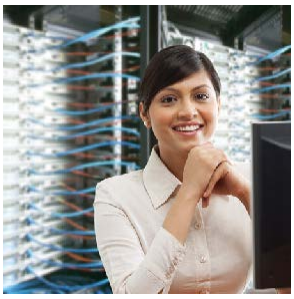

Master Course List

Career and Technical Education

with Texas Student Data System PEIMS Codes and Descriptions

2017-2018

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CTE MASTER COURSE LIST

TAC[1] Chapter 127. Career Development

TAC Chapter 130. Career and Technical Education

[1] Texas Administrative Code

[2] Audio/Visual

Career Development

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Middle School

Investigating Careers

TSDS PEIMS Code:
12700400 (First Time Taken)
12700410 (Second Time Taken)
12700420 (Third Time Taken)
12700430 (Fourth Time Taken)
Grade Placement: 7–8
Credit: None.
Prerequisite: None.

The goal of this course is to create a foundation for success in high school, future studies, and careers such as Science, Technology, Engineering, and Mathematics; Business and Industry; Public Service; Arts and Humanities; and Multidisciplinary Studies. The students research labor market information, learn job-seeking skills, and create documents required for employment. Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.

College and Career Readiness

TSDS PEIMS Code: 12700300
Grade Placement: 7–8
Credit: None.
Prerequisite: None.

The career development process is unique to every person and evolves throughout one's life. Students will use decision-making and problem-solving skills for college and career planning. Students will explore valid, reliable educational and career information to learn more about themselves and their interests and abilities. Students integrate skills from academic subjects, information technology, and interpersonal communication to make informed decisions. This course is designed to guide students through the process of investigation and in the development of a college and career readiness achievement plan. Students will use interest inventory software or other tools available to explore college and career areas of personal interest. Students will use this information to explore educational requirements for various colleges and a variety of chosen career paths.

High School

Project-Based Research

TSDS PEIMS Code:
12701500 (First Time Taken) (PROBS1)
12701510 (Second Time Taken) (PROBS2)
12701520 (Third Time Taken) (PROBS3)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.

Project-Based Research is a course for students to research a real-world problem. Students are matched with a mentor from the business or professional community to develop an original project on a topic related to career interests. Students use scientific methods of investigation to conduct in-depth research, compile findings, and present their findings to an audience that includes experts in the field. To attain academic success, students must have opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

Applied Mathematics for Technical Professionals

TSDS PEIMS Code: 12701410 (APMATHTP)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Algebra 1 and Geometry.

The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each Grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every Grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Career Preparation I

TSDS PEIMS Code: 12701300 (CAREERP1)

Grade Placement: 11–12

Credit: 2

Prerequisite: None.

Career Preparation I provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.

Career Preparation I/Extended Career Preparation

TSDS PEIMS Code: 12701305 (EXCAREE1)

Grade Placement: 12

Credit: 3

Prerequisite: Successful completion of one or more advanced career and technical education courses that are part of a coherent sequence of courses in a Career Cluster related to the field in which the student will be employed.

Corequisites: Career Preparation I.

Extended Career Preparation provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.

Career Preparation II

TSDS PEIMS Code: 12701400 (CAREERP2)

Grade Placement: 12

Credit: 2

Prerequisite: Career Preparation I.

Career Preparation II develops essential knowledge and skills through advanced classroom instruction with business and industry employment experiences. Career Preparation II maintains relevance and rigor, supports student attainment of academic standards, and effectively prepares students for college and career success.

Career Preparation ll/Extended Career Preparation

TSDS PEIMS Code: 12701405 (EXCAREE2)

Grade Placement: 12

Credit: 3

Prerequisite: Successful completion of one or more advanced career and technical education courses that are part of a coherent sequence of courses in a Career Cluster related to the field in which the student will be employed.

Corequisites: Career Preparation II.

Extended Career Preparation provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.

TAC Chapter 130. Career and Technical Education

Revised 6/11/2018

Agriculture, Food & Natural Resources

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Agriculture, Food & Natural Resources

Principles of Agriculture, Food, and Natural Resources

TSDS PEIMS Code: 13000200 (PRINAFNR)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.
Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

Professional Standards in Agribusiness

TSDS PEIMS Code: 13000800 (PROSAFNR)
Grade Placement: 10–12
Credit: .5
Prerequisite: None.
Professional Standards in Agribusiness primarily focuses on leadership, communication, employer-employee relations, and problem solving as they relate to agribusiness.

Agribusiness Management and Marketing

TSDS PEIMS Code: 13000900 (AGRBUSMM)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Agribusiness Management and Marketing is designed to provide a foundation to agribusiness management and the free enterprise system. Instruction includes the use of economic principles such as supply and demand, budgeting, record keeping, finance, risk management, business law, marketing, and careers in agribusiness.

Mathematical Applications in Agriculture, Food, and Natural Resources

TSDS PEIMS Code: 13001000 (MATHAFNR)
Grade Placement: 10–12
Credit: 1
Prerequisite: Algebra I.
Recommended Prerequisites: One credit from the courses in the Agriculture, Food, and

Natural Resources Career Cluster.
In Mathematical Applications in Agriculture, Food, and Natural Resources, students will apply knowledge and skills related to mathematics, including algebra, geometry, and data analysis in the context of agriculture, food, and natural resources.
Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Equine Science

TSDS PEIMS Code: 13000500 (EQUINSCI)
Grade Placement: 10–12
Credit: .5
Prerequisite: None.
In Equine Science, students will acquire knowledge and skills related to equine animal systems and the equine industry. Equine Science may address topics related to horses, donkeys, and mules.

Livestock Production

TSDS PEIMS Code: 13000300 (LIVEPROD)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
In Livestock Production, students will acquire knowledge and skills related to livestock and the livestock production industry. Livestock Production may address topics related to beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Small Animal Management

TSDS PEIMS Code: 13000400 (SMANIMGT)
Grade Placement: 10–12
Credit: .5
Prerequisite: None.
In Small Animal Management, students will acquire knowledge and skills related to small animals and the small animal management industry. Small Animal Management may address topics related to small mammals such as dogs and cats, amphibians, reptiles, and birds.

Veterinary Medical Applications

TSDS PEIMS Code: 13000600 (VETMEDAP)
Grade Placement: 11–12
Credit: 1
Prerequisites: Equine Science, Small Animal Management, or Livestock Production.
Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species.

Advanced Animal Science

TSDS PEIMS Code: 13000700 (ADVANSCI)
Grade Placement: 11–12
Credit: 1
Prerequisites: Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production.
Recommended Prerequisite: Veterinary Medical Applications.

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences.

Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Energy and Natural Resources Technology

TSDS PEIMS Code: 13001100 (ENGNRT)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Minimum one credit from the courses in Agriculture, Food, and Natural Resources Career Cluster.

Energy and Natural Resource Technology examines the interrelatedness of environmental issues and production agriculture. Students will evaluate the environmental benefits provided by sustainable resources and green technologies. Instruction is designed to allow for the application of science and technology to measure environmental impacts resulting from production agriculture through field and laboratory experiences.

Advanced Energy and Natural Resource Technology

TSDS PEIMS Code: 13001200 (ADVENNRT)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: A minimum of one credit from the courses in Agriculture, Food, and Natural Resource Career Cluster and Energy and Natural Resource Technology.

Advanced Energy and Natural Resource Technology is designed to explore the interdependency of the public and natural resource systems related to energy production. In addition, renewable, sustainable, and environmentally friendly practices will be explored.

Oil and Gas Production I

TSDS PEIMS Code: 13001250 (OILGP1)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

In Oil and Gas Production I, students will identify specific career opportunities and skills, abilities, tools, certification, and safety measures associated with each career. Students will also understand components, systems, equipment, and production and safety regulations associated with oil and gas wells.

Oil and Gas Production II

TSDS PEIMS Code: 13001260 (OILGP2)
Grade Placement: 10–12
Credit: 1
Prerequisites: Oil and Gas Production I.

In Oil and Gas Production II, students will gain knowledge of the specific requirements for entry into post-secondary education and employment in the petroleum industry; research and discuss petroleum economics; research and discuss the modes of transportation in the petroleum industry; research and discuss environmental, health, and safety concerns; research and discuss different energy sources; and prepare for industry certification.

Food Technology and Safety

TSDS PEIMS Code: 13001300 (FOODTS)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.

Food Technology and Safety examines the food technology industry as it relates to food production, handling, and safety. To prepare for careers in value-added and food processing systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to value-added and food processing and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Food Processing

TSDS PEIMS Code: 13001400 (FOODPRO)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Food Technology and Safety.

Food Processing focuses on the food processing industry with special emphasis on the handling, processing, and marketing of food products. To prepare for careers in food products and processing systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to natural resources and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements,

and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

Wildlife, Fisheries, and Ecology Management

TSDS PEIMS Code: 13001500 (WFECGT)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Wildlife, Fisheries, and Ecology Management examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

Forestry and Woodland Ecosystems

TSDS PEIMS Code: 13001700 (FWECO)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.

Forestry and Woodland Ecosystems examines current management practices for forestry and woodlands. Special emphasis is given to management as it relates to ecological requirements and how these practices impact the environment.

Range Ecology and Management

TSDS PEIMS Code: 13001600 (RECOMGT)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.

Range Ecology and Management is designed to develop students' understanding of rangeland ecosystems and sustainable forage production.

Floral Design

TSDS PEIMS Code: 13001800 (FLORAL)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Floral Design is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will develop respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgments and evaluations.
Note: This course satisfies a fine arts credit requirement for students on the Foundation High School Program.

Landscape Design and Management

TSDS PEIMS Code: 13001900 (LNDMGT)
Grade Placement: 10–12
Credit: .5
Prerequisite: None.

Landscape Design and Management is designed to develop an understanding of landscape design and management techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Turf Grass Management

TSDS PEIMS Code: 13001950 (TGMGT)
Grade Placement: 10–12
Credit: .5
Prerequisite: None.

Turf Grass Management is designed to develop an understanding of turf grass management techniques and practices.

Horticulture Science

TSDS PEIMS Code: 13002000 (HORTISCI)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.

Horticultural Science is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production.

Greenhouse Operation and Production

TSDS PEIMS Code: 13002050 (GREOP)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.

Greenhouse Operation and Production is designed to develop an understanding of greenhouse production techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Advanced Plant and Soil Science

TSDS PEIMS Code: 13002100 (ADVPSSCI)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Biology, Integrated Physics and Chemistry, Chemistry, or Physics and a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources Career Cluster.

Advanced Plant and Soil Science provides a way of learning about the natural world. Students should know how plant and soil science has influenced a vast body of knowledge, that there are still applications to be discovered, and that plant and soil science is the basis for many other fields of science. To prepare for careers in plant and soil science, students must attain academic skills and knowledge, acquire technical knowledge and skills related to plant and soil science and the workplace.

Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Agricultural Mechanics and Metal Technologies

TSDS PEIMS Code: 13002200 (AGMECHMT)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources.

Agricultural Mechanics and Metal Technologies is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

Agricultural Structures Design and Fabrication

TSDS PEIMS Code: 13002300 (AGSDF)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Agricultural Mechanics and Metal Technologies.

In Agricultural Structures Design and Fabrication, students will explore career opportunities, entry requirements, and industry expectations. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural structures design and fabrication.

Agricultural Equipment Design and Fabrication

TSDS PEIMS Code: 13002350 (AGEQDF)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Agricultural Mechanics and Metal Technologies.
In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment.

Agricultural Power Systems

TSDS PEIMS Code: 13002400 (AGPOWSYS)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources.
Agricultural Power Systems is designed to develop an understanding of power and control systems as related to energy sources, small and large power systems, and agricultural machinery. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the workplace; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

Agricultural Laboratory and Field Experience

TSDS PEIMS Code: see table below
Grade Placement: 11–12
Credit: 1
Corequisite: any course in the Agriculture, Food, and Natural Resources Career Cluster, excluding Principles of Agriculture, Food, and Natural Resources.
Agricultural Laboratory and Field Experience is designed to provide students a laboratory and/or field experience opportunity. To prepare for careers in agriculture, food, and natural resources, students must acquire knowledge and skills that meet entry requirements and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer academic knowledge and technical skills in a variety of settings.
Note: Agricultural Laboratory and Field Experience may be paired with the courses from the Agriculture, Food, and Natural Resources Career Cluster. The TSDS PEIMS information in this table is to be used when the course shown is paired with the Agricultural Laboratory and Field Experience.

Course Name	TSDS PEIMS Code	Course Abbreviation
Livestock Production/Agricultural Laboratory and Field Experience	13000310	LIVPROLAB
Veterinary Medical Applications/Agricultural Laboratory and Field Experience	13000610	VETMEDLAB
Agribusiness Management and Marketing/Agricultural Laboratory and Field Experience	13000910	AGRBUSLAB
Energy and Natural Resource Technology /Agricultural Laboratory and Field Experience	13001110	ENGNRTLAB
Advanced Energy and Natural Resource Technology /Agricultural Laboratory and Field Experience	13001210	ADENRTLAB
Oil and Gas Production I/Agricultural Laboratory and Field Experience	13001255	OILGPLAB1
Oil and Gas Production II /Agricultural Laboratory and Field Experience	13001265	OILGPLAB2
Food Technology and Safety/Agricultural Laboratory and Field Experience	13001310	FOODTLAB
Food Processing /Agricultural Laboratory and Field Experience	13001410	FOODPRLAB
Wildlife, Fisheries and Ecology Management/ Agricultural Laboratory and Field Experience	13001510	WFECGTLAB
Range Ecology and Management /Agricultural Laboratory and Field Experience	13001610	RECOMGLAB
Forestry and Woodland Ecosystems /Agricultural Laboratory and Field Experience	13001710	FWECOLAB
Floral Design/ Agricultural Laboratory and Field Experience	13001810	FLORALAB
Horticultural Science /Agricultural Laboratory and Field Experience	13002010	HORSCILAB
Greenhouse Operation and Production/ Agricultural Laboratory and Field Experience	13002060	GREOPLAB
Agricultural Mechanics and Metal Technologies /Agricultural Laboratory and Field Experience	13002210	AGMECMTLAB
Agricultural Structures Design and Fabrication /Agricultural Laboratory and Field Experience	13002310	AGSDFLAB
Agricultural Equipment Design and Fabrication/ Agricultural Laboratory and Field Experience	13002360	AGEQDFLAB
Agricultural Power Systems/ Agricultural Laboratory and Field Experience	13002410	AGPOWSLAB

Practicum in Agriculture, Food, and Natural Resources

TSDS PEIMS Code:
13002500 (First Time Taken) (PRACAFNR1)
13002510 (Second Time Taken) (PRACAFNR2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: A minimum of one credit from the courses in the Agriculture, Food, and Natural Resources Career Cluster.

Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

Practicum in Agriculture, Food, and Natural Resources/Extended Practicum in Agriculture, Food, and Natural Resources

TSDS PEIMS Code:
13002505 (First Time Taken) (EXPRAFNR1)
13002515 (Second Time Taken) (EXPRAFNR2)
Grade Placement: 11–12
Credit: 3
Prerequisite: None.
Recommended Prerequisites: A minimum of one credit from the courses in the Agriculture, Food, and Natural Resources Career Cluster.
Corequisites: Practicum in Agriculture, Food, and Natural Resources.

Extended Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

Architecture & Construction

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Architecture & Construction

Principles of Architecture

TSDS PEIMS Code: 13004210 (PRINARCH)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

Principles of Construction

TSDS PEIMS Code: 13004220 (PRINCON)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Principles of Construction is intended to provide an introduction and lay a solid foundation for those students entering the construction or craft skilled areas. The course provides a strong knowledge of construction safety, construction mathematics, and common hand and power tools. For safety and liability considerations, limiting course enrollment to 15 students is recommended. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

Building Maintenance Technology I

TSDS PEIMS Code: 13005400 (BUILDMA1)

Grade Placement: 10–12

Credit: 2

Prerequisite: None.

Recommended Prerequisite: Principles of Architecture or Principles of Construction.

In Building Maintenance Technology, I, students will gain knowledge and skills needed to enter the field of building maintenance as a building maintenance technician or supervisor or secure a foundation for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in plumbing; electrical; and heating, ventilation, and air conditioning (HVAC) systems. Additionally, students will learn methods for repair and installation of drywall, roof, and insulation systems.

Building Maintenance Technology II

TSDS PEIMS Code: 13005500 (BUILDMA2)

Grade Placement: 11–12

Credit: 2

Prerequisites: Building Maintenance Technology I.

In Building Maintenance Technology II, students will continue to gain advanced knowledge and skills needed to enter the workforce as a building maintenance technician or supervisor and construction project manager or secure a foundation for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, Occupational Safety, and Health Administration (OSHA) standards, and safety devices in electrical circuits; maintenance of electrical and heating, ventilation, and air conditioning (HVAC) systems; and concepts of historic preservation.

Construction Management I

TSDS PEIMS Code: 13004900 (CONSMGT1)

Grade Placement: 10–12

Credit: 2

Prerequisites: None

Recommended Prerequisites: Algebra I, Geometry, and Principles of Construction.

In Construction Management I, students will gain knowledge and skills needed to enter the workforce as apprentice carpenters or building maintenance supervisors' assistants or to build a foundation toward a postsecondary degree in architecture, construction science, drafting, or engineering. Construction Management I include the knowledge of design techniques and tools related to the management of architectural and engineering projects.

Construction Management II

TSDS PEIMS Code: 13005000 (CONSMGT2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Construction Management I.

In Construction Management II, students will gain knowledge and skills needed to enter the workforce as apprentice carpenters or building maintenance supervisors' assistants or to build a foundation toward a postsecondary degree in architecture, construction science, drafting, or engineering. Construction Management II includes knowledge of the design, techniques, and tools related to the management of architectural and engineering projects.

Construction Technology I

TSDS PEIMS Code: 13005100 (CONTECH1)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Construction or Principles of Architecture.

In Construction Technology I, students will gain knowledge and skills needed to enter the workforce as carpenters or building maintenance supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, tool usage, building materials, codes, and framing. For safety and liability considerations, limiting course enrollment to 15 students is recommended.

Construction Technology II

TSDS PEIMS Code: 13005200 (CONTECH2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Construction Technology I.

In Construction Technology II, students will gain advanced knowledge and skills needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will build on the knowledge base from Construction Technology I and are introduced to exterior and interior finish out skills. For safety and liability considerations, limiting course enrollment to 15 students is recommended.

Mill and Cabinetmaking Technology

TSDS PEIMS Code: 13005300 (MACTECH)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Principles of Architecture and Principles of Construction.
In Mill and Cabinetmaking Technology, students will gain knowledge and skills needed to enter the workforce in mill work and cabinet manufacturing and installation. Students may also apply these skills to professions in carpentry or building maintenance supervision or use the skills as a foundation for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in cabinet design, tool usage, jointing methods, finishes, and industry-level practices such as numerical and computer-control production methods.

Masonry Technology I

TSDS PEIMS Code: 13006300 (MASTECH1)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Construction.
Masonry Technology I provide information and techniques related to basic masonry and safety precautions. For safety and liability considerations, limiting course enrollment to 15 students is recommended.

Masonry Technology II

TSDS PEIMS Code: 13006400 (MASTECH2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Masonry Technology I.
Masonry Technology II is designed to further enhance the skills and knowledge of the beginning masonry student. For safety and liability considerations, limiting course enrollment to 15 students is recommended.

Architectural Design I

TSDS PEIMS Code: 13004600 (ARCHDSN1)
Grade Placement: 10–12
Credit: 1
Prerequisites: Algebra I and English I.
Recommended Prerequisites: Geometry, Principles of Architecture, and Principles of Construction.
In Architectural Design I, students will gain knowledge and skills needed to enter a career

in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design I include the knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

Architectural Design II

TSDS PEIMS Code: 13004700 (ARCHDSN2)
Grade Placement: 11–12
Credit: 2
Prerequisites: Architectural Design I or Advanced Interior Design and Geometry.
Recommended Prerequisites: Principles of Architecture and Principles of Construction.
In Architectural Design II, students will gain advanced knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design II includes the advanced knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

Interior Design I

TSDS PEIMS Code: 13004300 (INTERDS1)
Grade Placement: 10–12
Credit: 1
Prerequisites: Algebra I and English I.
Recommended Prerequisites: Principles of Architecture and Principles of Construction or Architectural Design I.
Interior Design I is a technical course that addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Students will use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, promote sustainability, and compete in industry.

Interior Design II

TSDS PEIMS Code: 13004400 (INTERDS2)
Grade Placement: 11–12
Credit: 2
Prerequisites: English II, Geometry, and Interior Design I.
Interior Design II is a technical laboratory course that includes the application of the employability characteristics, principles, processes, technologies, communication, tools, equipment, and materials related to interior design to meet industry standards.

Electrical Technology I

TSDS PEIMS Code: 13005600 (ELECTEC1)

Grade Placement: 10–12

Credit: 1

Prerequisite: None.

Recommended Prerequisites: Principles of Architecture or Principles of Construction.

In Electrical Technology I, students will gain knowledge and skills needed to enter the workforce as an electrician or building maintenance supervisor, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, and the reading of electrical drawings, schematics, and specifications.

Electrical Technology II

TSDS PEIMS Code: 13005700 (ELECTEC2)

Grade Placement: 11–12

Credit: 2

Prerequisite: Electrical Technology I.

Recommended Prerequisites: Principles of Architecture or Principles of Construction.

In Electrical Technology II, students will gain advanced knowledge and skills needed to enter the workforce as an electrician, a building maintenance technician, or a supervisor; prepare for a postsecondary degree in a specified field of construction or construction management; or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, alternating current and direct current motors, conductor installation, installation of electrical services, and electric lighting installation.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I

TSDS PEIMS Code: 13005800 (HVACREF1)

Grade Placement: 10–12

Credit: 1

Prerequisite: None.

Recommended Prerequisite: Principles or Architecture, Principles of Construction, or Construction Technology I.

In Heating, Ventilation, and Air Conditioning and Refrigeration Technology I, students will gain knowledge and skills needed to enter the industry as technicians in the HVAC and refrigeration industry or building maintenance industry, prepare for a postsecondary degree in a specified field of construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, principles of HVAC theory, use of tools, codes, and installation of HVAC and refrigeration equipment.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II

TSDS PEIMS Code: 13005900 (HVACREF2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I.
Recommended Prerequisites: Principles of Architecture or Principles of Construction.

In Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II, students will gain advanced knowledge and skills needed to enter the industry as HVAC and refrigeration technicians or building maintenance technicians or supervisors, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, use of tools, codes, installation of commercial HVAC equipment, heat pumps, troubleshooting techniques, various duct systems, and maintenance practices.

Plumbing Technology I

TSDS PEIMS Code: 13006000 (PLTECH1)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Architecture Principles of Construction, or Construction Technology I.

In Plumbing Technology, I, students will gain knowledge and skills needed to enter the industry as a plumbing apprentice, building maintenance technician, or supervisor or prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in industry workplace basics and employer/customer expectations, including how to use a plumbing code book; how to identify and use power and hand tools; how to be safe on the jobsite and when using hand and power tools; how to apply basic plumbing mathematics and plumbing drawing; and how to identify, fit, and use plastic, copper, cast iron, carbon steel, and corrugated stainless steel pipe. In addition, students will be introduced to gas, drainage, and water supply systems and continue their knowledge of workplace basics and green technologies.

Plumbing Technology II

TSDS PEIMS Code: 13006100 (PLTECH2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Plumbing Technology I.

In Plumbing Technology II, students will gain the advanced knowledge and skills needed to enter the industry as a plumber, building maintenance technician, or supervisor or prepare for a postsecondary degree in mechanical engineering. Students will acquire knowledge and skills in plumbing codes, industry workplace basics, and employer/customer expectations, including tool and jobsite safety, advanced plumbing mathematics, commercial drawings, basic electricity, hanger installation, supports and structural penetrations, roof drains, fixture installation, valves and faucets, and oxy-fuel safety. Students will also learn about setup, cutting, brazing, and welding water system sizing; gas, drain, waste and vent installation and testing; and water heater installation.

Practicum in Construction Management

TSDS PEIMS Code:
13006200 (First Time Taken) (PRACCM1)
13006210 (Second Time Taken) (PRACCM2)
Grade Placement: 12
Credit: 2
Prerequisites: Construction Management II.

Practicum in Construction Management is an occupationally specific course designed to provide classroom technical instruction or on-the-job training experiences. Safety and career opportunities are included in addition to work ethics and job-related study in the classroom.

Practicum in Construction Technology

TSDS PEIMS Code:
13005250 (First Time Taken) (PRACCT1)
13005260 (Second Time Taken) (PRACCT2)
Grade Placement: 12
Credit: 2
Prerequisites: Construction Technology II; Building Maintenance Technology II; Electrical Technology II; Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II; Plumbing Technology I; or Mill and Cabinetmaking Technology.

In Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

Practicum in Masonry Technology

TSDS PEIMS Code:

13006450 (First Time Taken) (PRACMAS1)
13006460 (Second Time Taken) (PRACMAS2)

Grade Placement: 12

Credit: 2

Prerequisite: Masonry Technology II.

Practicum in Masonry Technology is an occupationally specific course designed to provide classroom technical instruction or work-based learning experiences. Instruction may be delivered through laboratory training or through career preparation delivery arrangements. Safety and career opportunities are included, in addition to work ethics and job-related study in the classroom. Trade and industrial education provides the knowledge, skills, and technologies required for employment in masonry construction. Students will develop knowledge of the concepts and skills related to this trade to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic, career, and technical knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

For safety and liability considerations, including power tools usage during training, limiting course enrollment to 15 students is recommended.

Practicum in Architectural Design

TSDS PEIMS Code:

13004800 (First Time Taken) (PRACADS1)
13004810 (Second Time Taken) (PRACADS2)

Grade Placement: 12

Credit: 2

Prerequisite: Architectural Design II.

Practicum in Architectural Design is an occupationally specific course designed to provide technical instruction in architectural design. Safety and career opportunities are included in addition to work ethics and architectural design study.

Practicum in Interior Design

TSDS PEIMS Code:

13004500 (First Time Taken) (PRACIDS1)
13004510 (Second Time Taken) (PRACIDS2)

Grade Placement: 12

Credit: 2

Prerequisite: Interior Design II.

Practicum in Interior Design is an occupationally specific course designed to provide job- specific skills through laboratory training, job shadowing, or work situations in areas

compatible with identified career goals in interior design. In addition,
students will be expected to develop knowledge and skills related to housing, furnishings, and equipment construction or equipment management and services.

Practicum in Construction Management/Extended Practicum in Construction Management

TSDS PEIMS Code:
13006205 (First Time Taken) (EXPRCM1)
13006215 (Second Time Taken) (EXPRCM2)
Grade Placement: 12
Credit: 3
Prerequisite: Construction Management ll.
Requisite: Practicum in Construction Management.
In Extended Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

Practicum in Construction Technology/Extended Practicum in Construction Technology

TSDS PEIMS Code:
13005255 (First Time Taken) (EXPRCT1)
13005265 (Second Time Taken) (EXPRCT2)
Grade Placement: 12
Credit: 3
Prerequisite: Construction Technology ll, Building Maintenance Technology II; Electrical Technology II; Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II; Plumbing Technology I; or Mill and Cabinetmaking Technology.
Corequisite: Practicum in Construction Technology.
In Extended Practicum in Construction Technology, students will be challenged with the application of gained knowledge and skills from Construction Technology I and II. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

Practicum in Masonry Technology/Extended Practicum in Masonry Technology

TSDS PEIMS Code:
13006455 (First Time Taken) (EXPRMAS1)
13006465 (Second Time Taken) (EXPRMAS2)
Grade Placement: 12
Credit: 3
Prerequisite: Masonry Technology II.
Corequisite: Practicum in Masonry Technology.
Extended Practicum in Masonry Technology is an occupationally specific course designed to provide classroom technical instruction or work-based learning experiences. Instruction may be delivered through laboratory training or through career preparation delivery arrangements. Safety and career opportunities are included, in addition to work ethics and job-related study in the classroom. Trade and industrial education provides the knowledge, skills, and technologies required for employment in masonry construction.
Students will develop knowledge of the concepts and skills related to this trade to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic, career, and technical knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success. For safety and liability considerations, including power tools usage during training, limiting course enrollment to 15 students is recommended.

Practicum in Architectural Design/Extended Practicum in Architectural Design

TSDS PEIMS Code:
13004805 (First Time Taken) (EXPRADS1)
13004815 (Second Time Taken) (EXPRADS2)
Grade Placement: 12
Credit: 3
Prerequisite: Architectural Design II.
Corequisite: Practicum in Architectural Design.
Extended Practicum in Architectural Design is an occupationally specific course designed to provide technical instruction in architectural design. Safety and career opportunities are included in addition to work ethics and architectural design study.

Practicum in Interior Design/Extended Practicum in Interior Design

TSDS PEIMS Code:

13004505 (First Time Taken) (EXPRIDS1)
13004515 (Second Time Taken) (EXPRIDS2)

Grade Placement: 12

Credit: 3

Prerequisite: Interior Design II.

Corequisite: Practicum in Interior Design.

Extended Practicum in Interior Design is an occupationally specific course designed to provide job-specific skills through laboratory training, job shadowing, or work situations in areas compatible with identified career goals in interior design. In addition, students will be expected to develop knowledge and skills related to housing, furnishings, and equipment construction or equipment management and services.

Arts, A/V Technology & Communications

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Arts, A/V Technology & Communications

Principles of Arts, Audio/Video Technology, and Communications

TSDS PEIMS Code: 13008200 (PRINAAVTC)
Grade Placement: 9
Credits: 1
Prerequisite: None.
The goal of this course is for the student understands arts, audio/video technology, and communications systems. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

Animation I

TSDS PEIMS Code: 13008300 (ANIMAT1)
Grade Placement: 10–12
Credits: 1
Prerequisite: None.
Recommended Prerequisite: Art I or Principles of Art, Audio/Video Technology, and Communications.
Recommended Corequisite: Animation I Lab.
In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.

Animation I/Animation I Lab

TSDS PEIMS Code: 13008310 (ANILAB1)
Grade Placement: 10–12
Credits: 2
Prerequisite: None.
Recommended Prerequisite: Art I and Principles of Art, Audio/Video Technology, and Communications.
Corequisite: Animation I.
Districts are encouraged to offer this lab in a consecutive block with Animation I to allow students sufficient time to master the content of both courses. Within this context, in

addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.

Animation II

TSDS PEIMS Code: 13008400 (ANIMAT2)
Grade Placement: 11–12
Credits: 1
Prerequisite: Animation I.
Recommended Corequisite: Animation II Lab.
In addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to create two- and three-dimensional animations. The instruction also assists students seeking careers in the animation industry.

Animation II/Animation II Lab

TSDS PEIMS Code: 13008410 (ANILAB2)
Grade Placement: 11–12
Credits: 2
Prerequisite: Animation I.
Corequisite: Animation II.
In addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to create two- and three-dimensional animations. The instruction also assists students seeking careers in the animation industry. Districts are encouraged to offer this lab in a consecutive block with Animation II to allow students sufficient time to master the content of both courses.

Audio/Video Production I

TSDS PEIMS Code: 13008500 (AVPROD1)
Grade Placement: 9–12
Credits: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications.
Recommended Corequisite: Audio/Video Production I Lab.
In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products.

Audio/Video Production I/Audio/Video Production I Lab

TSDS PEIMS Code: 13008510 (AVPLAB1)
Grade Placement: 9–12
Credits: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications or Digital and Interactive Media.
Corequisite: Audio/Video Production I.
In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products. Requiring a lab requisite for the course affords necessary time devoted specifically to the production and post-production process.
Districts are encouraged to offer this lab in a consecutive block with Audio/Video Production I to allow students sufficient time to master the content of both courses.

Audio/Video Production II

TSDS PEIMS Code: 13008600 (AVPROD2)
Grade Placement: 10–12
Credits: 1
Prerequisite: Audio/Video Production I.
Recommended Prerequisite: Audio/Video Production I.
Recommended Corequisite: Audio/Video Production II Lab.
Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post- production products. This course may be implemented in an audio format or a format with both audio and video.

Audio/Video Production II/Audio/Video Production II Lab

TSDS PEIMS Code: 13008610 (AVPLAB2)
Grade Placement: 10–12
Credits: 2
Prerequisite: Audio/Video Production I.
Corequisite: Audio/Video Production II.
Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post- production products. Through diverse forms of storytelling and production, students will

exercise and develop creativity, intellectual curiosity, and critical-thinking, problem-solving, and collaborative skills. This course may be implemented in an audio format or a format with both audio and video. Requiring a lab requisite for the course affords necessary time devoted specifically to the production and post-production process.

Digital Audio Technology I

TSDS PEIMS Code: 13009950 (DATECH1)
Grade Placement: 9–12
Credits: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications or Digital and Interactive Media (DIM) or both Audio/Video Production I and Audio/Video Production I Lab.
Digital Audio Technology I was designed to provide students interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, music production and live sound, and additional opportunities and skill sets. Digital Audio Technology I does not replace Audio Video Production courses but is recommended as a single credit, co-curricular course with an audio production technical emphasis. This course can also be paired with Digital and Interactive Media. Students will be expected to develop an understanding of the audio industry with a technical emphasis on production and critical-listening skills.

Digital Audio Technology II

TSDS PEIMS Code: 13009960 (DATECH2)
Grade Placement: 10–12
Credits: 1
Prerequisite: Digital Audio Technology I.
Digital Audio Technology II was designed to provide additional opportunities and skill sets for students interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, and music production and live sound. Digital Audio Technology II does not replace Audio Video Production courses but is recommended as a single credit, co-curricular course with an audio production technical emphasis. This course can also be paired with Digital and Interactive Media (DIM). Students will be expected to develop an understanding of the audio industry with a technical emphasis on production and critical-listening skills.

Video Game Design

TSDS PEIMS Code: 13009970 (VIDGD)

Grade Placement: 9–12

Credits: 1

Prerequisite: None.

Recommended Prerequisite: Principles of Art, Audio/Video Technology, and Communications.

Video Game Design will allow students to explore one of the largest industries in the global marketplace and the new emerging careers it provides in the field of technology. Students will learn gaming, computerized gaming, evolution of gaming, artistic aspects of perspective, design, animation, technical concepts of collision theory, and programming logic. Students will participate in a simulation of a real video game design team while developing technical proficiency in constructing an original game design.

Printing and Imaging Technology I

TSDS PEIMS Code: 13009600 (PRIMTEC1)

Grade Placement: 9–12

Credits: 1

Prerequisite: None.

Recommended Prerequisite: Printing and Imaging Technology I Lab.

Careers in printing span all aspects of the industry, including prepress, press, and finishing and bindery operations. In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the printing industry with a focus on digital prepress and digital publishing.

Printing and Imaging Technology I/Printing and Imaging Technology I Lab

TSDS PEIMS Code: 13009610 (PRILAB1)

Grade Placement: 9–12

Credits: 2

Prerequisite: None.

Corequisite: Printing and Imaging Technology I.

Careers in printing span all aspects of the industry, including prepress, press, and finishing and bindery operations. In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to demonstrate an understanding of the printing industry with a focus on digital prepress and digital publishing. Districts are encouraged to offer this lab in a consecutive block with Printing and Imaging Technology I to allow students sufficient time to master the content of both courses.

Printing and Imaging Technology II

TSDS PEIMS Code: 13009700 (PRIMTEC2)
Grade Placement: 10–12
Credits: 1
Prerequisite: None.
Recommended Prerequisites: Printing and Imaging Technology I and Printing and Imaging Technology I Lab.
Recommended Corequisite: Printing and Imaging Technology II Lab.
In addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the printing industry with a focus on digital prepress and desktop digital publishing.

Printing and Imaging Technology II/Printing and Imaging Technology II Lab

TSDS PEIMS Code: 13009710 (PRILAB2)
Grade Placement: 10–12
Credits: 2
Prerequisite: None.
Corequisite: Printing and Imaging Technology II.
Careers in printing span all aspects of the industry, including prepress, press, and finishing and bindery operations. In addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the printing industry with a focus on digital prepress and desktop digital publishing. Districts are encouraged to offer this lab in a consecutive block with Printing and Imaging Technology II to allow students sufficient time to master the content of both courses.

Commercial Photography I

TSDS PEIMS Code: 13009100 (CPHOTO1)
Grade Placement: 9–12
Credits: 1
Prerequisite: None.
Recommended Corequisite: Commercial Photography I Lab.
In addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the commercial photography industry with a focus on creating quality photographs.

Commercial Photography I/Commercial Photography I Lab

TSDS PEIMS Code: 13009110 (CPHLAB1)
Grade Placement: 9–12
Credits: 2
Prerequisite: None.
Corequisite: Commercial Photography I.

In addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the commercial photography industry with a focus on creating quality photographs. Districts are encouraged to offer this lab in a consecutive block with Commercial Photography I to allow students sufficient time to master the content of both courses.

Commercial Photography II

TSDS PEIMS Code: 13009200 (CPHOTO2)
Grade Placement: 10–12
Credits: 1
Prerequisite: None.
Recommended Prerequisites: Commercial Photography I and Commercial Photography I Lab.
Recommended Corequisite: Commercial Photography Lab II.

In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

Commercial Photography II/Commercial Photography II Lab

TSDS PEIMS Code: 13009210 (CPHLAB2)
Grade Placement: 10–12
Credits: 2
Prerequisite: None.
Recommended Prerequisites: Commercial Photography I and Commercial Photography I Lab.
Corequisite: Commercial Photography II.

In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs. Districts are encouraged to offer this lab in a consecutive block with Commercial Photography II to allow students sufficient time to master the content of both courses.

Fashion Design I

TSDS PEIMS Code: 13009300 (FASHDSN1)
Grade Placement: 10–12
Credits: 1
Prerequisites: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications.
Recommended Corequisite: Fashion Design I Lab.
Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

Fashion Design I/Fashion Design I Lab

TSDS PEIMS Code: 13009310 (FASLAB1)
Grade Placement: 10–12
Credits: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications.
Corequisite: Fashion Design I.
Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction. Districts are encouraged to offer this lab in a consecutive block with Fashion Design I to allow students sufficient time to master the content of both courses.

Fashion Design II

TSDS PEIMS Code: 13009400 (FASHDSN2)
Grade Placement: 11–12
Credits: 1
Prerequisite: Fashion Design I.
Recommended Corequisite: Fashion Design II Lab.
Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

Fashion Design II/Fashion Design II Lab

TSDS PEIMS Code: 13009410 (FASLAB2)
Grade Placement: 11–12
Credits: 2
Prerequisite: Fashion Design I.
Corequisite: Fashion Design II.
Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

Graphic Design and Illustration I

TSDS PEIMS Code: 13008800 (GRAPHDI1)
Grade Placement: 10–12
Credits: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications.
Recommended Corequisite: Graphic Design and Illustration I Lab.
Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

Graphic Design and Illustration I/Graphic Design and Illustration I Lab

TSDS PEIMS Code: 13008810 (GRDLAB1)
Grade Placement: 10–12
Credits: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications.
Corequisite: Graphic Design and Illustration I.
Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

Graphic Design and Illustration II

TSDS PEIMS Code: 13008900 (GRAPHDI2)
Grade Placement: 10–12
Credits: 1
Prerequisite: Graphic Design and Illustration I.
Recommended Corequisite: Graphic Design and Illustration II Lab.
Within this context, students will be expected to develop an advanced understanding of the industry with a focus on mastery of content knowledge and skills.

Graphic Design and Illustration II/Graphic Design and Illustration II Lab

TSDS PEIMS Code: 13008910 (GRDLAB2)
Grade Placement: 10–12
Credits: 2
Prerequisite: Graphic Design and Illustration I.
Corequisites: Graphic Design and Illustration II.
Within this context, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on mastery of content knowledge and skills. Districts are encouraged to offer this lab in a consecutive block with Graphic Design and Illustration II to allow students sufficient time to master the content of both courses.

Professional Communications

TSDS PEIMS Code: 13009900 (PROFCOMM)
Grade Placement: 9–12
Credits: .5
Prerequisite: None.
Professional Communications blends written, oral, and graphic communication in a career- based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

Practicum in Animation

TSDS PEIMS Code:

13008450 (First Time Taken) (PRACANI1)
13008460 (Second Time Taken) (PRACANI2)

Grade Placement: 11–12

Credits: 2

Prerequisites: Animation ll and Animation ll Lab.

Building upon the concepts taught in Animation II and its corequisite Animation II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production animation products in a professional environment. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Audio/Video Production

TSDS PEIMS Code:

13008700 (First Time Taken) (PRACAVP1)
13008710 (Second Time Taken) (PRACAVP2)

Grade Placement: 11–12

Credits: 2

Prerequisites: Audio/Video Production ll and Audio/Video Production ll Lab.

Building upon the concepts taught in Audio/Video Production II and its corequisite Audio/Video Production II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Printing and Imaging Technology

TSDS PEIMS Code:

13009800 (First Time Taken) (PRACPRI1)
13009810 (Second Time Taken) (PRACPRI2)

Grade Placement: 10–12

Credits: 2

Prerequisites: Printing and Imaging Technology ll and Printing and Imaging Technology ll Lab.

In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the printing industry with a focus on finishing and bindery operations and customer-based projects. Instruction may be delivered

through lab-based classroom experiences or career preparation opportunities.
Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Practicum in Commercial Photography

TSDS PEIMS Code:
13009250 (First Time Taken) (PRACCPH1)
13009260 (Second Time Taken) (PRACCPH2)
Grade Placement: 10–12
Credits: 2
Prerequisites: Commercial Photography I and Commercial Photography I Lab along with teacher recommendation.
In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

Practicum in Fashion Design

TSDS PEIMS Code:
13009500 (First Time Taken) (PRACFAS1)
13009510 (Second Time Taken) (PRACFAS2)
Grade Placement: 11–12
Credits: 2
Prerequisite: Fashion Design II and Fashion Design II Lab.
In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the business aspects of fashion, with emphasis on promotion and retailing. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Graphic Design and Illustration

TSDS PEIMS Code:
13009000 (First Time Taken) (PRACGRD1)
13009010 (Second Time Taken) (PRACGRD2)
Grade Placement: 10–12
Credits: 2
Prerequisites: Graphic Design and Illustration II and Graphic Design and Illustration II Lab.
In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Animation/Extended Practicum in Animation

TSDS PEIMS Code:
13008455 (First Time Taken) (EXPRANI1)
13008465 (Second Time Taken) (EXPRANI2)
Grade Placement: 11–12
Credits: 3
Prerequisites: Animation II and Animation II Lab.
Corequisite: Practicum in Animation.
Building upon the concepts taught in Animation II and Animation II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production animation products in a professional environment. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Audio/Video Production/Extended Practicum in Audio/Video Production

TSDS PEIMS Code:
13008705 (First Time Taken) (EXPRAVP1)
13008715 (Second Time Taken) (EXPRAVP2)
Grade Placement: 11–12
Credits: 3
Prerequisites: Audio/Video Production II and Audio/Video Production II Lab.
Corequisite: Practicum in Audio/Video Production.
Building upon the concepts taught in Audio/Video Production II and Audio/Video Production II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre- production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format.
Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Printing and Imaging Technology/Extended Practicum in Printing and Imaging Technology

TSDS PEIMS Code:
13009805 (First Time Taken) (EXPRPRI)
13009815 (Second Time Taken) (EXPRPRI2)
Grade Placement: 10–12
Credits: 3
Prerequisites: Printing and Imaging Technology II and Printing and Imaging Technology II Lab.
Corequisite: Practicum in Printing and Imaging Technology.
In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the printing industry with a focus on finishing and bindery operations and customer-based projects. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Commercial Photography/Extended Practicum in Commercial Photography

TSDS PEIMS Code:
13009255 (First Time Taken) (EXPRCPH1)
13009265 (Second Time Taken) (EXPRCPH2)
Grade Placement: 10–12
Credits: 3
Prerequisites: Commercial Photography I and Commercial Photography I Lab.
Corequisite: Practicum in Commercial Photography.
In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

Practicum in Fashion Design/Extended Practicum in Fashion Design

TSDS PEIMS Code:
13009505 (First Time Taken) (EXPRFAS1)
13009515 (Second Time Taken) (EXPRFAS2)
Grade Placement: 11–12
Credits: 1
Prerequisites: Fashion Design II and Fashion Design II Lab.
Corequisite: Practicum in Fashion Design.
In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the business aspects of fashion, with emphasis on promotion and retailing. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Graphic Design and Illustration/Extended Practicum in Graphic Design and Illustration

TSDS PEIMS Code:
13009005 (First Time Taken) (EXPRGRD1)
13009015 (Second Time Taken) (EXPRGRD2)
Grade Placement: 10–12
Credits: 3
Prerequisites: Graphic Design and Illustration II and Graphic Design and Illustration II Lab.
Corequisite: Practicum in Graphic Design and Illustration.
In addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Business Management & Administration

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Business Management & Administration

Principles of Business, Marketing, and Finance

TSDS PEIMS Code: 13011200 (PRINBMF)
Grade Placement: 9–11
Credits: 1
Prerequisite: None.

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

Touch System Data Entry

TSDS PEIMS Code: 13011300 (TSDATAE)
Grade Placement: 9–10
Credits: .5
Prerequisite: None.

In Touch System Data Entry, students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students will need to apply touch system data entry skills for production of business documents.

Business Law

TSDS PEIMS Code: 13011700 (BUSLAW)
Grade Placement: 11–12
Credits: 1
Prerequisite: None.

Business Law is designed for students to analyze various aspects of the legal environment, including ethics, the judicial system, contracts, personal property, sales, negotiable

instruments, agency and employment, business organization, risk management, and real property.

Business English

TSDS PEIMS Code: 13011600 (BUSENGL)
Grade Placement: 12
Credits: 1
Prerequisite: English III.
Recommended Prerequisite: Touch System Data Entry.
In Business English, students enhance communication and research skills by applying them to the business environment, in addition to exchanging information and producing properly formatted business documents using emerging technology.
Note: This course satisfies an English credit requirement for students on the Foundation High School Program.

Business Information Management I

TSDS PEIMS Code: 13011400 (BUSIM1)
Grade Placement: 9–12
Credits: 1
Prerequisite: None.
Recommended Prerequisite: Touch System Data Entry.
Recommended Corequisite: Business Lab.
In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word- processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Business Information Management I/Business Lab

TSDS PEIMS Code: 13011410 (BUSMLAB1)
Grade Placement: 9–12
Credits: 2
Prerequisite: None.
Corequisite: Business Information Management I.
Business Lab is designed to provide students an opportunity to further enhance skills of previously studied knowledge and skills and may be used as an extension of Business Information Management I or Business Information Management II; it is a recommended corequisite course and may not be offered as a stand-alone course. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary

education. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

Business Information Management II

TSDS PEIMS Code: 13011500 (BUSIM2)
Grade Placement: 10–12
Credits: 1
Prerequisite: Business Information Management I.
Recommended Prerequisite: Touch System Data Entry.
Recommended Corequisite: Business Lab.
In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

Business Information Management II/Business Lab

TSDS PEIMS Code: 13011510 (BUSMLAB2)
Grade Placement: 9–12
Credits: 2
Prerequisite: None.
Corequisite: Business Information Management II.
Business Lab is designed to provide students an opportunity to further enhance skills of previously studied knowledge and skills and may be used as an extension of Business Information Management I or Business Information Management II; it is a recommended corequisite course and may not be offered as a stand-alone course. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

Business Management

TSDS PEIMS Code: 13012100 (BUSMGT)
Grade Placement: 10–12
Credits: 1
Prerequisite: None.
Business Management is designed to familiarize students with the concepts related to business management as well as the functions of management, including planning, organizing, staffing, leading, and controlling. Students will also demonstrate interpersonal and project-management skills.

Global Business

TSDS PEIMS Code: 13011800 (GLOBBUS)
Grade Placement: 10–12
Credits: .5
Prerequisite: None.
Global Business is designed for students to analyze global trade theories, international monetary systems, trade policies, politics, and laws relating to global business as well as cultural issues, logistics, and international human resource management.

Virtual Business

TSDS PEIMS Code: 13012000 (VIRTBUS)
Grade Placement: 10–12
Credits: .5
Prerequisite: None.
Recommended Prerequisites: Touch System Data Entry.
Virtual Business is designed for students to start a virtual business by creating a web presence, conducting online and off-line marketing, examining contracts appropriate for an online business, and demonstrating project-management skills. Students will also demonstrate bookkeeping skills for a virtual business, maintain business records, and understand legal issues associated with a virtual business.

Human Resources Management

TSDS PEIMS Code: 13011900 (HRMGT)
Grade Placement: 11–12
Credits: .5
Prerequisite: None.
Human Resources Management is designed to familiarize students with the concepts related to human resource management, including legal requirements, recruitment, and employee selection methods, and employee development and evaluation. Students will also become familiar with compensation and benefits programs as well as workplace

safety, employee-management relations, and the impact of global events on human resources management.

Practicum in Business Management

TSDS PEIMS Code:
13012200 (First Time Taken) (PRACBM)
13012210 (Second Time Taken) (PRACBM2)
Grade Placement: 11–12
Credits: 2
Prerequisite: None.
Recommended Prerequisites: Touch System Data Entry and Business Management or Business Information Management II.

Practicum in Business Management is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

Practicum in Business Management/Extended Practicum in Business Management

TSDS PEIMS Code:
13012205 (First Time Taken) (EXPRBM)
13012215 (Second Time Taken) (EXPRBM2)
Grade Placement: 11–12
Credits: 3
Prerequisite: None.
Recommended Prerequisites: Touch System Data Entry and Business Management or Business Information Management II.
Corequisite: Practicum in Business Management

Extended Practicum in Business Management is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a

successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decision.

Education & Training

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Education & Training

Principles of Education and Training

TSDS PEIMS Code: 13014200 (PRINEDTR)
Grade Placement: 9–10
Credit: 1
Prerequisite: None.
Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self- knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

Human Growth and Development

TSDS PEIMS Code: 13014300 (HUGRDEV)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Education and Training.
Human Growth and Development is an examination of human development across the lifespan with emphasis on research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.

Instructional Practices

TSDS PEIMS Code: 13014400 (INPRAC)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Principles of Education and Training and Human Growth and Development.
Instructional Practices is a field-based (practicum) internship that provides students with

background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators or trainers in direct instructional roles with elementary-, middle school-, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, develop materials for educational environments, assist with record keeping, and complete other responsibilities of teachers, trainers, paraprofessionals, or other educational personnel.

Practicum in Education and Training

TSDS PEIMS Code:
13014500 (First Time Taken) (PRACEDT1)
13014510 (Second Time Taken) (PRACEDT2)
Grade Placement: 12
Credit: 2
Prerequisite: Instructional Practices.
Recommended Prerequisites: Principles of Education and Training and Human Growth and Development.

Practicum in Education and Training is a field-based internship that provides students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. Students in the course work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators in direct instructional roles with elementary-, middle school-, and high school-aged students.

Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.

Practicum in Education and Training/Extended Practicum in Education and Training

TSDS PEIMS Code:
13014505 (First Time Taken) (EXPREDT1)
13014515 (Second Time Taken) (EXPREDT2)
Grade Placement: 12
Credit: 3
Prerequisite: Instructional Practices.
Recommended Prerequisites: Principles of Education and Training, Human Growth, and Development.
Corequisite: Practicum in Education and Training.

Extended Practicum in Education and Training is a field-based internship that provides

students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. Students in the course work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators in direct instructional roles with elementary-, middle school-, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.

Finance

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Finance

Financial Mathematics

TSDS PEIMS Code: 13018000 (FINMATH)
Grade Placement: 10–12
Credit: 1
Prerequisite: Algebra I.

Financial Mathematics is a course about personal money management. Students will apply critical-thinking skills to analyze personal financial decisions based on current and projected economic factors.

Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Money Matters

TSDS PEIMS Code: 13016200 (MONEYM)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Business, Marketing, and Finance.

In Money Matters, students will investigate money management from a personal financial perceptive. Students will apply critical-thinking skills to analyze financial options based on current and projected economic factors. Students will gain knowledge and skills necessary to establish short-term and long-term financial goals. Students will examine various methods of achieving short-term and long-term financial goals through various methods such as investing, tax planning, asset allocating, risk management, retirement planning, and estate planning.

Securities and Investments

TSDS PEIMS Code: 13016400 (SECINV)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
In Securities and Investments, students will understand the laws and regulations to manage business operations and transactions in the securities industry.

Insurance Operations

TSDS PEIMS Code: 13016500 (INSOPS)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
In Insurance Operations, students will understand the laws and regulations to manage business operations and transactions in the insurance industry.

Banking and Financial Services

TSDS PEIMS Code: 13016300 (BANKFIN)
Grade Placement: 10–12
Credit: .5
Prerequisites: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
In Banking and Financial Services, students will develop knowledge and skills in the economic, financial, technological, international, social, and ethical aspects of banking to become competent employees and entrepreneurs. Students will incorporate a broad base of knowledge that includes the operations, sales, and management of banking institutions to gain a complete understanding of how banks function within society.

Accounting I

TSDS PEIMS Code: 13016600 (ACCOUNT1)
Grade Placement: 10–12
Credit: 1
Prerequisites: None.
Recommended Prerequisites: Principles of Business, Marketing, and Finance.
In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use

in management decision making. Accounting includes such activities as bookkeeping, systems design, analysis, and interpretation of accounting information.

Accounting II

TSDS PEIMS Code: 13016700 (ACCOUNT2)
Grade Placement: 11–12
Credit: 1
Prerequisites: Accounting I.

In Accounting II, students will continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources.

Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Financial Analysis

TSDS PEIMS Code: 13016800 (FINANAL)
Grade Placement: 11–12
Credit: 1
Prerequisite: Accounting I.

In Financial Analysis, students will apply knowledge and technical skills in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students will develop analytical skills by actively evaluating financial results of multiple businesses, interpreting results for stakeholders, and presenting strategic recommendations for performance improvement.

Statistics and Business Decision Making

TSDS PEIMS Code: 13016900 (STATBDM)
Grade Placement: 11–12
Credit: 1
Prerequisite: Algebra II.

Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.

Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Government & Public Administration

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Government & Public Administration

Principles of Government and Public Administration

TSDS PEIMS Code: 13018200 (PRINGPA)
Grade Placement: 9–11
Credit: 1
Prerequisite: None.
Principles of Government and Public Administration introduces students to foundations of governmental functions and career opportunities within the United States and abroad. Students will examine governmental documents such as the U.S. Constitution, current U.S. Supreme Court and federal court decisions, and the Bill of Rights.

Political Science I

TSDS PEIMS Code: 13018300 (POLISCI1)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Government and Public Administration.
Political Science I introduces students to political theory through the study of governments; public policies; and political processes, systems, and behavior.

Political Science II

TSDS PEIMS Code: 13018400 (POLISCI2)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Government and Public Administration or Political Science I.
Political Science II uses a variety of learning methods and approaches to examine the processes, systems, and political dynamics of the United States and other nations. The dynamic component of this course includes current U.S. and world events.

Foreign Service and Diplomacy

TSDS PEIMS Code: 13018900 (FORSRVD)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Government and Public Administration or Principles of Law, Public Safety, Corrections, and Security.
Foreign Service and Diplomacy provides the opportunity for students to investigate the knowledge and skills necessary for careers in foreign service. The course includes law, history, media communication, and international relations associated with the diplomatic environment.

Planning and Governance

TSDS PEIMS Code: 13018700 (PLANGOV)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Government and Public Administration.
Planning and Governance is a course offering students an opportunity to formulate plans and policies to meet social, economic, and physical needs of communities.

National Security

TSDS PEIMS Code: 13018800 (NATLSEC)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Government and Public Administration and Public Management and Administration or Principles of Law, Public Safety, Corrections, and Security or Junior Reserve Officer Training Corps (JROTC) coursework.
National Security introduces the students to the aspects of disaster management. The course includes engaging simulation exercises related to natural disasters, man-made disasters, and terroristic events using homeland security programs and National Incident Management System (NIMS) programs.

Public Management and Administration

TSDS PEIMS Code: 13018600 (PUBMANAD)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Government and Public Administration or Business Management or Business Law.

Public Management and Administration reviews actions and activities that governments and nonprofit administrations commonly use and that resemble private-sector management. Students will be introduced to management tools that maximize the effectiveness of different types and styles of administrators and affect the quality of life of citizens in the community.

Revenue, Taxation, and Regulation

TSDS PEIMS Code: 13018500 (REVTAXRE)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Government and Public Administration or Accounting I and II.

Revenue, Taxation, and Regulation provides an overview of law and investigative principles and follows agency procedures to examine evidence and ensure revenue compliance. In addition, students will learn to facilitate clear and positive communication with taxpayers and become familiar with data analysis systems and revenue-related financial problems. Students will prepare projects and class activities to simulate the skills needed to enforce legal compliance and regulatory standards.

Practicum in Local, State, and Federal Government

TSDS PEIMS Code:
13019000 (First Time Taken) (PRACLSF1)
13019010 (Second Time Taken) (PRACLSF2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.

Students in the Practicum in Local, State, and Federal Government will concurrently learn advanced concepts of political science and government workings in the classroom setting and in the workplace. In addition, students will apply technical skills pertaining to government and public administration in a direct mentorship by individuals in professional settings such as government, public management and administration, national security, municipal planning, foreign service, revenue, taxation, and regulation.

Practicum in Local, State, and Federal Government/ Extended Practicum in Local, State, and Federal Government

TSDS PEIMS Code:

13019005 (First Time Taken) (EXPRLSF1)

13019015 (Second Time Taken) (EXPRLSF2)

Grade Placement: 11–12

Credit: 3

Prerequisite: None.

Corequisite: Practicum in Local, State, and Federal Government.

Students in the Extended Practicum in Local, State, and Federal Government will concurrently learn advanced concepts of political science and government workings in the classroom setting and in the workplace. In addition, students will apply technical skills pertaining to government and public administration in a direct mentorship by individuals in professional settings such as government, public management and administration, national security, municipal planning, foreign service, revenue, taxation, and regulation.

Health Science

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Health Science

Principles of Health Science

TSDS PEIMS Code: 13020200 (PRINHLSC)
Grade Placement: 9–10
Credit: 1
Prerequisite: None.
The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

Medical Terminology

TSDS PEIMS Code: 13020300 (MEDTERM)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.
The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

Anatomy and Physiology

TSDS PEIMS Code: 13020600 (ANATPHYS)
Grade Placement: 10–12
Credit: 1
Prerequisite: Biology and a second science credit.
Recommended Prerequisite: A course from the Health and Science Career Cluster.
The Anatomy and Physiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology will study a variety of topics, including the structure and function of the human

body and the interaction of body systems for maintaining homeostasis.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Medical Microbiology

TSDS PEIMS Code: 13020700 (MICRO)
Grade Placement: 10–12
Credit: 1
Prerequisites: Biology and Chemistry.
Recommended Prerequisites: A course from the Health Science Career Cluster.
The Medical Microbiology course is designed to explore the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases. Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

World Health Research

TSDS PEIMS Code: 13020900 (WORLDHR)
Grade Placement: 11–12
Credit: 1
Prerequisites: Biology and Chemistry.
Recommended Prerequisite: A course from the Health Science Career Cluster.
The World Health Research course is designed to examine major world health problems and emerging technologies as solutions to these medical concerns. It is designed to improve students' understanding of the cultural, infrastructural, political, educational, and technological constraints and inspire ideas for appropriate technological solutions to global medical care issues.

Pathophysiology

TSDS PEIMS Code: 13020800 (PATHO)
Grade Placement: 11–12
Credit: 1
Prerequisites: Biology and Chemistry.
Recommended Prerequisite: A course from the Health and Science Career Cluster.
The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology.

Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Health Informatics

TSDS PEIMS Code: 13020960 (HLTHINF)
Grade Placement: 11–12
Credit: 1
Prerequisites: Business Management I and Medical Terminology.
The Health Informatics course is designed to provide knowledge of one of the fastest growing areas in both academic and professional fields. The large gap between state of the art computer technologies and the state of affairs in health care information technology has generated demand for information and health professionals who can effectively design, develop, and use technologies such as electronic medical records, patient monitoring systems, and digital libraries, while managing the vast amount of data generated by these systems.

Mathematics for Medical Professionals

TSDS PEIMS Code: 13020970 (MTHMEDPR)
Grade Placement: 11–12
Credit: 1
Prerequisites: Geometry and Algebra II.
The Mathematics for Medical Professionals course is designed to serve as the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on fluency and solid understanding in medical mathematics, students will extend and apply mathematical skills necessary for health science professions. Course content consists primarily of high school level mathematics concepts and their applications to health science professions.
Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Pharmacology

TSDS PEIMS Code: 13020950 (PHARMC)
Grade Placement: 11–12
Credit: 1
Prerequisites: Biology and Chemistry.
Recommended Prerequisites: A course from the Health and Science Career Cluster.
The Pharmacology course is designed to study how natural and synthetic chemical agents such as drugs affect biological systems. Knowledge of the properties of therapeutic agents

is vital in providing quality health care. It is an ever-changing, growing body of information that continually demands greater amounts of time and education from health care workers.

Health Science Theory

TSDS PEIMS Code: 13020400 (HLTHSCI)
Grade Placement: 10–12
Credit: 1
Prerequisites: Biology.
Recommended Corequisite: Health Science Clinical.
The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

Health Science Theory/Health Science Clinical

TSDS PEIMS Code: 13020410 (HLSCLIN)
Grade Placement: 10–12
Credit: 2
Prerequisites: Biology.
Corequisite: Health Science Theory.
The Health Science Clinical course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses.

Practicum in Health Science

TSDS PEIMS Code:
13020500 (First Time Taken) (PRACHLS1)
13020510 (Second Time Taken) (PRACHLS2)
Grade Placement: 11–12
Credit: 2
Prerequisites: Health Science Theory and Biology.
The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Practicum in Health Science/Extended Practicum in Health Science

TSDS PEIMS Code:

13020505 (First Time Taken) (EXPRHLS1)

13020515 (Second Time Taken) (EXPRHLS2)

Grade Placement: 11–12

Credit: 3

Prerequisites: Health Science Theory and Biology.

Corequisite: Practicum in Health Science.

The Extended Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Hospitality & Tourism

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Hospitality & Tourism

Principles of Hospitality and Tourism

TSDS PEIMS Code: 13022200 (PRINHOSP)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Principles of Hospitality and Tourism introduces students to an industry that encompasses lodging, travel and tourism, recreation, amusements, attractions, and food/beverage operations. Students learn knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success in that industry.

Introduction to Culinary Arts

TSDS PEIMS Code: 13022550 (INCULART)
Grade Placement: 9–10
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Hospitality and Tourism.

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

Culinary Arts

TSDS PEIMS Code: 13022600 (CULARTS)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Principles of Hospitality and Tourism and Introduction to Culinary Arts.
Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques.
Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.

Advanced Culinary Arts

TSDS PEIMS Code: 13022650 (ADCULART)
Grade Placement: 10–12
Credit: 2
Prerequisite: Culinary Arts.
Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment.

Food Science

TSDS PEIMS Code: 13023000 (FOODSCI)
Grade Placement: 11–12
Credit: 1
Prerequisites: Three units of science, including Chemistry and Biology.
Recommended Prerequisite: Principles of Hospitality and Tourism.
In Food Science students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration in food products, the principles underlying food processing, and the improvement of foods for the consuming public.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Practicum in Culinary Arts

TSDS PEIMS Code:
13022700 (First Time Taken) (PRACCUL1)
13022710 (Second Time Taken) (PRACCUL2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Culinary Arts.

Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing culinary art-based workplace.

Travel and Tourism Management

TSDS PEIMS Code: 13022500 (TRTORMGT)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Hospitality and Tourism.

Travel and Tourism Management incorporates management principles and procedures of the travel and tourism industry as well as destination geography, airlines, international travel, cruising, travel by rail, lodging, recreation, amusements, attractions, and resorts. Employment qualifications and opportunities are also included in this course.

Hotel Management

TSDS PEIMS Code: 13022300 (HOTELMGT)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Hospitality and Tourism.

Hotel Management focuses on the knowledge and skills needed to pursue staff and management positions available in the hotel industry. This in-depth study of the lodging industry includes departments within a hotel such as front desk, food and beverage, housekeeping, maintenance, human resources, and accounting. This course will focus on, but not be limited to, professional communication, leadership, management, human resources, technology, and accounting.

Hospitality Services

TSDS PEIMS Code: 13022800 (HOSPSRVS)

Grade Placement: 11–12

Credit: 2

Prerequisite: None.

Recommended Prerequisites: Principles of Hospitality and Tourism, Hotel Management, and Travel and Tourism Management.

Hospitality Services provides students with the academic and technical preparation to pursue high-demand and high-skill careers in hospitality related industries. The knowledge and skills are acquired within a sequential, standards-based program that integrates hands-on and project-based instruction. Standards included in the Hospitality Services course are designed to prepare students for nationally recognized industry certifications, postsecondary education, and entry-level careers. In addition, Hospitality Services is designed so that performance standards meet employer expectations, enhancing the employability of students. Instruction may be delivered through laboratory training or through internships, mentoring, or job shadowing.

Practicum in Hospitality Services

TSDS PEIMS Code:

13022900 (First Time Taken) (PRACHOS1)

13022910 (Second Time Taken) (PRACHOS2)

Grade Placement: 11–12

Credit: 2

Prerequisite: None.

Recommended Prerequisite: Hospitality Services.

Practicum in Hospitality Services is a unique practicum experience to provide opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Hospitality Services integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing culinary art-based workplace. Students are taught employability skills, including job- specific skills applicable to their training plan, job interview techniques, communication skills, financial and budget activities, human relations, and portfolio development.

Practicum in Hospitality Services is relevant and rigorous, supports student attainment of academic and technical standards, and effectively prepares students for college and career success.

Practicum in Culinary Arts/Extended Practicum in Culinary Arts

TSDS PEIMS Code:

13022705 (First Time Taken) (EXPRCUL1)
13022715 (Second Time Taken) (EXPRCUL2)

Grade Placement: 11–12
Credit: 3
Prerequisite: Culinary Arts.
Corequisite: Practicum in Culinary Arts.

Extended Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Extended Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions, with the goal of further enhancing the knowledge, skills, and industry-based experiences that students receive through workplace application.

Practicum in Hospitality Services/Extended Practicum in Hospitality Services

TSDS PEIMS Code:

13022905 (First Time Taken) (EXPRHOS1)
13022915 (Second Time Taken) (EXPRHOS2)

Grade Placement: 11–12
Credit: 3
Prerequisite: None.
Recommended Prerequisite: Hospitality Services.
Corequisite: Practicum in Hospitality Services.

Extended Practicum in Hospitality Services is a unique practicum experience that provides opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Extended Practicum in Hospitality Services integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of further enhancing the knowledge, skills, and industry-based experiences that students receive through workplace application.

Human Services

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Human Services

Principles of Human Services

TSDS PEIMS Code: 13024200 (PRINHUSR)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.
Principles of Human Services is a laboratory course that will enable students to investigate careers in the Human Services Career Cluster, including counseling and mental health, early childhood development, family and community, personal care, and consumer services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

Dollars and Sense

TSDS PEIMS Code: 13024300 (DOLLARSE)
Grade Placement: 11–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services.
Dollars and Sense focuses on consumer practices and responsibilities, money-management processes, decision-making skills, impact of technology, and preparation for human services careers.

Lifetime Nutrition and Wellness

TSDS PEIMS Code: 13024500 (LNURTWEL)
Grade Placement: 9–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services, Principles of Hospitality and Tourism, or Principle of Health Science.
Lifetime Nutrition and Wellness is a laboratory course that allows students to use principles of lifetime wellness and nutrition to help them make informed choices that

promote wellness as well as pursue careers related to hospitality and tourism, education and training, human services, and health sciences.

Interpersonal Studies

TSDS PEIMS Code: 13024400 (INTERSTU)
Grade Placement: 9–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services, Principles of Hospitality and Tourism, Principles of Health Science, or Principles of Education and Training.
Interpersonal Studies examines how the relationships between individuals and among family members significantly affect the quality of life. Students use knowledge and skills in family studies and human development to enhance personal development, foster quality relationships, promote wellness of family members, manage multiple adult roles, and pursue careers related to counseling and mental health services.

Counseling and Mental Health

TSDS PEIMS Code: 13024600 (COUNSMH)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services.
In Counseling and Mental Health, students model the knowledge and skills necessary to pursue a counseling and mental health career through simulated environments. Students are expected to apply knowledge of ethical and legal responsibilities, limitations on their actions and responsibilities, and the implications of their actions. Students understand how professional integrity in counseling and mental health care is dependent on acceptance of ethical and legal responsibilities.

Child Development

TSDS PEIMS Code: 13024700 (CHILDDEV)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services.
Child Development is a technical laboratory course that addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children.

Child Guidance

TSDS PEIMS Code: 13024800 (CHILDGUI)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services.
Recommended Prerequisite or Corequisite: Child Development.
Child Guidance is a technical laboratory course that addresses the knowledge and skills related to child growth and guidance equipping students to develop positive relationships with children and effective caregiver skills. Students use these skills to promote the well- being and healthy development of children, strengthen a culturally diverse society, and pursue careers related to the care, guidance, and education of children, including those with special needs. Instruction may be delivered through school-based laboratory training or through work-based delivery arrangements such as cooperative education, mentoring, and job shadowing.

Family and Community Services

TSDS PEIMS Code: 13024900 (FAMCOSRV)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Human Services.
Family and Community Services is a laboratory-based course designed to involve students in realistic and meaningful community-based activities through direct service or service- learning experiences. Students are provided opportunities to interact with and provide services to individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics.

Practicum in Human Services

TSDS PEIMS Code:
13025000 (First Time Taken) (PRACHUS1)
13025010 (Second Time Taken) (PRACHUS2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
Practicum in Human Services provides background knowledge and occupation-specific training that focuses on the development of consumer services, early childhood development and services, counseling and mental health services, and family and community-services careers. Content for Practicum in Human Services is designed to meet the occupational preparation needs and interests of students and should be based upon the knowledge and skills selected from two or more courses in a coherent sequence in the

human services cluster. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Principles of Cosmetology Design and Color Theory

TSDS PEIMS Code: 13025050 (PRICOSMO)
Grade Placement: 9–10
Credit: 1
Prerequisites: None.
Recommended Prerequisite: Principles of Human Services.

In Principles of Cosmetology Design and Color Theory, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Students will attain academic skills and knowledge as well as technical knowledge and skills related to cosmetology design and color theory. Students will develop knowledge and skills regarding various cosmetology design elements such as form, lines, texture, structure and illusion or depth as they relate to the art of cosmetology. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the TDLR requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

Introduction to Cosmetology

TSDS PEIMS Code: 13025100 (INTCOSMO)
Grade Placement: 10
Credit: 1
Prerequisite: None.

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

Cosmetology I

TSDS PEIMS Code: 13025200 (COSMET1)
Grade Placement: 10–11
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Introduction to Cosmetology.

In Cosmetology I, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the

Texas Department of Licensing and Regulation (TDLR) requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

Cosmetology I/Cosmetology I Lab (Innovative)

TSDS PEIMS Code: 13025210 (COSLAB1)
Grade Placement: 10-11
Credits: 1
Prerequisites: None.
Corequisite: This course must be taken concurrently with Cosmetology I and may not be taken as a stand-alone course. Districts are encouraged to offer this lab in a consecutive block with Cosmetology I to allow students sufficient time to master the content of both courses.
Cosmetology I/Cosmetology I Lab (Innovative) course provides students additional lab time to develop proficient and mastery level cosmetology skills and techniques as required by Texas Department of Licensing and Regulation licensing standards. Students will be expected to demonstrate mastery in conducting the skills and techniques learned in Cosmetology I with little to no guidance.

Cosmetology II

TSDS PEIMS Code: 13025300 (COSMET2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Cosmetology I.
In Cosmetology II, students will demonstrate proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills required for licensure. Instruction includes advanced training in professional standards/employability skills; Texas Department of Licensing and Regulation (TDLR) rules and regulations; use of tools, equipment, technologies, and materials; and practical skills.

Cosmetology II/Cosmetology II Lab (Innovative)

TSDS PEIMS Code: 13025310 (COSLAB2)
Grade Placement: 11-12
Credits: 3
Prerequisites: Cosmetology I/Cosmetology I Lab (Innovative)
Corequisites: The Cosmetology II Lab course may not be taken as a stand-alone course. The Cosmetology II course must be taken concurrently with Cosmetology II Lab. Districts are encouraged to offer this lab in a consecutive block with Cosmetology II to allow students sufficient time to master the content of both courses.
Cosmetology II /Cosmetology II Lab (Innovative) course provides students additional lab time to develop proficient and mastery level cosmetology skills and techniques as required by Texas Department of Licensing and Regulation licensing standards. Students are

expected to develop proficient and mastery level work samples and to expand their work experiences.

Practicum in Human Services/Extended Practicum in Human Services

TSDS PEIMS Code:

13025005 (First Time Taken) (EXPRHUS1)
13025015 (Second Time Taken) (EXPRHUS2)

Grade Placement: 11–12

Credit: 3

Prerequisite: None.

Corequisite: Practicum in Human Services.

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

Information Technology

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Information Technology

Principles of Information Technology

TSDS PEIMS Code: 13027200 (PRINIT)
Grade Placement: 9–10
Credit: 1
Prerequisites: None

In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

Computer Maintenance

TSDS PEIMS Code: 13027300 (COMPMTN)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Information Technology.
Recommended Corequisite: Computer Maintenance Lab.

In Computer Maintenance, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

Computer Maintenance/Computer Maintenance Lab

TSDS PEIMS Code: 13027310 (COMMTLAB)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Information Technology.
Corequisite: Computer Maintenance.

In Computer Maintenance Lab, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies. Districts are encouraged to offer this course in a consecutive block with Computer Maintenance to allow students sufficient time to master the content of both courses.

Networking

TSDS PEIMS Code: 13027400 (NETWRK)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab.
Recommended Corequisite: Networking Lab.

In Networking, students will develop knowledge of the concepts and skills related to data networking technologies and practices to apply them to personal or career development. To prepare for success, students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Networking/Networking Lab

TSDS PEIMS Code: 13027410 (NETWRLAB)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab.
Corequisite: Networking.

In Networking Lab, students will develop knowledge of the concepts and skills related to telecommunications and data networking technologies and practices to apply them to personal or career development. To prepare for success, students must have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and

problems. This course must be taken concurrently with Networking and may not be taken as a stand-alone course. Districts are encouraged to offer this course in a consecutive block with Networking to allow students sufficient time to master the content of both courses.

Digital Media

TSDS PEIMS Code: 13027800 (DIMEDIA)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.
In Digital Media, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society.
Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.

Web Technologies

TSDS PEIMS Code: 13027900 (WEBTECH)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Information Technologies.
In Web Technologies, students will learn to make informed decisions and apply the decisions to the field of IT. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology- driven society. Students will enhance reading, writing, computing, communication, and critical thinking and apply them to the IT environment.

Computer Programming I

TSDS PEIMS Code: 13027600 (COMPPRO1)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Information Technology and Algebra I.
In Computer Programming I, students will acquire knowledge of structured programming techniques and concepts appropriate to developing executable programs and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety,

and diversity in society and in the workplace as related to computer programming. Students will apply technical skills to address business applications of emerging technologies.

Computer Programming II

TSDS PEIMS Code: 13027700 (COMPPRO2)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Information Technology and Computer Programming I.

In Computer Programming II, students will expand their knowledge and skills in structured programming techniques and concepts by addressing more complex problems and developing comprehensive programming solutions. Students will analyze the social responsibility of business and industry regarding the significant issues relating to environment, ethics, health, safety, and diversity in society and in the workplace as related to computer programming. Students will apply technical skills to address business applications of emerging technologies.

Computer Technician Practicum

TSDS PEIMS Code:
13027500 (First Time Taken) (COMPT1)
13027510 (Second Time Taken) (COMPT2)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Principles of Information Technologies, Computer Maintenance, and Computer Maintenance Lab.

In the Computer Technician Practicum, students will gain knowledge and skills in computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to the installation, diagnosis, service, and repair of computer-based technology systems. Students will reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an instructor, with an industry mentor, or both.

Practicum in Information Technology

TSDS PEIMS Code:
13028000 (First Time Taken) (PRACIT1)
13028010 (Second Time Taken) (PRACIT2)
Grade Placement: 12
Credit: 2
Prerequisite: A minimum of two high school information technology (IT) courses.

In the Practicum in Information Technology, students will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an industry mentor, as an unpaid or paid internship, as part of a capstone project, or as career preparation.

Computer Technician Practicum/Extended Computer Technician Practicum

TSDS PEIMS Code:
13027505 (First Time Taken) (EXCOMPT1)
13027515 (First Time Taken) (EXCOMPT2)
Grade Placement: 10–12
Credit: 3
Prerequisite: None.
Recommended Prerequisites: Principles of Information Technology, Computer Maintenance, Computer Maintenance Lab, Networking, and Networking Lab. Corequisite: Computer Technician Practicum.

In the Extended Computer Technician Practicum, students will gain knowledge and skills in computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to the installation, diagnosis, service, and repair of computer-based technology systems. Students will reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an instructor, with an industry mentor, or both. Students shall be awarded one credit for successful completion of this course.

Practicum in Information Technology/Extended Practicum in Information Technology

TSDS PEIMS Code:

13028005 (First Time Taken) (EXPRIT1)

13028050 (Second Time Taken) (EXPRIT2)

Grade Placement: 12

Credit: 3

Prerequisite: Minimum of two high school information technology (IT) courses.

Corequisite: Practicum in Information Technology.

In Extended Practicum in Information Technology, students will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an instructor, with an industry mentor, or both. Students shall be awarded one credit for successful completion of this course.

Law, Public Safety, Corrections & Security

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Law,
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Principles of Law, Public Safety, Corrections, and Security

TSDS PEIMS Code: 13029200 (PRINLPCS)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, protective services, and corrections.

Correctional Services

TSDS PEIMS Code: 13029700 (CORRSRVS)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security. In Correctional Services, students prepare for certification required for employment as a municipal, county, state, or federal correctional officer. Students will learn the role and responsibilities of a county or municipal correctional officer; discuss relevant rules, regulations, and laws of municipal, county, state, or federal facilities; and discuss defensive tactics, restraint techniques, and first aid procedures as used in the municipal, county, state, or federal correctional setting. Students will analyze rehabilitation and alternatives to institutionalization for inmates.

Firefighter I

TSDS PEIMS Code: 13029900 (FIRE1)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security and Law Enforcement I.
Firefighter I introduces students to firefighter safety and development. Students will analyze Texas Commission on Fire Protection rules and regulations, proper incident reporting and records, proper use of personal protective equipment, and the principles of fire safety.

Firefighter II

TSDS PEIMS Code: 13030000 (FIRE2)
Grade Placement: 11–12
Credit: 3
Prerequisite: Firefighter I.
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security.
Firefighter II is the second course in a series for students studying firefighter safety and development. Students will understand Texas Commission on Fire Protection rules and regulations, proper incident reporting and records, proper use of personal protective equipment, and the principles of fire safety. Students will demonstrate proper use of fire extinguishers, ground ladders, fire hoses, and water supply apparatus systems.

Law Enforcement I

TSDS PEIMS Code: 13029300 (LAWENF1)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security.
Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.

Law Enforcement II

TSDS PEIMS Code: 13029400 (LAWENF2)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Law Enforcement I.
Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. Students will understand ethical and legal responsibilities, patrol procedures, first responder roles, telecommunications, emergency equipment operations, and courtroom testimony.

Criminal Investigation

TSDS PEIMS Code: 13029550 (CRINVEST)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security. Criminal Investigation is a course that introduces students to the profession of criminal investigations. Students will understand basic functions of criminal investigations and procedures and will learn how to investigate or follow up during investigations. Students will learn terminology and investigative procedures related to criminal investigation, crime scene processing, evidence collection, fingerprinting, and courtroom presentation.
Through case studies and simulated crime scenes, students will collect and analyze evidence such as fingerprint analysis, bodily fluids, hairs, fibers, shoe and tire impressions, bite marks, drugs, tool marks, firearms and ammunition, blood spatter, digital evidence, and other types of evidence.

Forensic Science

TSDS PEIMS Code: 13029500 (FORENSCI)
Grade Placement: 11–12
Credit: 1
Prerequisites: Biology and Chemistry.
Recommended Prerequisite or Corequisite: Any Law, Public Safety, Corrections, and Security Career Cluster course.
Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science. Scientific

methods of investigation can be experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Court Systems and Practices

TSDS PEIMS Code: 13029600 (COURTSP)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Law Enforcement I or Principles of Government or Public Administration.
Court Systems and Practices is an overview of the federal and state court systems. The course identifies the roles of judicial officers and the trial processes from pretrial to sentencing and examines the types and rules of evidence. Emphasis is placed on constitutional laws for criminal procedures such as search and seizure, stop and frisk, and interrogation.

Federal Law Enforcement and Protective Services

TSDS PEIMS Code: 13029800 (FEDLEPS)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security.
Federal Law Enforcement and Protective Services provides the knowledge and skills necessary to prepare for certification in security services for federal law enforcement and protective services. The course provides an overview of security elements and types of organizations with a focus on security measures used to protect lives, property, and proprietary information, to ensure computer security, to provide information assurance, and to prevent cybercrime.

Practicum in Law, Public Safety, Corrections, and Security

TSDS PEIMS Code:
13030100 (First Time Taken) (PRACLPS1)
13030110 (Second Time Taken) (PRACLPS2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and

level of experience. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Practicum in Law, Public Safety, Corrections, and Security/Extended Practicum in Law, Public Safety, Corrections, and Security

TSDS PEIMS Code:
13030105 (First Time Taken) (EXPRLPS1)
13030115 (Second Time Taken) (EXPRLPS2)
Grade Placement: 11–12
Credit: 3
Prerequisite: None.
Corequisite: Practicum in Law, Public Safety, Corrections, and Security.

Extended Practicum in Law, Public Safety, Corrections, and Security is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students shall be awarded one credit for successful completion of this course.

Manufacturing

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Manufacturing

Principles of Manufacturing

TSDS PEIMS Code: 13032200 (PRINMAN)
Grade Placement: 9–12
Credit: 1
Prerequisite: None
Recommended Prerequisites: Algebra I or Geometry.

In Principles of Manufacturing, students are introduced to knowledge and skills used in the proper application of principles of manufacturing. The study of manufacturing technology allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities. Students will gain an understanding of what employers require to gain and maintain employment in manufacturing careers.

Diversified Manufacturing I

TSDS PEIMS Code: 13032650 (DIMANU1)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Algebra I.

In Diversified Manufacturing I, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. The study of manufacturing systems allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting. Diversified Manufacturing, I allows students the opportunity to understand the process of mass production by using a wide variety of materials and manufacturing techniques. Knowledge about career opportunities, requirements, and expectations and the development of skills prepare students for workplace success.

Diversified Manufacturing II

TSDS PEIMS Code: 13032660 (DIMANU2)
Grade Placement: 11–12
Credit: 1
Prerequisite: Diversified Manufacturing I.
Recommended Prerequisite: Algebra I.

In Diversified Manufacturing II, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. The study of manufacturing systems allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting. Diversified Manufacturing II allows students the opportunity to understand the process of mass production by using a wide variety of materials and manufacturing techniques. Knowledge about career opportunities, requirements, and expectations and the development of skills prepare students for workplace success.

Manufacturing Engineering Technology I

TSDS PEIMS Code: 13032900 (MANENGT1)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Algebra I.

In Manufacturing Engineering Technology, I, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. Students will prepare for success in the global economy. The study of manufacturing engineering will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting.

Manufacturing Engineering Technology II

TSDS PEIMS Code: 13032950 (MANENGT2)
Grade Placement: 11–12
Credit: 1
Prerequisite: Manufacturing Engineering I.
Recommended Prerequisite: Algebra II, Computer Science, or Physics.

In Manufacturing Engineering Technology II, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. The study of Manufacturing Engineering Technology II will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and

arguments using precise mathematical language in written or oral communication.
Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Metal Fabrication and Machining I

TSDS PEIMS Code: 13032700 (MTFBMCH1)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Algebra I or Geometry.
Metal Fabrication and Machining I provides the knowledge, skills, and certifications required for equal employment opportunities in the metal production industry. Students must have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Metal Fabrication and Machining II

TSDS PEIMS Code: 13032800 (MTFBMCH2)
Grade Placement: 11–12
Credit: 2
Prerequisite: Metal Fabrication and Machining I.
Recommended Prerequisites: Geometry and Algebra II.
Metal Fabrication and Machining II builds on the knowledge, skills, and certifications students acquire in Metal Fabrication and Machining I. Students will develop advanced concepts and skills as related to personal and career development. This course integrates academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Precision Metal Manufacturing I

TSDS PEIMS Code: 13032500 (PREMMAN1)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Principles of Manufacturing and completion of or concurrent enrollment in Algebra I or Geometry.
Precision Metal Manufacturing I will provide the knowledge, skills, and technologies required for employment in precision machining. While the course is designed to provide necessary skills in machining, it also provides a real-world foundation for any engineering discipline. This course may address a variety of materials such as plastics, ceramics, and wood in addition to metal. Students will develop knowledge of the concepts and skills related to precision metal manufacturing to apply them to personal and career development. This course supports integration of academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and

skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success. This course is designed to provide entry-level employment for the student or articulated credit integration into a community college and dual credit with a community college with completion of the advanced course.

Precision Metal Manufacturing II

TSDS PEIMS Code: 13032600 (PREMMAN2)

Grade Placement: 11–12

Credit: 2

Prerequisite: Precision Metal Manufacturing I.

Recommended Prerequisite: Precision Manufacturing II Lab.

Precision Metal Manufacturing II will provide students the knowledge, skills, and technologies required for employment in precision machining. While this course is designed to provide necessary skills in machining, it also provides a real-world foundation for any engineering discipline. This course addresses a variety of materials such as plastics, ceramics, and wood in addition to metal. Students will develop knowledge of the concepts and skills related to these systems to apply them to personal and career development. This course supports integration of academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success. This course is designed to provide entry-level employment for the student or articulated credit integration into a community college and dual credit with a community college with completion of the advanced course.

Precision Metal Manufacturing II/Precision Metal Manufacturing II Lab

TSDS PEIMS Code: 13032610 (PRMMLAB2)

Grade Placement: 11–12

Credit: 3

Prerequisite: Precision Metal Manufacturing I.

Corequisite: Precision Metal Manufacturing II.

Precision Metal Manufacturing II Lab provides the knowledge, skills, and technologies required for employment in precision machining. While Precision Metal Manufacturing II Lab is designed to provide necessary skills in machining, it also provides a real-world foundation for any engineering discipline. This course may address a variety of materials such as plastics, ceramics, and wood in addition to metal. Students will develop knowledge of the concepts and skills related to these systems to apply them to personal and career development. This course supports integration of academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students

for success. This course is designed to provide entry-level employment for the student or articulated credit integration into a community college and dual credit with a community college with completion of the advanced course.

Introduction to Welding

TSDS PEIMS Code: 13032250 (INTRWELD)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite or Corequisite: Algebra I.

Introduction to Welding will introduce welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

Welding I

TSDS PEIMS Code: 13032300 (WELD1)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Algebra I, Principles of Manufacturing, Introduction to Precision Metal Manufacturing, or Introduction to Welding.

Welding I provide the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

Welding II

TSDS PEIMS Code: 13032400 (WELD2)
Grade Placement: 11–12
Credit: 2
Prerequisites: Welding I.
Recommended Prerequisites: Algebra I or Geometry.
Recommended Corequisite: Welding II Lab.
Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Welding II/Welding II Lab

TSDS PEIMS Code: 13032410 (WELDLAB2)
Grade Placement: 11–12
Credit: 3
Prerequisites: Welding I.
Corequisites: Welding II.
Welding II Lab introduces welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. This course provides knowledge, skills, and technologies required for employment in welding industries. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

Practicum in Manufacturing

TSDS PEIMS Code:
13033000 (First Time Taken) (PRACMAN1)
13033010 (Second Time Taken) (PRACMAN2)
Grade Placement: 12
Credit: 2
Prerequisite: None.
The Practicum in Manufacturing course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Practicum in Manufacturing/Extended Practicum in Manufacturing

TSDS PEIMS Code:

13033005 (First Time Taken) (EXPRMAN1)

13033015 (Second Time Taken) (EXPRMAN2)

Grade Placement: 12

Credit: 3

Prerequisite: None.

Corequisite: Practicum in Manufacturing.

The Extended Practicum in Manufacturing course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students shall be awarded one credit for successful completion of this course.

Marketing

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Marketing

Advertising

TSDS PEIMS Code: 13034200 (ADVERTIS)
Grade Placement: 9–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Advertising is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media. The course explores the social, cultural, ethical, and legal issues of advertising, historical influences, strategies, media decision processes as well as integrated marketing communications, and careers in advertising and sales promotion. The course provides an overview of how communication tools can be used to reach target audiences and increase consumer knowledge.

Fashion Marketing

TSDS PEIMS Code: 13034300 (FASHMKTG)
Grade Placement: 9–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Fashion Marketing is designed to provide students with knowledge of the various business functions in the fashion industry. Students in Fashion Marketing will gain a working knowledge of promotion, textiles, merchandising, mathematics, selling, visual merchandising, and career opportunities.

Entrepreneurship

TSDS PEIMS Code: 13034400 (ENTREP)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisites: Principles of Business, Marketing, and Finance.
Students will learn the principles necessary to begin and operate a business. The primary focus of the course is to help students understand the process of analyzing a business opportunity, preparing a business plan, determining feasibility of an idea using research, and developing a plan to organize and promote the business and its products and services.

Social Media Marketing

TSDS PEIMS Code: 13034650 (SMEDMKTG)
Grade Placement: 9–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing and Finance or any marketing course.
Social Media Marketing is designed to look at the rise of social media and how marketers are integrating social media tools in their overall marketing strategy. The course will investigate how the marketing community measures success in the new world of social media. Students will manage a successful social media presence for an organization, understand techniques for gaining customer and consumer buy-in to achieve marketing goals, and properly select social media platforms to engage consumers and monitor and measure the results of these efforts.

Sports and Entertainment Marketing

TSDS PEIMS Code: 13034600 (SPORTSEM)
Grade Placement: 9–12
Credit: .5
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Sports and Entertainment Marketing will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and entertainment. The areas this course will cover include basic marketing concepts, publicity, sponsorship, endorsements, licensing, branding, event marketing, promotions, and sports and entertainment marketing strategies.

Practicum in Marketing

TSDS PEIMS Code:
13034800 (First Time Taken) (PRACMKT1)
13034810 (Second Time Taken) (PRACMKT2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.

Practicum in Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students will gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling skills. Students will integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions. The practicum course is a paid or unpaid experience for students participating in a coherent sequence of career and technical courses in marketing.

Practicum in Marketing/Extended Practicum in Marketing

TSDS PEIMS Code:
13034805 (First Time Taken) (EXPRMKT1)
13034815 (Second Time Taken) (EXPRMKT2)
Grade Placement: 11–12
Credit: 3
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Corequisite: Practicum in Marketing.

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

Advanced Marketing

TSDS PEIMS Code: 13034700 (ADVMKTG)
Grade Placement: 11–12
Credit: 2
Prerequisites: One credit from the courses in the Marketing Career Cluster.
Recommended Prerequisite: Practicum in Marketing.

In Advanced Marketing, students will gain knowledge and skills that help them become

proficient in one or more of the marketing functional areas. Students will illustrate appropriate management and research skills to solve problems related to marketing. This course covers technology, communication, and customer-service skills.

Science, Technology, Engineering & Mathematics

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Science, Technology, Engineering & Mathematics

Principles of Applied Engineering

TSDS PEIMS Code: 13036200 (PRAPPENG)
Grade Placement: 9–10
Credit: 1
Prerequisite: None.

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will understand the various fields of engineering and will be able to make informed career decisions.

Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.

Principles of Biosciences

TSDS PEIMS Code: 13036300 (PRBIOSCI)
Grade Placement: 9–10
Credit: 1
Prerequisite: None.

Principles of Biosciences is a strong reinforcement of Biology content that provides an overview of biotechnology, bioengineering, and related fields. Topics include genetics, cell structure, proteins, nucleic acids, and the impact of immunological events in biotechnology. Students will further study the increasingly important agricultural, environmental, economic, and political roles of bioenergy and biological remediation; the roles of nanoscience and nanotechnology in biotechnology medical research; and future trends in biological science and biotechnology.

Principles of Technology

TSDS PEIMS Code: 13037100 (PRINTECH)

Grade Placement: 10–12

Credit: 1

Prerequisites: One credit of high school science and Algebra I.

In Principles of Technology, students will conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Various systems will be described in terms of space, time, energy, and matter. Students will study a variety of topics that include laws of motion, conservation of energy, momentum, electricity, magnetism, thermodynamics, and characteristics and behavior of waves. Students will apply physics concepts and perform laboratory experimentations for at least 40% of instructional time using safe practices.

Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

AC/DC Electronics

TSDS PEIMS Code: 13036800 (ACDCELEC)

Grade Placement: 10–12

Credit: 1

Prerequisite: None.

Recommended Prerequisite: Principles of Applied Engineering.

AC/DC Electronics focuses on the basic electricity principles of alternating current/direct current (AC/DC) circuits. Students will demonstrate knowledge and applications of circuits, electronic measurement, and electronic implementation. Through use of the design process, students will transfer academic skills to component designs in a project-based environment. Students will use a variety of computer hardware and software applications to complete assignments and projects. Additionally, students will explore career opportunities, employer expectations, and educational needs in the electronics industry.

Solid State Electronics

TSDS PEIMS Code: 13036900 (SOSTELEC)

Grade Placement: 11–12

Credit: 1

Prerequisite: AC/DC Electronics.

In Solid State Electronics, students will demonstrate knowledge and applications of advanced circuits, electrical measurement, and electrical implementation used in the electronics and computer industries. Students will transfer advanced academic skills to apply engineering principles and technical skills to troubleshoot, repair, and modify electronic components, equipment, and power electronic systems in a project-based environment. Additionally, students will explore career opportunities, employer

expectations, and educational needs in the electronics industry. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Digital Electronics

TSDS PEIMS Code: 13037600 (DIGELC)
Grade Placement: 10–12
Credit: 1
Prerequisites: Algebra I and Geometry.

Digital Electronics is the study of electronic circuits that are used to process and control digital signals. In contrast to analog electronics, where information is represented by a continuously varying voltage, digital signals are represented by two discreet voltages or logic levels. This distinction allows for greater signal speed and storage capabilities and has revolutionized the world of electronics. Digital electronics is the foundation of modern electronic devices such as cellular phones, digital audio players, laptop computers, digital cameras, and high-definition televisions. The primary focus of Digital Electronics is to expose students to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. *Note: This course satisfies a math credit requirement for students on the Foundation High School Program.*

Robotics I

TSDS PEIMS Code: 13037000 (ROBOTIC1)
Grade Placement: 9–10
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Applied Engineering.

In Robotics I, students will transfer academic skills to component designs in a project- based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Robotics II

TSDS PEIMS Code: 13037050 (ROBOTIC2)
Grade Placement: 10–12
Credit: 1
Prerequisite: Robotics I.

In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students

will build prototypes and use software to test their designs.
Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Engineering Design and Presentation I

TSDS PEIMS Code: 13036500 (ENGDSPR1)
Grade Placement: 10–12
Credit: 1
Prerequisite: Algebra I.
Recommended Prerequisite: Principles of Applied Engineering.
Engineering Design and Presentation I is a continuation of knowledge and skills learned in Principles of Applied Engineering. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Additionally, students explore career opportunities in engineering, technology, and drafting and what is required to gain and maintain employment in these areas.

Engineering Design and Presentation II

TSDS PEIMS Code: 13036600 (ENGDSPR2)
Grade Placement: 11–12
Credit: 2
Prerequisites: Algebra I and Geometry.
Recommended Prerequisite: Principles of Applied Engineering or Engineering Design and Presentation I.
Engineering Design and Presentation II is a continuation of knowledge and skills learned in Engineering Design and Presentation I. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Emphasis will be placed on using skills from ideation through prototyping.

Engineering Design and Problem Solving

TSDS PEIMS Code: 13037300 (ENGDPRS)

Grade Placement: 11–12

Credit: 1

Prerequisites: Algebra I and Geometry.

Recommended Prerequisites: two Science, Technology, Engineering, and Mathematics Career Cluster credits.

The Engineering Design and Problem-Solving course is the creative process of solving problems by identifying needs and then devising solutions. The solution may be a product, technique, structure, or process depending on the problem. Science aims to understand the natural world, while engineering seeks to shape this world to meet human needs and wants. Engineering design takes into consideration limiting factors or "design under constraint." Various engineering disciplines address a broad spectrum of design problems using specific concepts from the sciences and mathematics to derive a solution. The design process and problem solving are inherent to all engineering disciplines. This course satisfies a high school science graduation requirement. Students shall be awarded one credit for successful completion of this course.

Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Engineering Mathematics

TSDS PEIMS Code: 13036700 (ENGMATH)

Grade Placement: 11–12

Credit: 1

Prerequisites: Algebra II.

Engineering Mathematics is a course where students solve and model design problems. Students will use a variety of mathematical methods and models to represent and analyze problems that represent a range of real-world engineering applications such as robotics, data acquisition, spatial applications, electrical measurement, manufacturing processes, materials engineering, mechanical drives, pneumatics, process control systems, quality control, and computer programming. This course satisfies a high school mathematics graduation requirement.

Note: This course satisfies a math credit requirement for students on the Foundation High School Program.

Engineering Science

TSDS PEIMS Code: 13037500 (ENGSCIEN)
Grade Placement: 10–12
Credit: 1
Prerequisite: Algebra I and Biology Chemistry, Integrated Physics, and Chemistry (IPC), or Physics.
Recommended Prerequisite: Geometry.

Engineering Science is an engineering course designed to expose students to some of the major concepts and technologies that they will encounter in a postsecondary program of study in any engineering domain. Students will have an opportunity to investigate engineering and high-tech careers. In Engineering Science, students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenge situations. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.
Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Biotechnology I

TSDS PEIMS Code: 13036400 (BIOTECH1)
Grade Placement: 11–12
Credit: 1
Prerequisite: Biology and Chemistry.
Recommended Prerequisite: Principles of Biosciences.

In Biotechnology I, students will apply advanced academic knowledge and skills to the emerging fields of biotechnology such as agricultural, medical, regulatory, and forensics. Students will have the opportunity to use sophisticated laboratory equipment, perform statistical analysis, and practice quality-control techniques. Students will conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Biotechnology I will study a variety of topics that include structures and functions of cells, nucleic acids, proteins, and genetics. Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement. *Note: This course satisfies a science credit requirement for students on the Foundation High School Program.*

Biotechnology II

TSDS PEIMS Code: 13036450 (BIOTECH2)
Grade Placement: 11–12
Credit: 1
Prerequisites: Biotechnology I and Chemistry.

Biotechnology II has the components of any rigorous scientific or bioengineering program of study from the problem identification, investigation design, data collection, data analysis, and formulation and presentation of the conclusions. This course applies the standard skills mastered in Biotechnology I and includes assay design. After taking this course, students should be prepared for entry-level lab technician jobs. Students must meet the 40% laboratory and fieldwork requirement.

Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Scientific Research and Design

TSDS PEIMS Code:
13037200 (First Time Taken) (SCRID)
13037210 (Second Time Taken) (SCRID2)
13037220 (Third Time Taken) (SCRID3)
Grade Placement: 11–12
Credit: 1
Prerequisite: Biology, Chemistry, Integrated Physics, and Chemistry (IPC), or Physics.

Scientific Research and Design is a broad-based course designed to allow districts and schools considerable flexibility to develop local curriculum to supplement any program of study or coherent sequence. The course has the components of any rigorous scientific or engineering program of study from the problem identification, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. These components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education. Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement.

Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Practicum in Science, Technology, Engineering, and Mathematics

TSDS PEIMS Code:
13037400 (First Time Taken) (PRCSTEM1)
13037410 (Second Time Taken) (PRCSTEM2)
Grade Placement: 12
Credit: 2
Prerequisites: Algebra I and Geometry.
Recommended Prerequisites: two Science, Technology, Engineering, and Mathematics (STEM) Career Cluster credits.
Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

Practicum in Science, Technology, Engineering, and Mathematics/Extended Practicum in Science, Technology, Engineering, and Mathematics

TSDS PEIMS Code:
13037405 (First Time Taken) (EXPRSTEM1)
13037415 (Second Time Taken) (EXPRSTEM2)
Grade Placement: 12
Credit: 3
Prerequisites: Algebra I and Geometry.
Recommended Prerequisites: two Science, Technology, Engineering, and Mathematics (STEM) Career Cluster credits.
Corequisite: Practicum in Science, Technology, Engineering, and Mathematics Career Cluster credits.
Extended Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students shall be awarded one credit for successful completion of this course.

Transportation, Distribution & Logistics

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Transportation, Distribution & Logistics

Principles of Transportation Systems

TSDS PEIMS Code: 13039250 (PRINTRSY)
Grade Placement: 9–12
Credit:1
Prerequisite: None.

In Principles of Transportation Systems, students will gain knowledge and skills in the safe application, design, production, and assessment of products, services, and systems. This knowledge includes the history, laws and regulations, and common practices used in the transportation industry. Students should apply knowledge and skills in the application, design, and production of technology as it relates to the transportation industries. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

Principles of Distribution and Logistics

TSDS PEIMS Code: 13039260 (PRINDILG)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

In Principles of Distribution and Logistics, students will gain knowledge and skills in the safe application, design, production, and assessment of products, services, and systems. This knowledge includes the history, laws and regulations, and common practices used in the logistics of warehousing and transportation systems. Students should apply knowledge and skills in the application, design, and production of technology as it relates to distribution and logistics industries. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

Introduction to Transportation Technology

TSDS PEIMS Code: 13039270 (INTRTEC)
Grade Placement: 9–10
Credit: .5
Prerequisite: None.

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

Small Engine Technology I

TSDS PEIMS Code: 13040000 (SMENTEC1)
Grade Placement: 9–12
Credit: 1
Prerequisite: None

Small Engine Technology I includes knowledge of the function and maintenance of the systems and components of all types of small engines such as outdoor power equipment, motorcycles, generators, and irrigation engines. This course is designed to provide training for employment in the small engine technology industry. Instruction includes the repair and service of cooling, air, fuel, lubricating, electrical, ignition, and mechanical systems. In addition, the student will receive instruction in safety, academic, and leadership skills as well as career opportunities.

Small Engine Technology II

TSDS PEIMS Code: 13040100 (SMENTEC2)
Grade Placement: 10–12
Credit: 2
Prerequisite: Small Engine Technology I.

Small Engine Technology II includes advanced knowledge of the function, diagnosis, and service of the systems and components of all types of small engines such as outdoor power equipment, motorcycles, generators, and irrigation engines. This course is designed to provide hands-on and practical application for employment in the small engine technology industry. Instruction includes the repair and service of cooling, air, fuel, lubricating, electrical, ignition, and mechanical systems and small engine overhauls. In addition, students will receive instruction in safety, academic, and leadership skills as well as career opportunities.

Automotive Basics

TSDS PEIMS Code: 13039550 (AUTOBASC)

Grade Placement: 9–12

Credit: 1

Prerequisite: None.

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

Automotive Technology I: Maintenance and Light Repair

TSDS PEIMS Code: 13039600 (AUTOTEC1)

Grade Placement: 9–12

Credit: 2

Prerequisite: None.

Recommended Prerequisites: Automotive Basics.

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

Automotive Technology II: Automotive Service

TSDS PEIMS Code: 13039700 (AUTOTEC2)

Grade Placement: 11–12

Credit: 2

Prerequisites: Automotive Technology I: Maintenance and Light Repair.

Automotive Technology II: Automotive Service includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems.

Automotive Technology II: Automotive Service includes applicable safety and environmental rules and regulations. In this course, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Advanced Transportation Systems Laboratory

TSDS PEIMS Code: 13039510 (AIRPLAB)

Grade Placement: 11–12

Credit: 1

Prerequisite: None.

Recommended Prerequisite: A minimum of one credit from the courses in the Transportation, Distribution, and Logistics Career Cluster.

Corequisites: Automotive Technology II: Automotive Services, Diesel Equipment Technology II, Collision Repair, Paint and Refinishing, Aircraft Airframe Technology, or Aircraft Powerplant Technology.

Advanced Transportation Systems Laboratory provides the opportunity to extend knowledge of the major transportation systems and the principles of diagnosing and servicing these systems. Topics in this course may include alternative fuels such as hybrid, bio diesel, hydrogen, compressed natural gas (CNG), liquidized natural gas (LNG), propane, and solar; total electric vehicles and power trains; advanced transportation systems such as collision avoidance, telematics, vehicle stability control, navigation, vehicle-to-vehicle communications; and other technologies. This study will allow students to have an increased understanding of science, technology, engineering, and mathematics in all aspects of these systems. This will reinforce, apply, and transfer academic knowledge and skills to a variety of relevant activities, problems, and settings.

Note: This course must be taken concurrently with a corequisite course and may not be taken as a stand-alone course.

Course Name	TSDS PEIMS Code	Course Abbreviation
Aircraft Airframe Technology/Advanced Transportation Systems Laboratory	13039410	AIRAFLAB
Aircraft Powerplant Technology/Advanced Transportation Systems Laboratory	13039510	AIRPPLAB
Automotive Technology II: Automotive Services/Advanced Transportation Systems Laboratory	13039710	AUTOLAB2
Collision Repair/Advanced Transportation Systems Laboratory	13039810	COLLRLAB
Paint and Refinishing/Advanced Transportation Systems Laboratory	13039910	PTREFLAB
Diesel Equipment Technology II/Advanced Transportation Systems Laboratory	13040170	DIEQLAB2

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Introduction to Aircraft Technology

TSDS PEIMS Code: 13039350 (INAIRTEC)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Introduction to Aircraft Technology is designed to teach the theory of operation of aircraft airframes, powerplants, and associated maintenance and repair practices. Maintenance and repair practices include knowledge of the function, diagnosis, and service of general curriculum subjects, airframe structures, airframe systems and components, powerplant theory and maintenance, and powerplant systems and components of aircraft. Industry recognized professional licensures, certifications, and registrations are available for students who meet the requirements set forth by the accrediting organization. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Aircraft Airframe Technology

TSDS PEIMS Code: 13039400 (AIRAFTEC)
Grade Placement: 10–12
Credit: 2
Prerequisite: Introduction to Aircraft Technology.

Aircraft Airframe Technology is designed to teach the theory of operation of aircraft airframes and associated maintenance and repair practices. Airframe maintenance and repair practices include knowledge of the function, diagnosis, and service of airframe structures, systems, and components of aircraft.

Aircraft Powerplant Technology

TSDS PEIMS Code: 13039500 (AIRPPTEC)
Grade Placement: 11–12
Credit: 2
Prerequisite: Introduction to Aircraft Technology.

Aircraft Powerplant Technology is designed to teach the theory of operation of aircraft powerplants and associated maintenance and repair practices. Powerplant maintenance and repair practices include knowledge of the theory, function, diagnosis, and service of powerplant, systems, and components of aircraft. Industry-recognized professional licensures, certifications, and registrations are available for students who meet the requirements set forth by the accrediting organization.

Basic Collision Repair and Refinishing

TSDS PEIMS Code: 13039750 (BASCOLRR)
Grade Placement: 9–12
Credit: 1
Prerequisite: None.

Basic Collision Repair and Refinishing includes knowledge of the processes, technologies, and materials used in the reconstruction of vehicles. This course is designed to teach the concepts and theory of systems related to automotive collision repair and refinishing.

Collision Repair

TSDS PEIMS Code: 13039800 (COLLISR)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Basic Collision Repair and Refinishing.

Collision Repair includes knowledge of the processes, technologies, and materials used in the reconstruction of vehicles. This course is designed to teach the concepts and theory of systems related to automotive collision repair and refinishing.

Paint and Refinishing

TSDS PEIMS Code: 13039900 (PAINTREF)
Grade Placement: 10–12
Credit: 2
Prerequisite: None.
Recommended Prerequisites: Basic Collision Repair and Refinishing or Collision Repair.

Paint and Refinishing includes knowledge of the processes, technologies, and materials used in the reconstruction of vehicles. This course is designed to teach the concepts and theory of systems related to automotive paint and refinishing.

Diesel Equipment Technology I

TSDS PEIMS Code: 13040150 (DIEQTEC1)
Grade Placement: 9–12
Credit: 2
Prerequisite: None.

Diesel Equipment Technology I includes knowledge of the function and maintenance of diesel systems. Rapid advances in diesel technology have created new career opportunities and demands in the transportation industry. This course provides the knowledge, skills, and technologies required for employment in transportation systems.

Diesel Equipment Technology II

TSDS PEIMS Code: 13040160 (DIEQTEC2)
Grade Placement: 10–12
Credit: 2
Prerequisite: Diesel Equipment Technology I.
Diesel Equipment Technology II includes knowledge of the function, diagnosis, and service of diesel equipment systems. Rapid advances in diesel technology have created new career opportunities and demands in the transportation industry. This course provides the advanced knowledge, skills, and technologies required for employment in transportation systems.

Energy and Power of Transportation Systems

TSDS PEIMS Code: 13039300 (EPTSYS)
Grade Placement: 10–12
Credit: 1
Recommended Prerequisite: Principles of Transportation Systems.
Energy and Power of Transportation Systems will prepare students to meet the expectations of employers in this industry and to interact and relate to others. Students will learn the technologies used to provide products and services in a timely manner. The businesses and industries of the Transportation, Distribution, and Logistics Career Cluster are rapidly expanding to provide new career and career advancement opportunities.
Performance requirements will include academic and technical skills. Students will need to understand the interaction between various vehicle systems, including engines, transmissions, brakes, fuel, cooling, and electrical. Students will also need to understand the logistics used to move goods and services to consumers, as well as the components of transportation infrastructure.

Management of Transportation Systems

TSDS PEIMS Code: 13040200 (MNGTRSY)
Grade Placement: 10–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Transportation Systems.
In Management of Transportation Systems, students will gain knowledge and skills in material handling and distribution and proper application, design, and production of technology as it relates to the transportation industries. This course includes the safe operation of tractor-trailers, forklifts, and related heavy equipment. This course will allow students to reinforce, apply, and transfer their academic knowledge and skills to management of transportation systems and associated careers.

Distribution and Logistics

TSDS PEIMS Code: 13040300 (DISTLGS)
Grade Placement: 11–12
Credit: 1
Prerequisite: None.
Recommended Prerequisite: Principles of Distribution and Logistics.
Distribution and Logistics is designed to provide training for entry-level employment in distribution and logistics. This course focuses on the business planning and management aspects of distribution and logistics. To prepare for success, students will learn, reinforce, experience, apply, and transfer their knowledge and skills related to distribution and logistics.

Practicum in Transportation Systems

TSDS PEIMS Code:
13040450 (First Time Taken) (PRACTRS1)
13040460 (Second Time Taken) (PRACTRS2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
Practicum in Transportation Systems is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or worked based.

Practicum in Distribution and Logistics

TSDS PEIMS Code:
13040470 (First Time Taken) (PRACDLG1)
13040480 (Second Time Taken) (PRACDLG2)
Grade Placement: 11–12
Credit: 2
Prerequisite: None.
Practicum in Distribution and Logistics is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or work based.

Practicum in Transportation Systems/Extended Practicum in Transportation Systems

TSDS PEIMS Code:
13040455 (First Time Taken) (EXPRTRS1)
13040465 (Second Time Taken) (EXPRTRS2)
Grade Placement: 11–12
Credit: 3
Prerequisite: None.
Corequisite: Practicum in Transportation Systems.
Extended Practicum in Transportation Systems is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Extended Practicum in Transportation Systems can be either school lab based or worked based.

Practicum in Distribution and Logistics/Extended Practicum in Distribution and Logistics

TSDS PEIMS Code:
13040475 (First Time Taken) (EXPRDLG1)
13040485 (Second Time Taken) (EXPRDLG2)
Grade Placement: 11–12
Credit: 3
Prerequisite: None.
Corequisite: Practicum in Distribution and Logistics.
Extended Practicum in Distribution and Logistics is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Extended Practicum in Distribution and Logistics can be either school lab based or work based.