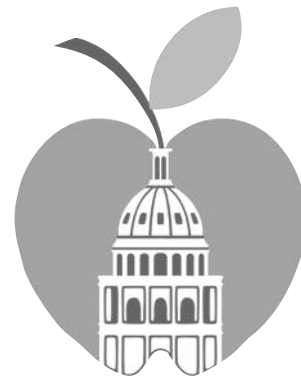


SECTION III:

High School

Career and Technical Education (CTE) Course Descriptions



AISD

AISD Disclaimer:

The contents of the Secondary School Information Guide are relevant to AISD Policy (Legal and Local), Regulation and Practice as of November 2007. For current information regarding district policy please refer to the Austin Independent School District website at www.austinisd.org or visit with your school counselor.

Specific school-related questions should be directed to campus staff. When a parent or guardian has a question or concern, he or she should contact the person who made the initial decision. After discussing the matter, if the concern continues, the principal should be contacted.

HIGH SCHOOL

Career and Technical Education Course Descriptions

Career and Technical electives offer students an opportunity to experience work skill courses to determine if further study is desired or to select a sequential series of courses designed to provide a strong foundation in one particular career field. Careers have been grouped by the U.S. Department of Labor into Career Clusters based on similarities in skills needed to succeed in a particular career field. AISD has taken each of the career clusters and organized courses into career pathways that will provide a strong foundation in that specific career concentration. The technical aspect of many of the courses has also allowed for the awarding of college credit through completion of courses articulated with Austin Community College or other post-secondary institutions. The unique component of some of the courses is the availability of work-based learning opportunities. In these programs students attend classes on campus and receive real world application of the learned skills at a related training site.

CTE Program Areas

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Students are urged to take the pathway courses in a coherent sequence to maximize the effectiveness of the learning.

BASIC

INTERMEDIATE

ADVANCED

In many of the pathways, articulated college credit is dependent on following the correct coherent sequence of courses.

Your teachers and counselors will be glad to help you review your interests and skills that will help you determine what pathway to choose.

Agricultural Science and Technology Majors

Agricultural Science and Technology courses provide instructional activities consisting of classroom and laboratory experiences and leadership opportunities. Students can experience activities in animal and food production, horticulture, agricultural mechanics, and agribusiness management and marketing. All students in these courses are required to maintain some type of Supervised Agricultural Experience Program. The student, parent, and agriculture teacher will develop this program. The FFA student organization contributes to the advancement of leadership, citizenship, personal growth, and academic and technological skills.

Introductory Level Courses

APPLIED AGRICULTURAL SCIENCE AND TECHNOLOGY

TEA #11911102 **8912 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

A basic course designed to enhance agricultural comprehension in agricultural science including the areas of soils, plants, animals, agricultural construction, food science, environment, entrepreneurship, leadership and careers.

INTRODUCTION TO WORLD AGRICULTURAL SCIENCE AND TECHNOLOGY

TEA #11911101 **8905 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

This basic course is designed to introduce students to global agriculture. The course includes agricultural career development, leadership and communication skills. Students explore cultural diversity, plant and animal science concepts and mechanical systems.

PERSONAL SKILL DEVELOPMENT IN AGRICULTURE

TEA #11922312 **8926 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

This course on agricultural leadership, citizenship and cooperation, includes topics on personal development, employee/employer relations, problem solving, decision making, group and interpersonal communication skills, career opportunities, and leadership development.

SPECIALTY AGRICULTURE

TEA #11923331 **8914 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

This technical course emphasizes selecting, producing and marketing diversified products. It includes recordkeeping, integrated systems, occupational information and leadership development.

ENERGY AND ENVIRONMENTAL TECHNOLOGY

TEA #11921281 **8902 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

This course is designed to explore the interdependence of people and natural resources with special emphasis on conservation and environmental protection. This course provides information on career opportunities and opportunities for leadership development.

FRUIT, NUT AND VEGETABLE PRODUCTION

TEA #11923364 **8918 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

A technical course that prepares students to operate enterprises concerned with the production of fruit, nuts and vegetables and provides information on career opportunities and leadership development.

HOME MAINTENANCE AND IMPROVEMENT

TEA #11921222 **8924 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

A course designed to develop the skills and knowledge needed to improve and maintain the urban or rural home and adjacent buildings, including the analysis of repair needs and use of approved safety techniques and provides information on career opportunities and leadership development.

INTRODUCTION TO HORTICULTURAL SCIENCE

TEA #11921261 **8901 R(X)**
GRADE: 9-12 **CREDIT: 1/2**

PREREQUISITE: None

This course is designed to introduce students to horticulture science with emphasis on technical skills, entrepreneurship and career opportunities. Students will be involved with plants and floral growth. Articulated credit may be awarded upon successful completion of a sequence of courses. To receive articulated college credit & weighted GPA for this course, the student must have completed the prerequisite(s) to the course, complete a competitive experience in a CTE – agriculture related career development event and leadership development event, and show mastery of identified enhancements to the course.

FLORAL DESIGN AND INTERIOR LANDSCAPE DEVELOPMENT

TEA #11923363 **8933 R(X)**
GRADE: 10-12 **CREDIT: 1/2**

PREREQUISITE: None

A technical course that prepares students to design and arrange flowers, foliage and related plant materials for interior locations. Students study career opportunities and leadership development. Articulated credit may be awarded upon successful completion of a sequence of courses. To receive articulated college credit & weighted GPA for this course, the student must also complete at least one of the following: a related competitive event, related Supervised Ag Experience (SAE) or related job/intern position or experience. The student must also show mastery of identified enhancements to the course.

AGRICULTURAL POWER AND MACHINERY

TEA #11934421 **8939 R(A/B)**

(Yearlong)

GRADE: 11–12 **CREDIT: 1**

PREREQUISITE: Ag Power Technology or Intro to Ag Mechanics
 A pre-employment laboratory course designed to develop skills in the maintenance, repair, and reconditioning of agricultural vehicles and machinery. The course emphasizes basic principles of operation, while including modern high tech components, systems monitors, on-board computers, etc.

AGRICULTURAL MECHANICS I (weighted)

TEA #11934422 **8958 H(A/B)**

(Yearlong)

GRADE: 11–12 **CREDIT: 2**

PREREQUISITE: Intro to Ag. Mechanics or Ag Metal Fabrication
 A two-hour pre-employment lab course that prepares students to select, operate, maintain, service and use power machinery and equipment, building planning and construction and utilities. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

AGRICULTURAL MECHANICS II (weighted)

TEA #11934423 **8959 H(A/B)**

(Yearlong)

GRADE: 11–12 **CREDIT: 2**

PREREQUISITE: Agricultural Mechanics I
 This course is a continuation of Agricultural Mechanics I. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

CANINE SCIENCE

TEA #N1192330 **8911 R(X)**

(Semester)

GRADE: 10–12 **CREDIT: 1/2**

(Yearlong) **8911 R(A/B)**

GRADE: 10–12 **CREDIT: 1**

PREREQUISITE: Pet and Companion Animal Management or Intro to Veterinary Assistant Technology
 A course designed to provide students with an in depth look at the care, breeding and raising dogs. The course addresses responsibility of dog ownership, selection of breeds, anatomy, health and care of dogs, training and handling of dogs and genetics and breeding of dogs. This course leads to an industry validated credential, the Animal Caretaker Certificate.

ANIMAL SCIENCE

TEA #11923332 **8915 R(X)**

GRADE: 10–12

CREDIT: 1/2

PREREQUISITE: Applied Ag Science or Intro to World Ag
 This technical course is designed to develop knowledge pertaining to the nutrition, reproduction, health and management of domestic animals. Instruction is designed to expand knowledge of the scientific and technological dimensions of resources necessary for animal production. Articulated credit may be awarded upon successful completion of a sequence of courses. To receive articulated college credit & weighted GPA for this course, the student must have completed the prerequisite(s) to the course, complete a competitive experience in a CTE – agriculture related

career development event and leadership development event, and show mastery of identified enhancements to the course.

EQUINE SCIENCE

TEA #11923334 **8917 R(X)**

GRADE: 10–12

CREDIT: 1/2

PREREQUISITE: Applied Ag Science or Intro to World Ag
 A technical course designed to develop knowledge and skills pertaining to the selection, nutrition, reproduction, health and management of horses, career opportunities and leadership development. Articulated credit may be awarded upon successful completion of a sequence of courses. To receive articulated college credit & weighted GPA for this course, the student must have completed the prerequisite(s) to the course, complete a competitive experience in a CTE – agriculture related career development event and leadership development event, and show mastery of identified enhancements to the course.

ADVANCED ANIMAL SCIENCE

TEA #11923336 **8921 R(X)**

(Yearlong)

GRADE: 10-12

CREDIT: 1/2

PREREQUISITE: Animal Science
 This course examines the interrelatedness of human, scientific and technological dimensions of livestock production. Instruction is designed to expand one's knowledge of the scientific and technological dimensions of resources necessary for animal production.

VETERINARY MEDICAL ASSISTANT I

TEA #N1192340 **4141 R(X)**

(Semester)

GRADE: 11-12

CREDIT: 1

(Yearlong)

GRADE: 11-12

4141 R(A/B)

CREDIT: 2

PREREQUISITE: Intro to Veterinary Assistant Technology
 This course is a continuation of Intro to Veterinary Assistant Technology. Students will participate in clinical rotations with local veterinary clinics. The course includes animal handling, health, and safety; sanitation and surgical preparation; anatomy and physiology, medical terminology, and more. Students will be given the opportunity to develop competencies needed for state certification area of Veterinary Assistant Technician – Level 1. This course satisfies the physical education graduation requirement if taken for 2 credits.

VETERINARY MEDICAL ASSISTANT II

TEA #N1192340 **4142 R(A/B)**

(Yearlong)

GRADE: 12

CREDIT: 2

PREREQUISITE: Veterinary Medical Assistant I
 This course is a continuation of Veterinary Medical Assistant I. This course satisfies the physical education graduation requirement.

PLANT AND SOIL SCIENCE

TEA #11923333

8916 R(X)

GRADE: 10–12

CREDIT: 1/2

PREREQUISITE: Applied Ag Science, Intro to World Ag or Plant and Animal Production

This technical course is designed to examine soil and plant relationships that affect the production of food and fiber and provides information on career opportunities and leadership development.

HORTICULTURE PLANT PRODUCTION

TEA #11923362

8954 R(X)

GRADE: 10–12

CREDIT: 1/2

PREREQUISITE: Applied Ag Science, Intro to World Ag or Plant and Animal Production

This course is designed to develop skills in the production of greenhouse/nursery plants and the maintenance of plant growth and propagation structures. To receive articulated college credit & weighted GPA for this course, the student must also complete at least one of the following: a related competitive event, related Supervised Ag Experience (SAE) or related job/intern position or experience. The student must also show mastery of identified enhancements to the course.

ADVANCED FLORAL DESIGN

TEA #11923365

8943 R(X)

GRADE: 10–12

CREDIT: 1/2

PREREQUISITES: Floral Design and Interior Landscape Development

A course designed to examine floral design in relation to contemporary designs, business practices, specialty items, creativity and careers in the floral industry. Articulated credit may be awarded upon successful completion of a sequence of courses. To receive articulated college credit & weighted GPA for this course, the student must also complete at least one of the following: a related competitive event, related Supervised Ag Experience (SAE) or related job/intern position or experience. The student must also show mastery of identified enhancements to the course. *Note: This course is accepted as fine arts credit for non-horticulture majors at Texas A&M University.*

HORTICULTURE I

TEA #11934461

8951 R(A/B)

(Yearlong)

GRADE: 10–12

CREDIT: 2

PREREQUISITE: Intro to Horticultural Science

This two hour pre-employment lab course prepares students to produce, process, and market horticultural plants used principally for ornamental, recreational and aesthetic purposes and to establish, maintain, and manage horticulture enterprises. Includes structures, machinery, and equipment necessary for each horticulture enterprise. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. To receive articulated college credit & weighted GPA for this course, the student must also complete at least one of the following: a related competitive event, related Supervised Ag Experience (SAE) or related job/intern position or experience. The student must also show mastery of identified enhancements to the course.

HORTICULTURE II

TEA #11934462

8952 R(A/B)

(Yearlong)

GRADE: 11–12

CREDIT: 2

PREREQUISITES: Horticulture I

This course is a continuation of Horticulture I. This course satisfies the physical education graduation requirement.

AGRIBUSINESS MANAGEMENT AND MARKETING

TEA #11922373

8956 R(X)

GRADE: 11–12

CREDIT: 1/2

PREREQUISITE: At Least two Ag Science Courses

A course designed as an introduction to agribusiness management in the free enterprise system. Instruction includes the use of basic economic principles, such as supply and demand, profit maximization, budgeting, record keeping, finance, risk management, business law, marketing and careers in agribusiness.

AGRICULTURAL SCIENCE TECHNOLOGY CAREER PREPARATION I

TEA #11955501

8044 R(A/B)

(Yearlong)

GRADE: 11-12

CREDIT: 3

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site, and two credits in Agricultural Science courses

This course provides classroom and on-the-job training in agribusiness occupations. Typical work based placement includes occupations in horticulture, animal science, plant science, agriculture mechanics, etc. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week, of supervised works.

AGRICULTURAL SCIENCE TECHNOLOGY CAREER PREPARATION II

TEA #11955502

8125 R(A/B)

(Yearlong)

GRADE: 12

CREDIT: 3

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site and Agricultural Science Technology Career Preparation I

This course provides classroom and on-the-job training in agribusiness occupations. Typical job placement includes occupations in horticulture, animal science, plant science, agriculture mechanics, etc. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week.

AGRICULTURE SCIENCE INDEPENDENT STUDY

TEA #11977339

8032 R(X)

GRADE: 12

CREDIT: 1/2

PREREQUISITE: Two credits in Agriculture Science courses

A project-based learning experience developed by a student or group of students, teacher, and an interdisciplinary mentor team. The project provides opportunities for an in-depth study of at least one aspect of the agriculture area. The student or group demonstrates the ability to utilize a variety of resources, advanced technology, and communication skills in the development and presentation of a project.

Business Education Majors

Business Education courses provide students with meaningful instruction both for business and about business. Major tasks emphasize developing effective oral and written communications, preparing and analyzing business records, operating appropriate equipment, utilizing software, and developing necessary knowledge and skills to interact successfully with others. Two student organizations for those enrolled in Business Education, Business Professionals of America and Future Business Leaders of America, contribute to the advancement of leadership, citizenship, personal growth, and academic and technological skills.

Introductory Level Courses

KEYBOARDING

TEA #12011500
GRADE: 9–12

0312 R(X)
CREDIT: 1/2

PREREQUISITE: None

Develops computer keyboard mastery, speed and accuracy; provides for instruction in formatting of basic documents and provides opportunities for students to apply keyboarding skills in real-life situations. Includes skill development in proofreading, spelling, word division, punctuation, and correction techniques.

RECORDKEEPING

TEA #12011600
(Semester)
GRADE: 9–12
(Yearlong)
GRADE: 9–12

0117 R(X)
CREDIT: 1/2
0117 R(A/B)
CREDIT: 1

PREREQUISITE: None

This course develops skills for use in business activities. The course covers budgeting, computing, payroll calculations, banking, business forms and cashier records. The course develops skills in personal financial management and office practices and procedures. Recordkeeping provides a good foundation for the accounting course.

INTRODUCTION TO BUSINESS

TEA #12011400
GRADE: 9–12

0401 R(X)
CREDIT: 1/2

PREREQUISITE: None

This course provides an overview of the economic process and the development of an economic system. The content includes economic roles, factors of production and distribution, types of business and the types of economic systems with emphasis on the private enterprise system and the United States economy. The course explores characteristics of businesses, legal and ethical business issues and entrepreneurial opportunities.

PERSONAL FINANCE

TEA #N1205003

(Semester)
GRADE: 9–12
(Yearlong)
GRADE: 9–12

0129 R(X)
CREDIT: 1/2
0129 R(A/B)
CREDIT: 1

PREREQUISITE: None

This course is designed to prepare students to make good financial choices that will free them to achieve desired careers and lifestyles. Special emphasis is placed on the relationship between fiscal, mental and physical health. Students are provided opportunities to develop the knowledge and skills necessary to become financially independent. Topics covered include budgeting and cash flow, using credit wisely, insurance, money management and investments, savings and estate planning.

Courses Requiring Introductory Level Courses or Prerequisites

BUSINESS COMPUTER INFORMATION SYSTEMS I

TEA #12011200
(Yearlong)
GRADE: 9–12

8193 R(A/B)
CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course introduces basic concepts and skills related to computer systems. Special emphasis is placed on word processing, databases, telecommunications, desktop publishing, networking, spreadsheets, and presentation management. It includes introductions to new, emerging information processing tools, such as telecommunications and integrated software, transporting text and images, and desktop publishing. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS IMAGE MANAGEMENT AND MULTIMEDIA

TEA #12022300
(Yearlong)
GRADE: 10–12

0443 R(A/B)
CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course develops proficiency in developing professional oral and visual communication skills, translating and interpreting audio and visual materials such as charts, graphs, pictures, and maps for use in production of business presentations, and identifying the components and types of multimedia presentations. Students analyze the cost, availability and effectiveness of layout, color, special effects, and media objects in text documents and multimedia presentations; import graphics, sound, and video objects into text documents and presentations, using CD-ROM, World Wide Web, and integrate media devices into document and presentation preparation using image management technology. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS COMMUNICATIONS

TEA #12011100

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

0731 R(X)

CREDIT: 1/2

0731 R(A/B)

CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course provides students the opportunity to recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students apply technical skills to address business applications of technology. Students develop reading, writing, computing, communication, and reasoning skills and apply them to the business environment.

BUSINESS SUPPORT SYSTEMS

TEA #12011300

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

0454 R(X)

CREDIT: 1/2

0454 R(A/B)

CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course introduces practical business procedures; develops the foundation for competent business participation and self sufficiency in today's world; helps students develop flexibility and adaptability for the rapidly changing business environment and other skills necessary for success in the workforce. It helps students develop effective communications and information management using emerging technology, including telecommunications.

TELECOMMUNICATIONS AND NETWORKING

TEA #12022700

(Yearlong)

GRADE: 10–12

3826 R(A/B)

CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course explores the impact of global telecommunications on business and society, the various types and uses of networks common networking protocols and hierarchical storage structures. The components of effective web page creation, editing and installation will be practiced. This course satisfies the Technology Application graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

ACCOUNTING I

TEA #12022100

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

0121 R(X)

CREDIT: 1/2

0121 R(A/B)

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

This course provides a study of the accounting cycle for a service business, basic accounting concepts and terminology, the effects of transactions on the accounting equation, general journal entries, trial balance, end-of-period adjustments, adjusting and closing entries and financial statements. Articulated credit may be awarded upon successful completion of a sequence of courses.

ACCOUNTING II

TEA #12031100

(Yearlong)

GRADE: 11–12

0122 R(A/B)

CREDIT: 1

PREREQUISITE: Accounting I

The course content includes forms of business, and accounting concepts to perform advanced accounting procedures using technology and accounting knowledge needed for making business decisions. Articulated credit may be awarded upon successful completion of a sequence of courses.

BANKING/FINANCIAL SYSTEMS

TEA #12022200

GRADE: 11–12

0124 R(X)

CREDIT: 1/2

PREREQUISITE: Accounting IA

This course introduces students to a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business needed to make appropriate business decisions, banking and financial concepts, principles and procedures, the role of money in the modern economy and the principal functions of financial institutions. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS OWNERSHIP

TEA #12022600

GRADE: 10–12

0405 R(X)

CREDIT: 1/2

PREREQUISITE: Business Computer Information Systems I or Computer Applications

This course provides a theoretical base as well as practical and proven techniques for planning, organizing, and operating a business. It includes planning and strategy concepts, financial and organizational considerations, market analysis and customer development, operations management, accounting and financial controls, and other components of entrepreneurship. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS MANAGEMENT

TEA #12022500

GRADE: 10–12

0412 R(X)

CREDIT: 1/2

PREREQUISITE: Business Computer Information Systems I or Computer Applications

This course introduces the basic management concepts and leadership styles; explores managerial functions, economic and social components of productivity, international business, and human relations; the changing nature of the business environment; concepts of business ethics, and development and implementation of a business plan. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS LAW

TEA #12022400

0433 R(X)

GRADE: 11–12

CREDIT: 1/2

PREREQUISITE: Business Computer Information Systems I

Introduces law and the origins and necessity of the legal system; provides insight into the evolution and development of laws that govern business in our society; develops and understanding of how organization and operation of the legal system impact business; develops an understanding of rights and duties within the business environment; and includes contractual responsibility, protection of individual rights in legal relationships relative to warranties, product liability, secured and unsecured debts, negotiable instruments, agencies, employer/employee relations, property ownership and transfer, landlord and tenant, wills and estates, community property, social security, and taxation.

INTERNATIONAL BUSINESS

TEA #12031500

(Semester)

0221 R(X)

GRADE: 10–12

CREDIT: 1/2

(Yearlong)

0221 R(A/B)

GRADE: 10–12

CREDIT: 1

PREREQUISITE: Intro to Business, Business Management, Business Ownership or Principles of Marketing

Introduces concepts of the global market and economy and international trade; examines operations in a global market; provides an opportunity to study cultural differences and effects of differences on managerial practices and international law; the impact of international trade on the domestic and global economy; and examines planning, organizational structure, finance, marketing, and foreign governmental practices.

ADMINISTRATIVE PROCEDURES

TEA #12031200

(Yearlong)

3801 R(A/B)

GRADE: 11–12

CREDIT: 2

(Yearlong)

3802 R(A/B)

GRADE: 11–12

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

This course provides instruction in the basic concepts and skills related to office operations practiced within the classroom setting. Application of computer skills, delivery of information and products, and performance of office support responsibilities are emphasized.

WORD PROCESSING

TEA #12022800

8194 R(A/B)

GRADE: 10–12

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

Improves level of proficiency in producing complex business documents; builds on knowledge of word processing concepts and designs with emphasis on the advanced formatting and production level; develops advanced word processing skills, including desktop publishing, creating templates, converting document formats, and importing existing spreadsheets and databases into word processing documents. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS COMPUTER INFORMATION SYSTEMS II

TEA #12031300

(Yearlong)

8197 R(A/B)

GRADE: 10–12

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

This course provides advanced technology skills required in the business environment; includes workplace technology standards in applications of word processing, spreadsheets, databases, telecommunications, desktop publishing, presentation management, networking, operating systems, and emerging technologies; and develops advanced level skills. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS COMPUTER PROGRAMMING I

TEA #12031400

(Yearlong)

8836 R(A/B)

GRADE: 10–12

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

The course content includes programming languages and operating systems and problem solving using different types and levels of programming languages. This course satisfies the Technology Applications graduation requirement.

BUSINESS INDEPENDENT STUDY

TEA #12061100

(Yearlong)

0128 R(A/B)

GRADE: 12

CREDIT: 1

PREREQUISITES: Two business courses including Business Computer Information Systems I

A project-based learning experience developed by a student or group of students, teacher, and an interdisciplinary mentor team. The project provides opportunities for an in-depth study of at least one aspect of the business area. The student or group demonstrates the ability to utilize a variety of resources, advanced technology, and communication skills in the development and presentation of a project. This activity meets one of the advanced measures of the Distinguished Achievement Program (DAP).

BUSINESS EDUCATION CAREER PREPARATION I

TEA #12099100

(Yearlong)

8167 R(A/B)

GRADE: 11–12

CREDIT: 3

(Yearlong)

8168 R(A/B)

GRADE: 11–12

CREDIT: 2

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site and two business courses including Business Computer Information System I

A course that provides advanced technology skills required in the business environment; includes workplace technology standards in applications of word processing, spreadsheets, databases, telecommunications, desktop publishing, presentation management, networking, operating systems, and emerging technologies; and develops advanced level skills. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

Health Science Technology Majors

Health Science Technology Education courses are designed for students who have an interest and desire to explore health careers. Students enhance their academic foundation through a strong science-based enrichment curriculum. Industry partnerships provide students with valuable hands-on experiences so students learn to deliver safe, effective, efficient, quality health care. Emphasis is placed on safety, communication skills, ethical and legal responsibilities, teaming, systems, and the technology utilized in health care. Opportunities for leadership and citizenship development are available through membership and participation in Health Occupations Students of America (HOSA). The student professional organization provides opportunities for leadership development, knowledge and skill recognition through the competitive events program, and community service projects.

Introductory Level Courses

INTRODUCTION TO HEALTH SCIENCE TECHNOLOGY

TEA #12101200

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

8130 R(X)

CREDIT: 1/2

8130 R(A/B)

CREDIT: 1

PREREQUISITE: None

This course gives an overview of the therapeutic diagnostic, environmental and information systems of the health care industry. The focus is on career exploration, leadership, development, ethical and legal issues and the history, economics and trends in financing health care. Students will develop a concept of health and wellness from the perspective of a health consumer as well as a potential professional in the health care industry. This course satisfies the Health Education Credit graduation requirement if taken for one credit. Articulated credit may be awarded upon successful completion of a sequence of courses.

MEDICAL TERMINOLOGY

TEA #12121220

GRADE: 9–12

8050 R(X)

CREDIT: 1/2

PREREQUISITE: None

A course designed to develop a working knowledge of the language of medicine. Students acquire word-building skills by learning prefixes, suffixes roots, and abbreviations. 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. Articulated credit may be awarded upon successful completion of a sequence of courses.

Courses Requiring Introductory Level Courses or Prerequisites

HEALTH SCIENCE TECHNOLOGY I (weighted)

TEA #12101300

(Yearlong)

GRADE: 10–12

8040 H(A/B)

CREDIT: 1

PREREQUISITES: Concurrent enrollment or completion of Biology

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. Students will learn the knowledge and skills needed to make client assessment; interpret health science technical material, describe biological and chemical processes that maintain homeostasis; identify principles of body mechanics and movement; analyze the impact of local, state, and government on the health care industry. This course prepares the students to work with health care issues and make the transition to clinical or work-based experiences in health care. This course satisfies the Health Education credit graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

HEALTH SCIENCE TECHNOLOGY II (weighted)

TEA #12101400

(Yearlong)

GRADE: 10–12

8060 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, 16 years of age, Health Science Technology I, Biology and concurrent enrollment or completion of Chemistry

This course will develop skills in the classroom and clinical settings that comply with standard precautions, practices and prescribed techniques. Students learn to maintain a safe environment, to prevent hazardous situations, follow protocol related to hazardous materials and strategies for the prevention of disease and infection. Students will perform health screenings, examinations, monitor client health status during therapeutic and diagnostic procedures, observe client during care and procedures; accurately measure and report client vital signs and other indicators of health status. This course provides for the development of multi-occupational knowledge and skill related to a wide variety of health careers. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

HEALTH SCIENCE TECHNOLOGY III

TEA #12101500

(Yearlong)

GRADE: 11–12

8072 R(A/B)

CREDIT: 2-4

PREREQUISITES: Instructor approval, Health Science Technology II, Biology and concurrent enrollment or completion of Chemistry

Students will develop advanced clinical skills necessary for the health science professions or continued post-secondary education. This course is designed to provide knowledge and skills for certification or licensure in an allied health career. Students develop advanced clinical skills necessary for employment in the health care industry or continued post-secondary education in health careers. Students may have the opportunity to develop the skills and competencies for Certified Nurse Assistant (CNA) or Pharmacy Technician. Emergency Medical Technician (EMT)

concentration is taught by fire department personnel at Akins and Lanier High Schools. Students will learn to transfer knowledge and skills to new situations and apply problem-solving strategies, update skills to enhance employability and identify emerging technologies in the health science technology industry. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

**HEALTH SCIENCE TECHNOLOGY
INDEPENDENT STUDY**

TEA #12131320

(Yearlong)

GRADE: 11–12

8248 R(A/B)

CREDIT: 1

PREREQUISITES: Instructor approval, 16 years of age and have completed Introduction to Health Science Technology, Health Science Technology I, Health Science Technology II, Biology and Chemistry

A project-based learning experience developed by a student or group of students, teacher, and an interdisciplinary mentor team. The project provides opportunities for an in-depth study of at least one aspect of the health science area. The student or group demonstrates the ability to utilize a variety of resources, advanced technology, and communication skills in the development and presentation of a project.

SCIENTIFIC RESEARCH AND DESIGN (weighted)

TEA #12112120

(Yearlong)

GRADE: 11–12

8069 H(A/B)

CREDIT: 1

PREREQUISITES: Instructor approval and Introduction to Health Science Technology, Health Science Technology I, Health Science Technology II or Biology and Chemistry

This course is designed to expand the Health Science student's knowledge and skill in conducting scientific long-term, original research projects that lead to publishable results. Students model the practice of professional scientists working in real world research laboratories. Students will learn to transfer knowledge and skills to new situations and apply problem-solving strategies, update skills to enhance employability and identify emerging technologies in the health science technology industry. Students use appropriate technologies for their research project including experimentation and data analysis, and present their findings to a health science career audience for external review.

MENTAL HEALTH

TEA #12121260

GRADE: 11–12

8076 R(X)

CREDIT: 1/2

PREREQUISITES: Health Science Technology I, Biology, Chemistry

This course is an introduction to mental health services, careers, history, agencies, current issues, and the difference between functional and dysfunctional behaviors. Students develop an awareness of the factors that affect mental health by exploring traditional and emerging treatment modalities.

**ANATOMY AND PHYSIOLOGY OF HUMAN SYSTEMS
(weighted)**

TEA #12112130

(Yearlong)

GRADE: 11–12

4135 H(A/B)

CREDIT: 1

PREREQUISITES: Biology and Chemistry

In this course, students conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Topics are presented through an integration of biology, chemistry, and physics. Students study the structures and functions of the human body and body systems and investigate the body's responses to forces, maintenance of homeostasis, electrical interactions, transport systems, and energy systems. This course qualifies for science credit.

PATHOPHYSIOLOGY (weighted)

TEA #12112150

GRADE: 11–12

PREREQUISITES: Biology, Chemistry, Anatomy and Physiology of Human Systems

4232 H(X)

CREDIT: 1/2

In this course, students conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Students study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of diseases. Students will differentiate between normal and abnormal physiology. This course qualifies for science credit.

MEDICAL MICROBIOLOGY (weighted)

TEA #12112140

GRADE: 11–12

PREREQUISITES: Biology and Chemistry (Anatomy and Physiology recommended)

4234 H(X)

CREDIT: 1/2

This course is designed to teach students basic principals in Medical Microbiology including the relationship between microbes and health maintenance. Laboratory experiences prepare students to identify morphological characteristics of infectious diseases, diagnose diseases, and identify beneficial microbes that colonize the human body. Other laboratory skills include classification of microorganisms using a dichotomous key, evaluation of the effectiveness of anti-microbial agents and understanding of the body's immune system as a mechanism for defense against infection. This is an elective and does not meet the core course requirement for science.

Family and Consumer Sciences Majors

Human Sciences is a course of study that prepares students for personal and family life across the life span as they manage the challenges of living and working in a diverse, global society. The program focuses on family life, work life, and career management. Several courses offer occupationally specific training in the career fields of child care, education, food production, hospitality, interior design and nutrition. Multicultural education, leadership development, integration and application of academic skills, and problem solving are emphasized in all courses.

Introductory Level Courses

CAREER STUDIES

TEA #12201310

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

2532 R(X)

CREDIT: 1/2

2532 R(A/B)

CREDIT: 1

PREREQUISITE: None

This comprehensive course provides opportunities to explore factors influencing career choices and demonstrate employability skills that lead to career success. Content includes career opportunities in child development and early childhood education, family studies and human services, consumer and resource management, the hospitality industry, the textiles and apparel industries, environmental design, the family and consumer sciences profession, and nutrition and wellness. Hands-on experiences in the occupationally specific training areas may be provided.

APPAREL

TEA #12207210

GRADE: 10–12

PREREQUISITE: None

This laboratory course focuses on apparel from the perspectives of personal decision-making related to apparel, the apparel industry, and career preparation. Topics include managing the apparel dollar, apparel repair and alteration, and wardrobe planning, care, and maintenance. Quality apparel construction is addressed as it relates to consumer decision-making and career preparation for the apparel industry. Other content addresses career options and management practices for assuming multiple family, community, and career roles. A supervised career connections experience is required.

2520 R(X)

CREDIT: 1/2

INDIVIDUAL AND FAMILY LIFE

TEA #12202210

GRADE: 10–12

PREREQUISITE: None

This course includes topics on personal development, interpersonal relationships, and family wellness. Techniques for problem solving, decision-making, goal setting and conflict resolution are covered. A supervised career connections experience is required.

2524 R(X)

CREDIT: 1/2

PARENTING EDUCATION FOR SCHOOL-AGED PARENTS

TEA #N1220303

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

2535 R(X)

CREDIT: 1/2

2537 R(A/B)

CREDIT: 1

PREREQUISITE: Instructor and counselor approval

This course focuses on meeting the needs of school-age parents and their children through knowledge of personal development; parenthood/adult roles; prenatal and postnatal care; health and well-being of parents and children; development of children from birth to three years of age; special concerns in the family; family life management; and career opportunities.

PERSONAL AND FAMILY DEVELOPMENT

TEA #12201210

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

2727 R(A/B)

CREDIT: 1

This comprehensive laboratory course is designed to address a broad range of knowledge and skills related to personal development and management, promotion of strong families, and preparation for adult roles. Content includes nutrition, interpersonal skills, budgeting and consumer-buying patterns, and management of housing needs. A supervised career-connections experience each semester is required. Expenses may be incurred for projects.

CHILD DEVELOPMENT

TEA #12203310

GRADE: 10–12

PREREQUISITE: None

2528 R(X)

CREDIT: 1/2

This course includes knowledge and skills related to child growth and development and the principles and procedures for promoting the physical, emotional, social, and intellectual development of young children, including those with special needs. Other topics include characteristics of quality childcare, career options related to the care and education of children, and the management of multiple community and family roles. A supervised career connections experience is required. Articulated credit may be awarded upon successful completion of a sequence of courses.

PREPARATION FOR PARENTING

TEA #12203210

GRADE 10–12

PREREQUISITE: None

2527 R(X)

CREDIT: 1/2

This laboratory course provides content for students to acquire knowledge and skills related to the development and care of children. It develops concepts related to prenatal and postnatal care, the development of children and child guidance techniques. The course emphasizes special parenting techniques for children with special needs. A supervised career connections experience is required. Articulated credit may be awarded upon successful completion of a sequence of courses.

CONSUMER AND FAMILY ECONOMICS

TEA #12206310 **2531 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: None

This course addresses consumer and family economics. It provides information on the role of consumers in the U.S. economy. Special emphasis is given to consumer rights and responsible family financial management and decisions, consumer buying and protection, and careers available within the area of consumer economics. A supervised career connections experience is required.

HOUSING

TEA #12208210 **2530 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: None

Housing addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Topics include interior and exterior environmental issues, housing construction, and furnishings selection. A supervised career connections experience is required. Articulated credit may be awarded upon successful completion of a sequence of courses.

FAMILY HEALTH NEEDS

TEA #12202310 **2534 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: None

This course focuses on personal health for family members; stress management, the impact of illness, accidents, and special health needs on the family, and explores family health care options. A supervised career connections experience is required.

NUTRITION AND FOOD SCIENCE

TEA #12204210 **2525 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: None

The content in this laboratory course includes nutrition as it relates to dietary functions through the family life cycle, special dietary needs, and nutrient sources. Safety, sanitation and nutrition in food preparation are addressed. It covers cultural influences on food patterns, management techniques and careers in food and nutrition occupations. A supervised career connections experience is required. Articulated credit may be awarded upon successful completion of a sequence of courses.

INTRODUCTION TO CULINARY ARTS

TEA #N1220505 **8313 R(A/B)**
GRADE: 9-12 **CREDIT: 1**

PREREQUISITE: None

This entry level course is designed to prepare students for career opportunities in the food service & hospitality industries. Students will study food safety & sanitation, food service equipment selection & use, and basic food preparation techniques.

Courses Requiring Introductory Level Courses or Prerequisites**FOOD SCIENCE AND TECHNOLOGY**

TEA #12204310 **2526 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: Nutrition and Food Science

This laboratory course provides an in-depth study of the significance of food science. It addresses food chemistry, food processing, marketing and food/nutrition technology and therapeutic diets. Food/nutrition career options are explored. A supervised career connections experience is required. Articulated credit may be awarded upon successful completion of a sequence of courses.

INTERIOR DESIGN

TEA #12208310 **2529 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: Housing

This course covers the concepts and skills needed to successfully decorate a home and/or business. The content addresses period styles, surface treatments, lighting, use of design, space planning; consideration of occupant needs and management principles. Other components include the impact of technology, the acquisition of professional services, and career options. A supervised career connections experience is required. Articulated credit may be awarded upon successful completion of a sequence of courses.

TEXTILE AND APPAREL DESIGN

TEA #12207310 **8084 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: Apparel

This laboratory course is designed to address the textiles and apparel industries, textile design and production, apparel design practices and influences, and career preparation. Instruction includes knowledge and skills of the design industry, fibers, fabrics, textile and apparel manufacturing systems, product marketing techniques, technology applications, international impact of the textiles and apparel industries, federal regulations, and career options. Design procedures and management of multiple family, community, and career roles are emphasized. A supervised career connections experience is required.

CULINARY ARTS I: FOOD PRODUCTION, MANAGEMENT AND SERVICES (weighted)

TEA #12205221 **8309 H(A/B)**
(Yearlong) **CREDIT: 2**
GRADE: 11–12

PREREQUISITES: Instructor approval, Nutrition and Food Science and Food Science Technology

This two-hour lab course provides training for employment and/or continued education in the area of food production, management and services. Basic content is provided in nutrition, as well as skills in food preparation and service. The content focuses on concepts and skills related to management techniques, equipment operation, quantity food production, catering, safety and sanitation. Articulated credit may be awarded upon successful completion of a sequence of courses. This course satisfies the physical education graduation requirement. Certification is available in sanitation. This course is offered only at Austin, Bowie, and Travis High Schools.

CULINARY ARTS II: FOOD PRODUCTION, MANAGEMENT AND SERVICES (weighted)

TEA #12205222

(Yearlong)

GRADE: 11–12

8310 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, Food Production Management and Services I (Culinary Arts I)

This class is a continuation of Food Production Management and Services I. It meets two hours daily and satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered only at Austin, Bowie and Travis High Schools.

HOSPITALITY SERVICES I (weighted)

TEA #12205321

(Yearlong)

GRADE: 11–12

2973 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, Nutrition and Food Science and Food Science and Technology

This two-hour course provides training in hospitality services such as hotel and motel operation and institutional services. Students learn concepts and skills related to property management, psychology of guests, lodging operations and food and beverage operations. Hotels or conference centers are used for the work-based component. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered only at Bowie and Travis High Schools.

HOSPITALITY SERVICES II (weighted)

TEA #12205322

(Yearlong)

GRADE: 11–12

2983 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval and Hospitality Services I

Students continue the program as described in Hospitality Services I. It meets two hours daily and satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered only at Bowie and Travis High School.

PROFESSIONAL BAKING I (weighted)

TEA #N1220501

(Yearlong)

GRADE: 11–12

8311 H(A/B)

CREDIT: 2

PREREQUISITES: Nutrition and Food Science and Food Science and Technology or Introduction To Culinary Arts

This course covers the art and the science of baking. Baking is a vital part of any chef's training and an important part of every successful restaurant operation. Students receive experience by working as an apprentice to a real baker, as licensed by the U.S. Department of Labor. Articulated credit may be awarded upon successful completion of a sequence of courses. This course satisfies the physical education graduation requirement. This course is offered only at Johnston High School.

PROFESSIONAL BAKING II (weighted)

TEA #N1220502

(Yearlong)

GRADE: 11–12

8312 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval and Professional Baking I

This course is a continuation of Professional Baking I. Articulated credit may be awarded upon successful completion of a sequence of courses. This course satisfies the physical education graduation requirement. This course is offered only at Johnston High School.

READY SET TEACH I (weighted)

TEA #N122T307

(Yearlong)

GRADE: 11–12

2651 H(A/B)

CREDIT: 2

PREREQUISITES: Preparation for Parenting and Child Development

Ready, Set, Teach! Is a field-based internship which provides students a 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, middle and/or high school aged students. Students from the class 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. The students are involved in observations as well as direct student instruction. Placement rotations are utilized to allow students to have experiences in a full range of education career roles, grade levels, subject areas and ability groups. During the course of each week, students are involved in classroom instruction and in supervised field-based observations and applications of principles/practices studied in the class. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

READY SET TEACH II

TEA #N122T308

(Yearlong)

GRADE: 12

2652 R(A/B)

CREDIT: 2

PREREQUISITE: Ready Set Teach I

This course is a continuation of Teacher Education I. This course satisfies the physical education graduation requirement.

FAMILY/CONSUMER SCIENCES CAREER PREPARATION I

TEA #12290001

(Yearlong)

GRADE: 11–12

(Yearlong)

GRADE: 11–12

2721 R(A/B)

CREDIT: 3

2722 R(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site, and one credit in Family/Consumer Science courses

This course provides classroom and on-the-job training for students preparing to enter full-time employment in occupations in home economics. Classroom instruction includes orientation to employment; personal development; personal and financial management; awareness of consumer and civic responsibilities;

communication skills; decision-making procedures; and research of careers. Typical work based placement includes training areas in services for older adults, child care, food service, hospitality services, institutional management, housing and furnishing services and apparel services. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

**FAMILY/CONSUMER SCIENCES CAREER
PREPARATION II**

TEA #12290002

(Yearlong) 2723 R(A/B)

GRADE: 12 CREDIT: 3

(Yearlong) 2724 R(A/B)

GRADE: 12 CREDIT: 2

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site, and Family Consumer Sciences Career Preparation I

This course continues the program described in Family Consumer Sciences Career Preparation I. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

Technology Related Majors

Technology Education provides a comprehensive experienced-based course of study that allows students to gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. Technology education is organized into six content areas: bio-related technology; communication; computer applications; construction; energy, power, and transportation; and manufacturing. Technology Student Association, the student organization for students, contributes to the advancement of leadership, citizenship, and technical skills as an integral part of the instructional program.

Introductory Level Courses

TECHNOLOGY SYSTEMS

TEA #12331320

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

7116 R(A/B)

CREDIT: 1

Laboratory experiences are focused on the technology systems of bio-related technology; communication; computer applications; construction; energy, power, transportation, and manufacturing. Content includes the study of systems of technology, application of technology, design/problem solving, evolving technologies, safety, maintenance, entrepreneurship, leadership, careers, and marketing.

ENGINEERING PRINCIPLES

TEA #12331330

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

7117 R(A/B)

CREDIT: 1

This overview course introduces the concepts and practices that underlie careers in engineering and engineering technology. The course integrates technology, mathematics, and science into pre-engineering activities. Students acquire knowledge and skills in engineering problem solving and explore requirements for engineering careers.

COMMUNICATION SYSTEMS

TEA #12341420

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

7903 R(X)

CREDIT: 1/2

7903 R(A/B)

CREDIT: 1

This course focuses on visual communication using Photography, Graphic Design, Digital Imaging and Vector Graphics. Students will create solutions to problems in visual communication using photography, graphic design and illustration for print. Student will gain proficiency in using industry standard applications for graphic design: Adobe Photoshop and Adobe Illustrator. Articulated credit may be awarded upon successful completion of a sequence of courses.

INTRODUCTION TO ENGINEERING DESIGN

TEA #N12372T1

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

8824 R(A/B)

CREDIT: 1

IED is an introductory course, which develops student problem solving skills, with emphasis placed upon the concept of developing a 3-D model or solid rendering of an object. Students focus on the application of visualization processes. This modern computer-based process replaces the traditional hand writing methods. The course will emphasize the design development process of a product and how a model of that product is produced, analyzed and evaluated, using a Computer Aided Design System. Various design applications will be explored with discussion of possible career opportunities. A student may be awarded articulated credit and weighted GPA upon successful completion of the college level end of course exam.

Courses Requiring Introductory Level Courses or Prerequisites

COMPUTER APPLICATIONS

TEA #12341470

(Yearlong)

GRADE: 9–12

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

7813 R(A/B)

CREDIT: 1

This exploratory course is designed to explore the use of computers in communication, construction, energy, power, transportation, and manufacturing fields. Activities include programming, flow charts, computer-aided design, digital graphics, telecommunications, desktop publishing, 3-D design, digital animation, multimedia presentations, digital photography and digital video and sound. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

PRINCIPLES OF ENGINEERING (weighted)

TEA #N1237203

(Yearlong)

GRADE: 10–12

PREREQUISITES: Intro to Engineering Design and Algebra I

8826 H(A/B)

CREDIT: 1

Principles of engineering is a broad-based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved in post-secondary education programs and engineering careers. They will explore various engineering systems and manufacturing processes. They will also learn how engineers address concerns about the social and political consequences of technological change. The main purpose of this course is to experience through theory and hands-on problem solving activities what engineering is all about to answer the question, "Is a career in engineering or engineering technology for me?" A student may be awarded articulated credit and weighted GPA upon successful completion of the college level end of course exam.

CIVIL ENGINEERING AND ARCHITECTURE

TEA #N1237206

(Yearlong)

GRADE: 11–12

8829 H(A/B)

CREDIT: 1

PREREQUISITE: Introduction to Engineering Design, Principles of Engineering, and Digital Electronics

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real work problems and communicate solutions to hands-on projects and activities.

AEROSPACE ENGINEERING

TEA #N1237207

(Yearlong)

GRADE: 11–12

8828 H(A/B)

CREDIT: 1

PREREQUISITE: Introduction to Engineering Design, Principles of Engineering, and Digital Electronics

Through hands-on engineering projects developed with NASA, students learn about aerodynamics, astronautics, space-life sciences, and systems engineering.

MANUFACTURING SYSTEMS

TEA # 12341430

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

7904 R(X)

CREDIT: 1/2

7904 R(A/B)

CREDIT: 1

PREREQUISITE: Technology Systems or Engineering Principles

An exploratory course which addresses the knowledge and skills important in manufacturing technology. Students study common manufacturing tools, machines, materials, and processes in the laboratory. Experiences in planning and controlling simulated manufacturing systems and projects allow students to explore the organizational structures and management strategies in manufacturing. Expenses may be incurred for projects.

COMMUNICATION GRAPHICS

TEA #12362640

(Yearlong)

GRADE: 10–12

PREREQUISITE: Communication Systems or Computer Applications

7614 R(A/B)

CREDIT: 1

In this course students explore the resources, processes, management, and products in the technical aspects of photography, graphic design, electronic communications and digital imaging. The course emphasizes problem solving, design principles, technical standards and use of related equipment. Articulated credit may be awarded upon successful completion of a sequence of courses.

COMMUNICATION GRAPHICS (Modular Lab)

TEA #12362641

(Yearlong)

GRADE: 10–12

PREREQUISITE: Communication Systems or Computer Applications

7617 H(A/B)

CREDIT: 1

This course focuses on using the computer as the primary production tool for visual communication in print and electronic delivery. Students will create solutions to problems in advertising design using Adobe InDesign and other tools and skills to create electronic pre-press files for print reproduction with a goal of economy and the communication of ideas and concepts. Emphasis in this course is on principles of design and typography. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

COMPUTER MULTIMEDIA & ANIMATION TECHNOLOGY

TEA #12362680

(Yearlong)

GRADE: 10–12

PREREQUISITE: Computer Applications

8754 R(A/B)

CREDIT: 1

This laboratory course focuses on the integration of movie, video, and television production with computer graphics and electronic instrumentation. Students will demonstrate knowledge of legal restrictions and copyright laws related to media technology. Emphasis is on producing products containing video animation. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

ENGINEERING GRAPHICS

TEA #12362630

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

PREREQUISITE: Computer Applications, Communication Systems, or Engineering Principles

8823 R(X)

CREDIT: 1/2

8823R(A/B)

CREDIT: 1

This course focuses on the design, planning, and technical communications associated with engineering. In this course, emphasis is placed on production drawings and graphics related to machine design, welding fabrication, electrical and electronic components, piping, technical illustration, gears and cams, intersection and development, jigs and fixtures. Articulated credit may be awarded upon successful completion of a sequence of courses. Articulated credit may be awarded upon successful completion of a sequence of courses.

ELECTRICITY/ELECTRONICS TECHNOLOGY

TEA #12362670

(Yearlong)

GRADE: 10–12

PREREQUISITE: Technology Systems or Engineering Principles

7313 R(A/B)

CREDIT: 1

This is a technical activity-based course designed to introduce the concepts and application of electrical energy and electronics as a component of energy technology. In the electricity component, students focus on the characteristics, generation, storage, distribution, and application of electrical energy. In the electronics component, the focus is on the design, production, and application of electronic devices and circuits. Articulated credit may be awarded upon successful completion of a sequence of courses.

DIGITAL ELECTRONICS (weighted)

TEA #N12372T2

(Yearlong)

GRADE: 10–12

PREREQUISITE: Intro to Engineering Design

8825 H(A/B)

CREDIT: 1

Digital electronics is a course of study in applied digital logic. The course is patterned after the first semester course in Digital Electronics taught in two and four year colleges. Students will study the application of electronic logic circuits and devices and apply Boolean logic to the solution of problems. Such circuits are found in watches, calculators, video games, computers, and thousands of other devices. The use of smart circuits is present in virtually all aspects of our lives and its use is increasing rapidly, making digital electronics an important course of study for a student exploring a career in engineering/engineering technology using Electronics Workbench (EWB), the industry standard. Students will test and analyze simple and complex digital circuitry. Students will

design circuits, using EWB, export their designs to a printed circuit auto routing program that generates printed circuit boards and construct the design using chips and other components. A student may be awarded articulated credit and weighted GPA upon successful completion of the college level end of course exam.

COMPUTER INTEGRATED MANUFACTURING (weighted)

TEA #N1237204

(Yearlong)

GRADE: 10–12

8827 H(A/B)

CREDIT: 1

PREREQUISITE: Intro to Engineering Design

This course builds upon the computer solid modeling design skills developed in the Introduction to Engineering Design. Students will be presented with design problems that require the use of Mechanical Desktop to develop solutions to the problems. They will evaluate the solutions using mass property analysis (study of the relationship among the design, function and materials used), make appropriate modifications and use rapid prototyping equipment to produce three-dimensional models of the solutions. Students will be expected to communicate the process and results of their work through oral and written reports. A student may be awarded articulated credit and weighted GPA upon successful completion of the college level end of course exam.

MANUFACTURING TECHNOLOGY

TEA #12362650

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

7314 R(X)

CREDIT: 1/2

7314 R(A/B)

CREDIT: 1

PREREQUISITE: Manufacturing Systems or Engineering Principles

A technical course that enhances the understanding of various metallic and nonmetallic materials, processes, and products. Materials studied may include polymers, ceramics, woods, composites, and metals. Experiences include safety instruction of tool use and machines associated with manufacturing. Mathematical and scientific concepts are stressed as students study various processes used for transforming materials into products. Students study the design of products, quality control, design of production tooling, machine tool setups, and manufacturing systems.

ARCHITECTURAL GRAPHICS

TEA #12362620

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

8960 R(X)

CREDIT: 1/2

8960 R(A/B)

CREDIT: 1

PREREQUISITE: Communication Systems, Computer Applications or Engineering Principles

This is a technical course in principles of residential design, architectural styles, and construction practices. Activities focus on the development of original working drawings, presentation drawings, and model building. Articulated credit may be awarded upon successful completion of a sequence of courses.

CONSTRUCTION SYSTEMS

TEA #12341440

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

8229 R(X)

CREDIT: 1/2

8229 R(A/B)

CREDIT: 1

PREREQUISITE: Technology Systems

An exploratory course which addresses the utilization of construction for residential and civil structures. Students study and use common construction tools, machines, materials, and processes. Experiences in planning and controlling construction systems and projects allow students to explore the organizational structures and management strategies in construction.

ARCHITECTURAL CONSTRUCTION

TEA #12362660

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

7315 R(X)

CREDIT: 1/2

7315 R(A/B)

CREDIT: 1

PREREQUISITE: Construction Systems

A technical course that focuses on the use of tools, equipment, and materials used for the construction of residential and light commercial structures. Student activities may include the design and construction of residential structures and the use of advanced tools and machines used in the construction industry.

ENGINEERING DESIGN AND DEVELOPMENT

TEA #N1237205

(Yearlong)

GRADE: 11–12

GRADE: 11–12

8828 R(A/B)

CREDIT: 1

PREREQUISITES: Intro to Engineering Design, Digital Electronics, Principles of Engineering, and Computer Integrating Manufacturing

In this course, students will work in teams of two to four to design and construct the solution to an engineering problem, applying the principles developed in the preceding four courses. The problem may be selected from a database of engineering problems, be a recognized national challenge or be an original engineering problem identified by the team and approved by the teacher. The problems will involve a wide range of engineering applications (e.g. a school robo-mascot, automated solar water heater, remote control hovercraft). Students will maintain a journal as part of a portfolio that will be invaluable as the students apply to college. A student may be awarded articulated credit and weighted GPA upon successful completion of the college level end of course exam.

RESEARCH, DESIGN AND DEVELOPMENT

TEA #12392920

(Yearlong)

GRADE: 11–12

GRADE: 11–12

8703 R(A/B)

CREDIT: 1

PREREQUISITES: Instructor approval and two Technology Education courses in an approved sequence

This course provides students the opportunity to conduct research and development activities in one or more of the technology areas of communication, construction, computer application, energy, and manufacturing. Students conduct research, collect data, solve problems, and design and develop prototypes and working models. Expenses may be incurred for projects.

PROBLEMS AND SOLUTIONS IN TECHNOLOGY

TEA #12392930

(Yearlong)

GRADE: 11–12

GRADE: 11–12

8191 R(A/B)

CREDIT: 1

PREREQUISITES: Instructor approval and two Technology Education courses in an approved sequence

This is a course for advanced technology students. Students will use advanced tools, materials, and processes to solve an identified problem or build products in a more efficient manner. Expenses may be incurred for projects.

Marketing Majors

Marketing Education prepares students to conduct the critical business functions associated with directing the flow of products and services from the producer to the consumer. The foundations of economics, human resources, and marketing concepts are necessary to understand and apply the nine functions of marketing. Students study and apply the marketing functions that include distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling. Students also have opportunities to develop leadership, social, civic, and career skills in marketing through their participation in Distributive Education Clubs of America (DECA). DECA provides well-planned activities that can be integrated into the curriculum and projects that promote occupational competence for students.

Introductory Level Courses

PRINCIPLES OF MARKETING

TEA #12411921 **8012 R(X)**
GRADE: 9–12 **CREDIT: 1/2**

PREREQUISITE: None

This course gives an overview of the marketing industry and the relationship of promotion, purchasing, management and selling.

RETAILING

TEA #12411922 **8011 R(X)**
GRADE: 9–12 **CREDIT: 1/2**

PREREQUISITE: None

This course gives an overview of the retail industry and addresses helping customers make satisfying buying decisions. Topics related to store operations, buying, selling, planning, advertising, credit, staffing, security and management are also covered.

MARKETING YOURSELF

TEA #12411910 **8132 R(X)**
GRADE: 9–12 **CREDIT: 1/2**

PREREQUISITE: None

An introductory course designed as a portfolio development course for all students. Students will develop a systematic approach for evaluating and seeking career opportunities by discovering how personal qualities relate to successful performance.

SPORTS AND ENTERTAINMENT MARKETING

TEA #N1242044 **8134 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: None

This innovative course focuses on the study of marketing in the context of the sports and entertainment industry. Students will explore career options in advertising, event marketing and promotion, public relations, sales promotion, venue management and production management.

Courses Requiring Introductory Level Courses or Prerequisites

ENTREPRENEURSHIP

TEA #12411920 **8121 R(X)**
(Semester) **CREDIT: 1/2**
GRADE: 11–12 **8121 R(A/B)**
(Yearlong) **CREDIT: 1**
GRADE: 11–12

PREREQUISITE: Business Computer Information Systems I or Computer Applications

This course provides the opportunity to learn the various aspects of business ownership and operation. Course content includes the nature of small business, types of businesses, business development, types of ownership, and locating and financing a business. Also included is the study of business psychology, business mathematics, human relations, sales promotion, and basic selling techniques.

ADVERTISING

TEA #12422030 **8603 R(X)**
(Semester) **CREDIT: 1/2**
GRADE: 10–12 **8603 R(A/B)**
(Yearlong) **CREDIT: 1**
GRADE: 10–12

PREREQUISITES: Business Computer Information Systems I, Computer Applications or Desktop Publishing and Principles of Marketing

This course covers concepts and skills necessary for employment in the field of advertising. It includes creation and design of graphic materials for ornamentation, illustration, advertising, and computer graphics.

TECHNOLOGY IN MARKETING

TEA #12422033 **0734 R(A/B)**
(Yearlong) **CREDIT: 1**
GRADE: 10–12

PREREQUISITES: Keyboarding or demonstrated keyboarding proficiency

This course is designed to prepare students to use computers and other technology in research, decision-making, production, and presentation applications for marketing. Students will apply current technology to marketing functions while participating in marketing-related projects.

FUNDAMENTALS OF E-COMMERCE

TEA #N1205016 **0222 R(X)**
GRADE: 10–12 **CREDIT: 1/2**

PREREQUISITE: Principles of Marketing or Introduction to Business

E-Commerce is an exchange, buying and or selling of economic goods, product or something useful or valued. This course has been designed to give students the basic knowledge of what is involved in using the Internet to conduct commerce? This course covers various components involved in e-Commerce such as the basic principles of the Internet and e-Commerce, developing business strategy, new technology, ethical, legal and security of the Internet along with marketing and basic web page design.

E-COMMERCE

TEA #N1242046

(Semester)

GRADE: 11–12

(Yearlong)

GRADE: 11–12

0223 R(X)

CREDIT: 1/2

0223 R(A/B)

CREDIT: 1

PREREQUISITE: Fundamentals of e-Commerce

The study of e-Commerce includes the exchange, buying and or selling of an economic good, product or something useful or valued. This course has been designed to give students hands-on experience in creating an e-Commerce business. This course will cover topics such as entrepreneurship, developing a business plan, developing a market plan, front and back end components, ethical, legal and security aspects of the Internet, financing a start-up business, customer service, advanced web design, and e-Commerce careers.

MARKETING DYNAMICS

TEA #12441140

(Yearlong)

GRADE: 10–12

8135 R(A/B)

CREDIT: 1

PREREQUISITES: Two marketing or business education courses, Business Computer Information Systems I

This course provides job-specific training for entry-level employment and students will investigate career options and global marketing issues. Students learn concepts and skills related to marketing, management, entrepreneurship, and psychology of marketing; and international business operations.

INTERNATIONAL MARKETING

TEA #12422031

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

0733 R(X)

CREDIT: 1/2

0733 R(A/B)

CREDIT: 1

PREREQUISITE: Principles of Marketing

A technical course designed for students with an interest in global or multinational marketing. Instruction includes money exchange, political and social influences, and cultural norms. The process of strategic planning for global or multinational marketing is explored.

MARKETING EDUCATION CAREER PREPARATION I

TEA #12421555

(Yearlong)

GRADE: 11–12

(Yearlong)

GRADE: 11–12

0736 R(A/B)

CREDIT: 3

0735 R(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site, and one marketing education course

This course provides work based learning opportunities in marketing careers. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

MARKETING EDUCATION CAREER PREPARATION II

TEA #12421556

(Yearlong)

GRADE: 11–12

(Yearlong)

GRADE: 11–12

0737 R(A/B)

CREDIT: 3

0738 R(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site, and Marketing Education Career Preparation I

This is the second level of study to provide Work-Based Learning opportunities in Marketing Careers. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

Trade and Industrial Majors

Trade and Industrial Education courses are designed to prepare students for profitable employment in related occupations. This course of study provides instruction that develops manipulative skills, safety, judgment, technical knowledge, and related occupational information. The major systems are transportation, electrical/electronics, communication and media, personal and protective services and building construction/maintenance. Opportunities to develop and apply leadership, social, civic and business-related skills are provided through the Skills USA/VICA (Vocational Industrial Clubs of America), the student organization for young people enrolled in trade and industrial programs.

Transportation Majors

INTRODUCTION TO TRANSPORTATION SERVICES

TEA #12579104

(Yearlong)

GRADE: 9–12

8400 R(A/B)

CREDIT: 1

PREREQUISITE: None

This course is designed to provide an overview of transportation services and career opportunities and training requirements. Topics covered included basic lab safety, tool care and use, and utilization of service manuals, publications and on-line technical resources. This course is offered at Crockett, Johnston and Reagan High Schools.

AUTOMOTIVE TECHNICIAN I

TEA #12579102

(Yearlong)

GRADE: 10–12

8401 R(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, Business Computer

Information Systems I, Introduction to Transportation Services

This two-hour lab course provides job-specific training in automotive technician specialized technologies related to the auto repair and service industry. Instruction emphasizes repair of basic automobile components with a special focus on brakes and wheel alignment, electrical systems, engine performance and steering and suspension. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered at Crockett, Johnston and Reagan High Schools.

AUTOMOTIVE TECHNICIAN II

TEA #12579103

(Yearlong)

GRADE: 11–12

8402 R(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, Automotive Technician I

This intermediate level two-hour lab course is a continuation of Automotive Technician I and provides job-specific training in automotive technician specialized technologies related to the auto industry. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered at Crockett, Johnston and Reagan High Schools.

AUTOMOTIVE COLLISION REPAIR AND REFINISHING TECHNOLOGY I (weighted)

TEA #12579301

(Yearlong)

GRADE: 10–12

(Yearlong)

GRADE: 10-12

8403 H(A/B)

CREDIT: 3

8405 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, Introduction to Transportation Services

Instruction is designed to provide job-specific training for entry-level employment in the automotive after-market field of auto body repair and refinishing. Instruction emphasizes frame and body repair; metal, fiberglass, and synthetic materials repair; welding skills; preparation and application of primers and paints. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered at Crockett and Reagan.

AUTOMOTIVE COLLISION REPAIR AND REFINISHING TECHNOLOGY II (weighted)

TEA #12579302

(Yearlong)

GRADE: 11–12

(Yearlong)

GRADE: 11-12

8404 H(A/B)

CREDIT: 3

8406 H(A/B)

CREDIT: 2

PREREQUISITES: Instructor approval, Automotive Collision/Repair and Refinishing Technology I

This course is a continuation of Automotive Collision Repair and Refinishing Technology I. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses. This course is offered at Crockett and Reagan.

Electrical/Electronics Majors

INTRODUCTION TO COMPUTER MAINTENANCE

TEA #12534504

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

8018 R(A/B)

CREDIT: 1

This course focuses on the assembly and disassembly of modern computer systems. The study of electronic theory necessary to perform basic systems maintenance will be included. The operation and check out of system board circuitry; monochrome and color monitors, disc drive system, computer architecture, and schematic diagrams will be presented. The use of software and trouble-shooting system abnormalities will be integrate with basic electronic and hardware needed to properly diagnose malfunctions. Articulated credit may be awarded upon successful completion of a sequence of courses.

COMPUTER MAINTENANCE TECHNICIAN I (weighted)

TEA #12534502

(Yearlong)

GRADE: 10–12

PREREQUISITE: Introduction to Electrical/Electronics Careers, Introduction to Computer Maintenance, or Basic Computer Technology

8019 H(A/B)

CREDIT: 2

First-year instruction is designed to provide job-specific training for entry-level employment in the rapidly expanding computer maintenance field. Instruction includes electricity/electronic theory, computer systems, data-communications, digital electronics, installations, inspections, adjustments, and repair and maintenance. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

COMPUTER MAINTENANCE TECHNICIAN II

TEA #12534503

(Yearlong)

GRADE: 11–12

PREREQUISITE: Computer Maintenance Technician I

Second-year instruction is designed to enhance the job-specific training for entry-level employment in the rapidly expanding computer maintenance field. Instruction includes electricity/electronic theory, computer systems, data-communications, digital electronics, installations, inspections, adjustments, and repair and maintenance. This course satisfies the physical education graduation requirement.

COMPUTER CABLING AND DESIGN

TEA #12534501

(Yearlong)

GRADE: 10–12

PREREQUISITE: Basic Computer Technology or Intro to Computer Maintenance

8013 R(A/B)

CREDIT: 2

This two-hour lab course includes the design; techniques, tools and technologies related to the cabling and design trades. This course satisfies the physical education graduation requirement.

BASIC COMPUTER TECHNOLOGY (A+)

TEA #N1295008

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

8014 R(A/B)

CREDIT: 1

In this course students learn about the inner workings of a computer. Students apply skills needed to troubleshoot, repair and build personal computers. Basic Computer Technology is an industry-standard course that is required for anyone desiring to work in the area of computer repair or technical support. Topics covered in this course include basic PC architecture, peripheral devices, operating systems, basic troubleshooting and repair. This course leads to an industry-validated credential, the A+ Certification. Technical reading, writing, and mathematical skills will be utilized. Articulated credit may be awarded upon successful completion of a sequence of courses.

NETWORKING ESSENTIALS (N+) (weighted)

TEA #N1295009

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

PREREQUISITE: Basic Computer Technology or Intro to Computer Maintenance

8021 H(X)

CREDIT: 1/2

8021 H(A/B)

CREDIT: 1

N+ is an industry-standard course that measures the technical knowledge of networking for anyone desiring to work in the area of network repair and technical support. Topics covered in the course will include knowledge of networking technology and knowledge of networking practices. Articulated credit may be awarded upon successful completion of a sequence of courses.

FUNDAMENTALS OF THE INTERNET (I-NET+)

TEA #N1295010

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

PREREQUISITE: Business Computer Information Systems I or Computer Applications

8180 R(X)

CREDIT: 1/2

8180 R(A/B)

CREDIT: 1

I-Net+ is an industry standard course that measures the knowledge and skills needed to implement and maintain Internet clients. Topics include Internet Applications development, networking security, trouble-shooting, programming languages and business concepts. Articulated credit may be awarded upon successful completion of a sequence of courses.

FUNDAMENTALS OF TELECOMMUNICATION

TEA #12535101

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

PREREQUISITES: Keyboarding or Demonstrated Keyboarding Proficiency

8150 R(X)

CREDIT: 1/2

8150 R(A/B)

CREDIT: 1

This technical laboratory course is designed to familiarize students with the various telecommunications systems in use today and introduce them to new, experimental innovations in the communications field. The course consists of both classroom and laboratory instruction, providing hands-on training through the use of experimental modules and computer programs.

INTERNETWORKING TECHNOLOGIES I

TEA #N1295006

| | | |
|------------|-----------|-------------|
| (Yearlong) | Non-Cisco | 8182 H(A/B) |
| | Cisco | 8184 H(A/B) |

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|--------------|--|-----------|
| GRADE: 10–12 | | CREDIT: 1 |
|--------------|--|-----------|

| | | |
|------------|-----------|-------------|
| (Yearlong) | Non-Cisco | 8181 H(A/B) |
| | Cisco | 8183 H(A/B) |

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|--------------|--|-----------|
| GRADE: 10–12 | | CREDIT: 2 |
|--------------|--|-----------|

PREREQUISITE: Basic Computer Technology or Intro to Computer Maintenance

The activities are designed to meet the needs of the individual students through hands-on, project-driven training that models industry standard job skills. Included are such activities as designing, building, maintaining small to medium-sized networks utilizing both the hardware and software matched with current industry standards. Articulated credit may be awarded upon successful completion of a sequence of courses.

INTERNETWORKING TECHNOLOGIES II

TEA #N1295007

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|------------|--|-------------|
| (Yearlong) | | 8186 R(A/B) |
|------------|--|-------------|

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|--------------|--|-----------|
| GRADE: 11–12 | | CREDIT: 1 |
|--------------|--|-----------|

| | | |
|------------|--|-------------|
| (Yearlong) | | 8185 R(A/B) |
|------------|--|-------------|

| | | |
|--------------|--|-----------|
| GRADE: 11–12 | | CREDIT: 2 |
|--------------|--|-----------|

PREREQUISITE: Internetworking Technologies I

This second year course is project-driven and models industry standard job skills. Included are such activities as installation, testing, operation, customization and maintenance of computer networking software, hardware systems, wireless LANS and network security.

NETWORK ADMINISTRATION I

TEA #N1205009

| | | |
|------------|--|-------------|
| (Yearlong) | | 8023 R(A/B) |
|------------|--|-------------|

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|--------------|--|-----------|
| GRADE: 11–12 | | CREDIT: 1 |
|--------------|--|-----------|

PREREQUISITES: Internetworking Technologies I

A third year course in which students maintain small to medium-sized networks as a network administrator. This course is a fundamental study in managing a Local Area Network (LAN). Special emphasis is placed on the areas of networking hardware and media, local area network topologies, access methods, electronic mail, multi-user software and distributed processing. Activities include designing, implementing and expanding server based network services consistent with industry standard software on a live production network as well as providing organized maintenance to the network.

NETWORK ADMINISTRATION II

TEA #N1205010

| | | |
|------------|--|-------------|
| (Yearlong) | | 8024 R(A/B) |
|------------|--|-------------|

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|--------------|--|-----------|
| GRADE: 11–12 | | CREDIT: 1 |
|--------------|--|-----------|

PREREQUISITE: Network Administration I

This course is a continuation of Network Administration I.

INTRODUCTION TO ELECTRICAL/ELECTRONICS CAREERS

TEA #12534704

| | | |
|------------|--|-----------|
| (Semester) | | 8300 R(X) |
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|-------------|--|-------------|
| GRADE: 9–12 | | CREDIT: 1/2 |
|-------------|--|-------------|

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|------------|--|-------------|
| (Yearlong) | | 8302 R(A/B) |
|------------|--|-------------|

| | | |
|-------------|--|-----------|
| GRADE: 9–12 | | CREDIT: 1 |
|-------------|--|-----------|

PREREQUISITE: None

Introduction to Electronics is designed to help students understand the fundamentals of electronics in both theory and practical applications. Students learn to use test equipment, such as multi-meters, power supplies, frequency generators, and oscilloscopes. They also explore the numerous fields of electronics, which are constantly expanding in the world we live today. Hands-on training will be a large part of the course and safety precautions are taught and required.

ALTERNATING CURRENT ELECTRONICS

TEA #12547103

| | | |
|------------|--|-------------|
| (Yearlong) | | 8379 R(A/B) |
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|--------------|--|-----------|
| GRADE: 10–12 | | CREDIT: 1 |
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|------------|--|-------------|
| (Yearlong) | | 8380 R(A/B) |
|------------|--|-------------|

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|--------------|--|-----------|
| GRADE: 10–12 | | CREDIT: 2 |
|--------------|--|-----------|

PREREQUISITE: Introduction to Electrical/Electronic Careers

A course designed to provide instruction in the fundamentals of alternating current and circuits, including induction, capacity, reactors, impedance, resonance, tuned circuits, filters, and complex alternating current circuits. In this course, emphasis is placed on the introductory skills involved in alternating current circuit analysis in which time-varying electrical signals, particularly the sine wave, as well as thorough study of the capacitor, inductor and Q factors in semiconductors with appropriate approval. Articulated credit may be awarded upon successful completion of a sequence of courses.

DIRECT CURRENT ELECTRONICS

TEA #12547106

| | | |
|------------|--|-------------|
| (Yearlong) | | 8382 R(A/B) |
|------------|--|-------------|

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|--------------|--|-------------|
| GRADE: 10–12 | | CREDIT: 1–2 |
|--------------|--|-------------|

PREREQUISITES: Introduction to Electrical/Electronics Careers

This course covers the fundamental relationship of current, voltage, resistance, capacitance, inductance, and power through an understanding of Ohm's and Kirchoff's laws. The relationship between electricity and magnetism is discussed and network theorems are introduced as problem-solving tools. Articulated credit may be awarded upon successful completion of a sequence of courses.

SEMICONDUCTOR ELECTRONICS TECHNOLOGY

TEA #12547107

| | | |
|------------|--|-------------|
| (Yearlong) | | 8383 R(A/B) |
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| GRADE: 11–12 | | CREDIT: 2–3 |
|--------------|--|-------------|

PREREQUISITE: Introduction to Electrical/Electronics Careers

This course begins with a brief history and description of vacuum tubes as a way to explore the ways transistors and related devices operate. Emphasis is placed on the introduction to semiconductor electronic devices; their operation and characteristics; and a familiarization of circuit schematic representations and actual circuit interconnection. Devices explored include vacuum tubes, transistors, latching devices, optical-electronic devices and the basic operations of each. Articulated credit may be awarded upon successful completion of a sequence of courses.

ELECTRONICS I**TEA #12534701****(Yearlong)****GRADE: 10–12****8373 R(A/B)****CREDIT: 2***PREREQUISITES: Introduction to Electrical/Electronics Careers and Algebra I*

Students learn how to build and measure resistive circuits and understand electronic theorems and formulas and build a project to keep and use. Students focus on alternating current, which uses components such as inductors and capacitors that are used to control frequencies and radio signals. The entire year is spent mainly on electronic equipment in order to have students experience “real life” situations with electronics. This course satisfies the physical education requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

ELECTRONICS II**TEA #12534702****(Yearlong)****GRADE: 11–12****8377 R(A/B)****CREDIT: 2***PREREQUISITE: Electronics I*

This class will focus on operations of components called semiconductors and digital logic theory (inner workings of computers, DVD's, and any digital instruments). The first semester is comprised of learning how diodes, transistors, and integrated circuits actually work and how to make them do what you want them to do. The second semester involves learning digital codes and applying these codes to all digital systems in order to work with digital equipment. The technical content of this course may help prepare for math, engineering, or physics courses. This course satisfies the physical education requirement. Articulated credit may be awarded upon successful completion of a sequence of course.

Communications and Media

INTRODUCTION TO MEDIA TECHNOLOGY

TEA #12512304

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

8737 R(X)

CREDIT: 1/2

8737 R(A/B)

CREDIT: 1

PREREQUISITE: None

This course provides instruction in movie, video, and television production careers. It includes operation of different types of cameras, mastery of audio techniques, electronic editing, creation of media graphics, lighting, script writing, direction, production, special effects, signal control, set design, entrepreneurship, and safety. Students learn how to film and produce a short video.

INTRODUCTION TO VISUAL COMMUNICATION PROCESSES

TEA #12512305

(Yearlong)

GRADE: 9–12

8723 R(A/B)

CREDIT: 1

PREREQUISITE: None

This course introduces students to the concepts of visual communication. In this activity-based course, students explore the resources, processes, management, and products in the technical areas of photography, graphic arts and electronic communication. The course emphasizes problem solving, design principles, technical standards, and use of related equipment.

INTRODUCTION TO GRAPHIC COMMUNICATION CAREERS

TEA #12511905

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

8721 R(X)

CREDIT: 1/2

8725 R(A/B)

CREDIT: 1

PREREQUISITE: None

A cluster course designed to provide a broad basic understanding of career opportunities, training requirements and minimal skills in four communications-related careers: graphic communications, advertising design, drafting, and commercial photography.

MEDIA TECHNOLOGY I (weighted)

TEA #12512301

(Yearlong)

GRADE: 11–12

(Yearlong)

GRADE: 11–12

8757 H(A/B)

CREDIT: 1

8753 H(A/B)

CREDIT: 2

PREREQUISITE: Introduction to Media Technology, Computer Multimedia/Animation, Multimedia and Animation or Video Technology

This two-hour laboratory course provides job-specific instruction on integrating movie, video, and television production with computer graphics and electronic instrumentation. The course includes operation of different types of production equipment, such as soundboards, mixers, phases, and other special effects. This course satisfies the physical education graduation requirement if taken for 2 credits. Articulated credit may be awarded upon successful completion of a sequence of courses.

MEDIA TECHNOLOGY II (weighted)

TEA #12512302

(Yearlong)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

8740 H(A/B)

CREDIT: 1

8739 H(A/B)

CREDIT: 2

PREREQUISITE: Media Technology I

This course is a continuation of Media Technology I. This course satisfies the physical education graduation requirement if taken for 2 credits.

MEDIA TECHNOLOGY III

TEA #N1251236

(Yearlong)

GRADE: 12

8741 R(A/B)

CREDIT: 1-3

PREREQUISITE: Media Technology II

This course provides students with advanced practice in media. Students will study, demonstrate and practice industry standard skills and demonstrate knowledge in responsible and ethical media production and communication.

COMMERCIAL PHOTOGRAPHY I

TEA #12511501

(Yearlong)

GRADE: 10–12

8840 R(A/B)

CREDIT: 2

PREREQUISITE: Introduction to Visual Communication Processes or Communication Systems

This two-hour lab course provides students with job-specific training for entry-level employment in commercial photography. Instruction includes principles of photography, commercial composition, print making, finishing, safety, entrepreneurship, and career opportunities. This course satisfies the physical education graduation requirement.

TECHNICAL INTRODUCTION TO COMPUTER-AIDED DRAFTING (weighted)

TEA #12511705

(Yearlong)

GRADE: 11–12

8520 H(A/B)

CREDIT: 1

PREREQUISITE: Computer Applications

This is a beginning technical laboratory course for students interested in computer-aided drafting. Students will use basic level CAD software to create technical drawings. Articulated credit may be awarded upon successful completion of a sequence of courses.

ENGINEERING COMPUTER AIDED DRAFTING I (weighted)

TEA #12511701

(Yearlong)

GRADE: 11–12

8521 H(A/B)

CREDIT: 2

PREREQUISITES: Computer Applications or Intro to CAD

First-year instruction is designed to focus on drawing orthographic views and developments using computer software applications for architectural, electronic, and electro-mechanical drafting. Articulated credit may be awarded upon successful completion of a sequence of courses.

Personal and Protective Service Majors

INTRODUCTION TO COSMETOLOGY

TEA #12568103

(Yearlong)

GRADE: 9–10

PREREQUISITE: None

8510 R(A/B)

CREDIT: 1

This course introduces students to careers in cosmetology. This course provides a study of licensing requirements, safety, leadership, salon management and ownership. Students practice selecting and applying products, shampooing, styling, coloring, facials, make-up, nail technology and manicuring. There are fees associated with this course.

COSMETOLOGY I

TEA #12568101

(Yearlong)

GRADE: 10–12

PREREQUISITES: Instructor approval, Introduction to Cosmetology plus at least 125 clock hours

8511 R(A/B)

CREDIT: 3

This laboratory course provides job-specific training for entry level employment in cosmetology. Cosmetology is a state licensing program requiring 1000 clock hours to qualify for completion of the 2-year program. It includes sterilization and sanitation processes, shampooing and rinsing hair, application of conditioning creams and color rinses, application of scalp and hair treatments, shaping and thinning hair, hair styling, permanent waving, hair coloring, manicuring, facial massage, facial make-up, entrepreneurship, safety, leadership and career opportunities. This course satisfies the physical education graduation requirement. Expenses may be incurred for student owned kits.

COSMETOLOGY II

TEA #12568102

(Yearlong)

GRADE: 11–12

PREREQUISITES: Instructor approval, Cosmetology I plus at least 575 clock hours

8512 R(A/B)

CREDIT: 3

This course is a continuation of Cosmetology I. Cosmetology is a state-licensing program requiring 1000 clock hours to qualify for completion of the 2-year program. This course satisfies the physical education graduation requirement. Expenses may be incurred for student owned kits.

INTRODUCTION TO SECURITY SERVICES

TEA #12568709

(Semester)

GRADE: 9–12

(Yearlong)

GRADE: 9–12

PREREQUISITE: None

8095 R(X)

CREDIT: 1/2

8095 R(A/B)

CREDIT: 1

Course provides instruction in the history and philosophy of security, ethical considerations; the nature and impact of security; and an overview of security systems, agencies, and practices. The concepts and skills for security officer plus Texas' rules and regulations; security specialist training and certification; organization of personnel; risk analysis and surveys; security applications; security problems; and the future of security services. Instruction is based on the content required by the Texas Board of Private Investigators and Private Security Agency as a recommended prerequisite to licensing by the state.

SECURITY SERVICES

TEA #12568710

(Semester)

GRADE: 10–12

(Yearlong)

GRADE: 10–12

PREREQUISITE: None

8096 R(X)

CREDIT: 1/2

8096 R(A/B)

CREDIT: 1

A course designed to provide job-specific training for entry-level employment in security services careers. Instruction includes security patrol procedures; use of computers and communications systems; understanding procedures and limits of apprehension and detention; licensing certification requirements; goals of investigation, interview, and interrogation; understanding crime prevention devices, equipment, and procedures; and demonstrating ability to provide oral and written reports.

CRIMINAL INVESTIGATION

TEA #12568705

GRADE: 12

PREREQUISITE: Security Services

8098 R(X)

CREDIT: 1/2

This course provides a basic understanding of investigative theory, collection and preservation of evidence, and sources of information. Methods of conducting interviews and interrogations will also be covered. Students will be provided opportunities to discover uses of forensic sciences and preparation for cases and trials.

EMERGENCY COMMUNICATIONS

TEA #12568706

GRADE: 11–12

PREREQUISITES: Business Computer Information Systems I or Computer Applications and at least two Criminal Justice courses

8094 R(X)

CREDIT: 1/2

This course is a study of the history of public safety communications and of the federal and state laws affecting public safety communication. In addition, telephone and radio communications systems are studied, as are communication documentation; emergency management; 911 and stress and crisis management.

BASIC COUNTY CORRECTIONS

TEA #12568701 **8090 R(X)**
GRADE: 11–12 **CREDIT: 1/2**

PREREQUISITES: Business Computer Information Systems I or Computer Applications and completion or concurrent enrollment in Technical Intro to Criminal Justice

This course provides basic county corrections information and training required for state certification as a basic corrections officer.

COURTS AND CRIMINAL PROCEDURES

TEA #12568703
(Semester) **8091 R(X)**
GRADE: 11–12 **CREDIT: 1/2**
(Yearlong) **8091 R(A/B)**
GRADE: 11–12 **CREDIT: 1**

PREREQUISITES: Instructor approval, Business Computer Information Systems I, and two Criminal Justice courses

This course provides information and training related to the judiciary in the criminal justice system; structure of the American court system; prosecution; right to counsel; pretrial release; grand jury, adjudication process; types and rules of evidence; and sentencing.

CRIME IN AMERICA

TEA #12568704
(Semester) **8093 RX)**
GRADE: 11–12 **CREDIT: 1/2**
(Yearlong) **8093 R(A/B)**
GRADE: 11–12 **CREDIT: 1**

PREREQUISITE: Concurrent with Technical Intro to Criminal Justice

A course designed to introduce the student to American crime problems; impact and crime trends; social characteristic of specific crimes, and prevention of crime. Articulated credit may be awarded upon successful completion of a sequence of courses.

TECHNICAL INTRODUCTION TO CRIMINAL JUSTICE

TEA #12568708
(Semester) **8092 R(X)**
GRADE: 11–12 **CREDIT: 1/2**
(Yearlong) **8092 R(A/B)**
GRADE: 11–12 **CREDIT: 1**

PREREQUISITE: Concurrent with Crime in America

A course designed as a study of the history and philosophy of criminal justice and its ethical consideration. Crime is defined and its nature and impact are explored. Instruction includes an overview of the criminal justice system, law enforcement and the court system, a study of prosecution, defense, trial processes, corrections and penal systems. Articulated credit may be awarded upon successful completion of a sequence of courses.

FUNDAMENTALS OF CRIMINAL LAW

TEA #12568707
(Semester) **8097 R(X)**
GRADE: 11–12 **CREDIT: 1/2**
(Yearlong) **8097 R(A/B)**
GRADE: 11–12 **CREDIT: 1**

PREREQUISITE: Technical Introduction to Criminal Justice or Security Services

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. Articulated credit may be awarded upon successful completion of a sequence of courses.

FIREFIGHTER I

TEA #N1256886
(Yearlong) **8991 R(A/B)**
GRADE: 11–12 **CREDIT: 2**

PREREQUISITE: None

This course introduces students to the career options and training requirements of the fire science and suppression and rescue field. It incorporates theoretical and extensive practical skills sessions that meet state and national standards. Students will be introduced to candidate physical ability training. Students must complete this course with a 75 or better to be eligible to enroll in Firefighter II. The course is taught by the Austin Fire Department at LBJ only. This course satisfies the physical education graduation requirement.

FIREFIGHTER II

TEA #N1256887
(Yearlong) **8992 R(A/B)**
GRADE: 11–12 **CREDIT: 2-3**

PREREQUISITE: Complete Firefighter I With A Grade of 75.

This course is a continuation of Firefighter I. Upon completion of the two year program a student may be eligible to receive the TCFP Basic Fire Suppression Certification. This course is taught by the Austin Fire Department at LBJ High School only. This course satisfies the physical education graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

Building Construction/ Maintenance Majors

BUILDING MAINTENANCE I (CTED)

TEA #12522501

(Yearlong)

8221 R(A/B)

GRADE: 9–12

CREDIT: 2

PREREQUISITE: Instructor approval

This two-hour lab course includes job-specific training in the design, techniques, tools and technologies related to the building maintenance industry. This course satisfies the physical education graduation requirement.

BUILDING MAINTENANCE II (CTED)

TEA #12522502

(Yearlong)

8222 R(A/B)

GRADE: 9–12

CREDIT: 2

PREREQUISITES: Instructor approval, Building Maintenance I

This intermediate level two-hour lab course includes job-specific training in the design, techniques, tools and technologies related to the building maintenance industry. This course satisfies the physical education graduation requirement.

Career Orientation

CAREER CONNECTIONS

TEA #12731100

GRADE: 9–10

PREREQUISITE: None

Career Connections is an activity-based course designed to develop greater knowledge and understanding of one's interests. This course focuses on making meaningful and informed life choices. Campus orientation, stress management, conflict resolution, problem solving, teamwork, and study skills are emphasized. Occupational clusters and a variety of careers within each cluster are studied in relation to individual self-appraisal, including interests, abilities, values, and aptitude. Each student develops a graduation plan and portfolio.

0471 R(X)

CREDIT: 1/2

Military Science

Military Service is a rapidly growing career in high demand. Most positions require training beyond high school and require good grades. The high demand, high paying jobs (Military Officer) require a 4-year degree. Entry requirements for this major generally include good physical and psychological health.

JUNIOR RESERVE OFFICER TRAINING CORPS I, JROTC I

TEA #03160100

(Yearlong)

GRADE: 9–12

PREREQUISITES: Approval of principal and JROTC commander
Frontiers of Aviation History: JROTC I is a historical introduction to the age of flight and the development of flying vehicles. It introduces military customs, courtesies, and wearing of the uniform.

9013 R(A/B)

CREDIT: 1

JUNIOR RESERVE OFFICER TRAINING CORPS II, JROTC II

TEA #03160200

(Yearlong)

GRADE: 10–12

PREREQUISITES: Approval of principal and JROTC commander and JROTC I

The Science of Flight: Students study aerodynamics and aircraft structures. The course introduces aerospace vehicles of today, and it includes instruction in leading and participating in larger military ceremonies. It also includes instruction of effective communication skills and understanding individual and group behavior.

9023 R(A/B)

CREDIT: 1/2–1

JUNIOR RESERVE OFFICER TRAINING CORPS III, JROTC III

TEA #03160300

(Yearlong)

GRADE: 11–12

PREREQUISITES: Approval of principal and JROTC commander and JROTC II

The Exploration of Space: Students study the history of astronomy, the earth, the moon and the solar system. They also study orbit and trajectories, spacecraft and launch vehicles as well as space missions. Lessons are given on job techniques, financial planning, and career opportunities. They further leadership skills and develop military drill proficiency.

9033 R(A/B)

CREDIT: 1

JUNIOR RESERVE OFFICER TRAINING CORPS IV, JROTC IV

TEA #03160400

(Yearlong)

GRADE: 11–12

PREREQUISITES: Approval of principal and JROTC commander and JROTC III

Management of the Cadet Corps: Students apply the vast management and leadership knowledge gained to execute corps activities. Additional options to enhance the curriculum will be undertaken and include, but are not limited to World Geography, National Security Management/Policy and Organization.

9043 R(A/B)

CREDIT: 1

Additional Career Related Courses

DIVERSIFIED CAREER PREPARATION I

TEA #N1295001

(Yearlong) **8006 R(A/B)**

GRADE: 11–12 **CREDIT: 2**

(Yearlong) **8002 R(A/B)**

GRADE: 11–12 **CREDIT: 3**

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site

Diversified Career Preparation is a multi-occupational cooperative education program for approved students. It combines occupationally related classroom instruction and on-the-job training experiences. Training placements may be in any occupation approved for cooperative education programs. Students desiring training in business or high-tech occupations should complete the prerequisite for those pathways before enrolling in DCP. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

DIVERSIFIED CAREER PREPARATION II

TEA #N1295002

(Yearlong) **8010.R(A/B)**

GRADE: 12 **CREDIT: 2**

(Yearlong) **8009.R(A/B)**

GRADE: 12 **CREDIT: 3**

PREREQUISITES: Instructor approval, 16 years of age, own transportation to training site, Diversified Career Preparation I

This course is a continuation of Diversified Career Preparation I. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week. This course satisfies the physical education graduation requirement.

MANAGEMENT INTERNSHIP PROGRAM

TEA #N1295001

(Semester) **8006 R(X)**

GRADE: 12 **CREDIT: 1**

(Semester) **8002 R(X)**

GRADE: 12 **CREDIT: 1 & 1/2**

(Yearlong) **8006 R(A/B)**

GRADE: 12 **CREDIT: 2**

(Yearlong) **8002 R(A/B)**

GRADE: 12 **CREDIT: 3**

PREREQUISITES: Instructor approval, 16 years of age and own transportation to training site

The program provides instruction in a broad range of management problems, basic concepts of organizations, analysis and management as special assistants to executives in the workplace, i.e., government, educational-cultural institutions, private/public business, and industry. Students meet daily for classroom instruction and complete a minimum of 15 hours (3 credits), ten of which must be completed during the school week, or 10 hours (2 credits), five of which must be completed during the school week. This course satisfies the physical education requirement if taken for 2 or more credits

Technology Applications Graduation Credit Courses

* THE FOLLOWING TECHNOLOGY APPLICATION COURSES SATISFY TECHNOLOGY APPLICATIONS CREDIT FOR GRADUATION:

COMPUTER SCIENCE I (weighted)

TEA #03580200

(Yearlong)

GRADE: 9–12

3803.H000.A&B

CREDIT: 1

PREREQUISITE: Algebra I, Keyboarding or demonstrated keyboarding proficiency

Students study computer programming and the development of good coding techniques and apply these skills to relevant applications. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

IB COMPUTER SCIENCE I

TEA #I13580200

(Yearlong)

GRADE: 9–12

7800.I000.A&B

CREDIT: 1

PREREQUISITE: Algebra I, Keyboarding or demonstrated keyboarding proficiency

Students study computer programming and the development of good coding techniques and apply these skills to relevant applications. This course satisfies the Technology Applications graduation requirement. This course offered at Anderson only.

AP COMPUTER SCIENCE II

TEA #A3580200

(Yearlong)

GRADE: 10–12

3804.P000.A&B

CREDIT: 1

PREREQUISITE: Computer Science I

This course includes instruction in applying computer skills to relevant applications such as text processing, simulation, modeling, data management and graphics. It continues study of abstract data types (trees), algorithm analysis of searches and sorts. Students produce a complex project which may include learning another language, or intensive preparation for the Computer Science AP exam (Test AB). Articulated credit may be awarded upon successful completion of a sequence of courses. This course satisfies the Technology Applications graduation requirement.

IB COMPUTER SCIENCE II

TEA #I3580300

(Yearlong)

GRADE: 12

7801.I000.A&B

CREDIT: 1

PREREQUISITE: Computer Science IB

Applies computer skills to relevant applications such as text processing, simulation, modeling, data management and graphics. Continues study of abstract data types (trees), algorithm analysis of searches and sorts. Students produce a complex project which may include learning another language, or intensive preparation for the Computer Science IB TEST. This course satisfies the Technology Applications graduation requirement. This course offered at Anderson only.

INDEPENDENT STUDY IN TECHNOLOGY APPLICATIONS (weighted)

TEA #03580900

(Yearlong)

(Yearlong)

GRADE: 10–12

9224.H000.A&B

9225.H000.A&B

CREDIT:

PREREQUISITES: Completion of two high school technology applications courses

The student learns to make informed decisions about technologies and technology applications terms, concepts, efficient acquisition, identification of task requirements search strategies access, analyzes, and evaluates the acquired information. Technology Applications are tools that support the work of individuals and groups in solving problems; students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results. This course satisfies the Technology Applications graduation requirement.

WEB MASTERING

TEA #03580800

(Yearlong)

GRADE: 10–12

9223.R000.A&B

CREDIT: 1

PREREQUISITES: Keyboarding or demonstrated keyboarding proficiency

Through the study of technology-related terms, concepts, and data input strategies; students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. A variety of technologies will be used. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

VIDEO TECHNOLOGY

TEA #03580700

(Yearlong)

GRADE: 10–12

8755.R000.A&B

CREDIT: 1

PREREQUISITE: Keyboarding or demonstrated keyboarding proficiency

Through the study of video technology-related terms, concepts, and video strategies, students will select the video technology appropriate for the task, synthesize knowledge, create a solution, evaluate the results and produce a video presentation project. This course satisfies the Technology Applications graduation requirement.

DESKTOP PUBLISHING

TEA #03580400

(Yearlong)

GRADE PLACEMENT: 9–12

8750.R000.A&B

CREDIT: 1

PREREQUISITE: Keyboarding or demonstrated keyboarding proficiency

Desktop Publishing combines the skills of electronic design, editing, and production of a product using a variety of hardware and software tools. This project-based course focuses on real-world audiences as customers. Students use a collection of software and design techniques to create a variety of formatted products. Articulated credit may be awarded upon successful completion of a sequence of courses.

DIGITAL GRAPHICS AND ANIMATION

TEA #03580500

(Yearlong)

GRADE: 9–12

8752.R000.A&B

CREDIT: 1

PREREQUISITE: Keyboarding or demonstrated keyboarding proficiency

Digital Graphics and Animation is an introductory course in design, typography, and imaging techniques. The course includes topics such as digital composition, color, imaging, editing, and animation. The student will use the computer's set of tools to produce and edit digital designs as well as to incorporate design principles when capturing digital images with tools like scanners and cameras. Animation, both 2-D and 3-D, will be introduced in this course.

MULTIMEDIA

TEA #03580600

(Yearlong)

GRADE PLACEMENT: 9–12

8756.R000.A&B

CREDIT: 1

PREREQUISITE: Keyboarding or demonstrated keyboarding proficiency

Multimedia is a laboratory-based course designed to provide an overview of and experience in multimedia technology. Sounds, images, graphics, and video are the informational projects from which student will construct media-rich knowledge structures. Students will use technology tools to build linear and non-linear interactive products.

***THE FOLLOWING BUSINESS EDUCATION COURSES SATISFY TECHNOLOGY APPLICATIONS CREDIT FOR GRADUATION:**

BUSINESS COMPUTER INFORMATION SYSTEMS I

TEA #12011200

(Yearlong)

GRADE: 9–12

8193 R(A/B)

CREDIT: 1

PREREQUISITE: Keyboarding or demonstrated keyboarding proficiency

This course introduces basic concepts and skills related to computer systems. Special emphasis is placed on word processing, databases, telecommunications, desktop publishing, networking, spreadsheets, and presentation management. It includes introductions to new, emerging information processing tools, such as telecommunications and integrated software, transporting text and images, and desktop publishing. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS COMPUTER INFORMATION SYSTEMS II

TEA #12031300

(Yearlong)

GRADE: 10–12

8197 R(A/B)

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

This course provides advanced technology skills required in the business environment; includes workplace technology standards in applications of word processing, spreadsheets, databases, telecommunications, desktop publishing, presentation management, networking, operating systems, and emerging technologies; and develops advanced level skills. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS COMPUTER PROGRAMMING I

TEA #12031400

(Yearlong)

GRADE: 10–12

8836 R(A/B)

CREDIT: 1

PREREQUISITE: Business Computer Information Systems I

Course content includes programming languages and operating systems and problem solving using different types and levels of programming languages. This course satisfies the Technology Applications graduation requirement.

TELECOMMUNICATIONS AND NETWORKING

TEA #12022700

(Yearlong)

GRADE: 10–12

3826 R(A/B)

CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course explores the impact of global telecommunications on business and society, the various types and uses of networks, common networking protocols, and hierarchical storage structures. The components of effective web page organization will be practiced and maintained. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

BUSINESS IMAGE MANAGEMENT AND MULTIMEDIA

TEA #12022300

(Yearlong)

GRADE: 10–12

0443 R(A/B)

CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This course develops proficiency in developing professional oral and visual communication skills translate and interpret audio and video materials such as charts, graphs, pictures, and maps for use in production development design and make audio-visual business presentations, identify the components and types of multimedia presentations. Analyze the cost, availability and effectiveness of layout, color, special effects, and media objects in text documents and multimedia presentations; import graphics, sound, and video objects into text documents and presentations, using CD-ROM, World Wide Web, and integrate media devices into document and presentation preparation using image management technology. Articulated credit may be awarded upon successful completion of a sequence of courses.

*** THE FOLLOWING TECHNOLOGY
EDUCATION/INDUSTRIAL TECHNOLOGY
COURSES SATISFY TECHNOLOGY
APPLICATIONS CREDIT FOR GRADUATION:**

**COMPUTER MULTIMEDIA AND
ANIMATION TECHNOLOGY**

TEA #12362680

(Yearlong)

8754 R(A/B)

GRADE: 10–12

CREDIT: 1

PREREQUISITE: Computer Applications or Instructor Approval

This laboratory course focuses on the integration of movie, video, and television production with computer graphics and electronic instrumentation. Students will demonstrate knowledge of legal restrictions and copyright laws related to media technology. Emphasis is on producing products containing video animation. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

COMMUNICATION GRAPHICS (Modular Lab)

TEA #12362641

(Yearlong)

7617 H(A/B)

GRADE: 10–12

CREDIT: 1

PREREQUISITE: Communication Systems or Computer Applications

This course focuses on using the computer as the primary production tool for visual communication in print and electronic delivery. Students will create solutions to problems in advertising design using Adobe InDesign and other tools and skills to create electronic pre-press files for print reproduction with a goal of economy and the communication of ideas and concepts. Emphasis in this course is on principles of design and typography. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

COMPUTER APPLICATIONS

TEA #12341470

(Yearlong)

7813 R(A/B)

GRADE: 9–12

CREDIT: 1

PREREQUISITE: Keyboarding or Demonstrated Keyboarding Proficiency

This exploratory course is designed to explore the use of computers in communication, energy, power, transportation, and manufacturing fields. Activities include computer numerical control programming, computer-aided design, and drafting, telecommunications, desktop publishing, 3-D design, animation, multimedia presentations, CNC programming, and micro-processing programming. This course satisfies the Technology Applications graduation requirement. Articulated credit may be awarded upon successful completion of a sequence of courses.

HIGH SCHOOL