

# CTE ACADEMIC PLANNING GUIDE

2024-2025



# ANNUAL PUBLIC NOTIFICATION OF NONDISCRIMINATION

Scurry-Rosser ISD offers career and technical education programs in Agriculture, Food, and Natural Resources; Arts, Audio Video Technology, & Communication; Education & Training; Health Science; Hospitality & Tourism. Admission to these programs is based on TEA and local LEA standards.

It is the policy of Scurry-Rosser ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities and provides equal access to the Boy Scouts and other designated youth groups as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended.

It is the policy of Scurry-Rosser ISD not to discriminate on the basis of race, color, national origin, sex, handicap, or age in its employment practices as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975, as amended; and Section 504 of the Rehabilitation Act of 1973, as amended.

Scurry-Rosser ISD will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

For information about your rights or grievance procedures, contact the Title IX Coordinator at Wes Rhoten, [wes.rhoten@scurry-rosser.com](mailto:wes.rhoten@scurry-rosser.com), and/or the Section 504 Coordinator at Heather Jestis, [heather.jestis@scurry-rosser.com](mailto:heather.jestis@scurry-rosser.com)

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Scurry-Rosser ISD ofrece programas de educación técnica y vocacional en Agricultura, Comida y Recursos Naturales; Artes, Tecnología de Audio y Video, y Comunicación; Educación y Formación; Ciencias de la Salud; Hotelería y Turismo. La admisión a estos programas se basa en Estándares TEA y LEA locales.

Es norma de Scurry-Rosser ISD no discriminar en sus programas, servicios o actividades vocacionales y brinda igualdad de acceso a los Boy Scouts y otros grupos juveniles designados por motivos de raza, color, origen nacional, sexo o impedimento, tal como lo requieren el Título VI de la Ley de Derechos Civiles de 1964, según enmienda; Título IX de las Enmiendas en la Educación de 1972, y la Sección 504 de la Ley de Rehabilitación de 1973, según enmienda.

Es norma de Scurry-Rosser ISD no discriminar en sus procedimientos de empleo por motivos de raza, color, origen nacional, sexo, impedimento o edad, tal como lo requieren el Título VI de la Ley de Derechos Civiles de 1964, según enmienda; Título IX de las Enmiendas en la Educación, de 1972, la ley de Discriminación por Edad, de 1975, según enmienda; y la Sección 504 de la Ley de Rehabilitación de 1973, según enmienda.

Scurry-Rosser ISD tomará las medidas necesarias para asegurar que la falta de habilidad en el uso del inglés no sea un obstáculo para la admisión y participación en todos los programas educativos y vocacionales.

Para información sobre sus derechos o procedimientos de quejas, comuníquese con el Coordinador del Título IX en Wes Rhoten, [wes.rhoten@scurry-rosser.com](mailto:wes.rhoten@scurry-rosser.com), y/o el Coordinador de la Sección 504 en Heather Jestis, [heather.jestis@scurry-rosser.com](mailto:heather.jestis@scurry-rosser.com)

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## SCURRY-ROSSER ISD

8321 South State Hwy 34  
Scurry, TX 75158  
972-452-8823

# TERMS AND DEFINITIONS

## *Understanding Common Terms in Career and Technical Education (CTE)*

### CTE

Career and technical education programs offer a sequence of courses that provides students with coherent and rigorous content. CTE content is aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions.

### Program of Study

Perkins V describes a program of study as a coordinated, non duplicative sequence of academic and technical content at the secondary and postsecondary level that:

- Incorporates challenging state academic standards
- Addresses academic, technical, and employability skills
- Aligns with the needs of industries in the state, regional, and/or local economy
- Progresses in specificity, beginning with all aspects of industry and leading to more occupation
- Specific instruction
- Has multiple entry and exit points that incorporate credentialing
- Culminates in the attainment of a recognized postsecondary credential

### Endorsement

Endorsements consist of a related series of courses that are grouped together by interest or skill set. They provide students with in-depth knowledge of a subject area. Students must select an endorsement\* in the ninth grade. Students earn an endorsement by completing the curriculum requirements for the endorsement, including 4th credit of math and science and 2 additional elective credits.



ARTS & HUMANITIES



BUSINESS & INDUSTRY



MULTI-DISCIPLINARY



PUBLIC SERVICE



STEM

### IBC

An industry-based certification (IBC) is a specific type of credential that validates that an individual possesses certain industry specific skills related to a career cluster or occupation and is measured against a set of accepted industry standards. TEA adopted by rule (19 TAC 74.1003) a set of requirements and process to formally approve industry-based certifications. This is a high-level summary of those requirements:

1. Defined as a certification – not just a certificate of course completion, but demonstration that skills were obtained and valid for a specific period of time (e.g., not the driver education course, but the drivers' license exam)
2. Industry recognized and valued – employer surveys indicate the certification is given significant consideration for hiring and wages
3. Attainable by a high school student – a 17 or 18 year old could reasonably earn it by graduation
4. Portable – regionally, to multiple employers, or to more advanced postsecondary or apprentice work
5. Certifying Entity – certifications are issued independent of course completion to validate skills (e.g., DPS as the entity that validates passage of the drivers license exams)



# TABLE OF CONTENTS

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Annual Public Notification of Nondiscrimination	ii
Terms and Definitions	iii
Academic Planning Guide Chart	1
Agriculture, Food, and Natural Resources Career Cluster	4
Agricultural Technology and Mechanical Systems	5
Animal Science	9
Plant Science	12
Arts, Audio/Video Technology, and Communications Career Cluster	18
Graphic Design and Interactive Media	19
Education and Training Career Cluster	24
Teaching and Training	25
Health Science Career Cluster	30
Nursing Science	31
Hospitality and Tourism Career Cluster	36
Culinary Arts	37








# ACADEMIC PLANNING GUIDE CHART

## Career and Technical Education (CTE)

	LEVEL 1	LEVEL 2
<b>Agriculture, Food, and Natural Resources Career Cluster</b>		
<b>Agricultural Technology and Mechanical Systems</b>	Principles of Agriculture, Food, and Natural Resources	Agriculture Mechanics and Metal Technologies
<b>Animal Science</b>	Principles of Agriculture, Food, and Natural Resources	Equine Science Small Animal Management
<b>Plant Science</b>	Principles of Agriculture, Food, and Natural Resources	
<b>Arts, Audio/Video Technology, and Communications Career Cluster</b>		
<b>Graphic Design and Interactive Media</b>	Principles of Arts, A/V Technology, and Communication	Digital Design and Media Productions
<b>Education and Training Career Cluster</b>		
<b>Teaching and Training</b>	Principles of Human Service	Child Development
<b>Health Science Career Cluster</b>		
<b>Nursing Science</b>	Principles of Health Science	
<b>Hospitality and Tourism Career Cluster</b>		
<b>Culinary Arts</b>	Introduction to Culinary Arts	Culinary Arts

Programs of study will provide students with a course sequence that ties to an endorsement and offers a strong vertical alignment between secondary and postsecondary education.

The suggested course pathways are intended to provide guidance to students seeking college and career readiness through course content and industry based certifications.

LEVEL 3	LEVEL 4	INDUSTRY BASED CERTIFICATIONS	
<b>Agriculture, Food, and Natural Resources Career Cluster</b>			
Agriculture Structures Design and Fabrication	Practicum in Agriculture, Food, and Natural Resources Agricultural Equipment Design and Fabrication	American Welding Society (AWS) D 9.1 Sheet Metal Certification	
Livestock Production	Advanced Animal Science Veterinary Medical Applications Practicum in Agriculture, Food, and Natural Resources	Elanco Fundamentals of Animal Science Certification NHJTCA Equine Management & Evaluation Certification Elanco Veterinary Medical Applications Certification	
Floral Design	Practicum in Agriculture, Food, and Natural Resources	Benz School of Floral Design Principles of Floral Design Certification	
<b>Arts, Audio/Video Technology, and Communications Career Cluster</b>			
	Practicum in Entrepreneurship	Adobe Professional & Digital Video Adobe Professional & Graphic Design Adobe Professional in Print Adobe Professional in Digital Design Adobe Professional in Visual Design using Adobe Photoshop Adobe Professional in Visual Effects	
<b>Education and Training Career Cluster</b>			
Instructional Practices		Educational Aide 1	
<b>Health Science Career Cluster</b>			
Anatomy and Physiology	Practicum in Nursing	Health Science CNA State Test	 
<b>Hospitality and Tourism Career Cluster</b>			
Advanced Culinary Arts	Food Science	AMSA Food Safety & Science Certification AMSA Culinary Meat Selection & Cookery Certification	





# AGRICULTURE, FOOD, AND NATURAL RESOURCES CAREER CLUSTER

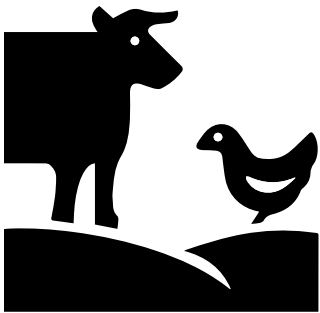
The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.



## Agricultural Technology and Mechanical Systems

The Agricultural Technology and Mechanical Systems program of study focuses on occupational and educational opportunities associated with applying engineering technology and biological science to agricultural problems related to power and machinery, electrification, structures, soil and water use, and processing agricultural products. This program of study includes diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

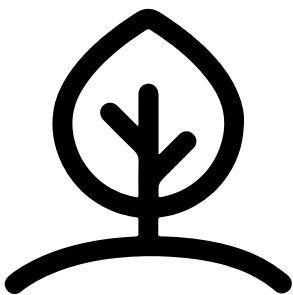
Meets the requirements of the Business and Industry Endorsement



## Animal Science

The Animal Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of animals and other living organisms. This program of study includes applying 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 will research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

Meets the requirements of the Business and Industry Endorsement



## Plant Science

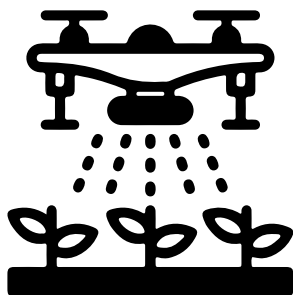
The Plant Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of plants and other living organisms. This program of study includes the application of biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.

Meets the requirements of the Business and Industry Endorsement



# AGRICULTURAL TECHNOLOGY AND MECHANICAL SYSTEMS

Agriculture, Food, and Natural Resources Career Cluster



## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.

**Level 1 Principles of Agriculture, Food, and Natural Resources**

**Level 2 Agricultural Mechanics and Metal Technologies**

**Level 3 Agricultural Structures Design and Fabrication**

**Level 4 Practicum in Agriculture, Food, and Natural Resources  
Agricultural Equipment Design and Fabrication**

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
1300200	Principles of Agriculture, Food, and Natural Resources	9 - 12	None	None
13002200	Agricultural Mechanics and Metal Technologies	10 - 12	None	American Welding Society (AWS) D 9.1 Sheet Metal Certification
13002300	Agricultural Structures Design and Fabrication	11 - 12	None	None
13002500	Practicum in Agriculture, Food, and Natural Resources	11 - 12	None	None
13002350	Agricultural Equipment Design and Fabrication	11 - 12	None	None

# COURSE DESCRIPTIONS

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<b>13000200</b>	<b>Principles of Agriculture, Food, and Natural Resources</b> Grade Placement: 9 - 12 Credits: 1 Prerequisites: None Certifications: 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.
<b>13002200</b>	<b>Agricultural Mechanics and Metal Technologies</b> Grade Placement: 10 - 12 Credits: 1 Prerequisites: None Certifications: <ul style="list-style-type: none"><li>● American Welding Society (AWS) D 9.1 Sheet Metal Certification</li></ul>	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.
<b>13002300</b>	<b>Agricultural Structures Design and Fabrication</b> Grade Placement: 11 - 12 Credits: 1 Prerequisites: None Certifications: None	In Agricultural Structures Design and Fabrication, students will explore career opportunities, entry requirements, and industry expectations. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural structures design and fabrication.

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# COURSE DESCRIPTIONS

## 13002500 Practicum in Agriculture, Food, and Natural Resources

Grade Placement: 11 - 12

Credits: 2

Prerequisites: None

Certifications: None

Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

## 13002350 Agricultural Equipment Design and Fabrication

Grade Placement: 11 - 12

Credits: 1

Prerequisites: None

Certifications: None

In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment.

### POSTSECONDARY PATHWAYS

### WORKFORCE/CAREER OPTIONS

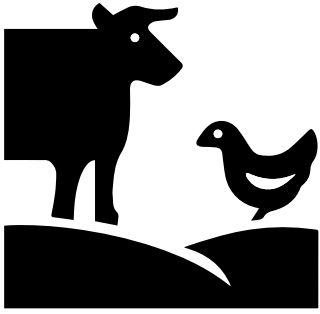
ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Diesel Mechanics Technology	Agricultural Engineering	Agricultural Engineering
Industrial Mechanics and Maintenance Technology	Heavy Equipment Maintenance Technology	Industrial Technology

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Farm Equipment Mechanics and Service Technicians	\$45,730	430	22%
Mobile Heavy Equipment Mechanics	\$52,925	2,465	19%
Farmers, Ranchers, and Other Agricultural Managers	\$34,751	4,535	6%



# ANIMAL SCIENCE

Agriculture, Food, and Natural Resources Career Cluster



## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.

**Level 1 Principles of Agriculture, Food, and Natural Resources**

**Level 2 Equine Science  
Small Animal Management**

**Level 3 Livestock Production**

**Level 4 Advanced Animal Science  
Veterinary Medical Applications  
Practicum in Agriculture, Food, and Natural Resources**

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
13000200	Principles of Agriculture, Food, and Natural Resources	9 - 12	None	None
13000500	Equine Science	10 - 12	None	NHJTCA Equine Management & Evaluation Certification
13000400	Small Animal Management	10 - 12	None	None
13000300	Livestock Production	10 - 12	None	None
13000700	Advanced Animal Science	11 - 12	Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production	Elanco Fundamentals of Animal Science Certification
13000600	Veterinary Medical Applications	11 - 12	Equine Science, Small Animal Management, or Livestock Production	Elanco Veterinary Medical Applications Certification
13002500	Practicum in Agriculture, Food, and Natural Resources	11 - 12	None	None

# COURSE DESCRIPTIONS

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<b>13000200</b>	<b>Principles of Agriculture, Food, and Natural Resources</b> Grade Placement: 9 - 12 Credits: 1 Prerequisites: None Certifications: 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.
<b>13000500</b>	<b>Equine Science</b> Grade Placement: 10 - 12 Credits: .5 Prerequisites: None Certifications: <ul style="list-style-type: none"><li>● NHJTCA Equine Management &amp; Evaluation Certification</li></ul>	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.
<b>13000400</b>	<b>Small Animal Management</b> Grade Placement: 10 - 12 Credits: .5 Prerequisites: None Certifications: 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.

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# COURSE DESCRIPTIONS

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## **13000300 Livestock Production**

Grade Placement: 10 - 12

Credits: 1

Prerequisites: None

Certifications: 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.

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## **13000700 Advanced Animal Science**

Grade Placement: 11 - 12

Credits: 1

Prerequisites:

- Biology and Chemistry or Integrated Physics and Chemistry (IPC)
- Algebra I and Geometry
- Either Small Animal Management, Equine Science, or Livestock Production

Certifications:

- Elanco Fundamentals of Animal Science Certification

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.

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## **13000600 Veterinary Medical Applications**

Grade Placement: 11 - 12

Credits: 1

Prerequisites:

- Equine Science, Small Animal Management, or Livestock Production

Certifications:

- Elanco Veterinary Medical Applications Certification

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species.



# COURSE DESCRIPTIONS

**13002500 Practicum in Agriculture, Food, and Natural Resources**

Grade Placement: 11 - 12

Credits: 2

Prerequisites: None

Certifications: None

Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

## POSTSECONDARY PATHWAYS

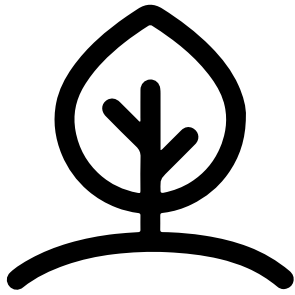
ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Biological and Physical Sciences	Animal Science	Animal Sciences
Entomology	Zoology/Animal Biology	Biotechnology

## WORKFORCE/CAREER OPTIONS

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Veterinary Assistants and Laboratory Animal Caretakers	\$29,906	1,348	24%
Veterinary Technologists and Technicians	\$33,679	1,217	24%
Veterinarian	\$103,160	347	26%

# PLANT SCIENCE

Agriculture, Food, and Natural Resources Career Cluster



## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.

**Level 1 Principles of Agriculture, Food, and Natural Resources**

**Level 2**

**Level 3 Floral Design**

**Level 4 Practicum in Agriculture, Food, and Natural Resources**

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
1300200	Principles of Agriculture, Food, and Natural Resources	9 - 12	None	None
13001800	Floral Design	9 - 12	None	Benz School of Floral Design Principles of Floral Design Certification
13002500	Practicum in Agriculture, Food, and Natural Resources	11 - 12	None	None

# COURSE DESCRIPTIONS

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<b>13000200</b>	<b>Principles of Agriculture, Food, and Natural Resources</b> Grade Placement: 9 - 12 Credits: 1 Prerequisites: None Certifications: 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.
<b>13001800</b>	<b>Floral Design</b> Grade Placement: 9 - 12 Credits: 1 Prerequisites: None Certifications: <ul style="list-style-type: none"><li>● Benz School of Floral Design Principles of Floral Design Certification</li></ul>	Floral Design 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. Through the analysis of artistic floral styles and historical periods, students will develop respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgments and evaluations.
<b>13002500</b>	<b>Practicum in Agriculture, Food, and Natural Resources</b> Grade Placement: 11 - 12 Credits: 2 Prerequisites: None Certifications: None	Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

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# COURSE DESCRIPTIONS

## POSTSECONDARY PATHWAYS

ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Biology/Biological Sciences	Horticulture	Plant Breeding
Biological and Physical Sciences	Plant Pathology/Phytopathology	Botany/Plant Biology

## WORKFORCE/CAREER OPTIONS

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Pesticide Handlers, Sprayers, and Applicators, Vegetation	\$46,153	205	17%
Biological Technicians	\$45,787	879	14%
Farmers, Ranchers, and Other Agricultural Managers	\$65,490	28,020	4%

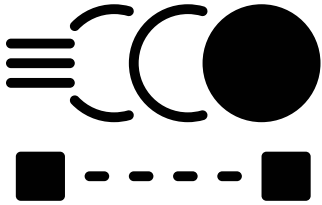




# ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS CAREER CLUSTER

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 and Interactive Media



The Graphic Design and Interactive Media program of study focuses on occupational and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. The program of study includes designing clothing and accessories, 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.

Meets the requirements of the Business and Industry Endorsement



Programs of study will provide students with a course sequence that ties to an endorsement and offers a strong vertical alignment between secondary and postsecondary education.

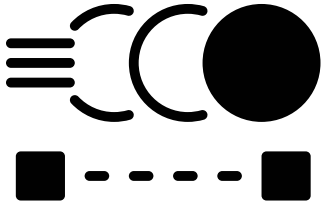
The suggested course pathways are intended to provide guidance to students seeking college and career readiness through course content and industry based certifications.

# GRAPHIC DESIGN AND INTERACTIVE MEDIA

Arts, Audio/Visual Technology, and Communications Career Cluster

## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.



**Level 1**    **Digital Media**  
**Principles of Arts, A/V Technology, and Communication**

**Level 2**    **Digital Design and Media Production**

**Level 3**

**Level 4**    **Practicum in Entrepreneurship**

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
13008200	Principles of Arts, Audio/Video Technology, and Communications	9	None	Adobe Professional & Digital Video Adobe Professional & Graphic Design Adobe Professional in Print Adobe Professional in Digital Design Adobe Professional in Visual Design using Adobe Photoshop Adobe Professional in Visual Effects
03580400	Digital Design and Media Production	9 - 12	None	
N1303425	Practicum in Entrepreneurship	11 - 12	None	None



# COURSE DESCRIPTIONS

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**13008200 Principles of Arts, Audio/Video Technology, and Communications**

Grade Placement: 9

Credits: 1

Prerequisites: None

Certifications:

- Adobe Professional & Digital Video
- Adobe Professional & Graphic Design
- Adobe Professional in Print
- Adobe Professional in Digital Design
- Adobe Professional in Visual Design using Adobe Photoshop
- Adobe Professional in Visual Effects

The goal of this course is that 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.

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**03580400 Digital Design and Media Production**

Grade Placement: 9 - 12

Credits: 1

Prerequisites: None

Certifications: None

Digital Design and Media Production will allow students to demonstrate creative thinking, develop innovative strategies, and use communication tools in order to work effectively with others as well as independently. Students will gather information electronically, which will allow for problem solving and making informed decisions regarding media projects. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will demonstrate a thorough understanding of digital design principles that is transferable to other disciplines. The six strands include creativity and innovation; communication and collaboration; research and information fluency; critical thinking; problem solving, and decision making; digital citizenship; and technology operations and concepts.

# COURSE DESCRIPTIONS

## N1303425 Practicum in Entrepreneurship

Grade Placement: 11 - 12

Credits: 2

Prerequisites: None

Certifications: None

The Practicum in Entrepreneurship provides students the opportunity to apply classroom learnings and experiences to real-world business problems and opportunities, while expanding their skill sets and professional relationships as a real or simulated business owner versus the experience one would have as an employee. Students will prepare for an entrepreneurial career in their area of interest in their career cluster and build on and apply the knowledge and skills gained from courses taken in an array of career areas. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of the student's need for work-based learning experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. It is recommended that students are paired with local business owners or employers in their specific industry program of study.

### POSTSECONDARY PATHWAYS

ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Graphic Design	Web Page, Digital/Multimedia and Information Resources Design	Game and Interactive Media Design
Digital Arts	Design and Visual Communications	Animation, Interactive Technology, Video Graphics, and Special Effects

### WORKFORCE/CAREER OPTIONS

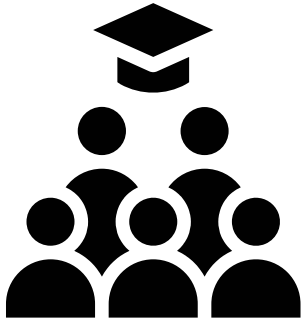
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Software Developers	\$111,705	15,324	36%
Graphic Designers	\$50,973	1,766	10%
Art Directors	\$81,926	619	18%





# 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

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.

Meets the requirements of the Public Service Endorsement

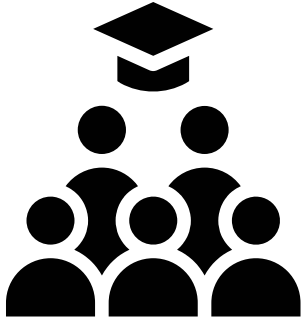


Programs of study will provide students with a course sequence that ties to an endorsement and offers a strong vertical alignment between secondary and postsecondary education.

The suggested course pathways are intended to provide guidance to students seeking college and career readiness through course content and industry based certifications.

# TEACHING AND TRAINING

Education and Training Career Cluster



## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.

**Level 1** Principles of Human Services

**Level 2** Child Development

**Level 3** Instructional Practices

**Level 4**

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
13024200	Principles of Human Services	9 - 12	None	None
N1300500	Child Development	10 - 12	None	None
13014400	Instructional Practices	11 - 12	One credit from Education and Training Career Cluster	Educational Aide 1

# COURSE DESCRIPTIONS

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**13024200 Principles of Human Services**

Grade Placement: 9 - 12

Credits: 1

Prerequisites: None

Certifications: None

Principles of Human Services is a laboratory course that will enable students to investigate careers in the Human Services Career Cluster, including counseling and mental health, early childhood development, family and community, personal care, and consumer services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

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**N1300500 Child Development**

Grade Placement: 10 - 12

Credits: 1

Prerequisites: None

Certifications: None

The Child Development Associate (CDA) Foundations course is a laboratory course addressing the knowledge and skills related to applying Child Development Associate (CDA) Competency Standards in early childhood environments and understanding how these competencies help young children move with success from one developmental stage to the next. Students will be prepared and informed on the requirements that must be met to apply for the nationally recognized CDA credential.

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**13014400 Instructional Practices**

Grade Placement: 11 - 12

Credits: 2

Prerequisites:

- One credit from Education and Training Career Cluster

Certifications:

- Educational Aide 1

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.

# COURSE DESCRIPTIONS

## POSTSECONDARY PATHWAYS

ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Adult and Continuing Education and Teaching	Elementary Education and Teaching	Educational Leadership and Administration, General
Educational/Instructional Technology	Secondary Education and Teaching	Curriculum and Instruction

## WORKFORCE/CAREER OPTIONS

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Teaching Assistants, Except Postsecondary	\$28,066	10,000	15%
Secondary School Teachers, Except Special Education and CTE	\$61,035	8,288	14%
Education Administrators, Kindergarten through Secondary	\$81,976	2676	14%

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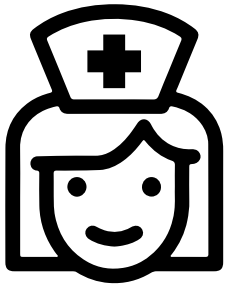




# HEALTH SCIENCE CAREER CLUSTER

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.

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## Nursing Science

The Nursing Science program of study focuses on occupational and educational opportunities associated with patient care. This program of study includes the practice of caring for patients, performing routine procedures such as monitoring vital signs, developing, and implementing care plans, maintaining medical records, and managing disease or pain.

Meets the requirements of the Public Service Endorsement



OR (if math/science requirements are met)

Meets the requirements of the STEM Endorsement



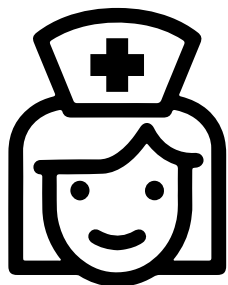
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Programs of study will provide students with a course sequence that ties to an endorsement and offers a strong vertical alignment between secondary and postsecondary education.

The suggested course pathways are intended to provide guidance to students seeking college and career readiness through course content and industry based certifications.

# NURSING SCIENCE

Health Science Career Cluster



## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.

**Level 1 Principles of Health Science**

**Level 2**

**Level 3 Anatomy and Physiology**

**Level 4 Practicum in Nursing**

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
13020200	Principles of Health Science	9 - 10	None	None
13020600	Anatomy and Physiology	10 - 12	Biology and a second science credit	None
13021230	Practicum in Nursing	11 - 12	One credit in biology, one credit in chemistry, and at least one course in a Level 2 or higher course in the nursing science program of study	Health Science CNA State Test

# COURSE DESCRIPTIONS

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## **13020200 Principles of Health Science**

Grade Placement: 9 - 10

Credits: 1

Prerequisites: None

Certifications: 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 health care industry.

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## **13020600 Anatomy and Physiology**

Grade Placement: 10 - 12

Credits: 1

Prerequisites:

- Biology and a second science credit

Certifications: None

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.

## **13020500 Practicum in Nursing**

Grade Placement: 11 - 12

Credits: 2

Prerequisites:

- One credit in biology
- One credit in chemistry
- At least one course in a Level 2 or higher course in the nursing science program of study

Certifications:

- Health Science CNA State Test

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.

# COURSE DESCRIPTIONS

### POSTSECONDARY PATHWAYS

ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Medical Assisting	Registered Nursing	Nursing Administration
Vocational Nursing	Nursing Administration	Nursing Science

### WORKFORCE/CAREER OPTIONS

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Nursing Assistants	\$30,856	10,936	15%
Licensed Practical and Licensed Vocational Nurses	\$50,913	6,865	17%
Registered Nurses	\$79,831	16,207	17%

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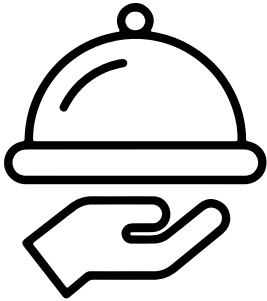




# HOSPITALITY AND TOURISM CAREER CLUSTER

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.

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## Culinary Arts

The Culinary Arts program of study focuses on occupational and educational opportunities associated with the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study includes opportunities involved in directing and participating in the preparation of food.

Meets the requirements of the Business and Industry Endorsement



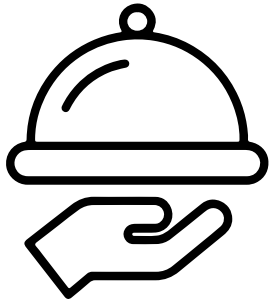
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Programs of study will provide students with a course sequence that ties to an endorsement and offers a strong vertical alignment between secondary and postsecondary education.

The suggested course pathways are intended to provide guidance to students seeking college and career readiness through course content and industry based certifications.

# CULINARY ARTS

Hospitality and Tourism Career Cluster



## SUGGESTED COURSE PATHWAYS

Courses are not tied to grade levels.

**Level 1** Introduction to Culinary Arts

**Level 2** Culinary Arts

**Level 3** Advanced Culinary Arts

**Level 4** Food Science

## COURSE INFORMATION

COURSE NO.	COURSE NAME	GRADE	PREREQUISITES	CERTIFICATIONS
13022550	Introduction to Culinary Arts	9 - 10	None	None
13022600	Culinary Arts	10 - 12	None	None
13022650	Advanced Culinary Arts	10 - 12	Culinary Arts	AMSA Culinary Meat Selection & Cookery Certification
13023000	Food Science	11 - 12	Three units of science, including Chemistry and Biology	AMSA Food Safety & Science Certification

# COURSE DESCRIPTIONS

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## **13022550 Introduction to Culinary Arts**

Grade Placement: 9 - 10

Credits: 1

Prerequisites: None

Certifications: None

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.

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## **13022600 Culinary Arts**

Grade Placement: 10 - 12

Credits: 2

Prerequisites: None

Certifications: None

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.

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## **13022650 Advanced Culinary Arts**

Grade Placement: 10 - 12

Credits: 2

Prerequisites:

- Culinary Arts

Certifications:

- AMSA Culinary Meat Selection & Cookery Certification

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by indepth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment.

# COURSE DESCRIPTIONS

**13023000**

## Food Science

Grade Placement: 11 - 12

Credits: 1

Prerequisites:

- Three units of science, including Chemistry and Biology

Certifications:

- AMSA Food Safety & Science Certification

In Food Science students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration in food products, the principles underlying food processing, and the improvement of foods for the consuming public.

### POSTSECONDARY PATHWAYS

ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Culinary Arts	Hotel/Motel Administration/Management	Organizational Leadership
Baking and Pastry Arts	Culinary Science	Food service Systems Administration/Management

### WORKFORCE/CAREER OPTIONS

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Bakers	\$29,466	2,942	26%
Chefs and Head Cooks	\$44,761	950	37%
General and Operations Managers	\$83,220	25,450	23%







