHNOLOGY CLUSTER**
3D ANIMATION

Learn to develop and communicate your animation ideas through 3D Modeling, animation, concept drawings, storyboards, virtual lights & cameras, and scene design using the same techniques and software used by professionals.

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 2 / 13008300 / CAV11A & CAV11B

3D ANIMATION 2 | ADVANCED ANIMATION

Expand the skills and creativity you developed in Animation. Skills taught include introduction to character design, 3D modeling and texturing a character, Bone system and character rigging for animation, effective in-depth storytelling, visual effects and post production techniques, intro to Motion Capture, integrated audio and sound F/X. Prerequisite: Successful completion of Animation 1 and teacher rec.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13008400 / CAV21A & CAV21B

Technical Certification: Autodesk 3Ds Max Design Certified User

3D ANIMATION 3 | PRACTICUM 1

Utilize the latest technologies in 3D Modeling, Animation for developing real time graphics, with the goal of producing models and animations that relate to industrial projects such as: product visualization, oil and gas equipment, architectural scenes, and consumer products.

Prerequisite: Successful completion of Animation 2 and teacher rec.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13009000 / CAV83A & CAV83B

3D ANIMATION 4 | PRACTICUM 2

This course expands the use of motion capture as it applies to game development. You will learn how to create games level by utilizing current game development engines also explore concepts in layering digital assets into composites for video and film. This prepares you for working in the industry through internships with local business partners, as well as extending animation studies at a college or university.

Prerequisite: Successful completion of Practicum 1 and teacher rec.

Schools: Guthrie

Grades: 12

Credit/Course ID: 2 / 13009010 / CAV93A & CAV93B

Technical Certification: Autodesk 3Ds Max Design Certified Professional

COMMERCIAL PHOTOGRAPHY

Are you creative? Do you like to take photos? The Guthrie Center Commercial Photography Department teaches you how to transform your love of photos into a serious hobby or can even propel you into an exciting career that can earn you money while you go to college! This hands-on and very unique Guthrie class will give you an opportunity to work in a real studio using professional equipment. You'll learn how to edit your photos using the latest software and will create an amazing portfolio that can open doors to an exciting new world!

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 2 / 13009100 / CAV14A & CAV14B

COMMERCIAL PHOTOGRAPHY 2 | ADVANCED

If you want to take your Commercial Photography I skills to the next level, this advanced course takes you through a more technical experience and encourages you to push your imagination. Students spend most of their time in our studios and are often selected to work for outside clients. Students can earn an industry certification.

Prerequisite: Successful completion of Commercial Photography 1 with teacher recommendation

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13009200 / CAV24A & CAV24B

Technical Certification: Adobe Certified Associate - Photoshop

COMMERCIAL PHOTOGRAPHY 3 | PRACTICUM

This course is for the very serious student who plans to pursue a career in this field. Students are self-starters, often work independently and are led under the instruction of the teacher. Students can earn an upper-level industry certification.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13008600 / CAV87A & CAV87B

Technical Certification: Adobe Certified Expert - Lightroom

FASHION DESIGN

Bring fashion to life! This course will introduce you to the world of fashion. Topics covered are the trends of fashion, apparel industry, promotion, textiles, design, clothing construction and careers related to fashion. It is a "hands on" course that will allow you to have many

career-related experiences.

Schools: MHS, SHS, SWHS

Grades: 10-12

Credit/Course ID: 1 / 13009300 / CAV15A & CAV15B

FASHION DESIGN 2 | ADVANCED

Do you dream of being a top fashion designer? In this course you will have the opportunity to evaluate the fibers & fabrics used to create great designs. You will analyze the influences from the past, present and possible future of Textile Design and Production and identify careers in the apparel and textile industries. You will determine how history continues to influence the apparel industry today. You will have the opportunity to create fashion garments that reflect the application of design elements and principles. It is a "hands on" course that will provide many career-related experiences.

Prerequisite: Successful completion of Fashion Design

Schools: SHS, SWHS

Grades: 11-12

Credit/Course: 2 / 13009400 / CAV25A & CAV25B

FILM AND VIDEO PRODUCTION

Lights! Camera! Action! Do you enjoy watching movies and music videos? Are you the person that's always seen the latest films, knows who's directed them and know some of the behind-the-scenes information? If so, The Guthrie Center Film class is for you! We are unlike any other class offered in SBISD! You'll learn how to produce and direct your own productions and you'll even create a demo reel of all of your work. You'll learn how to use Final Cut Pro X, the leading software used in editing movies like The Social Network, The Girl With the Dragon Tattoo, X-Men, Napoleon Dynamite and more! Whether you want to go to Hollywood and become a Director or want to learn a serious hobby, this class will give you an experience you'll never forget.

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 2 / 13008500 / CAV12A & CAV12B

FILM AND VIDEO PRODUCTION 2 | ADVANCED

If you want to take your Film I experience to the next level, this class is for you. This class is for students who want to pursue a career in this industry and want to gain the skills and knowledge that will set them apart and get them that job. Students are often selected to produce for outside clients. Students can earn an industry certification.

Prerequisite: Successful completion of Film & Video Production 1 with teacher recommendation

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13008600 / CAV22A & CAV22B

Technical Certification: Apple Final Cut Certified Associate

FILM AND VIDEO PRODUCTION 3 | PRACTICUM

This course is for the very serious student who plans to pursue a career in this field. Students are self-starters, often work independently and are led under the instruction of the teacher. Students can earn an upper-level industry certification.

Prerequisite: Successful completion of Film & Video Production 2 and teacher recommendation

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13008700 / CAV82A & CAV82B

GRAPHIC DESIGN

Utilize the latest tools and software to design colorful, exciting, eye catching, engaging and memorable advertising and marketing communications that will have people abuzz about the products and services that you feature. This course focuses on the basics of color and design, illustration and the effective use of typography to showcase your clients' products or services to their potential customers. Learn software tools that professionals use to bring your ideas to print.

Schools: Guthrie

Grades: 9-12

Credit/Course ID: 2 / 13008800 / CAV13A & CAV13B

GRAPHIC DESIGN 2 | ADVANCED

Today our society relies on visual communication. The second year continues deeper into concepts and processes of Graphic Design for print and web. Adobe Creative Suite with projects in editorial, web and motion graphic design can be mastered.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13008900 / CAV23A & CAV23B

Technical Certification: Adobe Certified Associate - Illustrator

GRAPHIC DESIGN PRACTICUM

Today our society relies on visual communication. The second year continues deeper into concepts and processes of Graphic Design for print and web. Adobe Creative Suite with projects in editorial, web and motion graphic design can be mastered.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13008900 / CAV23A & CAV23B

Technical Certification: Adobe Certified Associate - InDesign

BUSINESS, MANAGEMENT AND ADMINISTRATION CLUSTER

BUSINESS INFORMATION MANAGEMENT

In today's tech-savvy world, technology skills are a must! Develop the computer skills you need to succeed in both college and career. This course includes applications for both personal and business situations, with particular focus on the Microsoft Office Suite and the Internet/Computer Core Certification (IC3). The IC3 is a globally recognized certification, giving you a competitive advantage in today's hot job market. This course is required for Academy of Finance students.

Schools: MHS, NHS, SHS, SWHS, WAIS

Grades: 9-12

Credit/Course ID: 1 / 13011400 / CBM12A & CBM12B

Technical Certification: MOS Word and Excel Certification

BUSINESS INFORMATION MANAGEMENT 2

Expand your computer skills by building advanced technology expertise required in today's global business environment. By the end of this course you will know the Microsoft Office Suite in depth and can become certified as a Microsoft Office Specialist (MOS). MOS is a globally recognized certification that is standard for demonstrating technology proficiency. This certification sets you apart from the job-seeking crowd.

Schools: MHS, SHS, SWHS
 Grades: 10-12
 Credit/Course ID: 1 / 13011500 / CBM22A & CBM22B
 Technical Certification: Additional MOS Certifications

BUSINESS LAW

Are you a "Law and Order" fan? Business Law will teach you to analyze legal issues related to civil and criminal laws, the court system, contracts, family law, employment, and property to prepare you for life and the workplace. You will use your technical skills to the study of business and contemporary legal issues. This is one of the optional courses for the Academy of Finance requirements.

Schools: MHS, NHS, SHS
 Grades: 11-12
 Credit/Course ID: .5 / 13011700 / CTBM14

GLOBAL BUSINESS

The world is just a touch away! Global Business introduces concepts of the global market and international trade. We will look at the economy of the global marketplace, study cultural differences and the effects of those differences on our society, international law and finance. Enjoy this innovative experience and discover the world at hand. This is one of the optional courses for the Academy of Finance requirements.

Schools: MHS, NHS, SHS, SWHS, WAIS
 Grades: 11-12
 Credit/Course ID: .5 / 13011800 / CTBM15

PRINCIPLES OF BUSINESS, MARKETING & FINANCE

Want to open up a whole new world of opportunities? Then let's get down to business! In this course, you will gain knowledge and skills in business, finance and marketing. This is one of the optional courses for the Academy of Finance requirements.

Schools: MHS, NHS, SWHS, SHS, AOC
 Grades: 9-12
 Credit/Course ID: .5 / 13011200 / CTBM10



ACCOUNTING 1

Want to get a grasp on how finances are handled in the world of business? Accounting is the class to take! This fun and challenging program will give you an understanding of the checks and balances of the business world. Accounting 1 is a college prep course for Business majors. It is the equivalent to college level Office Accounting, which is a prerequisite to Financial Accounting on the college level. The goal of the class is to build a good foundation of Accounting theory so you will be successful in college Accounting. You will complete the Accounting cycle for both a service and merchandising business. This course is required for Academy of Finance students.

Schools: MHS, NHS, SHS, SWHS
 Grades: 10-12
 Credit/Course ID: 1 / 13016600 / CFI14A & CFI14B
 Technical Certification: QuickBooks Certified User

ACCOUNTING 2

Level 2 provides for review and further development of fundamental accounting principles with extensive use of computerized accounting

programs. Study the Stock Market, Investing and Corporate Accounting. This is one of the optional courses for Academy of Finance requirements.

Prerequisite: Successful completion of Accounting 1
 Schools: MHS, SHS
 Grades: 11-12
 Credit/Course ID: 1 / 13016700 / CFI24A & CFI24B

BANKING AND FINANCIAL SERVICES

This integral part of the Academy of Finance program delves into the dynamic Banking and Financial industries, hence the name. Discover the excitement of operating in the banking world including sales and management functions. This is one of the optional courses for the Academy of Finance requirements.

Schools: MHS, NHS, SHS
 Grades: 10-12
 Credit/Course ID: .5 / 13016300 / CTF11

MONEY MATTERS

Money - In our global society, money does make the world go around! This yearlong course is designed to prepare you to make wise lifetime financial choices; with an emphasis on global economics and how it influences you as a consumer and in your business. You will analyze financial options including long term financial planning, investments tax planning, asset allocation, risk management, retirement and estate planning. This course is required for Academy of Finance students.

Schools: MHS, NHS, SHS, SWHS, AOC
 Grades: 10 -12
 Credit/Course ID: 1 / 13016200 / CFI10A & CFI10B

SECURITIES AND INVESTMENTS

Want to make your money work for you? This is the class where you will be exposed to business operations and transactions in the securities and investments industry. Topics include buying and selling securities, real estate law, real estate titling, investment analysis and selection processes, stocks and bonds, real estate appraisal, and licensing/certification programs. This is one of the optional courses for the Academy of Finance requirements.

Credit/Course ID: 0.5 / 13016400 / CTF12



CULINARY ARTS

Culinary Arts begins with the fundamentals of cooking, the science of baking, management and production skills, and safety/sanitation procedures. Along with guest chefs, we will help you develop and refine your creative side. You will master the steps of recipe development and event planning where you will participate in specific dining functions throughout the course.

Schools: Guthrie
 Grades: 9 -12
 Credit/Course ID: 2 / 13022600 / CHT14A & CHT14B
 Articulated College Credit with The Art Institute of Houston
 Technical Certification: ServSafe Food Handler

CULINARY ARTS 2 | ADVANCED

In this course you will be in the kitchens working with food most of the time! First Semester will be dedicated to Baking and Pastry in our commercial bake shop and second semester will be geared towards international cuisine. Culinary 2 will extend content and enhance skills introduced in Culinary Arts by infusing high-level, industry-driven content to prepare students for success in higher education, certifications and/or immediate employment. This mid-level course will increase your depth of knowledge and experience in specific areas including baking, protein selection, advanced nutrition and sustainability. As an Advanced Culinary Arts student you will have a complete understanding of front and back of the house roles and how these areas work together to create a successful operation. You will prepare for national certifications that will provide you an advantage for scholarships, college admittance and employment.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / N1302265 / CHT24A & CHT24B

Articulated College Credit with The Art Institute of Houston

CAFE OPERATIONS & CATERING | PRACTICUM

This course is will put you in the driver's seat for running our campus café! A combination of lab instruction, demonstration, and hands-on production will provide you practical application to café and catering business practices and kitchen operations.

Prerequisite: Successful completion of Culinary Arts

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13022710 / CHT94A & CHT94B

Articulated College Credit with The Art Institute of Houston

CHEF TRAINING | PRACTICUM

Chef Training is for students that are sincerely interested in the culinary field. You will partner with chefs from The Art Institute of Houston and other area professional chefs as we learn higher-level cooking skills. You will develop advanced knife skills, soup and sauce production, vegetable and meat cookery, and may earn your ServSafe certification. Study trips include touring restaurants and hotels, and networking with professional chefs and others in the industry.

Prerequisite: Successful completion of Culinary Arts

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13022700 / CHT84A & CHT84B

Articulated College Credit with The Art Institute of Houston

Technical Certification: ServSafe Food Service Manager Certification

FOOD SCIENCE

(State Approved Advanced Science Course)

Meet your science credit for graduation, with this class. Food Science is the study of the nature of foods, the causes of deterioration, the principles underlying food processing, and the improvement of foods for the consuming public. You will conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving.

Schools: SWHS

Grades: 11-12

Credit/Course ID: 1 / 13023000 / SC432A & SC432B

HOTEL 1 | HOTEL MANAGEMENT PRACTICUM 1**HOTEL 2 | TRAVEL & TOURISM WITH PRACTICUM 2**

An off-campus internship located at the luxurious Omni Houston Hotel Westside on the Katy Freeway. Gain self-confidence and valuable job skills as you experience hands-on training, as you rotate through several departments of the hotel. Choose your training from the following departments: front desk, banquets, restaurant, culinary, gift shop, sales and marketing, guest services, accounting, human resources, switchboard, engineering and housekeeping. Network with the award-winning managers of the Omni Hotel, participate in exciting field trips with an optional trip to New York City! If you want to get an early start in your career, then join this popular internship.

Transportation to Omni is provided.

Schools: Guthrie

Grades: 10 -12

Credits: Double blocked - SHS, WAIS; 3 Periods - MHS, NHS, SW

Credit/Course ID's:

Yr 1: 1/13022300/CHT11A and B; 3/13022900/CHT85A and B

Yr 2: 1/13022500/CHT13A and B; 3/13022910/CHT95A and B

Technical Certifications: AHLEI Certified Guest Service

RESTAURANT MANAGEMENT

Learn what it takes to plan, organize, staff, direct and manage a restaurant or food service business. Develop your portfolio with menu planning, profit and loss statement preparation and business plan writing. You will be able to apply these skills directly in the student-run cafe on campus.

Schools: SHS

Grades: 10 -12

Credit/Course 1 / 13022400 / CHT16A & CHT16B

PRINCIPLES OF HOSPITALITY AND TOURISM

This course will introduce you to careers in the hospitality industry, with hands on cooking experiences. We provide Individual and group work activities as we research each area of the industry. You will investigate fast food and full service restaurants, hotels, cruise lines, catering and gourmet take home. You will also be provided the opportunity to gain valuable cooking techniques involving vegetables, egg preparation, meats and starches.

Schools: NHS, SHS, SWHS

Grades: 9-12

Credit/Course ID: 1 / 13022200 / CHT10A & CHT10B

CTED CULINARY ARTS AND CTED PRACTICUM

Students are provided with training and experiences that could lead to employment in the food service industry. Our emphasis is on appropriate work habits, skills, and attitudes in a commercial food service laboratory. Special Education high school students ages 16 – 22 who have been accepted through the ARD process are eligible for this class. Year 2 must successfully complete year 1 as a prerequisite.

Schools: Landrum

Grades: 9-12

Year 1 Credit/Course ID: 2 / 13022600 / CHT41A & CHT41B

Year 2 Credit/Course ID: 2 / 13022700 / CHT42A & CHT42B



INFORMATION TECHNOLOGY CLUSTER

COMPUTER MAINTENANCE

This program will prepare you to take CompTIA's A+ Certification exam. With this certification, you will be ready to go to work in the high-tech and high-paying IT jobs of tomorrow. Through hands on activities and labs, you will assemble and configure computers, install operating systems, software, and set up/troubleshoot hardware, software and networks.

Schools: Guthrie, NHS

Grades: 9-12

Credit/Course ID: 2 / 13027300 / CIT11A & CIT11B

Technical Certification: Comptia A+ Certification

CISCO NETWORKING 1

This program will prepare students to take the Cisco CCNA or CCENT Certification exams. With these certifications, you will be ready to go to work in the high-tech and high-paying IT jobs of tomorrow. Through hands on activities and labs, you will learn how to configure routers and set up small networks using many commercial design and network administrator tools.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13027400 / CIT12A & CIT12B

Technical Certification: CCENT (Cisco Entry Networking Technician)

CISCO NETWORKING 2 | RESEARCH IN IT

In this second year of Cisco Networking, you will gain additional knowledge and experience in preparation of CCNA/CCENT certifications. Successful completion of Cisco Networking 1 is required.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13028000 / CIT82A & CIT82B

Technical Certification: CCNA (Cisco Certified Networking Associate)

COMPUTER TECHNICIAN

Do you think you have a clear understanding of building and repairing a computer or designing and maintaining a network from your earlier computer classes? If so, put that knowledge into action as you apply your knowledge and skills to a variety of settings and problems. Apply with current CT instructor for entry into this class for next year.

Prerequisite: Successful completion of Computer Maintenance

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13027500 / CIT81A & CIT81B

DIGITAL INTERACTIVE MEDIA

Join the world of multimedia. Develop technology skills with applications to personal or business situations focusing on web design, video and audio techniques, digital imaging, desktop publishing, presentation management, and career awareness that leads to a successful transition to the workplace and college.

Schools: SWHS

Grades: 10 -12

Credit/Course ID: / 13027800 / CIT14A & CIT14B

GEO TECH 1 - GIS AND PROGRAMMING

Data Technicians for the energy industry work directly with geologists, engineers and business managers by providing technical support for oil and gas exploration. Data Techs need proficiency in many technical applications and present the information from these computer languages that can be understood by all involved in the process. This first course blends Geographic Information Systems (transferring GPS data into mapping layouts for things like traffic flow, crime rates and economic development) with basic Computer Programming to begin your journey towards a lucrative career as a Geo Tech.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 1 / N1302805 / CTIT54 & 1 / 13027600 / CTIT13

GEO TECH 2 - GIS-RASTER / SPATIAL TECHNOLOGY / REMOTE SENSING

Data Technicians for the energy industry work directly with geologists, engineers and business managers by providing technical support for oil and gas exploration. Data Techs need proficiency in many technical applications and present the information from these computer languages that can be understood by all involved in the process. This second course blends Raster Based Geographic Information Systems (transferring data from images and aerial photographs to process data. You will learn skill building in industry, standard geospatial extension software, geospatial tools including global positioning systems (GPS), and continued training in GIS project management and problem solving. to begin your journey towards a lucrative career as a Geo Tech.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 1 / N1302806 / CTIT55 & 1 / N1302807 / CTIT56

WEB TECHNOLOGIES

Through the study of web technologies and design, students learn to make informed decisions and apply the decisions to the field of information technology. Students 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 enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

Schools: SWHS

Grades: 10 -12

Credit/Course ID: / 13027800 / CIT15A & CIT15B



MANUFACTURING CLUSTER

FLEXIBLE MANUFACTURING

Learn what it takes to be successful in metal technology systems. Whether working on your own or with a team of technicians, you will gain experience in sheet metal manufacturing.

Schools: SWHS

Grades: 10-12

Credit/Course ID: 1 / 13032700 / CMF13A & CMF13B

FLEXIBLE MANUFACTURING 2 | ADVANCED

Learn the advanced techniques you will need in metal technology systems. Whether working on your own or with a team of technicians, you will gain experience in sheet metal manufacturing.

Schools: SWHS

Grades: 11-12

Credit/Course ID: 2 / 13032800 / CMF23A & CMF23B

Technical Certification : Welding AWS-D1.1 Certification


**MARKETING
CLUSTER**
RETAILING & E-TAILING

Are you interested working in the field of marketing? Learn the fundamentals of marketing and the relationship of the marketing process for both goods and services while studying the different kinds of markets, market identification, distribution, market research, advertising and promotion and management.

Schools: SHS, AOC

Grades: 9 -12

Credit/Course ID: 1 / 13034500 / CMK14A & CMK14B

SPORTS ENTERTAINMENT MARKETING

On your Mark, Get Set, Go! Sports and Entertainment Marketing focuses on the functions of marketing as it relates to the business of sports. It's not just a game - it's business. You will be given many opportunities to design marketing strategies, select appropriate products and promotional activities for sports and entertainment events and go on field trips. Let the games begin! Will you be ready when the whistle blows?

Schools: SHS, AOC

Grades: 10-12

Credit/Course ID: .5 / 13034600 / CTMK15

Public Services Endorsement


**EDUCATION AND
TRAINING CLUSTER**
HUMAN GROWTH AND DEVELOPMENT

An introduction to developmental psychology, the course explores the different stages of human life- Prenatal, Infancy, Childhood, Adolescence, Adulthood- and the biological, psychological and social changes occurring in individuals during them. Topics include: theories of development, genetics and development, birth and the neonate, cognitive and brain development, early experience, attachment, motor & language development, social, moral development, aging and death.

Schools: SWHS

Grades: 10-12

Credit/Course ID: 1 / 13014300 / CET11A & CET11B

INSTRUCTIONAL PRACTICES IN EDUCATION

Changing lives in real classrooms could be in your future! If you are ready to teach and get hands on experience working with children, then this is the course for you. You will be assigned to an off-campus school and will get practical experience working beside a certified teacher. Students have a choice of working with kindergarten through middle school. If you are thinking about a career related to children and or teaching, this is definitely the course for you.

Schools: MHS, NHS, SHS

Grades: 11-12

Credit/Course ID: 2 / 13014400 / CET12A & CET12B

PRACTICUM IN EDUCATION

This field-based internship focuses on child and adolescent development principles as well as principles of effective teaching and training practices under the joint direction and supervision of teacher with knowledge of early childhood, elementary, middle and high school aged students. You will be able 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, trainers, paraprofessionals, and educational personnel.

Schools: MHS, NHS, SHS

Grade: 12

Credit/Course ID: 2 / 13014500 / CET82A & CET82B

Technical Certification : Educational Aide


**HEALTH SCIENCE
CLUSTER**
ANATOMY AND PHYSIOLOGY

(State Approved Advanced Science Course)

If you are interested in the way the body moves, then Anatomy and Physiology is the class for you. You will discover the structures and functions of the human body and body systems, and will investigate the body's responses to forces, maintenance of homeostasis, electrical interactions, transport systems, and energy processes.

Recommended Prerequisite: Two Years of Science

Schools: NHS, MHS, SHS, SWHS, WAIS

Grades: 11 & 12

Credit/Course ID: 1 / 13020600 / SC442A & SC442B

HEALTH SCIENCE | PRINCIPLES

In our ever changing world, one thing is constant, the need for Health Care Providers. The "Baby Boomers" are retiring and the need for new recruits is critical! You will be helping mankind. Sign up for Principles of Health Science to learn about the exciting opportunities in the Health Care Industry. Come, have fun in developing your new vocabulary of Medical Terminology. You will be able to interpret what the health care professionals are really saying.

Schools: MHS, NHS, SHS, SWHS

Grades: 10-11

Credit/Course ID: 1 / 13020200 / CHS10A & CHS10B

HEALTH SCIENCE 2 | HEALTH SCIENCE

During the 2nd year of Health Science you will be in awe as you venture into the hospital for observation of real professionals and real patients. There is a thrill of really "being there". You will learn the importance of

confidentiality, compassion, ethic and the vast world of medicine.
 Prerequisite: Successful completion of Health Science 1 and Biology with teacher recommendation.
 Schools: MHS, NHS, SWHS, SHS
 Grades: 11-12
 Credit/Course ID: 2 / 13020400 / CHS12A & CHS12B

HEALTH SCIENCE 3 PRACTICUM

During the 3rd year of Health Science you will actually work every day of the week in a hospital. It will be worked into your school schedule. You will rotate through different departments of the hospital throughout the year. You will get "hands on experience" using the skills you were taught in Health Science and feel like part of the hospital team!
 Prerequisite: Successful completion of Health Science 2 with teacher recommendation
 Schools: MHS, NHS, SWHS
 Grades: 12
 Credit/Course ID: 3 / 13020500 / CHS82A & CHS82B

MEDICAL MICROBIOLOGY/PATHOPHYSIOLOGY

(State Approved Advanced Science Course)
 In Medical Microbiology you will identify the relationships of microorganisms to wellness and disease. You will learn how to prevent diseases by learning the chain of infection, asepsis, and standard precautions. You will get to investigate and find out the differences between pathogenic and nonpathogenic organisms and how they relate to specific diseases, causative agents, and treatment options. While in Pathophysiology you will learn how the disease processes affect the human systems. Emphasis is placed on prevention and treatment of diseases. You will observe the differences between normal and abnormal physiology in a lab setting.
 Recommended Prerequisite: Two Years of Science
 Schools: NHS, MHS, SHS, SWHS, WAIS
 Grades: 11 & 12
 Credit/Course ID: 1 / 13020700 / SCI712 & SCI722

MEDICAL TERMINOLOGY

This course is designed as an introduction to the medical field. Students develop a working knowledge of the language of medicine. By relating terms to body systems, students identify proper use of words in a medical environment. Knowledge of medical terminology enhances the student's ability to successfully secure employment or pursue advanced education in health care.
 Schools: SHS, SWHS
 Grades: 9-11
 Credit/Course ID: 0.5 / 13020300 / CTHS11

PHARMACY TECHNICIAN PRACTICUM

Interested in the Pharmaceutical field? This is the class for you! You will learn the technical and knowledge base skills and work habits required for an entry level position in the pharmacy field or other related areas. On successful completion of this course and graduation you will have the opportunity to sit for the Pharmacy Technician Certification Exam (PTCE). This capstone course is designed for those students interested in pursuing a Pharmacy Tech certification.
 Prerequisite: Successful completion of Health Science - Principles, Biology and either Health Science 2 - Advanced or Anatomy and Physiology
 Schools: Guthrie
 Grades: 12

Credit/Course ID: 2 / 13020510 / CHS92A & CHS92
 Technical Certifications: Pharmacy Technician (PTCE) and National Sterile Products (IV) Certification

STERILE PROCESSING TECH PRACTICUM

You will learn one of the most critical areas of the hospital in this course. You will learn the technical and knowledge base skills and work habits required for an entry level position in the sterile processing field or other related areas. On successful completion of this course and graduation you can take the Sterile Processing/Distribution Technician exam for certification.
 Prerequisite: Successful completion of Health Science - Principles, Biology, and either Health Science 2 - Advanced or Anatomy and Physiology
 Schools: Guthrie
 Grades: 12
 Credit/Course ID: 2 / 13020510 / CHS93A & CHS93B
 Technical Certifications: Sterile Processing/Distribution Technician

HUMAN SERVICES CLUSTER

CHILD DEVELOPMENT

This course provides individuals opportunities to develop knowledge and skills to function effectively in the role of a parent or caregiver. Content stresses parental responsibilities, child guidance techniques, and parents as positive role models. Parenting practices that promote a child's development, health, safety and well-being are taught.
 Schools: NHS, SHS
 Grades: 10-12
 Credit/Course ID: .5 / 13024700 / CTHU15

CHILD GUIDANCE

Enjoy kids? Then get ready for a real experience. This is a "hands on" course that provides a chance to work with very young children. High school students receive practical experience while working at one of the district's pre-kindergarten centers three days a week. You will work with children in the PreK program between 4-5 years of age..
 Schools: SHS, SWHS
 Grades: 11-12
 Credit/Course ID: 2 / 13024800 / CHU16A & CHU16B

COSMETOLOGY | SALON SKILLS

This program offers hands-on training, amazing guest artists, study trips and a self-paced curriculum focused on competitions, salon skills, and the Texas Cosmetology State Examination. Students are responsible for Texas Department Licensing Registration fee and supplies.
 Schools: Guthrie
 Grades: 11-12
 Credit/Course ID: 3 / 13025200 / CHU19A & CHU19B 1 / 13034400 / CMK13A & CMK13B

COSMETOLOGY 2 | ADVANCED SALON SKILLS

Graduate from high school with your Texas Cosmetology State License! Maximize skills and theory learned in Cosmetology 1 through an intense focus on industry readiness and the Texas Cosmetology State Licensing Examination. Upon successful completion of Cosmetology 2,

you will have an opportunity to obtain your Texas Cosmetology State License by passing written and practical examinations to earn your license. You are responsible for State Licensing Examination fees & supplies. Prerequisite: Successful completion of Cosmetology 1.

Schools: Guthrie

Grades: 12

Credit/Course ID: 3 / 13025300 / CHU29A & CHU29B

Technical Certification: Texas Cosmetology Operators License

DOLLARS AND SENSE

Students will learn basics of money management for personal and family goals. Budgets, credit sources, investment instruments and how to get the most “bang for your buck” will be explored. This course is one of the optional courses that can meet the Academy of Finance requirements.

Schools: NHS, MHS, SHS, AOC

Grades: 9-12

Credit/Course ID: .5 / 13024300 / CTHU11

INTERPERSONAL STUDIES

Examine how the relationships between individuals and family members significantly affect the quality of life. Explore the functions and roles of dating and analyze components of a successful marriage. The students will follow directions and procedures independently and within a group setting to explore careers.

Schools: NHS, SHS

Grades: 10-12

Credit/Course ID: .5 / 13024400 / CTHU12

LIFETIME NUTRITION AND WELLNESS

“What’s for Dinner?” Students will learn how to plan and prepare healthy food choices for themselves and their families. Special dietary needs, food safety and sanitation, meal etiquette and career opportunities in food industry are covered. Students prepare a variety of foods during the lab time.

Schools: NHS, SHS, SWHS

Grades: 10-12

Credit/Course ID: .5 / 13024500 / CTHU13

PRINCIPLES OF HUMAN SERVICES

This class touches on topics related to nutrition, early child development, family and community development, personal care services and consumerism. Hands on projects are emphasized in a lab setting to expose you to the many areas of study you can take in the Human Services cluster.

Schools: NHS, SHS

Grades: 9-10

Credit/Course ID: .5 / 13024200 / CTHU10



LAW, PUBLIC SAFETY AND SECURITY CLUSTER

COURT SYSTEMS AND PRACTICES | PRE-LAW

“Order in the Court!” This class is an overview of the federal and state court systems with emphasis on Constitutional law for criminal procedures, as well as civil law. Preparation and delivery of both prosecution and defense legal strategies are explored in a classroom and courtroom environment.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13029600 / CLW12A & CLW12B

FIREFIGHTER 1

Interested in becoming firefighter, this class is for you. This course introduces students to firefighter safety and development. Students will understand Texas Commission on Fire Protection (TCFP) rules and regulations, proper incident reporting and records, the proper use of personal protective equipment, and the principles of fire science. The instructor uses both academic study and applied instruction to achieve measurable results. Students participate in structured, applied learning activities. Students in the course may work towards certification in Fire Science.

Schools: NHS

Grades: 11-12

Credit/Course ID: 1 / 13029500 / CLW15A & CLW15B

FIREFIGHTER 2/ EMT-BASIC

In this 2nd level course you will continue your learning what is needed to take the Firefighter 1 Certification test and you will include skills necessary to provide emergency medical care at a basic life support level with an ambulance service and is designed for anyone interested in working in public safety, including fire, police, and ambulance operations. The EMT-Basic course provides an introduction to the concepts, knowledge and skills needed by EMTs in the areas of communications, transportation, and record-keeping. Students in the course may work towards certification in Fire Science.

Schools: NHS

Grades: 12

Credit/Course ID: 3 / 13029500 N1303015 / CLW25A & CLW25B (2credits) CLW26A & CLW26B

FORENSIC SCIENCE

(State Approved Advanced Science Course)

Connect science to law and find out what it takes to solve crimes. If you like watching CSI and other true crime shows, then this course is for you. Find out what science can and cannot do in crime fighting. Is it real or just TV? You might be surprised!

Recommended Prerequisite: Law Enforcement 1

Prerequisites: Biology and Chemistry

Schools: Guthrie, SWHS

Grades: 11-12

Credit/Course ID: 1 / 13029500 / CTLW50 or CTL50A-CT

LAW ENFORCEMENT

What is the “Thin Blue Line”? Explore the history, organization, and function of local, state, and federal law enforcement. Explore Constitutional law, the US legal system, criminal law, law enforcement terminology and methods, and the classification and elements of crimes.

Schools: Guthrie

Grades: 10-12

Credit/Course ID: 2 / 13029300 / CLW11A & CLW11B

LAW ENFORCEMENT 2

If you liked Law Enforcement 1 and Forensics, you can dig deeper into the daily aspects of policing. What does it really mean to protect & serve? Law Enforcement 2 goes deeper into career choices in law enforcement and looks at the day to day challenges faced in protecting and serving people. This course includes the ethical and legal

responsibilities, operation of police and emergency telecommunication equipment, and courtroom testimony.

Prerequisites: Successful completion of Law Enforcement 1

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 2 / 13029400 / CLW21 A & CLW21B

Technical Certification: Texas Emergency Dispatchers Certification

LEGAL RESEARCH AND WRITING

Interested in what happens in the legal field. This course is designed to introduce students to the methods and tools used to conduct legal research to include LexisNexis, learn how to develop and frame legal arguments, produce legal writings such as briefs, memorandums, and other legal documents, study American Constitutional law, and prepare for appellate arguments.

Schools: Guthrie

Grades: 11-12

Credit/Course ID: 1 / N13003014 / CTLW52



NAVY JUNIOR RESERVE OFFICERS TRAINING CORPS

NAVAL SCIENCE 1, 2, 3 & 4

The Navy Junior Reserve Officer Training Corps is a unique program, facilitated by senior Navy instructors, that provides real hands on leadership and management opportunities unlike any other high school program. The NJROTC core values of honor, courage and commitment instill in the cadets the pride of community service and good citizenship. Opportunities abound in JNROTC. A first year cadet can expect to be leading a squad by the completion of their first year and eligible to command the entire company of cadets by his/her senior year. Cadets plan, schedule, organize and execute a myriad of program activities to include local, regional and national competitive team activities including drill, marksmanship, physical fitness, orienteering (land navigation) and academics.

The Navy provides all books, equipment and uniforms at no cost to the cadets. Additional educational opportunities exist through attendance at any of the service academies such as the Naval Academy or through Navy ROTC scholarships. There is no military obligation to participate in the program. However, if a military career is desired, cadets completing two years of NJROTC earn a rate increase of one pay grade upon completion of boot camp and cadets completing three years are advanced two pay grades, resulting in a significant increase in basic pay.

Candidates should have a history of good attendance, grades and conduct records. Candidates with less than marginal records will be considered on a case by case basis for conditional admission to the program. Please contact the instructors for further information.

Schools: Guthrie

Grades: 9-12

Credit/Course ID'S see below for years 1, 2 3 and 4

1 / 03160100 / NS102A, NS102B;1 / 03820101 / HP134A, HP134B

1 / 03160200 / NS202A, NS202B;1 / N1290010 / ADNS2A, ADNS2B

2 / 03160300 / NS302A & NS302B

2 / 03160400 / NS402A & NS402B

Technical Certification: American Red Cross First Aid, CPR and AED, Military Pay Grade Increase Upon Enlistment (earned after 2 years)

STEM Endorsement



STEM ENGINEERING CLUSTER

ADVANCED BIOTECHNOLOGY

As an Advanced Biotechnology student, you will study the emerging fields of biotechnology such as agricultural, medical, regulatory, and forensics. You will have the opportunity to use sophisticated laboratory equipment, perform statistical analysis, and practice quality-control techniques. In addition, you will conduct laboratory and field investigations using scientific methods during investigations to make informed decisions to solve problems. Advanced Biotechnology students study a variety of topics that include structures and functions of cells, nucleic acids, proteins, and genetics.

Recommended Prerequisites: Biology and Chemistry

Schools: MHS

Grades: 11-12

Credit/Course 1 / 13036400/ CST12A & CST12B

COMPUTER INTEGRATED MANUFACTURING (PLTW)

Computer Integrated Manufacturing provides students with an understanding of modern manufacturing methods. Topics include robotics and automation, manufacturing processes, computer modeling, rapid prototyping, CNC programming, manufacturing equipment, and flexible manufacturing systems.

Prerequisite: Successful completion of Introduction to Engineering Design

Schools: MHS

Grades: 10-12

Credit/Course ID: 1 / N1303748 / CST57A & CST57B

COMPUTER SCIENCE SOFTWARE ENGINEERING (PLTW)

Want to learn how computing and connectivity will transform your world? Then Computer Science and Software Engineering is the class for you! This class covers the College Board's new CS Principles framework. The four main units are focus of the class are: Algorithms, Graphics, and Graphical User Interfaces, The Internet, Raining Reigning Data, Intelligent Behavior.

Schools: SHS

Grades: 10-12

Credit/Course ID: 1 / N1303768 / CST15A & CST15B

DIGITAL ELECTRONICS (PLTW)

(State Approved Advanced Mathematics Course)

Digital Electronics is the study of electronic circuits used to process and control digital signals. The major focus of the course is the design process applied to the use of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. You will analyze, design & build fundamental digital electronic circuits.

Prerequisite: Successful completion of Algebra 1 Introduction to Engineering Design

Schools: MHS, SHS

Grades: 10-12

Credit/Course ID: 1 / 13037600 / CST53A & CST53B

ENGINEERING MATHEMATICS

(State Approved Advanced Mathematics Course)

Engineering Math lets you solve and model robotic design problems using a variety of methods and models to represent and analyze problems involving data acquisition, spatial applications, electrical measurement, manufacturing processes, materials engineering, mechanical drives, pneumatics, process control systems, quality control & robotics with computer programming.

Prerequisite: Completion of Algebra 1, Geometry, and concurrent with or after Algebra 2.

Grades: 11-12

Credit/Course 1 / 13036700 / CST60A & CST60B

INTRODUCTION TO ENGINEERING DESIGN (PLTW)

This course teaches you the engineering design process through activities, problems, and projects. Topics include engineering notebooks, design processes, prototyping, technical sketching, measurement and statistics, 3D computer solid modeling, and reverse engineering. this is the prerequisite for all PLTW courses.

Schools: MHS, SHS, SWHS

Grades: 9-12

Credit/Course ID: 1 / N1303742 / CST51A & CST51B

PRINCIPLES OF ENGINEERING (PLTW)

Principles of Engineering introduces you to major concepts studied in a higher education engineering program. Topics include mechanisms, energy, statics, materials, kinematics, and computer control systems. You will develop problem-solving skills and apply your knowledge of math, science, and design to create solutions to various challenges, document your work, and communicate solutions.

Prerequisite: Successful completion of Intro to Engineering Design and completion or concurrent enrollment in Algebra 2

Schools: MHS, SHS, SWHS

Grades: 10-12

Credit/Course ID: 1 / 13037500 / CST52A & CST52B



INTERNSHIPS / CAREER PREP

This course provides opportunities for you 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. You will also identify colleges that support the degree or certification that is required for a successful career in your field. The goal is to prepare students with "soft skills" required for employment and for a fast- changing workplace.

Schools: Guthrie, SHS, SWHS

Grades: 11-12

Credit/Course ID: 2 - 3 / 12701300

Technical Certification: ACT National Career Readiness Work Keys