

PATHWAYS

The Magazine of the Apex Friendship Career and Technical Education Department

LEARNING THAT WORKS

An Overview of Career and Technical Education at AFHS

AOE
*Academy Of
Engineering*

*National
Technical
Honors Society*

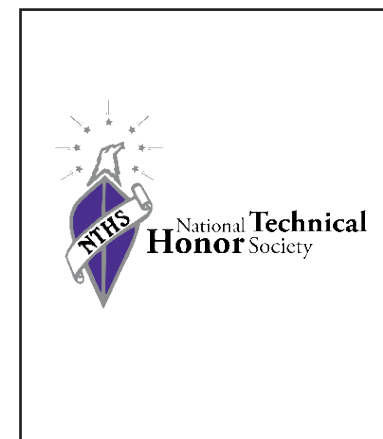
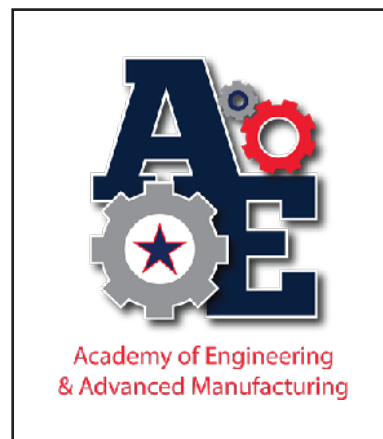
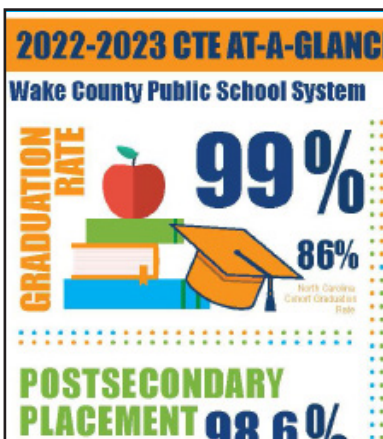
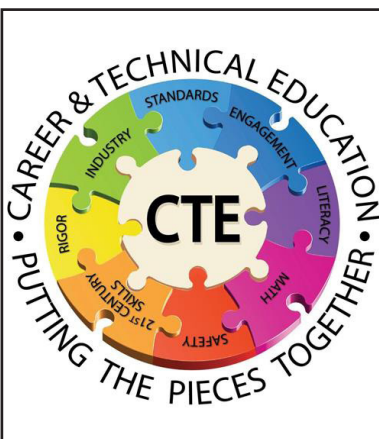
**CLUSTERS &
PATHWAYS?**

CTSO
*Career and Technical
Student Organizations*

CAREER PATHWAYS AT APEX FRIENDSHIP

*Adobe Academy * Animal Science * AP Computer Science * Apparel and Textile Production * Entrepreneurship
Food and Nutrition * Healthcare Professional * Interior Design * Marketing Management * PLTW Engineering
Project Management * Python Programming * Sports & Entertainment Marketing * Teaching & Training * Technology Engineering & Design*

APEX FRIENDSHIP HIGH SCHOOL CAREER AND TECHNICAL EDUCATION



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LEARNING THAT WORKS FOR FRIENDSHIP



In today's ever-changing, ever-evolving global job market, Career and Technical Education has never been more valuable as a part of creating an exceptional educational experience, connecting classroom theory to real-world experiences. CTE programs offer a wide range of alternative academic experiences for students, whether pursuing a traditional post-secondary education, or looking for an alternative pathway that holds opportunities for high wage, high skill careers. It is hard to argue about the value of CTE in the classroom with increased graduation rates, successful completion of a wide range of industry credentials, and exposure to a multitude of work-based learning experiences.

One of the most significant impacts CTE has on students is increased graduation rates. Data consistently shows that students engaged in multiple CTE courses. The Association for Career and Technical Education (ACTE) has reported that CTE students are 10% more likely to graduate than those not involved in CTE courses and in North Carolina the CTE concentrator graduation rate was 98% in 2023. One likely reason for the increased

graduation rate is that the hands-on, real world learning approach of CTE is more likely to connect with students who may struggle with traditional academic methods.

One of my favorite benefits for students who participate in CTE classes is that there are a wide range of industry credentials opportunities to which students have access. Successful credential attainment can positively impact student success in multiple ways. Students who earn credentials can find relevant jobs, while they are still in school, which can lead to careers in their desired field. Once in a career field, credentials can lead to higher earnings and the opportunity to advance more quickly. At a minimum, students with credentials can have a competitive advantage over those without credentials, whether it involves gaining employment, acceptance into a post-secondary institution, or XXXXXX opportunities. According to the North Carolina Department of Public Instruction and the Office of Career and Technical Attainment, more than 325,000 credentials were earned by CTE high school students in the 2022-2023 academic year.

More than 235,000

credentials earned by N.C. high school students in the 2022 school year.

North Carolina Department of Public Instruction Office of Career and Technical Education

Work-based learning experiences are at the core of the CTE philosophy. By providing students with job shadowing, internships, apprenticeships, and connecting with industry professionals, they gain valuable insights into career opportunities as they bridge the gap between classroom instruction and the real world application. Such experiences also allow for development of soft skills, critical thinking and problem solving skills, teamwork and other 21st century skills that are in such demand.

Career and Technical Education is trending right now as more young people look for alternatives to the traditional career pathways. CTE programs create personal learning paths and are designed to allow students to pursue their own diverse interests. With 16 Career Clusters representing 79 Career Pathways in the national framework, CTE is helping students discover a wide range of options as they pursue their college and career aspirations. Whether it is engineering, health occupations, business and marketing, digital media, computer programming, interior design, apparel and textile design, or a wide range of additional areas, CTE is Learning that Works for our students.



Career Pathways + Credentials + Work Based Learning = Success



2022-2023 CTE AT-A-GLANCE

Wake County Public School System

GRADUATION
RATE

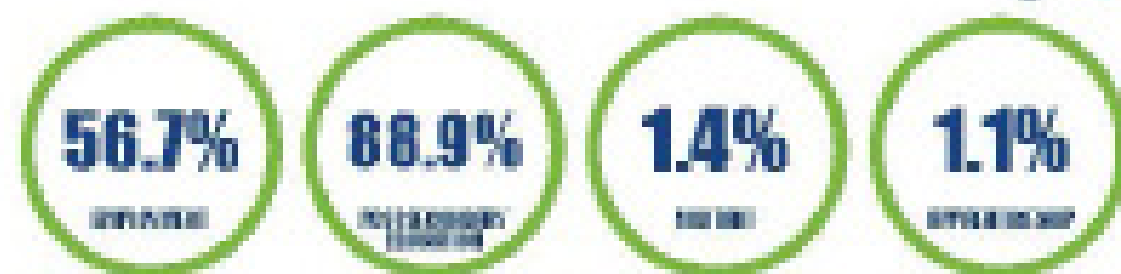


99%

86%

North Carolina
Career Graduates
Rate

POSTSECONDARY
PLACEMENT 98.6%



CTE Concentrators who report positive placement in advanced training, military service, national or community service, employment, or postsecondary education within six months after graduating. CTE concentrators may report more than one positive placement.

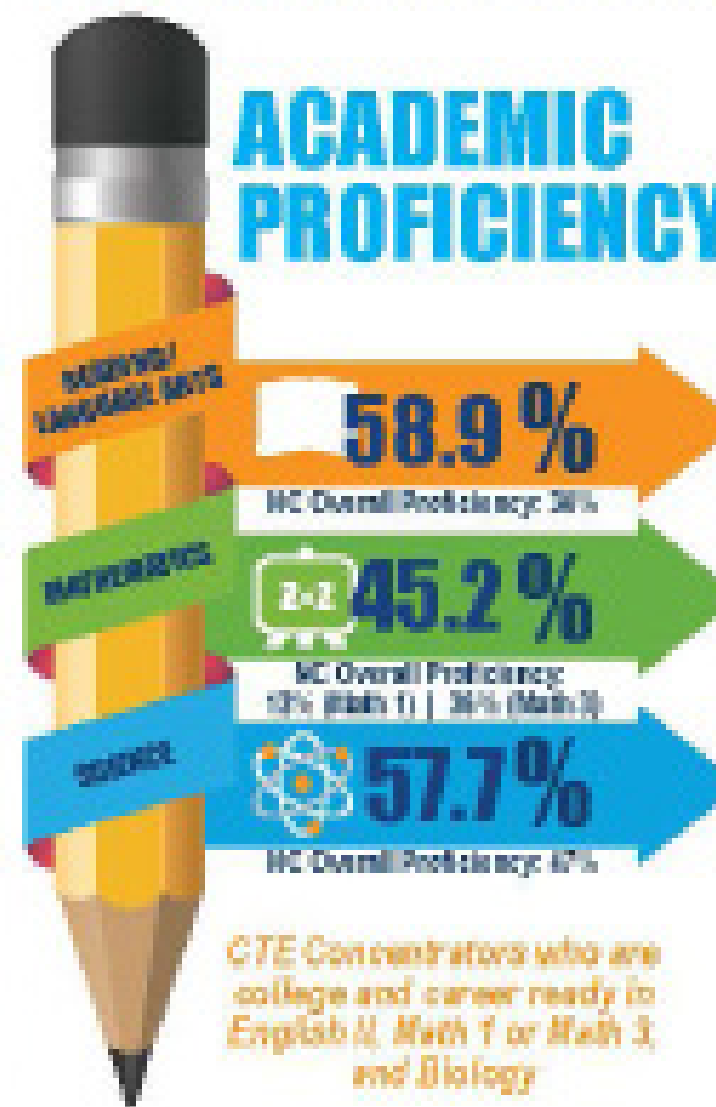


CTE PARTICIPANTS
60,694

7,323
CTE CONCENTRATORS

*A CTE Concentrator is a student in grades 9-12 who successfully completes at least two CTE courses in a single career and technical education program of study with at least one course from a level one (prerequisite level course) and one course at a level two (concentrator level) course. A CTE Participant is a student who completes at least one course in a career and technical education program of study.

ACADEMIC
PROFICIENCY



CTE Concentrators who are college and career ready in English II, Math 1 or Math 3, and Biology



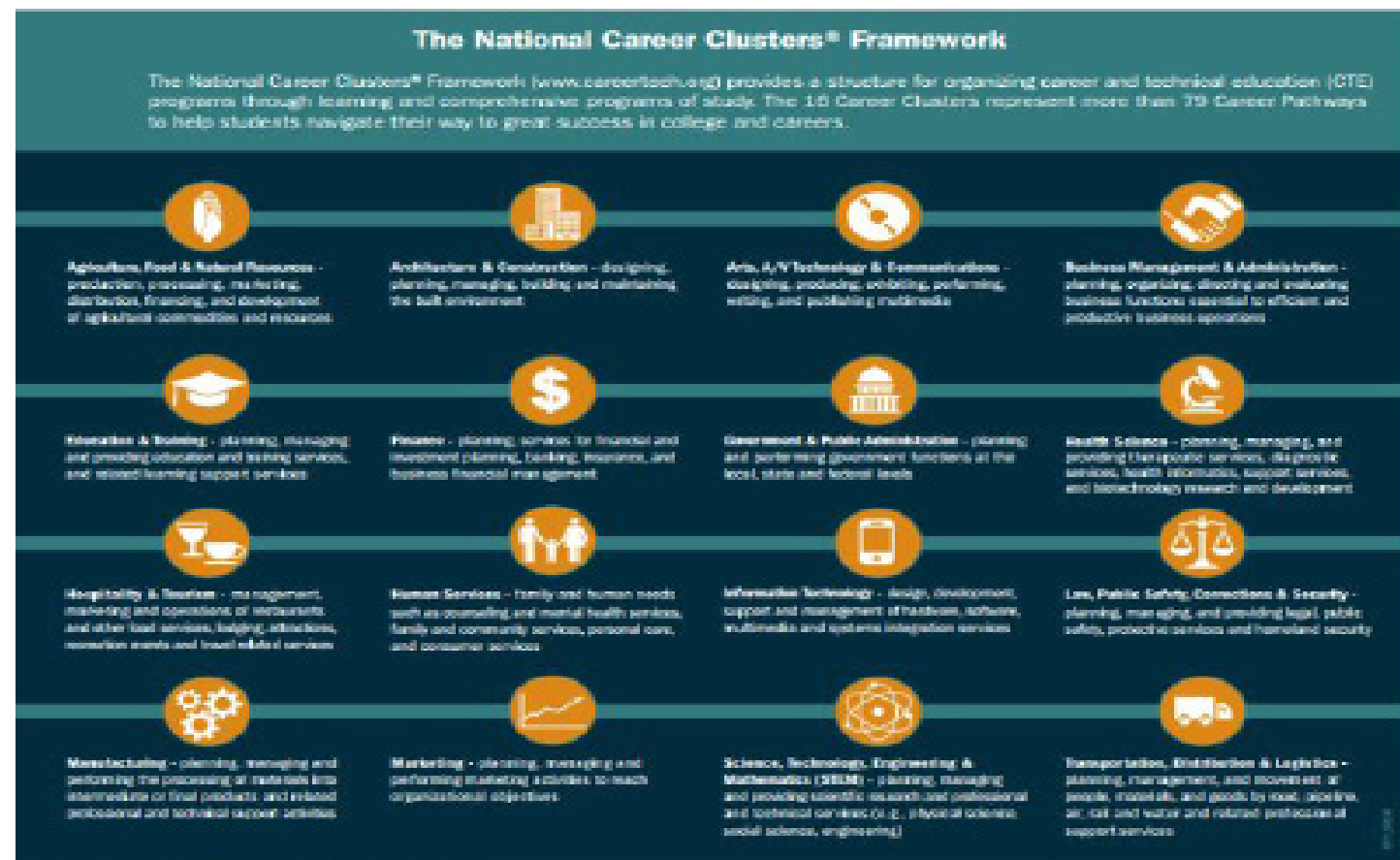
56.4% CREDENTIAL
ATTAINMENT

CTE Concentrators who graduated having earned at least one industry-recognized credential aligned to their pathway of concentration

CLUSTERS?

WHAT DO THEY HAVE TO DO

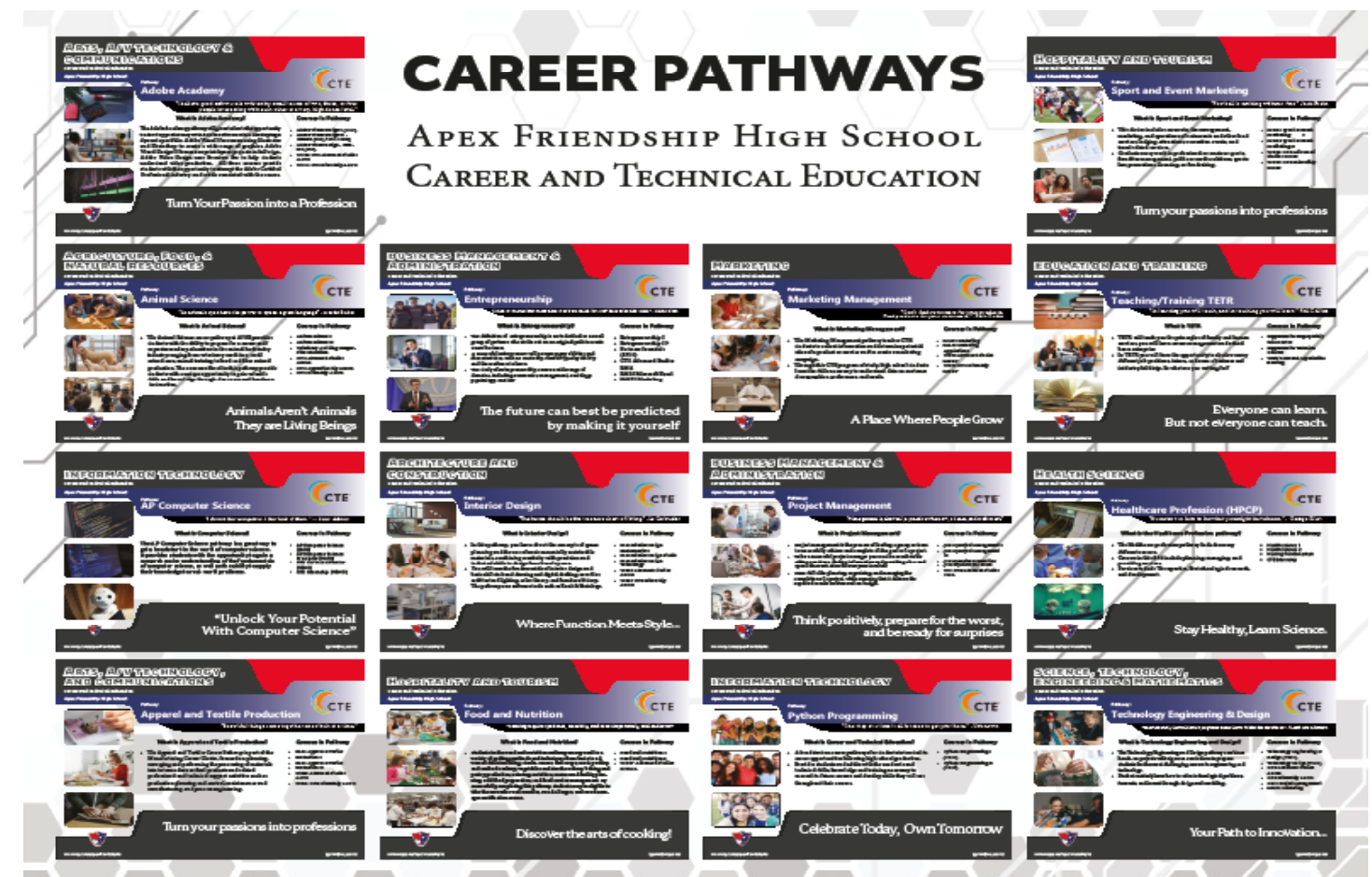
The National Career Clusters Framework serves as an integral part of students career exploration by identifying groups of occupations in a focused field of work and related skills, which can help to shape secondary and postsecondary career goals. There are currently 16 clusters in the national framework, ranging from Agriculture, Food, and Natural Resources, to Information Technology, Health Science, and Science, Technology, Engineering, and Mathematics based on industry needs, offering structured opportunities to explore careers while still in school. The career clusters allows CTE programs to identify real-world, industry relevant skills and to gain hands-on experience, while increasing and enhancing student engagement and preparing students for direct entry into the workforce, or post-secondary education. CTE clusters help to bridge the gap between classroom learning and real-world professions in high demand, high wage career fields.



PATHWAYS?

WITH MY CAREER SUCCESS?

Within the career cluster framework, there are 79 Career Pathways designed to help learners in skill development and career preparation. The more detailed breakdown of course sequencing within the broader framework of clusters provides a progressive roadmap to pursue career objectives. Each pathway offers students a sequence of potential courses, certifications, and work-based learning opportunities designed to offer focused academic success for their specific interests. The Career Pathway approach helps students to gain a clear vision of potential career journeys, moving from foundation skills to advanced experiences to help them build expertise. For example, a student pursuing an Adobe Academy pathway in the Arts, A/V, and Communications cluster might start out with the Adobe Visual Design I Honorscourse and along the way have the opportunity to earn ACP in Photoshop and ACP in Illustrator industry credentials, along with an internship experience in a professional setting, allows students to gain certainty in their career choice, while developing a competitive edge for their next step. Career pathways are an essential component of Career and Technical Education, offering students a clearly developed plan to assist in achieving their goals for success in an ever evolving global workforce.



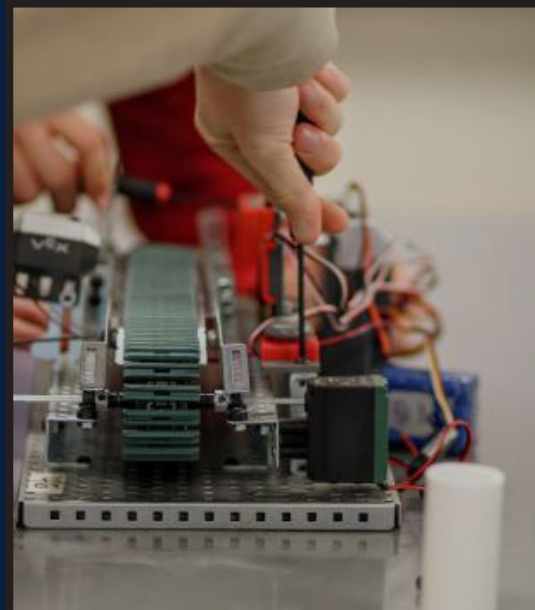
ACADEMY OF ENGINEERING **DESIGN, CREATE, INNOVATE**

Academy of Engineering
& Advanced Manufacturing

The mission of the Apex Friendship High School Academy of Engineering is to foster a dynamic learning environment where students are empowered to explore, innovate, and excel in the field of engineering. By combining rigorous coursework, hands-on projects, and real-world applications, we aim to develop critical thinking, problem-solving, and collaboration skills that prepare students for success in higher education and future careers. Our academy encourages creativity, teamwork, and leadership, inspiring students to become confident, responsible, and adaptable individuals who will shape the future of technology and engineering in a rapidly evolving world.

The Academy of Engineering & Advanced Manufacturing (AoE) is one of 24 Career Academies in the Wake County Public School System. The Academy is a small learning community within Apex Friendship High School. Students apply to the Academy in their eighth grade year and are accepted via lottery. Designed as a four-year high school program, students remain together throughout their high school years with a core

group of specially trained teachers. The Academy model provides an environment for these teachers to develop interdisciplinary Project Based Learning (PBL) units that make instruction relevant and capture the interest of students. Through real-world, hands-on experiences, the Academy exposes students to careers within STEM (Science, Technology, Engineering, and Mathematics).



“In the middle
of difficulty
lies opportunity.”

Albert Einstein



At AFHS, Academy students participate in a variety of work-based applied skill development throughout their high school years. Through resume workshops, practice interviews, and networking opportunities with business professionals and alumni, AoE students are prepared for work and education beyond high school. Students gain exposure to related industries via Job Shadowing, Internships, and a Senior Capstone Project. They also participate in various off campus learning experiences to get a first-hand view of current industry trends and professional settings. The AoE Business Advisory board meets monthly to support the program and advise on course curriculum.

The Academy of Engineering and Advanced Manufacturing prides itself on creating community within one of the largest high schools in the district. Students build lasting connections by working in collaborative groups in cohorted classes each year. They also have the opportunity to connect through grade-level and all-Academy socials, upperclassmen mentors, and the

peer tutoring program. AoE students have a variety of leadership opportunities to serve on the AoE Student Advisory Board, participate as class representatives, or present on behalf of the Academy. Our AoE Parent Support Group is a crucial part of our community and supports the Academy through volunteering, connecting to guest speakers and other industry professionals, and financial contributions for additional student opportunities.

The Vision of Wake County Public School Career Academies consists of an inclusive, diverse group of future leaders who make a global difference to fill the skills gap and develop a talent pipeline. WCPSS Career academies include high-tech classrooms and collaborative workspaces with cutting-edge technology that exposes students to real-world situations. Wake County Career Academies value leadership, supportiveness, and community. They aim to empower diverse students to become collaborative leaders in a global community.



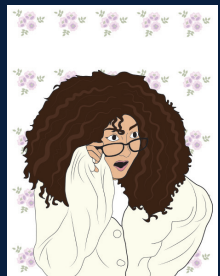


CREATE, COLLABORATE AND CREDENTIAL

ADOBE ACADEMY



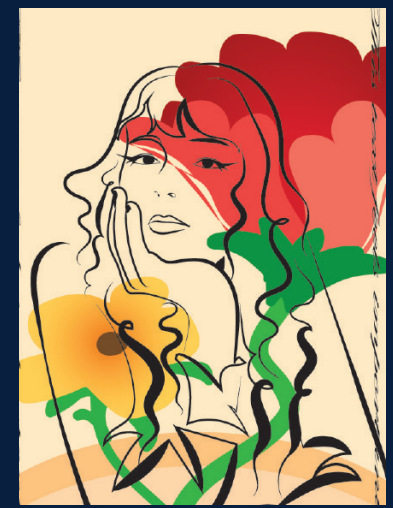
Cher Henrik: Incongruous Images



Emery Kewett: Magazine Article Design



Clarett Kevin-Damm: Multi-line Portrait



Kai Stroud: Minimalist Poster Design



AP Industry Credential



Adobe Video Design I and Adobe Video Design II both focus on learning to plan for and create a wide range of media products to include: podcasts, hype videos, a radio segment, newscast, social media products, and a short film. Adobe Video is very collaborative as students work in learning teams to plan for and shoot videos, with each student making their own individual audio and editing choice for their finished product.

The Adobe Academy courses have been designed with user experience in mind, making it accessible for beginners while also offering advanced features for more experienced users. As students navigate these tools, they enhance their technical skills, learning everything from basic functions to complex techniques. This technical proficiency is crucial in a world where digital literacy is increasingly demanded across various industries.

One of the best parts of participating in the Adobe Academy course is the opportunity to obtain Adobe Certified Professional industry credentials in Illustrator, Photoshop, InDesign, and Premiere Pro. These certifications validate their skills, giving them a competitive edge on their resume and in the job market. Employers increasingly recognize the value of such credentials, often seeking candidates who can demonstrate a high level of technical and creative ability.

Our Adobe courses are not only about learning the software; its about developing a growth mindset geared towards creativity and collaboration. As students develop their portfolios and obtain industry certifications, they will develop their ability to succeed in a hands-on learning environment that cultivates creativity and an iterative mindset, which will serve them well in the future. Our Adobe Academy courses are about more than the software; they serve as a gateway to a future filled with possibilities, regardless of your educational or career goals. 🍀

“Design is intelligence made visible.”
– Alina Wheeler

Career Cluster:

Arts, Audio/Video Technology, and Communications

Career Pathway:

Adobe Academy (ADAC)

AFHS Courses:

- CD10 Adobe Visual Design I Honors
- CD11 Adobe Visual Design II Honors
- CD14 Adobe Video Design I Honors
- CD15 Adobe Video Design II Honors
- WS01 CTE Advanced Studies Honors AAVC
- WI01 CTE Internship AAVC

CTSO:

TSA
Technology Student Association

If you were able to design a course that gives students a dynamic and rich experience, what would you put in it? Rigor? Creativity? Collaboration? Technical Skills? Industry Credentials? Portfolios? Well imagine a set of courses that have it all. Welcome to the Adobe Academy at Apex Friendship, which provides opportunities to use Photoshop, Illustrator, InDesign, and Premiere Pro - not just for artistic expression but also for skill attainment and credential opportunities to prepare for future careers.

If you want to prepare for a 21st Century career or a post-secondary education, you need to be able to do more than just Google something or use AI to do the work for you. You need to develop skills that allow you to create and develop concepts and ideas, while using technology as a tool, not a crutch. Our Adobe courses allow students to tap into their creative side, exploring graphic design, video editing, and print layout. These programs offer an iterative experience, enabling students to transform their ideas into visual realities. For instance, a student can start with a simple sketch or storyboard and, using Adobe software, create a professional looking

digital media product. The project focused environment allows students to sharpen their skills, while developing confidence and self-esteem as they experience success.

Adobe Visual Design I focuses on using Adobe Illustrator and Photoshop to build graphic design skills and to create vector and raster based projects. Sample projects might include: line art postcards, minimalist poster design, single line portraits, complex concert posters, and magazine covers. Honors projects might include working in teams to create a promotional poster series for Indigenous Peoples Month or North Carolina Travel Posters, or creating Sporty Hype Calendars to promote our school teams.

Adobe Visual Design II focuses on using InDesign and focuses on layout and creating publications. Through the course of the class, students will work in teams to create a complete magazine, which includes cover design, writing articles, creating ads, and everything in between. This not only builds essential collaboration skills but also mirrors the working environments of creative industries, preparing students for future teamwork in their careers.



We have more to **learn**
from animals than animals
have to learn from us.

WE ARE FELINE PERFECTLY CLAWSOME

Have you ever considered a career that involves working with animals? High school Animal Science courses offer students the chance to explore the many ways animals impact our lives and prepare for a range of careers in agriculture, veterinary science, and animal health. North Carolina's Career and Technical Education (CTE) programs provide students with the knowledge and hands-on experience they need to succeed in these fields.

Animals play a crucial role in society. They provide us with food, fiber, labor, and companionship. Animal science focuses on the study of animals and their health, helping ensure a steady food supply, sustainable agriculture, and improved animal welfare. Animal scientists work to keep animals healthy and productive, contributing to our food

systems, agriculture, and even climate stability. By teaching students about these essential topics, Animal Science courses help them understand how animals support human life in countless ways. Animal science is a broad field with many career possibilities. Students who take animal science courses in high school can prepare for careers in agriculture, food science, veterinary medicine, and animal health. Job opportunities can range from farm management to working in research labs or as veterinary technicians. Animal science research has also led to major breakthroughs in areas like genetics, reproduction, and the gut microbiome, which have contributed to advancements in both agriculture and medicine. By taking animal science courses, students can open doors to various professions in these exciting and essential industries.

One of the key benefits of animal science courses is the hands-on learning students get. These courses are not just about reading textbooks; they involve practical, real-world applications. For example, students in the Animal Science I course learn about animal physiology, nutrition, and health management, and they get to apply this knowledge through projects like performing ultrasounds on cattle or assisting in the birth of baby animals. These hands-on experiences give students valuable skills and help them better understand the concepts they're studying. At AFHS, there are several Animal Science courses that build on each other to provide students with a comprehensive understanding of the field.

Animal Science I introduces students to animal physiology, breeding, nutrition, health, and management. Students also build leadership and employability skills through Supervised Agricultural Experiences (SAE) and participation in FFA (Future Farmers of America).

Animal Science II - Companion Animal focuses on the welfare, nutrition, care, and grooming of companion animals like dogs and cats. Students also get a foundation in veterinary medical terminology and procedures, setting them up for careers in veterinary assistance.

Veterinary Assisting is a hands-on course where students develop the skills needed to become veterinary assistants. They learn techniques for animal handling, veterinary practice management, and even perform surgical and radiological procedures in practice settings.

Animal science courses in high school not only prepare students for immediate careers but also lay the foundation for further education. The skills learned in these courses can lead to professional schools in fields like veterinary medicine or human medicine, or graduate studies in animal science or biology. Whether students go directly into the workforce or pursue higher education, the knowledge gained from these courses gives them an advantage in the competitive job market.

Career Cluster:

Agriculture, Food, and
Natural Resources

Career Pathway:

Animal Science (ANSC)

AFHS Courses:

AA21 Animal Science I
AA23 Animal Science II - Companion Animal
AA41 Veterinary Assisting
WB01 CTE Advanced Studies AGNR
WB03 CTE Internship AGNR

CTSO:

FFA: Future Farmers of America



AP COMPUTER SCIENCE

1 OUT OF 10 PEOPLE UNDERSTAND BINARY

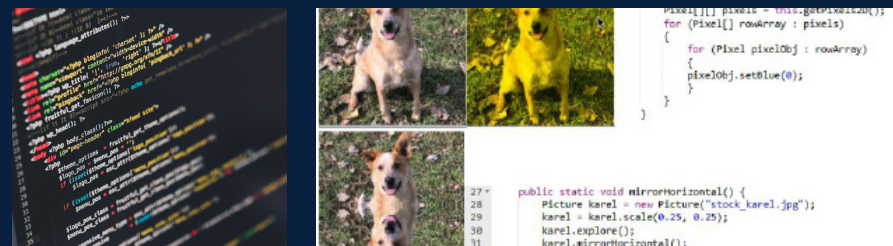
Have you ever wondered how apps are created, how video games work, or how websites seem to know exactly what you need? Computer science is about more than just writing code—it's about finding solutions to problems, being creative, and understanding how technology impacts our daily lives. It's a growing field that plays a part in almost everything we do today, and learning it can open up exciting opportunities. High school AP Computer Science classes offer students a chance to explore this exciting subject, develop new skills, and prepare for a future shaped by technology.

At its core, computer science is the study of computers and how we use them to solve problems. It involves programming, but it's also about much more than that. Computer science includes understanding how data is organized, learning how to build websites or apps, figuring out how to protect information, and even studying artificial intelligence (AI) and robotics. It's a subject that combines logic and creativity, allowing students to use their ideas to build things that make life better or more fun.

Studying computer science is not just about learning how technology works; it's about gaining tools to think differently. Computer scientists are problem solvers. They look at challenges, break them into smaller pieces, and figure out how to tackle them step by step. This way of thinking, often called computational thinking, is a skill that's useful in every area of life. Whether you want to design video games, create better medical devices, or improve the environment, computer science gives you the ability to approach problems with confidence and creativity.

There are many reasons why students should consider studying computer science. First, it's one of the most relevant subjects today. We live in a world driven by technology, from smartphones and streaming services to self-driving cars and space exploration. By learning computer science, students gain the knowledge and skills to understand how these innovations work—and even create their own. Imagine being able to build an app, design a game, or create a website that millions of people could use. That's the kind of power computer science gives you.

Beyond its everyday importance, computer science also teaches valuable life skills. One of the most important is problem-solving. In computer science, students learn to break down complex problems, think critically about how to solve them, and work persistently until they find a solution. These skills are useful not just in technology but also in fields like business, healthcare, and engineering. Another key skill is collaboration. Many computer science projects involve teamwork, teaching students how to communicate effectively and work together to reach a goal. These abilities are helpful in almost any career path.



“Humans are allergic to change. They **love** to say, ‘We’ve always done it this way.’ I try to **fight that**. That’s why I have a clock on my wall that runs counterclockwise.”

- Grace Hopper

Studying computer science can help students prepare for a wide range of careers. Technology is used in every industry, from entertainment and fashion to science and education. Jobs in computer science are some of the fastest-growing and highest-paying positions available, with opportunities to work as software developers, data analysts, cybersecurity experts, and more. Even if a student doesn't want a career in technology, knowing how computers work and how to solve problems with them can give them an edge in almost any field.

High school AP Computer Science classes are an excellent way for students to explore a fascinating and important field while preparing for their future. Whether you're curious about how computers work, excited to solve problems, or interested in pursuing a career in technology, computer science offers something for everyone. By taking an AP Computer Science class, students can gain valuable skills, earn college credit, and discover new interests—all while challenging themselves and having fun. In a world increasingly shaped by technology, learning computer science is a smart choice that can open doors to countless opportunities.



Career Cluster:

Information Technology (IT)

Career Pathway:

AP Computer Science (APCS)

AFHS Courses:

CS10 Introduction to Computer Science
0A02 AP Computer Science Principles
2A02 AP Computer Science A
WI11 CTE Internship
WS11 CTE Advanced Studies

CTSO:

TSA
Technology Student Association

APPAREL AND TEXTILE PRODUCTION

EXPRESS YOURSELF THROUGH FASHION DESIGN

If you've ever been fascinated by how clothing is made, or have a creative streak that leans toward design, you might be surprised to learn that high school Apparel and Textile Production courses can offer a perfect blend of creativity and practical skills. These classes not only help students explore their passion for fashion but also prepare them for careers in one of North Carolina's largest industries: apparel and textiles.

North Carolina's Career and Technical Education (CTE) program offers hands-on courses in apparel and textile production, allowing students to work with fabrics, tools, and machines while learning the processes involved in designing and producing fashion. Here's why teaching these skills in high school is so important:

One of the biggest benefits of taking apparel and textile production courses in high school is the chance to develop practical skills that students can apply right away. Students learn how to construct clothing, which builds confidence and prepares them for future coursework, whether in college or the workforce.

They become familiar with the tools and techniques used in the industry, like cutting, sewing, and textile engineering. These foundational skills make them ready to take on more advanced studies or begin careers in the fashion and textile industry.

North Carolina is known for its world-renowned apparel and textile industry, and students who complete high school courses in this field are in an excellent position to pursue careers in areas such as fashion design, textile engineering, manufacturing, or marketing. Whether students dream of becoming designers, engineers, or even entrepreneurs, these courses introduce them to the basics of the industry, including textile production and product design. By learning about the entire process—from fabric creation to garment production—students can see where they fit into the bigger picture and what careers interest them.

Apparel and textile production is an excellent outlet for students to unleash their creativity. In these courses, students learn how to connect global cultures through design, exploring trends,

patterns, and materials used across different parts of the world. This global perspective helps students think critically about how fashion and textiles shape cultures and influence the way people live. The hands-on nature of the course encourages students to experiment and innovate with different fabrics and techniques, which can lead to exciting new designs.

As the world becomes more conscious of environmental issues, the apparel and textile industries are evolving to focus on sustainability. High school courses in apparel production teach students about sustainable practices, such as using eco-friendly materials, reducing waste, and understanding the life cycle of clothing. By learning these concepts early on, students can incorporate sustainability into their own designs and prepare to work in an industry that is increasingly focused on reducing its environmental footprint.

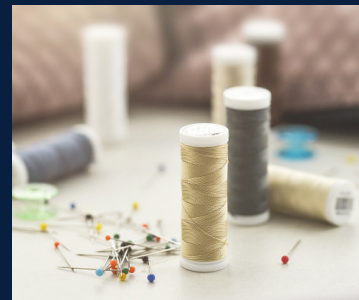
Apparel and Textile Production I introduces students to the basics of the apparel and textile industry,

focusing on design, textiles, and apparel engineering. Students apply these skills to create and produce apparel products, using both design and engineering knowledge.

In Apparel and Textile Production II, students dive deeper into textile science, design principles, and global manufacturing practices. The course emphasizes creating, producing, and marketing apparel products, while students also develop entrepreneurial skills to help them succeed in the competitive fashion industry.

Teaching Apparel and Textile Production in high school provides students with valuable skills, prepares them for rewarding careers, and encourages creative thinking. With North Carolina's strong presence in the apparel and textile industry, these courses offer students a unique opportunity to explore a wide range of career paths while developing practical skills and global perspectives. Whether they want to design, engineer, or market apparel, high school courses in this field are the perfect starting point for a successful future in the world of fashion and textiles.

“Fashion
is the
armour
to
survive
everyday
life.”



Career Cluster:

Arts, Audio/Video Technology, and Communications

Career Pathway:

Apparel and Textile Production (ATPR)

AFHS Courses:

FA31 Apparel and Textile Prod. I
FA32 Apparel and Textile Prod. II
WS01 CTE Advanced Studies AAVC

CTSO:

FCCLA
Family, Career and Community
Leaders of America

“The best way to **predict**
the **future** is to **create it.**”

BUSINESS IS OUR BUSINESS ENTREPRENEURSHIP



Have you ever dreamed of owning your own business? If so, you're not alone. Entrepreneurship is an exciting path that offers independence, creativity, and the opportunity to make a real impact. But running a business takes more than just a good idea. That's where high school entrepreneurship courses, like the ones offered in North Carolina's Career and Technical Education (CTE) programs, come in.

These courses are designed to teach students the fundamentals of starting and running a business, giving them the skills they need to succeed in the real world. In Entrepreneurship I, students dive deep into important topics like different types of business ownership, career opportunities, and self-assessments that help them figure out which path is best for them. One of the key projects is creating a Lean Canvas Business Model, which acts as a simple business plan outline. Students also learn how to develop a Marketing Plan—focusing on target markets, promotion strategies, and what makes a business stand out from the competition.

In addition to the basics of business structure, students get a hands-on understanding of supply chains, how products are sourced, and the logistics of moving goods from producers to consumers. Understanding how to price products and manage costs vs. revenue is another crucial skill covered in this class, helping students understand the financial side of business.

But what happens after you've learned the basics? That's where Entrepreneurship II comes in. This semester-long class takes the Lean Canvas developed in Entrepreneurship I and turns it into a full-fledged business plan. Students learn to create detailed organizational plans, calculate startup expenses, and figure out how many products they need to sell just to break even. There's also a focus on risk management—because every entrepreneur faces challenges, and knowing how to handle them can make or break your business.

Students also learn about the important financial reports that help businesses thrive, like the Income Statement and Balance Sheet, and develop a promotional plan to get the word out about their business. By the end of the course, students will have created a business plan that could potentially be used to secure funding from a bank.

North Carolina's CTE programs give high school students the tools and knowledge they need to think like entrepreneurs. With these courses, the dream of owning a business doesn't feel so far away—it feels achievable. So, if you've ever thought about launching your own business, consider giving Entrepreneurship I a try!



Career Cluster:

Business, Management, and
Administration

Career Pathway:

Entrepreneurship (ENTRE)

AFHS Courses:

ME11 Entrepreneurship I
ME12 Entrepreneurship II
W04 CTE Advanced Studies BMA

CTSO:

DECA
Distributive Education Clubs of America

CREATE, COLLABORATE AND CREDENTIAL FOOD & NUTRITION

“Food is our **common ground**,
a universal experience.”

By: Benjamin Bell

When you think about high school, math, science, and English probably come to mind first. But what about learning to make nutritious meals, understanding food safety, or even managing a food business? In North Carolina, food and nutrition courses are part of the Career and Technical Education (CTE) programs, and they’re teaching students skills that last a lifetime.

North Carolina’s Family and Consumer Sciences Education (FACS) offers a variety of food and nutrition courses. For starters, Food and Nutrition I focuses on the basics: the six essential nutrients, dietary guidelines, and how to cook simple, healthy meals. Plus, you’ll learn kitchen safety and sanitation—important skills whether you’re cooking at home or planning a career in food service. Once you’ve mastered the basics, Food and Nutrition II dives deeper, exploring international cuisines, special dietary needs, and how nutrition connects to chronic diseases. You’ll even tackle real-world projects like meal planning and budgeting.

For students with an entrepreneurial spirit, Foods II – Enterprise is a must. This course introduces the business side of the food industry, from catering to event planning. Imagine running a school-based enterprise or landing an internship in the food sector. And if you’re interested in culinary arts, courses like Culinary Arts and Hospitality I & II and the ProStart Program offer hands-on experience in cooking and hospitality. These programs can even lead to industry-recognized certifications.

CTE pathways in Nutrition and Wellness and Food Science and Technology go beyond the kitchen. Students learn about sports nutrition, food safety, and even how to create new food products. If you have a sweet tooth, the Baking and Pastry Arts program teaches artistic pastry creation and dessert preparation.

Beyond the classroom, extracurricular opportunities like FCCLA and 4-H provide leadership development and competitions in culinary arts and nutrition. Some schools even partner with community colleges for dual-enrollment programs, allowing students to earn college credits while still in high school.

These courses do more than teach recipes. They prepare students for careers in food service, healthcare, and more, while emphasizing healthy living. Whether you dream of becoming a chef, dietitian, or entrepreneur, North Carolina’s food and nutrition programs set the table for success.



Career Cluster:

Human Services HUMA

Career Pathway:

Food and Nutrition (FONU)

AFHS Courses:

FN41 Food and Nutrition I
FN42 Food and Nutrition II
WB37 CTE Advanced Studies HUMA

CTSO:

FCCLA
Family, Career and Community
Leaders of America

LEARNING TODAY HEALING TOMORROW HEALTHCARE PROFESSIONAL



High school students in North Carolina have the unique opportunity to explore careers in healthcare, all while gaining valuable hands-on experience in real-world settings. Through a series of engaging courses in the Health Science Career Cluster, students dive deep into the world of human anatomy, healthcare systems, and nursing, with many courses offering exciting chances to work in hospitals and clinics.

One standout course, Health Science I (HU40), introduces students to the basics of human anatomy, diseases, and biomedical therapies. This class is all about making connections between textbook knowledge and real-world applications. Through projects, teamwork, and

demonstrations, students get a chance to explore how human body systems work, while also learning about various healthcare careers. This kind of hands-on learning helps make the complex science content more relatable and easier to understand, reinforcing what students learn in both English language arts and science.

After laying the groundwork, students can take Health Science II (HU42), which expands on the basics and explores the practical side of healthcare. This course covers topics like healthcare financing, legal issues, and effective communication within healthcare teams. Students also learn essential skills like CPR and first aid, with training that follows American Heart Association guidelines. The



“Good health
and
good sense
are two of life’s
greatest blessings”.

best part? Students spend a day performing a job shadow as part of their deeper exploration into the different domains of healthcare where they get to observe what they’ve learned in real healthcare settings, and networking with professionals through HOSA (Health Occupations Students of America).

Students also have an opportunity to hear from various guest speakers who represent different career specialties that serve various roles in healthcare. For example, we have had volunteers currently serving in the peace corps on global health related missions speak to our classes in addition to having local ER directors and physicians come in to speak. Students also have had the opportunity to

partner with our local wake county EMS and run mock simulations to further expand their understanding of the skills and certifications that they have obtained in this course.

Finally, students interested in nursing can take Nursing Fundamentals (HN43), which helps prepare them for the Nurse Aide I exam. Our Nursing Fundamentals and Practicum program is a yearlong course that offers students the opportunity to fulfill clinical hours at our local WakeMed Hospitals where they get to provide direct patient care and utilize the skill set they have learned throughout the course prior to sitting for their state examination to become certified nurse aides for the state of NC.



Career Cluster:

Health Science (HLTH)

Career Pathway:

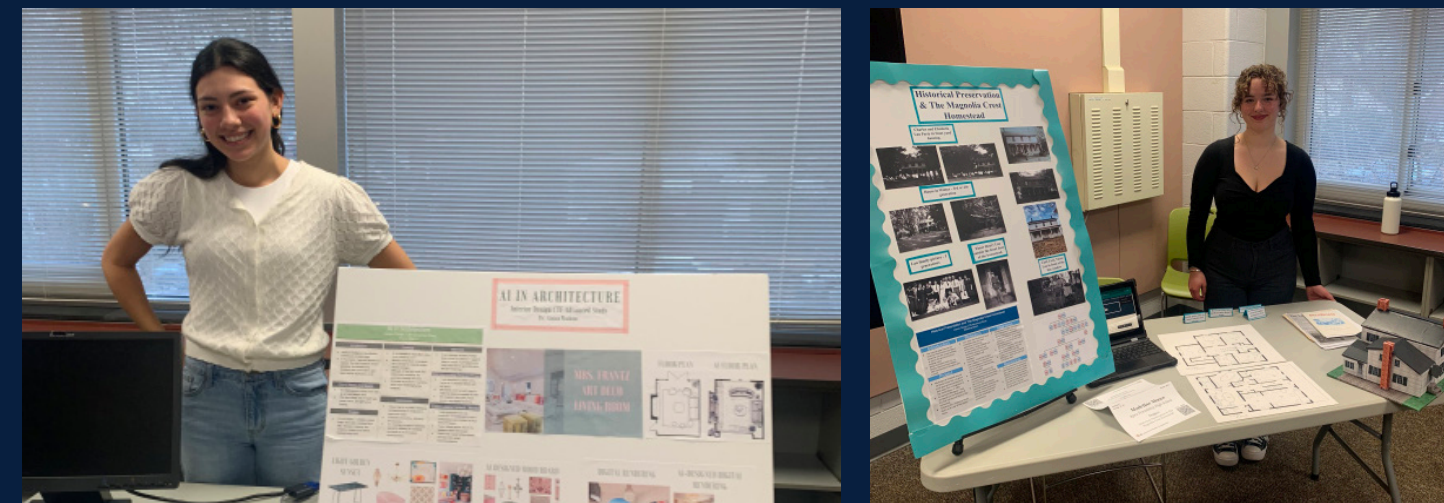
Therapeutic Services Healthcare Professional

AFHS Courses:

HU40 Health Science I
HU42 Health Science II
HU43 Nursing Fundamentals and
Practicum (2 Credits)

CTSO:

HOSA
Health Occupations Students of America



CURATED, CLEAN, COLLECTIONS INTERIOR DESIGN

A room should never allow the eye to settle in one place.

It should **smile** at you
and **create fantasy**.

— Juan Montoya

If you're interested in design, creativity, and shaping beautiful spaces, North Carolina high schools offer Career and Technical Education (CTE) courses that can help you start your journey in the interior design field. These classes give students the skills and knowledge needed to pursue entry-level and technical jobs in interior design, whether you're looking to be a designer or explore other opportunities in the field.

One of the key classes is Interior Design Fundamentals, where students dive into the design process, learning about space planning and how to create functional and stylish living areas. The course teaches you how to think like a designer, focusing on both design theory and practical application.

Next is the Interior Design Studio, a class that lets students apply what they've learned by designing interior plans for specific individuals or families. In this hands-on class, students get to explore materials, business procedures, and technical skills that are used in the professional world.

For those who want to go further, Interior Design Technology introduces students to advanced tools like building information modeling software, such as REVIT. By the end of this class, students can earn the REVIT Certified User credential, which is a great asset when applying for design jobs or internships.

Many high schools also offer certifications like the Pre-Professional Assessment and Interior Design Fundamentals. These credentials, offered by organizations like the American Society of Interior Designers (ASID) and the Interior Design Educators Council (IDEC), give students a head start in the industry.

Additionally, CTE classes integrate academic learning with hands-on skills, and some even allow students to earn college credit through community college partnerships. Whether you're dreaming of a design career or just want to



Career Cluster:

Architecture & Construction (ARCH)

Career Pathway:

Interior Design (INDE)

AFHS Courses:

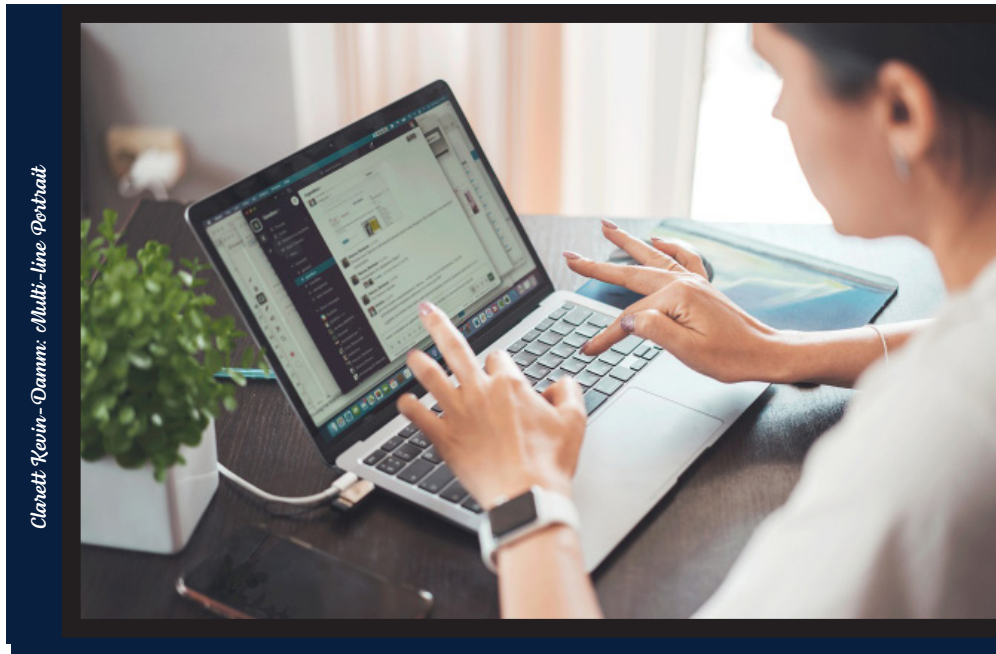
FI21 Interior Design Fundamentals
FI22 Interior Design Studio
FI23 Interior Design Technology
WS03 CTE Advanced Studies ARCH

CTSO:

FCCLA
Family, Career and Community
Leaders of America

MARKETING MANAGEMENT

LETS GET DOWN TO BUSINESS



“Dont find customers for your **products**, find products for your **customers**.”

Join the Fun

If you want to take your experience even further, you can join clubs like DECA: The Association of Marketing Students. These groups let you compete in business challenges, build leadership skills, and connect with other students who share your interests.

Certifications and College Prep

BFM also helps you earn industry-recognized certifications. These certifications make your résumé shine. Plus, the program prepares you for college programs in business and meets the University of North Carolina System’s admission requirements.

In short, the BFM program is your ticket to learning business and marketing, gaining real-world experience, and setting yourself up for future success. Ready to get started?

Are you interested in business, finance, or marketing? The Business, Finance, and Marketing (BFM) program at W Apex Friendship High School is a great way to explore these fields and prepare for college or a career. This program helps high school students like you learn key skills in business, money management, and marketing strategies so you can succeed in today’s fast-paced world.

What You’ll Learn

BFM offers a variety of courses to help you understand the basics of business. You’ll start with Principles of Business and Finance or Marketing, where you’ll explore topics like how businesses work, managing money, marketing basics, and even how the global economy operates.

Once you’ve mastered the basics, you can take advanced courses like: Marketing II Honors, Sports and Event Marketing II Honors, Entrepreneurship I and II Honors, Project Management II Honors.

These classes teach you how to think like a business owner, giving you real-world skills to stand out.

Connecting Business and School

What’s cool about BFM is how it connects to what you’re already learning. For example:

- Math comes to life when you calculate finances.
- English skills grow as you practice professional communication.

By combining business with core subjects, the program makes your learning more meaningful and relevant.

Real-World Experience

BFM is part of the school’s Career and Technical Education (CTE) program, which means you don’t just learn in a classroom—you also get hands-on experiences. You can join internships, cooperative education programs, or other opportunities to work in real business environments.



Career Cluster:

Marketing (MRKT)

Career Pathway:

Marketing Management (MMGT)

AFHS Courses:

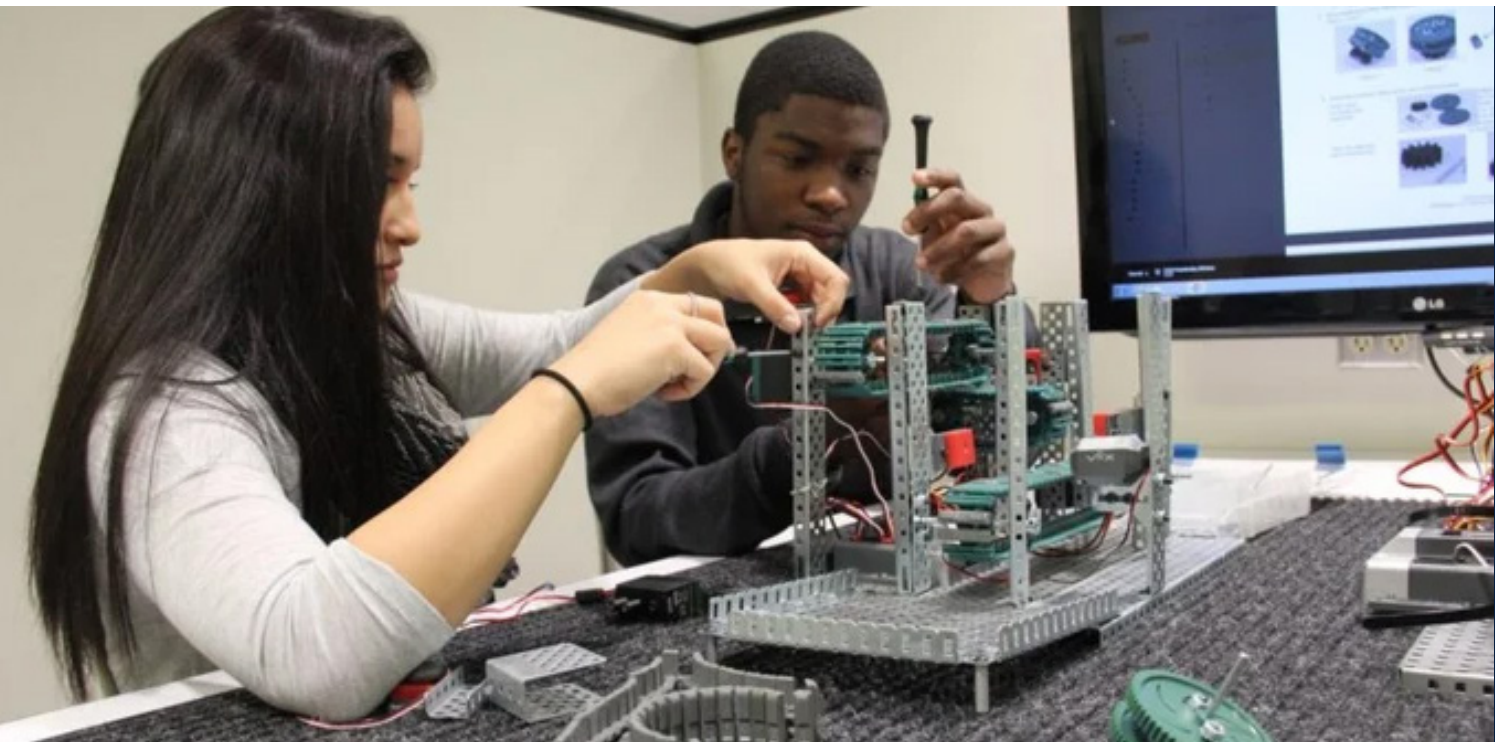
MM51 Marketing
MM52 Marketing II (H)
WS14 CTE Advanced Studies

CTSO:

DECA
Distributed Education Clubs of America

ENGAGEMENT, EMPOWERMENT PLTW ENGINEERING

Note: Student Must Be Enrolled in the AFHS Academy of Engineering



“If it isn’t broken, take it apart and **fix it anyway.**”

Have you ever wondered what it would be like to solve real-world problems and design innovative solutions? Imagine building robots, designing sustainable homes, or creating cutting-edge biofuels. High school students in North Carolina have the opportunity to experience these challenges firsthand through the Project Lead the Way (PLTW) Engineering program. These hands-on courses are more than just a way to learn about engineering—they help students develop the skills they need to succeed in any career path they choose.

The PLTW Engineering program is all about empowering students with a problem-solving mindset and preparing them for the future. The courses are designed to engage students in real-world challenges that require collaboration, critical thinking, and creativity. Students work on projects that not only build their technical knowledge in engineering but also develop key life skills, such as communication, perseverance, and teamwork. By the end of these courses, students are equipped with the problem-solving tools and engineering expertise they need to thrive in the workforce or continue their studies in college.

At AFHS, students can take three PLTW Engineering courses as part of their Engineering Academy. These courses allow students to explore a variety of engineering disciplines, from mechanical and robotics engineering to environmental sustainability and product design.

The Introduction to Engineering Design course is the first step for students interested in engineering. Here, students learn the basics of the engineering design process, which involves identifying problems, brainstorming solutions, creating prototypes, and testing them. Throughout the course, students work on projects that require them to use 3D modeling software (like CAD), create prototypes using 3D printing, and develop testing protocols. These activities help students apply technical skills and gain a deep understanding of how engineers solve real-world problems. Additionally, they explore important concepts like sustainability, manufacturability, and ethical decision-making, which are all essential in today’s engineering world.

The Principles of Engineering course takes students deeper into the world of engineering. This course is perfect for students who have already completed IED or have a solid interest in engineering. In POE, students are introduced to a wide range of engineering disciplines, including mechanical, robotics, and environmental engineering. They use various tools like 3D modeling software, programming software, and robotics hardware to bring their solutions to life. The course involves solving open-ended engineering problems, which allows students to develop their problem-solving, technical, and collaborative skills. It also teaches students about the ethical and social impacts of engineering decisions, which is a key part of being a responsible engineer.

The PLTW Capstone course is the final step in the engineering program. In this course, students work in teams to solve a complex, open-ended problem. They research, design, and prototype solutions, drawing on everything they’ve learned in the previous courses. One of the most exciting parts of this course is that students work closely with experts in the field, refining their solutions and gaining insights from professionals. At the end of the course, students present their solutions to a panel of experts, showcasing their skills in design, communication, and teamwork.

PLTW Engineering courses are not just about learning engineering principles—they are about preparing students for the future. The courses teach students how to think critically, solve complex problems, and work collaboratively. Whether students go on to become engineers, entrepreneurs, or take a different career path, the skills they gain in the PLTW Engineering program will help them succeed.

In North Carolina, Career and Technical Education (CTE) programs like PLTW give students a head start in their careers by equipping them with real-world skills. PLTW courses prepare students to step into any career path they choose, whether it’s in engineering, technology, or beyond. By learning to think like engineers, students are ready to take on the challenges of tomorrow, today.

If you’re curious about engineering or want to learn more about how to bring your ideas to life, consider enrolling in a PLTW Engineering course. The world of innovation is waiting for you!



Career Cluster:

Science, Technology, Engineering, and Math

Career Pathway:

PLTW Engineering (PLWE)

AFHS Courses:

TP11 PLTW Intro to Engineering Design
PT12 PLTW Principles of Engineering
WS15 CTE Advanced Studies STEM
WI15 Career Academy Internship STEM

CTSO:

TSA
Technology Student Association

PROJECT MANAGEMENT

AGILE, ANALYTICAL, EFFECTIVE



As you begin to explore higher education opportunities, you might wonder: What is project management, and why is it so important? In today's fast-paced world, project management has become a critical skill for success. It's a field that is growing rapidly—expected to increase by 33% by 2027, according to the Project Management Institute.

Project management is all about planning, organizing, and overseeing the execution of a project from start to finish. It ensures that projects are completed on time, within budget, and meet the required quality standards. It also helps identify risks early, manage resources efficiently, and keeps all stakeholders informed and involved. Whether it's building a new school, creating a new software app, or planning a major marketing campaign, project management is everywhere.

Teaching project management in high school is crucial because it introduces students to a field that has wide applications across many industries, from construction and engineering to software development and marketing. It's a skill that helps students learn how to handle complex tasks and work in teams—valuable skills no matter what career path they choose.

Project Management I and II in High School Project Management I is the perfect starting point for high school students interested in this field. The course covers the basic principles and concepts of project management, using real-life projects to teach students how to initiate, plan, execute, monitor, and close a project. Students will learn to manage the project's scope, timeline, and budget, and develop key skills like problem-solving and communication. The course also introduces students to project management software and tools, helping them understand how to plan and track progress in a structured way.

Project Management II takes these skills even further. Students dive deeper into advanced project management topics like quality control, risk management, and stakeholder communication. They'll explore how to manage a team, handle risks, and ensure that projects meet ethical standards. This course gives students the knowledge they need to manage more complex projects, preparing them for a wide range of careers and provides the opportunity to earn a PMR (Project Management Ready) Certification.



“A goal without a timeline is just a dream.”



Project management isn't just for large corporations—it's a skill that's in high demand across all fields. By taking these courses, high school students can gain valuable skills that set them up for success in many career paths, from business to technology to healthcare. Project management will help students stand out in college applications and future job searches, as employers are increasingly looking for individuals who can manage projects efficiently and lead teams.

As North Carolina continues to grow its Career and Technical Education (CTE) programs, teaching project management at the high school level is an essential way to prepare students for the challenges of the future workplace. So, if you've ever thought about taking on a leadership role or managing complex projects, consider starting with Project Management I or Project Management II—and get ready to build the foundation for a successful career.



Career Cluster:

Business Administration & Administration

Career Pathway:

Project Management (PMGT)

AFHS Courses:

GS11 Project Management I
GS12 Project Management II
WS04 Advanced Studies BMA

CTSO:

DECA
Distributive Education Clubs of America

PYTHON

PROGRAMMING

DYNAMIC, STRUCTURED, FUNCTIONAL

In today's world, technology is everywhere—from the apps we use to communicate to the devices that manage our daily lives. That's why learning computer science in high school has become more important than ever. High school students in North Carolina, especially through Career and Technical Education (CTE) programs, now have the chance to dive into the world of coding and programming, preparing them for a future where tech skills are in high demand. One of the most exciting aspects of these programs is the opportunity to learn advanced Python concepts, a programming language used by tech professionals worldwide.

Python is one of the most beginner-friendly yet powerful programming languages. In a high school computer science course, students not only learn basic coding skills, but also move on to advanced techniques that will set them apart in the job market. For instance, students can build programs using nested loops, allowing them to repeat actions multiple times. They also develop complex conditionals to make decisions within their programs, which is crucial for creating interactive applications.

One major focus in advanced Python is recursion, where a function calls itself to solve problems more efficiently. Students also get to explore bitwise operators and error handling, which are essential for writing clean and reliable code.

Beyond the basics, students develop real-world applications such as command line programs and file operations. With Python, they create programs that interact with databases using sqlite3 or SQLAlchemy, storing and retrieving data efficiently. They even get a taste of the Internet of Things (IoT), connecting devices like sensors or smart home gadgets through their code.

In addition to backend programming, students also get hands-on experience creating web applications using Python frameworks alongside HTML, CSS, and Bootstrap. This gives them the skills to build full-stack applications that can store and display data in user-friendly ways.

High school computer science courses teach students how to handle big data using libraries like NumPy and Pandas. They also learn how to create data visualizations, which are essential in industries like business, healthcare, and marketing. By working with Python's built-in libraries, students are able to present data in a way that's not only useful but visually appealing.

By learning advanced programming concepts like object-oriented programming, IoT integration, and web development, students in North Carolina's CTE programs are being equipped for a future in tech. With Python, they can tackle anything from data management to web development, giving them a solid foundation for a variety of career paths. Whether they decide to pursue a career in computer science, engineering, or even business, these skills will be in high demand in the years to come. So, why not start learning today?

```
self.file = None
self.fingerprints = set()
self.logdupes = True
self.debug = debug
self.logger = logging.getLogger(__name__)
if path:
    self.file = open(os.path.join(path, "fingerprint.log"), "a")
    self.file.seek(0)
    self.fingerprints.update(self.logger.handlers)

classmethod
from_settings(cls, settings):
    debug = settings.getbool("SUPERFUTUR_JUNK")
    return cls(job_dir(settings), debug)

def request_seen(self, request):
    fp = self.request_fingerprint(request)
    if fp in self.fingerprints:
        return True
    self.fingerprints.add(fp)
    if self.file:
        self.file.write(fp + os.linesep)

def request_fingerprint(self, request):
    return request_fingerprint(request)
```



Programming isn't about what you know; it's about what you can **figure out**."

-Chris Pine

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Career Cluster:

Information Technology

Career Pathway:

Python Programming (PYPR)

AFHS Courses:

CS10 Introduction to Computer Science
CP10 Python Programming I
CP11 Python Programming II
2A02 AP Computer Science A
WS11 CTE Advanced Studies
WI11 CTE Advanced Studies

CTSO:

TSA
Technology Student Association

BUILDING, BRANDING, DRIVING

SPORTS AND EVENT

MARKETING



Sports and entertainment have always been a big part of our lives, but have you ever wondered what goes on behind the scenes? In North Carolina, high school students are getting the chance to explore the business side of these industries through Career and Technical Education (CTE) programs. The Sports and Event Marketing pathway is teaching students real-world skills that are in high demand, setting them up for success

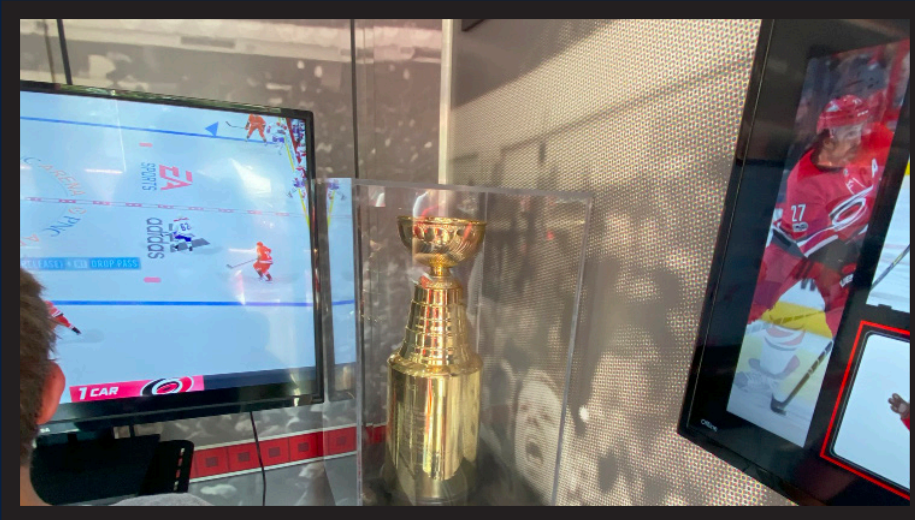
in the modern business world. This pathway, part of the Business, Finance, and Marketing Education curriculum, offers an in-depth look at how the sports and entertainment industries operate. It goes beyond basic marketing, diving into cutting-edge trends like NIL (Name, Image, and Likeness), e-sports, and advanced digital marketing strategies. Digital marketing alone is a \$100+ billion industry in the

U.S., and students who learn these skills gain a serious advantage over their peers. Courses like Sports and Event Marketing I introduce students to the fundamentals: planning, organizing, and promoting events. Students learn how to build their own brand, identify target markets, and use digital media to spread the word. The best part? The final project is an event of their choosing—no boring 100-question exams here!

In Sports and Event Marketing II, students take their skills to the next level. They explore legal and cultural considerations, create promotional calendars, and even conduct SWOT analyses to

evaluate strengths, weaknesses, opportunities, and threats. By Sports and Event Marketing III, students refine these skills into professional-grade marketing strategies, making them ready to step into the workforce or pursue advanced education.

This pathway is a prime example of how North Carolina’s CTE programs prepare students for the future. By blending conceptual knowledge with technical skills, these courses open doors to careers in sports management, marketing, and beyond. Whether they dream of running a major sports event or managing a team’s digital presence, students leave with the tools to succeed.



“I’ve failed,
over and over
again - and
that is why I
succeed.”
-Michael Jordan

Career Cluster:
Hospitality & Tourism (HOSP)

Career Pathway:
Sports and Event Marketing (SEMK)

AFHS Courses:
MH31 Sport and Event Marketing I
MH32 Sport and Event Marketing II
WS09 CTE Advanced Studies

CTSO:
DECA
Distributive Education Clubs of America

TEACHING AND TRAINING

**DEDICATED, ENGAGING,
ADAPTABLE**



By: Dennis Perks

Have you ever thought about becoming a teacher? Maybe you've considered working with kids or making a difference in your community, but you're unsure if teaching is the right career for you. High school career development programs, like Teaching as a Profession courses, provide a unique opportunity for students to explore teaching early on. These programs not only help you decide if teaching is the right path but also set you up with valuable skills that can benefit any career.

One of the biggest advantages of these programs is that they give students an early look at the teaching profession. By engaging in activities like classroom observation, lesson planning, and even teaching small groups of students, high schoolers can gain practical experience and a deeper understanding of what it's like to be a teacher. This exposure allows you to make more informed decisions about your career choices, helping you figure out if teaching is the right fit for you.

Teaching isn't just about knowing the material—it's about being able to communicate that knowledge to others. Teaching as a Profession courses help students develop important teaching skills, including classroom management, lesson planning, and student engagement. These skills are essential for becoming a successful teacher, but they also transfer to other fields, like business, healthcare, and communications. Learning to work with different types of students and understanding how to adapt your approach to meet their needs are skills that will help you in any career.

A key part of teaching career development programs is the opportunity to interact with experienced teachers. Through mentorship, students can ask questions, gain insight into the rewards and challenges of teaching, and get a sense of what the profession is really like. This kind of hands-on experience helps students assess whether teaching aligns with their strengths and passions.

In Teaching as a Profession I, students explore the history of education, the role of a teacher, and the structure of schools. They learn about the psychology of learning, strategies for effective classroom management, and the importance of diversity in education. Teaching as a Profession II builds on these skills by helping students understand different teaching styles, instructional strategies, and how to create lesson plans that address the diverse needs of students.

By taking these courses, students in North Carolina gain a deeper appreciation for the teaching profession, while also learning essential skills that will help them in a wide range of careers.

If you're interested in teaching, Teaching as a Profession courses offer a great way to get started and decide if this fulfilling career path is right for you. They also open doors for students to pursue higher education in education and related fields, ensuring a well-prepared future teacher workforce for North Carolina and beyond.

“The
beautiful
thing about
learning is
that nobody
can take it
away from
you.”

- B.B. King

Career Cluster:

Education and Training

Career Pathway:

Teaching and Training

AFHS Courses:

FE21 Teaching as a Profession I
FE22 Teaching as a Profession II
(FE22 Two Credit Course with WBL)

CTSO:

FCCLA
Family, Career and Community
Leaders of America

SYSTEMATIC, LOGICAL, ITERATIVE

TECHNOLOGY

ENGINEERING & DESIGN

Have you ever wondered how architects design buildings, engineers develop machines, or products are created from scratch? High school Technology Engineering and Design (TED) courses provide students with the opportunity to answer these questions while gaining valuable skills for future careers in engineering and design. In North Carolina, the Career and Technical Education (CTE) program offers a series of TED courses that prepare students for success in the growing fields of technology and engineering.

The first course, CT10: Technology Engineering & Design, is where students begin their exploration of engineering principles. Through engaging hands-on activities, students learn about core concepts like design, problem-solving, and teamwork. They are introduced to the elements and principles of design, as well as basic engineering skills. This course blends multiple subjects, including math, science, art, and language arts, showing students how these fields work together in the real world. Students get the chance to build both physical and virtual models, applying re-

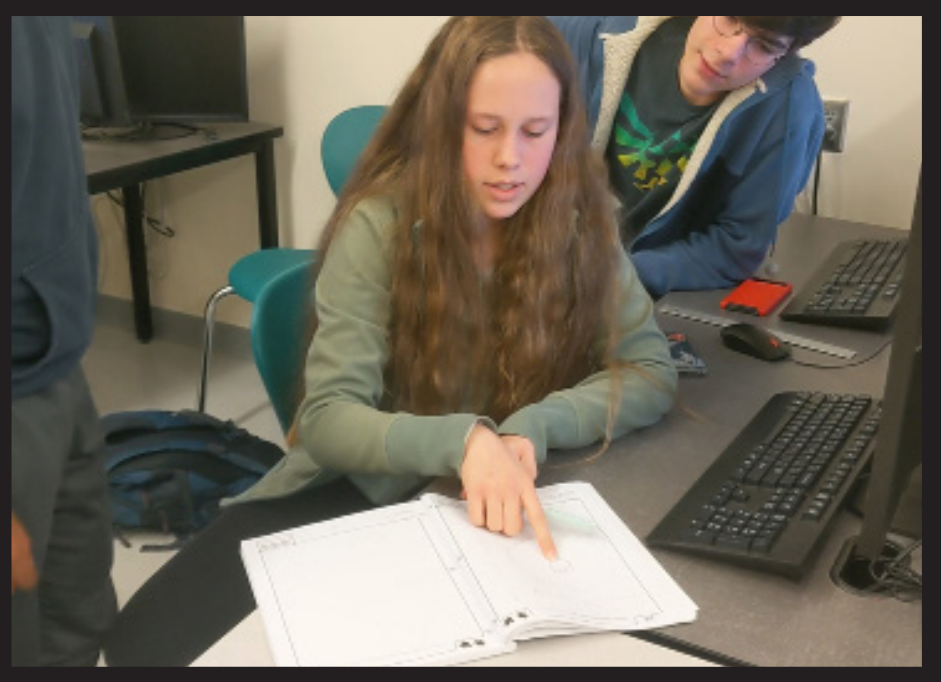
search and development skills. These experiences give them a solid foundation for future coursework and careers in technology and engineering. Plus, this course is eligible for honors weight, giving students the opportunity to challenge themselves academically.

For students who want to dig deeper into design, the next step is CTE11: Technological Design HN. In this course, students focus on more advanced design fields like graphics, industrial design, and architecture. They apply engineering principles to real-world challenges, working in teams to develop solutions. Students also research, test, and analyze their designs, considering factors such as public safety, human factors, and ethics. This course reinforces key skills learned in earlier coursework, while also emphasizing the practical application of technology, science, and mathematics concepts. It encourages students to think critically about the impact of their designs on society. Like the previous course, Technological Design HN is also eligible for honors weight, offering students a rigorous academic challenge.

Finally, CTE12: Engineering Design HN is the most advanced course in the series. Here, students take their skills to the next level by exploring various technological systems and engineering processes in related career fields. Topics such as design optimization, problem-solving, and the use of Computer-Aided Design (CAD) software are covered. Students build, test, and analyze their designs, developing prototypes and models along the way. They also collect and report data to improve their designs. This course prepares students for careers in fields like civil engineering, mechanical engineering, and engineering technology.

The career outlook for engineers is strong. As technology continues to evolve, demand for skilled engineers is expected to grow. Occupations like civil engineering technicians, mechanical engineering technicians, and engineering technicians are in high demand, and many of these jobs offer competitive salaries and opportunities for advancement.

Taking TED courses in high school gives students a head start in these exciting fields. They develop hands-on skills, critical thinking abilities, and problem-solving techniques that will serve them well in both college and future careers. Whether they're interested in designing buildings, creating machines, or solving technological challenges, these courses open doors to a wide range of engineering careers.



You can't **use up**
creativity.
The more you use, the
more you have.”
- Maya Angelou

Career Cluster:

Science, Technology, Engineering & Math

Career Pathway:

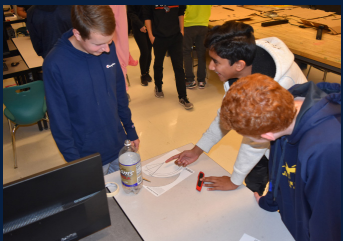
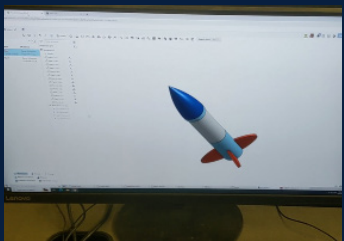
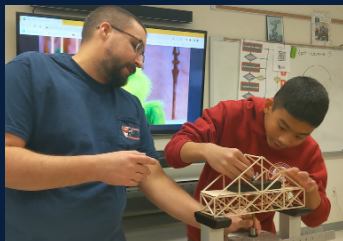
Technology Engineering and Design (TEND)

AFHS Courses:

CT10 Technology Engineering Design
CT11 Technological Design
CT12 Engineering Design
WB01 CTE Advanced Studies AGNR
WB03 CTE Internship AGNR

CTSO:

TSA
Technology Students of America



NTHS



National Technical Honor Society

“Excellence in America’s workforce begins with excellence in workforce education”

The colors silver, white, and purple act as a symbol of excellence and achievement for students in Career and Technical Education. NTHS is dedicated to celebrating and recognizing students who are committed to technical fields, and their success. It fosters a community for future leaders with diverse interests, all united by a powerful drive and ambition.

NTHS has 4 core pillars, including Career Development, Leadership, Service, and Recognition opportunities.

Career Development is largely achieved through the use of guest speakers. By hosting these regular events, with

speakers representing a wide range of industries, members are provided with invaluable insight and connections. Interactions such as these are designed to assist students while navigating various career fields, and taking steps towards their futures.

Leadership is another cornerstone of NTHS. With a commitment to cultivating leadership skills, chapters offer countless opportunities for students to organize events, lead community service projects, and represent CTE subjects at school events. By providing members with these opportunities, they are equipped with the skills needed to effectively lead in both their professional and personal lives.

NTHS Officers at AFHS for 24025

Co-Presidents
Andrwe Weitzel & Pritesh Chappidi

Co-Secretaries
Maddie White & Prairie Graef

Co-Senior Class Reps
Maggie Levine & Saaisha Nayan

Co-VPs of Communications
Aliyah Bavosa & Emma Cyrus

Co-Treasurers
Gianna Agnoli & Siddhant Belur

Co-Awards Chairs
Anya Joshi & Kishan Rajeev Jagadeesh

Co-VPs of Service
Simran Upchurch & Sydney Hobbs

Co-Parliamentarians
Shruti Joseph & Christiane Victoria Victoria

CTE & CTE Program Reps
Peter DiDinato & Owen Richichi & Ian Hennenberger



Service is an essential aspect of the organization as well. Members are given the chance to make a difference beyond the classroom, further enriching the educational experience. By connecting with local communities, student learning and positive change can coincide.

An additional role of NTHS is to support and represent the school’s CTSOs. By partnering with and promoting these activities, NTHS helps amplify the impact of these clubs, highlighting the essential role that CTE plays in preparing students for successful careers. This support not only strengthens CTSO’s but the overall CTE program.

In essence, NTHS is so much more than an honor society; it is a fundamental aspect of the CTE framework. NTHS works to empower students to shape their future and prepare them to lead their future industries and communities.

- Guest speakers who provide insight an experience into careers
- Access to scholarship opportunities
- Leadership opportunities
- Support and represent our schools ctos
- Represent cte subjects
- The 4 main pillars are “career development, leadership, service, and recognition”
- Our chapter won national recognition (silver star of excellence)

CTE CTSOS

NOT JUST ANOTHER CLUB

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Career and Technical Student Organizations (CTSOS) play a crucial role in the high school experience by providing students with valuable opportunities for personal growth, leadership development, and career exploration. These organizations, such as DECA, FFA, and HOSA, give students hands-on experience that complements their classroom learning. Through CTSOs, students develop key skills in leadership, teamwork, communication, and problem-solving, which are essential for success in both academic and professional settings.

CTSOS also offer students the chance to explore careers in various fields, such as marketing, healthcare, agriculture, and technology, helping them make informed decisions about their futures. By participating in competitions, community service projects, and conferences, students gain practical experience and network with professionals and peers. These experiences help them build confidence and prepare for college and careers.

Furthermore, CTSOs promote important values like citizenship, community involvement, and ethical decision-making, encouraging students to contribute positively to society. The scholarships, recognition, and networking opportunities that CTSOs offer also provide students with a competitive edge when applying for college or entering the workforce.

CTSOS are an essential part of the high school experience, providing students with the skills, knowledge, and experiences needed to succeed in their careers and become engaged, responsible citizens.

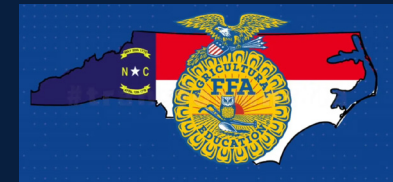


Students from the Apex Friendship DECA CTSO pose for their annual pic at the regional competition.



NORTH CAROLINA
DECA

Family, Career and Community
FCCLA
Leaders of America
The Ultimate Leadership Experience



hosa future
health
professionals



TECHNOLOGY STUDENT ASSOCIATION

MISSION

Providing students opportunities to become leaders, explore careers, and develop personal skills in the science, technology, engineering, and math (STEM) areas.

The Value of the Technology Student Association (TSA) for High School Students In an increasingly technology-driven world, the Technology Student Association (TSA) plays a crucial role in shaping the future of high school students. TSA is a national organization dedicated to fostering students' interest in STEM (Science, Technology, Engineering, and Mathematics) through hands-on experiences and competitions.

At TSA, students engage in a variety of competitive events ranging from engineering design and robotics to video production and coding. These competitions not only hone technical skills but also cultivate essential soft skills such as teamwork, problem-solving, and leadership. For many students, these experiences serve as a gateway to exploring future career paths in technology and engineering fields.

Moreover, TSA provides a platform for networking with industry professionals and

like-minded peers, further enhancing students' knowledge and confidence. Participants often find that their involvement in TSA sets them apart in college applications, showcasing their commitment to learning and innovation.

Beyond academic benefits, TSA emphasizes the importance of real-world applications. By tackling projects that solve actual problems, students gain insight into the demands of the workforce and learn how to navigate challenges effectively. This practical experience is invaluable as they transition into post-secondary education and career environments.

In essence, the Technology Student Association empowers high school students to explore their interests, develop critical skills, and prepare for a successful future. By fostering creativity and innovation, TSA not only shapes tomorrow's leaders but also drives the advancement of technology in society.

"LEARNING TO LEAD IN A TECHNICAL WORLD"



For more information visit: <https://tsaweb.org/>

DISTRICTIVE EDUCATION CLUB OF AMERICA

MISSION

To prepare leaders and entrepreneurs in the fields of marketing, finance, hospitality, and management.

By: William Gilbert

DECA, the Association of Marketing Students, is a student organization dedicated to helping high school and college students prepare for careers in marketing, finance, hospitality, and management. Founded in 1946, DECA has grown into a global network, with over 225,000 members in the United States and beyond. The organization's core mission is to prepare students for success in the global economy by providing opportunities to develop leadership skills, gain business knowledge, and acquire real-world experience.

DECA connects classroom lessons with practical application through competitions, conferences, and projects. The competitive events program is one of DECA's most popular features, offering students the chance to showcase their skills in areas like entrepreneurship, marketing, finance, and hospitality. These events involve role plays, business simulations, and case studies, judged by industry professionals. Competitions take place at local, state, and international levels, giving students the opportunity to refine their abilities and gain recognition.

Leadership opportunities are also a key aspect of DECA. Through conferences like the International Career Development Conference (ICDC) and regional events, students can attend workshops, interact with guest speakers, and network with business professionals. DECA chapters often partner with local businesses, providing students with hands-on experience through internships, community service projects, or team-based assignments.

Beyond business skills, DECA emphasizes the importance of ethical decision-making and community involvement. Members are encouraged to think critically about how their actions affect others and to develop solutions that benefit the community. By combining classroom learning with practical experience, DECA helps students build confidence, leadership abilities, and a strong foundation for successful careers.

Joining DECA offers numerous benefits, including scholarships, professional connections, and valuable career preparation. Many former members credit DECA with providing the skills and opportunities needed to achieve their personal and professional goals.

"BE THE ONE"



FFA

MISSION

The mission of the North Carolina Future Farmers of America (FFA) is to help students develop their leadership, personal growth, and career success through agricultural education.

The North Carolina Agricultural Education and the North Carolina FFA Association collaborate closely to provide exceptional support for agricultural students and teachers across the state. With additional backing from the NC FFA Foundation and the NC FFA Alumni Association, the organization ensures that local chapters receive the resources they need to thrive, fostering a strong agricultural education system in North Carolina. Agricultural education in the state is designed to prepare students for rewarding careers and equip them with the skills needed to make informed decisions in the agriculture, food, fiber, and natural resources industries. The program integrates three key components: classroom/laboratory instruction, supervised agricultural experience (SAE) programs, and student leadership organizations such as FFA.

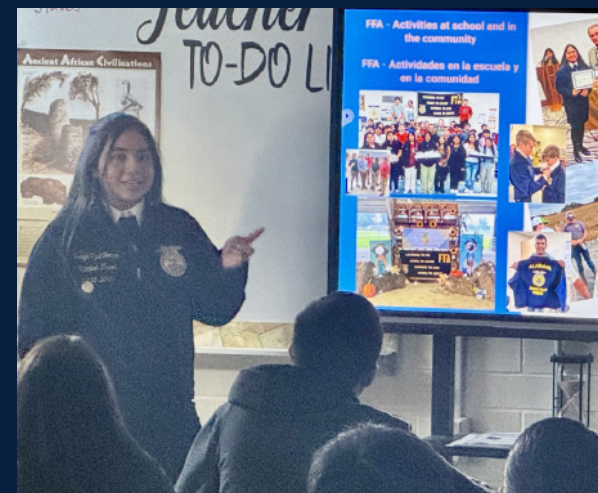
The FFA (Future Farmers of America) is a vital part of this system, serving as an organization that helps students develop leadership, personal growth, and career skills through agricultural education. As one of the three pillars of agricultural education, FFA provides students with unique opportunities to discover their potential and develop talents through hands-on experiences that prepare them for a wide range of careers. While FFA is rooted in agriculture, its

scope extends well beyond farming, with members pursuing careers in fields like veterinary science, agribusiness, environmental science, food processing, and government. The official name of the organization, the National FFA Organization, emphasizes its historical connection to farming while highlighting its broad, forward-thinking mission.

FFA's mission includes developing leadership skills, increasing awareness of agriculture's global significance, and promoting career exploration. Members are encouraged to build confidence in their abilities, manage resources wisely, and engage in teamwork, communication, and social interaction. Through events like public speaking competitions, parliamentary procedure, and leadership roles within chapters, FFA members gain practical experience that enhances their communication, problem-solving, and organizational skills.

Moreover, FFA provides members with scholarship opportunities, community service initiatives, and networking chances to connect with peers and industry professionals at local, state, and national events. In this way, FFA helps students grow not just academically but also socially, personally, and professionally, equipping them for success in both agriculture-related careers and beyond.

LEARNING TO DO, DOING TO LEARN,
EARNING TO LIVE, LIVING TO SERVE.



Images courtesy of www.ffa.org.

FAMILY, CAREERS, CAREERS AND COMMUNITY LEADERS OF AMERICA

MISSION

To promote personal growth and leadership development through Family and Consumer Sciences education. Focusing on the multiple roles of family member, wage earner, and community leader, members develop skills for life through character development, creative and critical thinking, interpersonal communication, practical knowledge, and career preparation.

Family, Career and Community Leaders of America (FCCLA) is an essential program in high schools that plays a significant role in preparing students for life beyond the classroom. By engaging in FCCLA, students develop a wide range of critical skills that are beneficial for both college and career success. Members gain real-world skills such as accountability, productivity, flexibility, and adaptability, all of which are necessary for navigating personal, family, work, and societal challenges.

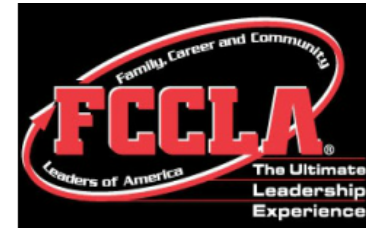
One of the key aspects of FCCLA is its focus on helping students address and solve important issues that impact their lives and communities. These issues include parenting, family relationships, substance abuse, peer pressure, and more. By learning how to navigate these challenges, FCCLA members are better equipped to make positive decisions and advocate for themselves and others. This focus on problem-solving helps students build resilience and emotional intelligence, which are invaluable traits for personal growth and future success.

FCCLA also helps students develop their leadership potential. Through activities such as competitive events, national conferences, and community service projects, members gain hands-on experience in leadership and teamwork. They learn how to work with diverse groups, plan and implement projects, and take responsibility for their actions. These leadership opportunities are crucial for developing the confidence and skills needed to thrive in both academic and professional environments.

Additionally, FCCLA promotes community improvement by encouraging members to engage in projects that benefit their families and local communities. These initiatives allow students to make a tangible difference in the lives of others, reinforcing the importance of service and social responsibility.

In summary, FCCLA is a powerful program that provides students with the tools they need to succeed in college, careers, and life. By fostering personal development, leadership, and community engagement, FCCLA helps students grow into responsible, confident individuals ready to face the challenges of the future.

THE ULTIMATE LEADERSHIP EXPERIENCE



North Carolina Association

HEALTH OCCUPATIONS STUDENTS OF AMERICA MISSION

To empower HOSA-Future Health Professionals to become leaders in the global health community, through education, collaboration, and experience. HOSA actively promotes career opportunities in the health industry and to enhance the delivery of quality health care to all people.

Health Occupations Students of America (HOSA) is a vital student organization that helps students prepare for careers in the healthcare industry. Its mission is to educate, empower, and develop students into leaders within the health community while promoting high-quality healthcare. HOSA is recognized by key organizations like the U.S. Department of Health and Human Services and the U.S. Department of Education, further validating its significance in shaping future healthcare professionals.

HOSA provides a comprehensive program that spans middle school through collegiate levels, offering leadership development, motivation, and recognition. Students must be enrolled in a health science program or express an interest in pursuing a healthcare career to join. The organization fosters core values such as learning, leadership, service, innovation, and respect, which guide its members in their educational and professional pursuits. The organization's competitive events program plays a significant role in helping students

sharpen both technical and interpersonal skills, but at this time the AFHS HOSA is based more on the philosophy of being a community service orientated club. We do not currently participate in competitions and instead members connect with and hear from a variety of community members who serve in Health Care. Members have also collaborated to work on projects related to environmental issues, poverty & hunger, food security, lack of feminine hygiene products, and clothing drives.

Through HOSA, students gain essential experience that enhances their ability to contribute effectively to the rapidly evolving healthcare field. The program goes beyond technical training, emphasizing the development of well-rounded individuals who are prepared to work as leaders and team members in healthcare settings. HOSA members are better equipped to succeed in their careers, make a positive impact in healthcare delivery, and ultimately help improve the well-being of communities worldwide.

"Committed to Caring"



HOSA IMAGES COMING SOON



LEARNING THAT WORKS FOR APEX FRIENDSHIP

AHS Career and Technical Education (CTE) Courses 25-26

As of 01/10/25

Animal Science Electives

Animal Science I Honors

Animal Science II Honors –Companion Animals *

Veterinary Assistant *

Business and Marketing Electives

Business Essentials

Business Management

Entrepreneurship I Honors

Entrepreneurship II Honors *

Fashion Merchandising

Marketing I

Marketing II *

Project Management I

Project Management II Honors *

Sports and Event Marketing I

Sports & Events Marketing II *

Family Consumer Science Electives

Apparel & Textile Production I

Apparel & Textile Production II

Fashion and Textile I

Food and Nutrition I

Foods II *

Foods II Honors *

Interior Design I

Interior Design Studio *

Interior Design Studio Honors *

Interior Design Technology Honors *

Teaching as a Profession I Honors

Teaching as a Profession II Honors & Internship (2 credits) *

Health Science Electives

Health Science I Honors

Health Science II Honors *

Nursing Fundamentals and Practicum Honors (2 credits) *

Information Technology Electives

Adobe Video Design I Honors

Adobe Video Design II Honors *

Adobe Visual Design I Honors

Adobe Visual Design II Honors *

AP Computer Science A *

AP Computer Science Principles *

Introduction to Computer Science

Microsoft Excel Honors

Microsoft Word and PowerPoint Honors

Python Programming I

Python Programming II Honors *

STEM Electives

Technology Engineering and Design (H)

Engineering and Design *

Engineering and Design Honors *

CTE Internship Honors

Requires Application and is based on Pathway

** Indicates a prerequisite course is required.*

CTE Advanced Studies courses are available for each instructional area.

For more information, visit the Apex Friendship Student Services webpage.