Bellaire High School

Career & Technology Programs

Discover a Career!

2024-2025

Career & Technology Programs

Table of Contents

<u>Career Clusters and Programs of Study</u>

Students in CTE programs are scheduled based on their program of study and can earn endorsements, industry-based certifications, and/or college credit. Classes are leveled, and students will be scheduled sequentially to give them the greatest opportunity to learn and build their knowledge base.

Revised – April 2024

Animal Science

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.

Agriculture, Food, and Natural Resources
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.

Level 1 Course
(no preq) Principles of Agriculture, Food, and Natural Resources

Level 2 Courses
(fall semester) Small Animal Management
(spring semester) Equine Science

Level 3 Course
Livestock Production

Level 4 Course
Advanced Animal Science

Industry Certifications Offered
Elanco Livestock

All courses have prerequisites and are year long, unless otherwise noted.

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.

Plant Science

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.

Agriculture, Food, and Natural Resources
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.

Level 1 Course
(no preq) Principles of Agriculture, Food, and Natural Resources

Level 2 Course
Floral Design

Level 3 Course
Advanced Floral Design

Level 4 Course
Advanced Plant and Soil Science

Industry Certifications Offered
BENZ Floral, TSFA Floral

All courses have prerequisites and are year long, unless otherwise noted.

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.

Graphic Design and Interactive Media

The 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.

Arts, Audio/Video Technology, Communications
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.

Level 1 Course
(no preq) Digital Media

Level 2 Course
Digital Design & Media Production

Level 3 Course
Digital Art & Animation

Level 4 Course
Independent Study in Evolving/Emerging Technologies

Industry Certifications Offered
Premiere Pro, InDesign

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Design & Multimedia Arts program of study will fulfill requirements of the Business and Industry Endorsement.

Entrepreneurship

The Entrepreneurship program of study focuses on occupational and educational opportunities associated with planning, launching, directing, and coordinating public or private sector ventures. This program of study includes formulating policies, launching businesses or organizations, managing daily operations, analyzing management structures, and planning for the use of materials and human resources.

Business, Marketing, and Finance
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. This career cluster includes occupations ranging from business owner and entrepreneur, to accountant, retail manager, and market analyst.

Level 1 Course
(no preq) Principles of Business, Marketing, and Finance (Track A)

Level 2 Course
Foundations of User Experience

Level 3 Course
Mobile Application Development

Level 4 Course
Statistics and Business Decision Making

Industry Certifications Offered
TBD

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Entrepreneurship program of study will fulfill requirements of the Business and Industry Endorsement.

Marketing and Sales

The Marketing and Sales program of study teaches CTE learners how to collect information to determine potential sales of a product or service and/or create a marketing campaign to market or distribute goods and services. Through this program of study, students will learn the skills necessary to understand and apply data on customer demographics, preferences, needs, and buying habits.

Business, Marketing, and Finance
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. This career cluster includes occupations ranging from business owner and entrepreneur, to accountant, retail manager, and market analyst.

Level 1 Course
(no preq) Principles of Business, Marketing, and Finance

Level 2 Course
Marketing

Level 3 Courses
(fall semester) Advertising
(spring semester) Sports Marketing

Level 4 Course
Statistics & Business Decision Making

Industry Certifications Offered
Entrepreneurship & Small Business

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Marketing and Sales program of study will fulfill requirements of the Business and Industry Endorsement.

Networking Systems

The Networking Systems program of study explores the occupations and educational opportunities associated with designing and implementing computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. This program of study may also include exploration into analyzing science, engineering, and other data processing problems to implement and improve computer systems

Information Technology

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from software developed and programmer to cybersecurity specialists and network analysts.

Level 1 Course
(no preq) Principles of Information Technology
(no preq) Fundamentals of Computer Science

Level 2 Course
Internetworking Technologies I (Cisco) (to begin in 2025-2026)

Level 3 Course
Digital Forensics (to begin in 2026-2027)

Level 4 Course
Cybersecurity Capstone (to begin in 2027-2028)

Industry Certifications Offered
TBD

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Networking Systems program of study will fulfill requirements of the Business and Industry and STEM endorsement if the math and science requirements are met.

Programming and Software Development

The Programming and Software Development program of study focuses on occupational and educational opportunities associated with researching, designing, developing, testing, and operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study includes creating, modifying, and testing the codes, forms, and script that allow computer applications to run.

STEM
The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Level 1 Course
HADV Computer Science I

Level 2 Course
AP Computer Science Principles

Level 3 Course
AP Computer Science A, MATH/LOTE

Level 4 Course
HADV Computer Science III

Industry Certifications Offered
Java and JavaScript

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Programming Cand Software Development program of study will fulfill requirements of the Business and Industry and STEM endorsement if the math and science requirements are met.

Health Informatics

The Health Informatics program of study focuses on occupational and educational opportunities associated with the management and use of patient information in the healthcare field. This program of study includes exploration of computerized healthcare systems and the process of creating and maintaining hospital and patient records in accordance with regulatory requirements of the healthcare system. Students will also practice writing and interpreting medical reports.

Health Science
The Health Science career cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Level 1 Courses
(no preq) Principles of Health Informatics
(no preq) Business Information Management

Level 2 Course
Medical Terminology (to begin in 2025-2026)

Level 3 Course
Health Informatics (to begin in 2026-2027)

Level 4 Course
Medical Billing and Coding (to begin in 2027-2028)

Industry Certifications Offered
TBD

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Health Informatics program of study will fulfill requirements of the Business and Industry endorsement.

Distribution, Logistics, and Warehousing

The Distribution, Logistics, and Warehousing program of study focuses on educational and occupational opportunities associated with business planning and management aspects of distribution, logistics, and warehousing. This program of study includes exploration of the history, laws, regulations, and common practices used in the logistics of warehousing and distribution systems.

Transportation, Distribution, and Logistics
The Transportation, Distribution, and Logistics (TDL) career cluster focuses on planning, managing, and moving people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility maintenance. This career cluster includes occupations ranging from automotive mechanic, avionics technician, and automotive entrepreneur to pilots and logistics planning professionals.

Level 1 Course
(no preq) Principles of Distribution and Logistics

Level 2 Course
Concepts of Distribution and Logistics Technology (to begin in 2025-2026)

Level 3 Course
Distribution and Logistics (to begin in 2026-2027)

Level 4 Course
Practicum in Distribution and Logistics (to begin in 2027-2028)

Industry Certifications Offered
TBD

All courses have prerequisites and are year long, unless otherwise noted.

Successful completion of the Distribution and Logistics program of study will fulfill requirements of the Business and Industry endorsement.