

Royal ISD Career & Technical Education “Programs of Study” for SY 2020-2024

Program Vision Statement

Career and Technical Educations programs in Royal ISD are dedicated to preparing young people to manage the dual roles of family member and wage earner. Career and technical education programs enable students to gain entry-level employment in a high-skill, high-wage job, and/or to continue their education.

We accomplish the aims and beliefs of our vision through tangible, visceral, and meaningful experiences offered in the following (11) Programs of Study at Royal ISD:

Agricultural Science & Technology

The Agriculture, Food, and Natural Resources program of study focuses on the essential elements of life—food, water, land, and air. This career pathway includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Targeted Industry-Based certification(s) for this Program of Study: Certified Vet-Tech; Texas High School Florist; Private Pesticide Applicator; & Feedyard Manager.

Arts A/V & Communications

The Arts AV and Communication program of study explores the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. This program of study may also include exploration into designing clothing and accessories, and creating special effects, animation, or other visual images using film, video, computers, or other electronic tools and media, for use in computer games, movies, music videos, and commercials.

Targeted Industry-Based certification(s) for this Program of Study: Final Cut Pro X; & Adobe (various levels)

Business Management & Administration

The Business Management program of study teaches CTE learners how to plan, direct, and coordinate the administrative services and operations of an organization. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, and allocate the use of materials and human resources. This program of study will also introduce students to mathematical modeling tools and organizational evaluation methods.

Targeted Industry-Based certification(s) for this Program of Study: All Microsoft Office Applications (various levels).

Precision Machining Technology

The Precision Machining Technology program of study focuses on the development and use of manual machines: lathes, mills, saws, presses, etc. that perform work on metal or plastic. CTE learners will learn how to set up and operate a variety of machine tools to produce precision parts and instruments. Students will also learn how to modify parts to make or repair machine tools or maintain individual machines. Blueprint reading and precision measuring are other competencies our students master throughout their four years in this fork of the Manufacturing pathway.

Targeted Industry-Based certification(s) for this Program of Study: National Institute of Metal Working Skills (NIMS).

Industrial Welding

The Industrial Welding program of study focuses on the development and use of automatic and computer-controlled machines, and fabrication tools/instruments that perform work on metal or plastic. CTE learners will learn how to modify parts to make or repair machine tools or maintain individual machines, and how to use hand-welding or flame-cutting equipment. The Manufacturing Career Cluster focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Targeted Industry-Based certification(s) for this Program of Study: American Welding Society (AWS); Various processes and positions.

Health Science & Nursing Occupations

The Nursing Science program of study introduces students to the knowledge and skills related to patient care. CTE learners may learn about or practice caring for patients, routine procedures such as monitoring vital signs, development and implementation of care plans, maintenance of medical records, and disease or pain management. Students may focus on the healthcare system and research system designs and make recommended modifications. The Health Science Career Cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Targeted Industry-Based certification(s) for this Program of Study: Certified Pharmacy Technician.

Transportation & Logistics

The Automotive program of study teaches CTE learners how to repair automobiles and service various types of vehicles. CTE learners may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze, or replacement of accessories like wiper blades or tires. The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Targeted Industry-Based certification(s) for this Program of Study: ASE (Automotive Service Excellence) Entry-level; ASE Brakes; ASE Air Conditioning & ASE Suspension.

Engineering Pathway (Science, Technology, Engineering & Math)

The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. CTE learners will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems. The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Targeted Industry-Based certification(s) for this Program of Study: SolidWorks (various levels); & AutoDesk.

Technology Applications

The Technology Applications Career Cluster focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the Tech Apps career cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

Targeted Industry-Based certification(s) for this Program of Study: Adobe Suite; Apple Logic & Final Cut Pro X.

Cosmetology & Personal Care

The Cosmetology and Personal Care Services program of study introduces CTE learners to knowledge and skills related to providing beauty and personal care services. CTE concentrators may learn about or practice managing personal care facilities and coordinating or supervising personal service workers. The Human Services Career Cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

Targeted Industry-Based certification(s) for this Program of Study: Cosmetology Operators License through TDLR (Texas Department of Licensing & Regulations).

Education & Training

The Education and Training Career Cluster focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster. The Teaching and Training program of study prepares CTE learners for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE learners to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.

Targeted Industry-Based certification(s) for this Program of Study: Educational Aide in Texas Public Schools.