# CTE Programs of Study
## Business & Industry Endorsement

| BUSINESS & INDUSTRY ENDORSEMENT | | | | | |
|---|---|---|---|---|---|
| CAREER CLUSTER | PROGRAM OF STUDY | LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | INDUSTRY BASED CERTIFICATIONS |
| **Agriculture, Food & Natural Resources** | **Agriculture Business, Leadership & Communications** | **7000** Principles of Agriculture, Food, and Natural Resources (1) <br><br> **7208** College and Career Readiness—Professional Communications (.5) | **7015** Professional Standards in Agribusiness (1) <br><br> **7379** Entrepreneurship (1) | **7496** Independent Study Mentorship (1) | **7090** Practicum in Agriculture, Food and Natural Resources (1) | |
| | **Animal Science** | **7000** Principles of Agriculture, Food, and Natural Resources (1) | **7010** Small Animal Management (.5) <br><br> **7379** Entrepreneurship (1) | **7018** Livestock Production (1) <br><br> **7020** Veterinary Medical Applications (1) | **7021** Advanced Animal Science (1) <br><br> **7090** Practicum in Agriculture, Food, and Natural Resources (2) <br><br> **7096** Practicum in Veterinary Medicine (2) <br><br> **7496** Independent Study Mentorship (1) | Certified Veterinary Assistant, Level 1 <br><br> Elanco Fundamentals of Animal Science <br><br> Elanco Veterinary Medical Applications |
| | **Agricultural Technology & Mechanical Systems** | **7000** Principles of Agriculture, Food, and Natural Resources (1) | **7070** Agricultural Mechanics and Metal Technologies (1) | **7072/L** Agricultural Structures Design and Fabrications/Lab (1 or 2) | **7090** Practicum in Agriculture, Food, and Natural Resources (2) <br><br> **7496** Independent Study Mentorship (1) | AWS D9.1 Sheet Metal |
| | **Environmental & Natural Resources** | **7000** Principles of Agriculture, Food, and Natural Resources (1) | **7017** Wildlife, Fisheries, and Ecology Management (1) | **7496** Independent Study Mentorship (1) | **7090** Practicum in Agriculture, Food, and Natural Resources (2) | |
| | **Food Science & Technology** | ---- | **7000** Principles of Agriculture, Food, and Natural Resources (1) | **7620** Food Science (1) | **7090** Practicum in Agriculture, Food, and Natural Resources (2) <br><br> **7496** Independent Study Mentorship (1) | |
| | **Plant Science** | **7000** Principles of Agriculture, Food, and Natural Resources (1) | **7379** Entrepreneurship (1) | **7030** Floral Design (1) <br><br> **7033** Horticulture Science (1) | **7090** Practicum in Agriculture, Food, and Natural Resources (2) <br><br> **7496** Independent Study Mentorship (1) | Texas State Florists' Association Knowledge Based Floral Certification <br><br> Texas State Florists' Association Level 1 Floral Certification |
| **Architecture & Construction** | **Carpentry** | **7145** Principles of Construction (1) | **7146** Construction Technology-Design and Carpentry (2) <br><br> **7379** Entrepreneurship (1) | **7147** Construction Technology-Architecture and Electrical (2) | **7148** Practicum in Construction Technology (2) | NCCER Carpentry Level I <br><br> NCCER Core |

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|---|---|---|---|---|---|---|
| **CAREER CLUSTER** | **PROGRAM OF STUDY** | **LEVEL 1** | **LEVEL 2** | **LEVEL 3** | **LEVEL 4** | **INDUSTRY BASED CERTIFICATIONS** |
| **Arts, A/V Technology & Communication** | **Graphic Design & Interactive Media** | **7201** Digital Media (1) | **7241** Graphic Design and Illustration I (1)<br><br>**7231** Animation I (1)<br><br>**7228** Commercial Photography (1)<br><br>**7240** Fashion Design I (1)<br><br>**7930** Game Programming and Design (1)<br><br>**7379** Entrepreneurship (1) | ---- | **7243** Graphic Design and Illustration II (1)<br><br>**7233** Animation II (1)<br><br>**7245** Fashion Design II (1) | |
| | **Digital Communications** | **7208** College and Career Readiness—Professional Communications (.5) | **7225** Audio/Video Production I (1)<br><br>**7379** Entrepreneurship (1) | **7226** Audio/Video Production II/Lab (2)<br><br>**7229** Audio/Video Production II/Lab (1) | **7227/L** Practicum in Audio/Video Production/Extended (2 or 3) | |
| **Business, Marketing & Finance** | **Accounting & Financial Services** | **7300** Principles of Business, Marketing and Finance (1) | **7321** Business Information Management (1)<br><br>**7341** Accounting I (1)<br><br>**7379** Entrepreneurship (1) | **7342** Accounting II (1) | **7331** Practicum in Small Business Management I (2) | |
| | **Business Management** | **7300** Principles of Business, Marketing and Finance (1) | **7321** Business Information Management (1)<br><br>**7379** Entrepreneurship (1) | **7343** Statistics and Business Decision Making (1) | **7331** Practicum in Small Business Management I (2) | |
| | **Entrepreneurship** | **7300** Principles of Business, Marketing and Finance (1) | **7321** Business Information Management (1)<br><br>**7379** Entrepreneurship (1) | **7343** Statistics and Business Decision Making (1) | **7331** Practicum in Small Business Management I (2)<br><br>**7496** Independent Study Mentorship (1) | |
| | **Marketing & Sales** | **7300** Principles of Business, Marketing and Finance (1)<br><br>**7201** Digital Media (1) | **7350** Sports and Entertainment Marketing (.5)<br><br>**7379** Entrepreneurship (1) | **7375** Social Media Marketing (.5) | **7343** Statistics and Business Decision Making (1) | |
| | **Retail Management** | ---- | **7300** Principles of Business, Marketing and Finance (1) | **7331** Practicum in Small Business Management I (2) | **7332** Practicum in Small Business Management II (2) | |
| **Engineering** | **Engineering Foundations** | **7900** Introduction to Engineering Design (PLTW) (1) | **7975** Robotics I (1) | **7921** Aerospace Engineering (PLTW) (1)<br><br>**7911** Digital Electronics (1)<br><br>**7920** Civil Engineering and Architecture (PLTW) (1)<br><br>**7910** Engineering Science (1) | **7940** Engineering Design and Development (1)<br><br>**7976** Practicum in Robotics (2)<br><br>**7496** Independent Study Mentorship (1) | |
| | **Mechanical & Aerospace Engineering** | ---- | **7900** Introduction to Engineering Design (PLTW) (1) | **7921** Aerospace Engineering (PLTW) (1)<br><br>**7910** Engineering Science (1) | **7940** Engineering Design and Development (1)<br><br>**7496** Independent Study Mentorship (1) | |

| BUSINESS & INDUSTRY ENDORSEMENT | | | | | |
|---|---|---|---|---|---|
| CAREER CLUSTER | PROGRAM OF STUDY | LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | INDUSTRY BASED CERTIFICATIONS |
| Engineering Cont'd | Electrical Engineering | **7900** Introduction to Engineering Design (PLTW) (1) | **7975** Robotics I (1) | **7911** Digital Electronics (1)<br><br>**7910** Engineering Science (1) | **7940** Engineering Design and Development (1)<br><br>**7976** Practicum in Robotics (2)<br><br>7496 Independent Study Mentorship (1) | |
| Hospitality & Tourism | Culinary Arts | **7608** Introduction to Culinary Arts (1) | **7621** Culinary Arts (2)<br><br>**7379** Entrepreneurship (1) | **7622** Advanced Culinary Arts (2) | **7620** Food Science (1)<br><br>**7690** Practicum in Culinary Arts (2) | Food Protection Manager Certification |
| Human Services | Cosmetology & Personal Care Services | ---- | **7763** Introduction to Cosmetology (concurrent enrollment in 7763L Cosmetology I) (1)<br><br>**7379** Entrepreneurship (1) | **7763L** Cosmetology I (concurrent enrollment in 7763 Introduction to Cosmetology) (2) | **7765** Cosmetology II (3) | Cosmetology Operator License |
| Information Technology | Information Technology Support & Services | **7931** Fundamentals of Computer Science (1) | **7410** Computer Maintenance (1)<br><br>**7379** Entrepreneurship (1) | **7420** Computer Technician (2) | **7431** Practicum in Computer Technician (2)<br><br>**7496** Independent Study Mentorship (1) | CompTIA Tech+<br><br>CompTIA A+ |
| | Cybersecurity | **7931** Fundamentals of Computer Science (1) | **7410** Computer Maintenance (1)<br><br>**7932P** AP Computer Science Principles (1) | **7933P** AP Computer Science A (1) | **7934H** Cybersecurity (1)<br><br>**7431** Practicum in Computer Technician (2)<br><br>**7935H** Independent Study: Computer Science (1)<br><br>**7496** Independent Study Mentorship (1) | CompTIA Tech+<br><br>CompTIA Network+<br><br>CompTIA A+<br><br>CodeHS Cybersecurity Level I |
| | Networking Systems | **7931** Fundamentals of Computer Science (1) | **7410** Computer Maintenance (1)<br><br>**7932P** AP Computer Science Principles (1)<br><br>**7379** Entrepreneurship (1) | **7496** Independent Study Mentorship (1) | **7431** Practicum in Computer Technician (2) | CompTIA Tech+<br><br>CompTIA Network+<br><br>CompTIA A+ |
| | Programming & Software Development | **7931** Fundamentals of Computer Science (1) | **7930** Game Programming & Design (1)<br><br>**7932P** AP Computer Science Principles (1)<br><br>**7379** Entrepreneurship (1) | **7933P** AP Computer Science A (1) | **7496** Independent Study Mentorship (1) | |
| Manufacturing | Manufacturing Technology | ---- | **7159** Principles of Manufacturing (1) | **7161** Precision Metal Manufacturing I (2) | **7162** Precision Metal Manufacturing II (2) | NCCER Core |
| | Welding | **7169** Introduction to Welding (concurrent enrollment in 7170 Welding I) (1) | **7170** Welding I (concurrent enrollment in 7169 Introduction to Welding) (1)<br><br>**7379** Entrepreneurship (1) | ---- | **7171** Welding II (2) | AWS D1.1 Structural Steel<br><br>AWS D9.1 Sheet Metal |
| Transportation, Distribution & Logistics | Automotive & Collison Repair | ---- | **7379** Entrepreneurship (1) | **7811** Automotive Technology I (2) | **7812** Automotive Technology II (2)<br><br>**7890** Practicum in Transportation Systems (2) | Various ASE Entry-Level Automobile Certifications |

# CTE Programs of Study
## Public Services Endorsement

| PUBLIC SERVICES ENDORSEMENT | | | | | |
|---|---|---|---|---|---|
| CAREER CLUSTER | PROGRAM OF STUDY | LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | INDUSTRY BASED CERTIFICATIONS |

| CAREER CLUSTER | PROGRAM OF STUDY | LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | INDUSTRY BASED CERTIFICATIONS |
|---|---|---|---|---|---|---|
| **Education & Training** | **Early Learning** | **7709** Principles of Education and Training (1) | **7713** Child Development (1) | **7721** Child Guidance I (2) | **7723** Child Guidance II (2)<br><br>**7496** Independent Study Mentorship (1) | Pre-Professional Certification in Early Childhood<br><br>Educational Aide I |
| | **Teaching & Training** | **7709** Principles of Education and Training (1) | **7713** Child Development (1) | **7711** Teacher Education Training I (2) | **7712** Teacher Education Training II (2)<br><br>**7496** Independent Study Mentorship (1) | Educational Aide I |
| **Health Science** | **Exercise Science, Wellness, & Restoration** | **7501** Principles of Health Science (1) | **7511** Medical Terminology (1)<br><br>**7750** Interpersonal Studies (.5)<br><br>**7500** Lifetime Nutrition and Wellness (.5)<br><br>**7379** Entrepreneurship (1) | **7550/H** Anatomy and Physiology (1) | **7496** Independent Study Mentorship (1) | |
| | **Diagnostic & Therapeutic Services** | **7501** Principles of Health Science (1) | **7511** Medical Terminology (1) | **7507** Patient Care Technician (1)<br><br>**7550/H** Anatomy and Physiology (1) | **7530** Pathophysiology (1)<br><br>**7504** Pharmacy Technician (2)<br><br>**7560** Dentistry Practicum in Health Science (2) | Patient Care Technician<br><br>Pharmacy Technician<br><br>Registered Dental Assistant |
| | **Biomedical Science** | **7501** Principles of Health Science (1)<br><br>**7570** Principles of Biomedical Science (PLTW) (1) | **7511** Medical Terminology (1)<br><br>**7571** Human Body Systems (PLTW) (1)<br><br>**7964** Biotechnology I (1) | **7572** Medical Interventions (PLTW) (1)<br><br>**7965** Biotechnology II (1)<br><br>**7550/H** Anatomy and Physiology (1) | **7530** Pathophysiology (1)<br><br>**7990** Practicum in Biotechnology (2)<br><br>**7496** Independent Study Mentorship (1) | |
| | **Nursing Science** | **7501** Principles of Health Science (1) | **7511** Medical Terminology (1) | **7507** Patient Care Technician (1)<br><br>**7550/H** Anatomy and Physiology (1) | **7530** Pathophysiology (1)<br><br>**7508** Certified Nursing Assistant-Practicum in Nursing (2) | Patient Care Technician<br><br>Certified Nursing Assistant |
| **Human Services** | **Health & Wellness** | **7340** Dollars and Sense (.5) | **7750** Interpersonal Studies (.5)<br><br>**7500** Lifetime Nutrition and Wellness (.5)<br><br>**7713** Child Development (1)<br><br>**7379** Entrepreneurship (1) | ---- | **7620** Food Science (1) | |

# CTE Programs of Study
## Science, Technology, Engineering & Math Endorsement

| CAREER CLUSTER | PROGRAM OF STUDY | LEVEL 1 | LEVEL 2 | LEVEL 3 | LEVEL 4 | INDUSTRY BASED CERTIFICATIONS |
|---|---|---|---|---|---|---|
| **Engineering** | **Engineering Foundations** | **7900** Introduction to Engineering Design (PLTW) (1) | **7975** Robotics I (1) | **7921** Aerospace Engineering (PLTW) (1)<br><br>**7911** Digital Electronics (1)<br><br>**7920** Civil Engineering and Architecture (PLTW) (1)<br><br>**7910** Engineering Science (1) | **7940** Engineering Design and Development (1)<br><br>**7976** Practicum in Robotics (2)<br><br>**7496** Independent Study Mentorship (1) | |
| | **Mechanical & Aerospace Engineering** | ---- | **7900** Introduction to Engineering Design (PLTW) (1) | **7921** Aerospace Engineering (PLTW) (1)<br><br>**7910** Engineering Science (1) | **7940** Engineering Design and Development (1)<br><br>**7496** Independent Study Mentorship (1) | |
| | **Electrical Engineering** | **7900** Introduction to Engineering Design (PLTW) (1) | **7975** Robotics I (1) | **7911** Digital Electronics (1)<br><br>**7910** Engineering Science (1) | **7940** Engineering Design and Development (1)<br><br>**7976** Practicum in Robotics (2)<br><br>7496 Independent Study Mentorship (1) | |
| **Health Science** | **Biomedical Science** | **7501** Principles of Health Science (1)<br><br>**7570** Principles of Biomedical Science (PLTW) (1) | **7511** Medical Terminology (1)<br><br>**7571** Human Body Systems (PLTW) (1)<br><br>**7964** Biotechnology I (1) | **7572** Medical Interventions (PLTW) (1)<br><br>**7965** Biotechnology II (1)<br><br>**7550/H** Anatomy and Physiology (1) | **7530** Pathophysiology (1)<br><br>**7990** Practicum in Biotechnology (2)<br><br>**7496** Independent Study Mentorship (1) | |
| | **Nursing Science** | **7501** Principles of Health Science (1) | **7511** Medical Terminology (1) | **7507** Patient Care Technician (1)<br><br>**7550/H** Anatomy and Physiology (1) | **7530** Pathophysiology (1)<br><br>**7508** Certified Nursing Assistant-Practicum in Nursing (2) | Patient Care Technician<br><br>Certified Nursing Assistant |
| **Information Technology** | **Cybersecurity** | **7931** Fundamentals of Computer Science (1) | **7410** Computer Maintenance (1)<br><br>**7932P** AP Computer Science Principles (1) | **7933P** AP Computer Science A (1) | **7934H** Cybersecurity (1)<br><br>**7431** Practicum in Computer Technician (2)<br><br>**7935H** IS: Computer Science (1)<br><br>**7496** Independent Study Mentorship (1) | CompTIA Tech+<br><br>CompTIA A+<br><br>CodeHS Cybersecurity Level I |
| | **Networking Systems** | **7931** Fundamentals of Computer Science (1) | **7410** Computer Maintenance (1)<br><br>**7932P** AP Computer Science Principles (1)<br><br>**7379** Entrepreneurship (1) | **7496** Independent Study Mentorship (1) | **7431** Practicum in Computer Technician (2) | CompTIA Tech+<br><br>CompTIA A+ |
| | **Programming & Software Development** | **7931** Fundamentals of Computer Science (1) | **7930** Game Programming & Design (1)<br><br>**7932P** AP Computer Science Principles (1)<br><br>**7379** Entrepreneurship (1) | **7933P** AP Computer Science A (1) | **7496** Independent Study Mentorship (1) | |