PRINCETON
INDEPENDENT SCHOOL DISTRICT

Career and Technology Center

Course Catalog

2022-2023

Bell schedule

1st Period	7:30-8:20
2nd Period	8:25-9:15
Pride Time	9:20-9:55
3rd Period	10-10:50
4th Period	10:55-11:45
5th Period	11:45-1:15
A Lunch	11:45-12:15
B Lunch	12:15-12:45
C Lunch	12:45-1:15
6th Period	1:15-2:05
7th Period	2:10-3:00

CATE Courses	Career Cluster	Program of Study	Course Description	Credits	Prerequisites
Principles of Ag	AFNR	Ag Mech Animal Science Plant Science	This principles class is a comprehensive course covering the broad field of agriculture including career planning and expectations, the agricultural industry and its global importance, agriculture leadership organizations (FFA), agriculture research, food and fiber production, animal and plant science, environmental science, basic mechanical skills, and personal and communication skills.	1	None
Ag Mechanics	AFNR	Ag Mech	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.	2	Principles of Ag
Ag Equipment Design and Fabrication	AFNR	Ag Mech	Agriculture Mechanics and Metal Technologies develops proficiency in many welding skills. Students will be expected to use the cutting torch and MIG welders and weld in several positions, which include flat, horizontal and vertical. The course develops an understanding of tool operation, electrical wiring, plumbing, carpentry and metal working techniques.	2	Principles of Ag Ag Mech
Floral Design	AFNR	Plant Science	This course 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.	1	Principles of Ag
Advanced Floral Design	AFNR	Plant Science	In this course, students build on the knowledge from Floral Design I and are introduced to more advanced floral design	1	Principles of Ag Floral Design 1

(2023-2024)			concepts, with an emphasis on specialty designs and specific occasion planning.		
Advanced Plant Science	AFNR	Plant Science	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.	1	Principles of Ag Floral Design 1
Vet Med Applications	AFNR	Animal Science	To prepare students for careers in the field of animal science, students will attain academic skills and knowledge related to animal system, the workplace, and develop the knowledge of the industry. Students will be placed in a variety of settings to assist in various medical applications.	2	Principles of Ag
Wildlife, Fishing, And Ecological Management	AFNR	AFNR	To be prepared for careers in the field of wildlife management and the fishing industry, students need to enhance academic knowledge and skills, acquire knowledge and skills related to wildlife systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry standards. To prepare for success, students need opportunities to learn, reinforce, apply and transfer their knowledge and skills in a variety of settings. Various wildlife animals will be studied in this course to further understand the ecological needs of all animal needs.	1	None
Advanced Animal Science	AFNR	Animal Science	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.	1	Principles of Ag

Principles of Construction	Arch/Cons	Cons. Manage. HVAC	This course provides an overview to the various fields of architecture, interior design, construction science, and construction technology. Job-specific skilled training can be provided through the use of training modules to identify career goals in trade and industry areas. Safety and career opportunities are included, in addition to work ethics and job-related study in the classroom such as communications, problem solving and critical thinking, information technology applications, health and safety. Other areas of study include environmental leadership and teamwork, ethics and legal responsibilities, employability and career development, technical skills, introduction to hand tools, introduction to power tools, basic rigging, and reading technical drawings.	1	None
Construction Management	Arch/Cons	Cons. Manage.	Students gain knowledge and skills specific to those needed to enter the work force as carpenters or building maintenance supervisors or build a foundation toward a postsecondary degree in architecture, construction science, drafting, or engineering. Construction Management includes the knowledge of the design techniques and tools related to the management of architectural and engineering projects.	2	Principles of Construction
Advanced Construction Management	Arch/Cons	Cons. Manage.	Students gain knowledge and skills specific to those needed to enter the workforce as carpenters or building maintenance supervisors or build a foundation toward a postsecondary degree in architecture, construction science, drafting, or engineering. This course includes the knowledge of the design, techniques, and tools related to the management of architectural and engineering projects.	2	Principles of Construction Construction Management

HVAC 1	Arch/Cons	HVAC	This course familiarizes students with safety procedures for the use of tools and materials; basic principles of operation of compressors, condensers, and evaporators; control of systems; and performance of standard tests. Students will gain EPA 608 Certification, which deals with the recovery and use of Freon. Industry leaders in both residential and commercial HVAC systems will conduct on site presentations throughout the year to discuss trends and advancements their fields. They will also discuss qualities they are wanting to see displayed by new hires, as well as insight on industry expectations for new and perspective employees.	2	Principles of Construction
HVAC 2	Arch/Cons	HVAC	This course is a continuation of HVAC and will continue to build on the skills acquired in the previous year while adding more hands-on practice working with both residential and commercial heating and refrigeration units. Students will gain OSHA certification as well as NATE ICE certification, both are industry recognized certifications. Students completing the coursework will be eligible to test for HVAC Certification. Industry leaders in both residential and commercial HVAC systems will conduct on site presentations throughout the year to discuss trends and advancements their fields. They will also discuss qualities they are wanting to see displayed by new hires, as well as insight on industry expectations for new and perspective employees.	2	Principles of Construction HVAC 1
Graphic Design	Arts/AV/ Comm	Comm. Photo Animation	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	1	None
Commercial Photography 1	Arts/AV/ Comm	Comm. Photo	Students will learn the skills required for designing, producing, exhibiting, performing, writing, and publishing multimedia content through photography. These skills will span all aspects of the industry from setting up a	2	Graphic Design

			shot to delivering products in a competitive market. Students will be expected to develop an understanding of the commercial photography industry with a focus on creating quality photographs.		
Commercial Photography 2	Arts/AV/ Comm	Comm. Photo	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.	2	Comm. Photo 1
Professional Communications	Arts/AV/ Comm	Digital Comm.	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.	0.5	None
AV 1	Arts/AV/ Comm	AV Production	Careers in the Arts, Audio/Video Technology, and Communications career cluster requires, in addition to creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication. 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.	2	Prof. Comm/ Web Comm
AV2	Arts/AV/ Comm	AV Production	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	2	Prof. Comm/ Web Comm AV 1

			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.		
Animation 1	Arts/AV/ Comm	Animation	Animation I to allows studets to develop 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.	1	Graphic Design
Animation 2 (2023-2024)	Arts/AV/ Comm	Animation	TBD	2	Graphic Design Animation 1
Video Game Design	Arts/AV/ Comm	Comm. Photo	The student will be provided the opportunity to design, program, and create a functional video game. The course will introduce basic programming language and skills that are essential to developing a video game. Topics covered are math, physics, design, and computer programming.	2	None
BIM	Bus/ Marketing/ Finance	Entrepreneurship Accounting	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.	1	None
Entrepreneurship	Bus/ Marketing/ Finance	Entrepreneurship	Students gain knowledge and skills that help them to be proficient in one or more of the marking functional areas associated with distribution, financing, marketing, information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.	1	BIM

Career Prep	Bus/ Marketing/ Finance	Entrepreneurship	This laboratory-based course is designed to involve students in realistic and meaningful community-based activities through direct service with young students in our PISD Daycare. Students are provided opportunities to interact and provide services to children and their families through community or volunteer services. Students also explore career opportunities in the family services field with emphasis placed on developing and enhancing organizational and leadership skills and characteristics.	2	BIM Entrepreneurship
Money Matters	Account/ Finance	Accounting	Students will investigate global economics with emphasis on the free enterprise system and its impact on consumers and business. Students apply critical thinking skills to analyze financial options based on current and projected economic factors. They will gain knowledge and skills necessary to set long-term financial goals based on those options and will determine methods of achieving these long-term financial goals through investment, tax planning, asset allocation, risk management, retirement planning, and estate planning.	1	None
Child Development	Ed/Training	Early Learning Family and Consumer Services	This technical laboratory course 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.	2	Principles of Human Services
Principles of Human Services (2022-2023)	Ed/Training	Ed and Training Teaching and Training Family and Consumer Services	As students work directly with the children in our PISD Daycare, they are provided occupational-specific training on the development of early childhood development and services, counseling and mental health services, and family and community services. Students are able to analyze career paths within the human services industry, specifically in the daycare environment.	1	None

Principles of Health Science	Health Sci	Nursing Medical Therapy	The class content explores the health care industry and requirements for careers in health care. It is a course designed to aid the student in obtaining health care specific knowledge and skills that are essential in today's health care settings. The course focuses on general information and important topics concerning: history of health care, health care facilities, careers in health care, ethical and legal responsibilities of the health care worker, human needs, cultural diversity, and understanding the principles of infection control. This course will help prepare those for the transition of clinical or work-based experiences in health care. If you are interested in one of the fastest growing fields in the United States, which has more opportunities than you could ever imagine this is the class for you.	2	None
Nursing (Collin College)	Health Sci	Nursing	The class content explores the health care industry and requirements for careers in health care. It is a course designed to aid the student in obtaining health care specific knowledge and skills that are essential in today's health care settings. The course focuses on general information and important topics concerning: history of health care, health care facilities, careers in health care, ethical and legal responsibilities of the health care worker, human needs, cultural diversity, and understanding the principles of infection control. This course will help prepare those for the transition to clinical or work-based experiences in health care. If you are interested in one of the fastest growing fields in the United States that has more opportunities than you could ever imagine this is the class for you.	2	Principles of Health Science
Medical Terminology (Collin College)	Health Science	Nursing	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.	1	Principles of Health Science

Anatomy and Physiology	Health Science	Nursing Emergency Services	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.	1	Principles of Health Science
Intro to Culinary	Culinary Arts	Culinary Arts	Students begin with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques.	1	None
Culinary 1	Culinary Arts	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, a Texas culinary specialist certification, or any other appropriate industry certification. This course may be offered as a laboratory-based, or internship course. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.	2	Principles of Culinary Arts
Culinary 2	Culinary Arts	Culinary Arts	Practicum students are responsible for all operations regarding Café Fresh. Café Fresh offers meal service each Friday of the school year. Practicum students select menus, order ingredients, prepare and serve the meals. The class is totally "hands on" and beneficial for the student who desires a career in the culinary field.	2	Principles of Culinary Arts
Intro to Cosmetology	Human Services	Cosmetology	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.	1	None
Cosmetology 1	Human Services	Cosmetology	Students gain knowledge and skills in the principles and practices of the treatment of the hair, skin, and nails in accordance with the Texas Department of Licenses and Regulations. Students will develop the	1/2	None

			skills required to be competitive in the field of cosmetology including cutting, coloring, texture services, waxing, and styling. In addition, students will also develop highly needed skills for success, including; appropriate work habits, safety and sanitation procedures, customer service, and communication with workers as well as clientele. Students are expected to complete 500 hours during the school year, so strong attendance is essential. Students will also explore career and post-secondary opportunities as they relate to cosmetology.		
Cosmetology 2	Human Services	Cosmetology	Students continue to refine the skills introduced in Cosmetology I as they transition from working on manikins to actual people. After completion of the 1000 hours of laboratory work (500 hours per year), students are eligible for licensure examination. Cosmetology is regulated by the State of Texas, and students must successfully pass a written and practical exam in order to receive their Cosmetology License. Students will also explore career and post-secondary opportunities as they relate to cosmetology. This course requires extended attendance on designated evenings.	3	Intro to Cosmetology/ Cosmetology 1
Family and Consumer Services 2023-2024	Human Services	Family and Consumer 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.	2	Principles of Human Services
Practicum in Human Services	Human Services	Family and Consumer Services	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.	2	Principles of Human Services

Principles of IT	Info Tech	Web Development CPU Tech	Students acquire principles of computer maintenance, including computer hardware principles, and repair of computer systems. To prepare for success, students must have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.	2	None
CPU Maintenance	Info Tech	CPU Tech	Students acquire principles of computer maintenance, including electrical and electronic theory, computer hardware principles, and broad level components related to the installation, diagnosis, service, and repair of computer systems. To prepare for success, students must have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.	2	Principles of Info Tech
CPU Technician Practicum	Info Tech	CPU Tech	Students gain knowledge and skills in the area of computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to installation, diagnosis, service, and repair of computer-based technology systems. Overall course objective includes Comp TIA N+ certification.	2	Principles of Info Tech
CPU Science	Info Tech	Web Development CPU Science	In computer science 1 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.	2	None
EMT (Collin College)	Public Service	Emergency Services	Emergency Medical Technician (EMT)—Basic instructs students to meet and exceed standard knowledge needed to be a valid Emergency Medical Technician. The curriculum includes skills necessary for a student to provide entry level emergency medical care, life support, and ambulance service. The EMT—Basic course is an introductory course to concepts,	2	Principles of Health Science

			knowledge, and skills needed by EMTs in the areas of communications, transportation, and recordkeeping. Students interested in working in public safety, including fire, police, and ambulance operators will be capable of performing the job expectations of an EMT safely and effectively after the completion of this course.		
Intro to Welding	Manufacturing	Welding	Introduction to 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.	1	None
Welding 1	Manufacturing	Welding	Careers instruction is designed to provide job-specific training for entry-level employment in welding careers. First-year instruction includes blueprint reading, cutting, and welding with oxygen and gas fuels, shielded metal arc welding, gas tungsten arc and gas metal arc.	2	Principles of Manufacturing
Welding 2	Manufacturing	Welding	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.	2	Principles of Manufacturing Welding 1
Principles of Applied Engineering	Manufacturing	Engineering	This class 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 have an understanding of the various fields of engineering and will be	1	None

			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.		
Robotics 1	Manufacturing	Manufacturing Transportation	In this course, students will transfer academic skills to component design 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 education needs in the robotic and automation industry.	2	Principles of Manufacturing
Robotics 2	Manufacturing	Manufacturing	In this course, 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.	2	Principles of Manufacturing Manufacturing 1
AP CPU Science A	STEM	Computer Science		2	CPU Science

Engineering Design	STEM	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.	1	Principles of Applied Engineering
Scientific Research and Design	STEM	Engineering	Scientific Research and Design is a broad-based course designed to allow the course 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.	1	Principles of Applied Engineering Engineering Design
Auto Tech	Trans.	Auto Tech	In Automotive Technology, students gain knowledge and skills in the repair, maintenance and diagnosis of motor vehicles. Students will work in a state-of-the-art simulation lab, as well as on actual vehicles. The National Automotive Technician Education Foundation (NATEF) standards are the basis for the course curriculum. The primary goal of this course is to prepare students to successfully take the A.S.E. (Automotive Service Excellence) certification exams for the A5 Braking Systems and A6 Automotive Electrical/Electronic Systems. Students will	2	None

			also learn the safety procedures, uses and care of major shop equipment and tools. Students will explore career and post-secondary opportunities as they relate to the automotive repair industry.		
Advanced Auto Tech	Trans.	Auto Tech	In Advanced Automotive Technology, students gain knowledge and skills in the repair, maintenance and diagnosis of motor vehicles. Students will work in a state-of-the-art simulation lab, as well as on actual vehicles. The National Automotive Technician Education Foundation (NATEF) standards are the basis for the course curriculum. The primary goal of this course is to prepare students to successfully take the A.S.E. (Automotive Service Excellence) certification exams for the A4 Suspension and Steering and A8 Engine Performance. Students will also learn the safety procedures, uses and care of major shop equipment and tools. Students will explore career and post-secondary opportunities as they relate to the automotive repair industry.	2	Auto Tech 1

It is the policy of Princeton High School not to discriminate on the on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities as required by Title VI of the Civil Right Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended.