

Career and Technical Education

Master Course List 2017-2018 **High School**

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 II/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.

Agriculture, Food, and 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.

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.

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.

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 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.

Architecture & Construction

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. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

Construction Technology I

TSDS PEIMS Code: 13005100 (CONTECH1)

Grade Placement: 10–12

Credit: 2

Prerequisite: None.

Recommended Prerequisite: Principles of Construction.

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.

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.

Architectural Design I

TSDS PEIMS Code: 13004600 (ARCHDSN1)

Grade Placement: 10–12

Credit: 1

Prerequisites: Algebra I and English I.

Recommended Prerequisites: Geometry 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 and Geometry.

Recommended Prerequisites: 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.

Arts, Audio/Video Technology, and 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.

Audio/Video Production I

TSDS PEIMS Code: 13008500 (AVPROD1)

Grade Placement: 11–12

Credits: 1

Prerequisite: None.

Recommended Prerequisite: Principles of Arts, Audio/Video Technology, and Communications or Digital and Interactive Media.

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: 11–12

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.

Audio/Video Production II

TSDS PEIMS Code: 13008600 (AVPROD2)

Grade Placement: 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 postproduction products.

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

TSDS PEIMS Code: 13008610 (AVPLAB2)

Grade Placement: 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 postproduction products. Through diverse forms of storytelling and production, students will exercise and develop creativity, intellectual curiosity, and critical-thinking, problem-solving, and collaborative skills.

Fashion Design I

TSDS PEIMS Code: 13009300 (FASHDSN1)

Grade Placement: 11–12

Credits: 1

Prerequisites: None.

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.

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.

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: 11–12

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.

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.

Business, Marketing, and Finance

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.

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 II

TSDS PEIMS Code: 13011500 (BUSIM2)

Grade Placement: 10–12

Credits: 1

Prerequisite: Business Information Management I.

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.

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.

Education and 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.

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 healthcare 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.

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.

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: Principles of Health Science and 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 and Principles of Health Science.

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: Principles of Health Science, 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: Principles of Health Science, 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 and 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.

Human Services

Principles of Cosmetology Design and Color Theory

TSDS PEIMS Code: 13025050 (PRICOSMO)

Grade Placement: 9–10

Credit: 1

Prerequisites: None.

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 of 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

TSDS PEIMS Code: 13025210 (COSLAB1)

Grade Placement: 10-11

Credits: 3

Prerequisites:

Corequisite: The cosmetology I Lab course may not be taken as a stand-alone course. The cosmetology I course must be taken concurrently with Cosmetology I Lab. 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

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.

Cosmetology II /Cosmetology II Lab (Innovative) course provides students additional lab time to develop proficiency 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.

Computer Technology

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.

Law, Public Safety, Corrections, and Security

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.

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.

Copyright © Texas Education Agency, 2017. All rights reserved. 102 of 137

Law Enforcement II

TSDS PEIMS Code: 13029400 (LAWENF2)

Grade Placement: 11–12

Credit: 1

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.

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.

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.

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.

Engineering

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.

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.

Transportation Systems

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.

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.