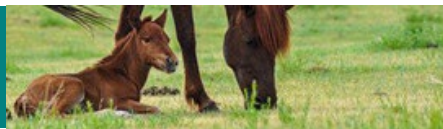


# Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life food, water, land, and air. This career cluster 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.

## Animal Science

### Statewide Program of Study



The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches CTE learners how to apply biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources

#### Level 2

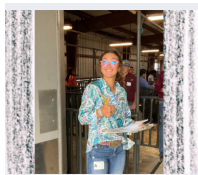
- Small Animal Management (.5 Credit)
- Equine Science (.5 Credit)

#### Level 3

- Livestock Production

#### Level 4

- Advanced Animal Science
- Practicum in Agriculture, Food, and Natural Resources



### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in Texas FFA

#### Work-Based Learning Activities

- Compete in an Agri-Science Fair 4H
- Volunteer at a local farm or with a veterinarian
- Participate in an FFA supervised agriculture experience

### Postsecondary Opportunities

#### Associates Degrees

- Food Science and Technology
- Veterinary Studies
- Biotechnology Laboratory Technician
- Biology Technician

#### Bachelor's Degrees

- Animal Sciences
- Agriculture
- Biology
- Zoology/ Animal Biology

#### Master's, Doctoral, and Professional Degrees

- Genetics
- Veterinary Medicine
- Biological and Physical Sciences
- Biological and Biomedical Sciences

### Industry-Based Certifications

- Elanco Fundamentals of Animal Science Certification



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	\$39,139	28	9%
Animal Scientists	\$57,533	22	12%
Medical Scientists	\$63,898	435	27%
Veterinarians	\$93,496	294	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

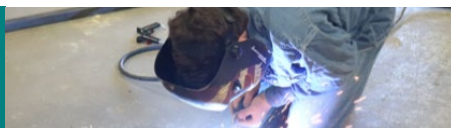
Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life food, water, land, and air. This career cluster 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.

## Applied Agricultural Engineering Statewide Program of Study



The Applied Agricultural Engineering program of study explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources

#### Level 2

- Agricultural Mechanics and Metal Technologies

#### Level 3

- Agricultural Structures Design and Fabrications

#### Level 4

- Agricultural Equipment Design and Fabrication/Lab
- Career Prep

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Tour a farm products or machinery plant
- Participate in Texas FFA

#### Work-Based Learning Activities

- Earn a welding certification
- Intern at a farm products or machinery plant
- Participate in an FFA supervised agriculture experience

### Industry-Based Certifications

- NCCER Welding Level I



### Postsecondary Opportunities

#### Associates Degrees

- Heavy Equipment Maintenance Technology/ Technician
- Agricultural Mechanization, General
- Small Engine Mechanics and Repair Technology/ Technician
- Welding Technology/ Welder

#### Bachelor's Degrees

- Agricultural Engineering
- Agricultural Mechanization, General

#### Master's, Doctoral, and Professional Degrees

- Agricultural Engineering
- Agricultural Mechanization, General

### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Outdoor Power Equipment and Other Small Engine Mechanics	\$32,406	366	16%
Welders	\$41,350	6171	9%
Farm Equipment Mechanics and Service Technicians	\$39,915	304	17%
Mobile Heavy Equipment Mechanics	\$47,299	1627	16%
Agricultural Engineers	\$64,792	9	13%

Successful completion of the Applied Agricultural Engineering program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – October 2022



# Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life food, water, land, and air. This career cluster 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.

## Food Science and Technology Statewide Program of Study



The Food Science and Technology program of study explores the occupations and educational opportunities associated with working with agricultural and food scientists in food, fiber, and animal research, production, and processing. This program of study may also include assisting with animal breeding, nutrition, and conducting tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources

#### Level 2

- Food Technology and Safety/Lab

#### Level 3

- Food Processing/Lab

#### Level 4

- Practicum in Agriculture, Food, and Natural Resources

### Postsecondary Opportunities

#### Associates Degrees

- Food Science

#### Bachelor's Degrees

- Agricultural and Food Products Processing
- Food Science and Nutrition
- Food Science and Technology

#### Master's, Doctoral, and Professional Degrees

- Food Science and Technology



### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Tour a food products processing facility
- Participate in Texas FFA

#### Work-Based Learning Activities

- Intern at a food products processing facility
- Participate in an FFA supervised agriculture experience

### Industry-Based Certifications

- Food Safety & Science Certification



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Agricultural and Food Science Technicians	\$34,382	236	11%
Supervisors of Production and Operating	\$62,171	5,094	9%
Inspectors, Testers, Sorters, Samplers, and Weighers	\$37,689	6,653	%%

Successful completion of the Food Science and Technology program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life - food, water, land, and air. This career cluster 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.

## Plant Science

### Statewide Program of Study



The Plant Science program of study focuses on the science, research, and business of plants and other living organisms. It teaches students how to apply biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources

#### Level 2

- Turf Grass Management
- Greenhouse Operation and Production/Lab

#### Level 3

- Floral Design/

#### Level 4

- Advanced Floral Design

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in Texas FFA

#### Work-Based Learning Activities

- Work at a florist or landscaper business
- Participate in an FFA supervised agriculture experience

### Industry-Based Certifications

- Texas State Florist's Association Knowledge Based Floral Certification

### Postsecondary Opportunities

#### Associates Degrees

- Applied Horticulture/ Horticulture Operations, General
- Ornamental Horticulture
- Agricultural Business and Management, General
- Turf and Turfgrass Management

#### Bachelor's Degrees

- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Turf and Turfgrass Management

#### Master's, Doctoral, and Professional Degrees

- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Farm/Farm and Ranch Management



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Soil and Plant Scientists	\$54,662	116	21%
Tree Trimmers and Pruners	\$32,240	589	14%
Pesticide Handlers, Sprayers, and Applicators	\$36,733	196	22%
Landscaping Supervisors	\$44,408	807	19%
Biological Technicians	\$42,931	452	17%

Successful completion of the Plant Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022





# Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

## Architectural Design Statewide Program of Study



The Architectural Design program of study explores the occupations and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study may also include exploration into collecting and interpreting geographic information, researching and preparing maps, and interior design.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Construction Architecture

#### Level 2

- Architectural Design I

#### Level 3

- Architectural Design II

#### Level 4

- Career Preparation I



### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Shadow an architect, interior designer or civil engineer
- Participate in SkillsUSA

#### Work-Based Learning Activities

- Intern at an architectural firm

### Industry-Based Certifications

- TBD



- Certified SOLIDWORKS Associate\*
- Mastercam Associate Certification\*

\*IBC sunseting 8/31/24

### Postsecondary Opportunities

#### Associates Degrees

- Architecture
- Interior Design
- Civil Engineering, General
- Geographic Information Science and Cartography

#### Bachelor's Degrees

- Architecture
- Interior Design
- Civil Engineering, General
- Geographic Information Science and Cartography

#### Master's, Doctoral, and Professional Degrees

- Architecture
- Interior Architecture
- Civil Engineering, General
- Geographic Information Science and Cartography

### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Architects	\$77,043	808	16%
Geographic Information Analysts and Surveyors	\$58,926	162	27%
Architectural/ Civil Drafters	\$50,170	1,068	9%
Construction Managers	\$87,402	2,401	14%

Successful completion of the Architectural Design program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



# Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

## HVAC and Sheet Metal Statewide Program of Study



The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Construction

#### Level 2

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

#### Level 3

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

#### Level 4

- Career Preparation I

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Shadow an HVAC worker or cost estimator
- Participate in SkillsUSA

#### Work-Based Learning Activities

- Intern with an HVAC and/or sheet metal company

### Industry-Based Certifications

- TBD

### Postsecondary Opportunities

#### Associates Degrees

- Business Administration and Management, General
- Mechanical Engineering
- Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/ Technician
- Business/ Commerce, General

#### Bachelor's Degrees

- Business Administration and Management
- Mechanical Engineering
- Construction Engineering Technology/ Technician
- Business/ Commerce, General

#### Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Mechanical Engineering
- Construction Engineering
- Business/Commerce, General



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Heating, Air Conditioning, and Refrigeration Mechanics	\$41,808	3,356	26%
Sheet Metal Workers	\$37,419	1,479	17%
Cost Estimators	\$63,939	2,239	21%



# Arts, Audio/Video Technology, and Communications Career Cluster

The Arts, A/V Technology and Communications (AAVTC) 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 AAVTC 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.

## Graphic Design & Multimedia Arts Statewide Program of Study



The Graphic Design and Multimedia Arts 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.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Arts, A/V Technology, and Communications

#### Level 2

- Graphic Design and Illustration I/Lab

#### Level 3

- Graphic Design and Illustration II/Lab

#### Level 4

- Career Preparation I



### Postsecondary Opportunities

#### Associates Degrees

- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

#### Bachelor's Degrees

- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

#### Master's, Doctoral, and Professional Degrees

- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Intermedia/Multimedia

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Join a website development or coding club
- Participate in SkillsUSA or TSA

#### Work-Based Learning Activities

- Intern with a multimedia or animation studio
- Obtain a certificate or certification in graphic design

### Industry-Based Certifications

- Students become proficient in the software required to create school yearbook



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

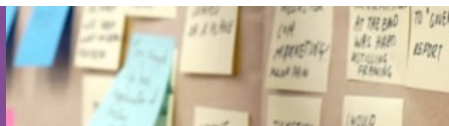
Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – October 2022



# Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

## Business Management Statewide Program of Study



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.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Business, Marketing, and Finance

#### Level 2

- Business Law

#### Level 3

- Business Information Management

#### Level 4

- Career Preparation I

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in Business Professional of America, Future Business Leaders of America, or DECA

#### Work-Based Learning Activities

- Intern with a local business or chamber of commerce

### Industry-Based Certifications

- Microsoft Office Specialist: Microsoft Word Expert (Word 2019)

### Postsecondary Opportunities

#### Associates Degrees

- Business Administration
- Business/Commerce
- Public Administration
- Business Management

#### Bachelor's Degrees

- Business Administration
- Business/Commerce
- Public Administration
- Management Science

#### Master's, Doctoral, and Professional Degrees

- Business Administration
- Business Management
- Public Administration
- Management Science



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Administrative Service Managers	\$96,138	2,277	21%
Management Analysts	\$87,651	4,706	32%
General and Operations Managers	\$107,640	18,679	20%
Supervisors of Administrative Support Works	\$57,616	14,982	20%

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022





# Education and Training Career Cluster

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.

## Teaching and Training Statewide Program of Study



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.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Human Service

#### Level 2

- Child Development

#### Level 3

- Instructional Practices

#### Level 4

- Career Preparation I



### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in the Texas Association of Future Educators or Family, Career, and Community Leaders of America

#### Work-Based Learning Activities

- Teach a community education class
- Intern as a teaching assistant or tutor
- Serve as a camp counselor

### Industry-Based Certifications

- TBD - Educational Aide is option



### Postsecondary Opportunities

#### Associates Degrees

- Teacher Education
- Education, General (or specific subject area)
- Special Education
- Health and Physical Education/Fitness

#### Bachelor's Degrees

- Bilingual and Multilingual Education
- Education, General (or specific subject area)
- Special Education
- Health and Physical Education/Fitness

#### Master's, Doctoral, and Professional Degrees

- Instruction and Learning
- Educational Leadership and Administration, General
- Special Education
- Social and Philosophical Foundations of Education

### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Adult Basic and Secondary Education and Literacy Teachers and Instructors	\$48,069	862	17%
Middle School Teachers, Except Special and Career/Technical Education	\$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	\$56,360	719	9%
Special Education Teachers, Secondary School	\$56,720	980	18%

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022



# Health Science Career Cluster

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.

## Nursing Science Statewide Program of Study



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.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Health Science

#### Level 2

- Medical Terminology

#### Level 3

- \*Medical Microbiology
- Anatomy and Physiology
- \*Clinical Ethics
- \*Leadership and Management in Nursing

#### Level 4

- \*Pathophysiology
- \*Practicum in Nursing

\*Courses to be added as program is built out

### Postsecondary Opportunities

#### Associates Degrees

- Registered Nursing/Registered Nurse

#### Bachelor's Degrees

- Informatics Nurse Specialists

#### Master's, Doctoral, and Professional Degrees

- Nurse Practitioner
- Nursing Administration
- Nurse Anesthetist

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in Health Occupation Students of America

#### Work-Based Learning Activities

- Volunteer at a community wellness center, hospital, assisted living center, or nursing home

### Industry-Based Certifications

- Certified Clinical Medical Assistant
- Certified Nurse Aide (CNA)



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Licensed Vocational Nurses	\$45,178	7,186	21%
Registered Nurses	\$68,682	17,493	26%
Nurse Practitioners	\$107,827	977	50%
Nurse Anesthetists	\$154,856	357	23%

Successful completion of the Nursing Science program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – March 2023



# Hospitality and Tourism Career Cluster

The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services. Students acquire 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.

## Culinary Arts Statewide Program of Study



The Culinary Arts program of study introduces CTE learners to occupations and educational opportunities related to the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study also explores opportunities involved in directing and participating in the preparation and cooking of food.

### Secondary Courses for High School Credit

#### Level 1

- Introduction to Culinary Arts

#### Level 2

- Culinary Arts

#### Level 3-4

- Food Science



### Postsecondary Opportunities

#### Associates Degrees

- Hotel and Restaurant Management
- Restaurant Culinary and Catering Management
- Hospitality Administration/ Management, General
- Culinary Arts/ Chef Training

#### Bachelor's Degrees

- Hotel and Restaurant Management
- Food Service Systems Administration/ Management
- Hospitality Administration/ Management, General
- Culinary Science and Food Service Management

#### Master's, Doctoral, and Professional Degrees

- Hotel and Restaurant Management
- Food Service Systems Administration/ Management
- Hospitality Administration/ Management, General
- Business Administration Management, General

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in Family, Career, and Community Leaders of America, SkillsUSA, American Culinary Federation, or the Texas Restaurant Association

#### Work-Based Learning Activities

- Plan a catering event or work for a catering company
- Participate in a cooking course
- Work in a restaurant

### Industry-Based Certifications

- ServSafe Manager



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Food and Beverage Managers	\$55,619	1,561	28%
Chef and Head Cooks	\$43,285	1,366	25%
Food Science Technicians	\$34,382	236	11%

Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – October 2022



# Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

## Information Technology Support Statewide Program of Study



The Information Technology Support and Services program of study explores the occupations and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study may also include analyzing user requirements and problems to automate or improve existing systems and review computer system capabilities. This program of study may also include exploration into the research, design, or testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Information Technology

#### Level 2

- Computer Maintenance/Lab

#### Level 3

- Computer Technician Practicum

#### Level 4

- Career Preparation I



### Postsecondary Opportunities

#### Associates Degrees

- Computer and Information Sciences, General
- Computer and Information Systems Security/ Information Assurance
- Information Technology
- Computer Systems Networking and Telecommunications

#### Bachelor's Degrees

- Computer and Information Sciences, General
- Computer and Information Systems Security/Information Assurance
- Computer Engineering, General
- Computer Systems Networking and Telecommunications

#### Master's, Doctoral, and Professional Degrees

- Computer and Information Sciences, General
- Computer Systems Analysis/ Analyst
- Computer Engineering, General
- Information Technology

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Join TSA
- Job shadow a database administrator or computer hardware engineer

#### Work-Based Learning Activities

- Earn an IT certification

### Industry-Based Certifications

- TBD



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Database Administrator	\$83,075	1,063	19%
Computer Hardware Engineer	\$111,738	343	24%
Computer System Analyst and Support	\$87,568	5,937	29%

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met.

