

Hoke County

***Middle School CTE
Course Descriptions***

2023-2024



Director's Message



Learning that works
for North Carolina



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The mission of Hoke County Career and Technical Education is to empower all students to be successful citizens, workers and leaders in a global economy. Our goal is to provide an environment that promotes an attitude and culture of College and Career Readiness through our Career and Technical Education classes.

Our Career and Technical Education (CTE) program aims to prepare students for employment opportunities, advanced education and productive lives. CTE promotes best practices that enhance teachers' efforts to improve student achievement and encourage responsible career choices. We want to meet students' needs, cultivate their abilities and help them realize their aspirations. It is the vision of CTE department that every student completes a pathway in Career Technical Education and receive no less than two industry related certifications during this process.

At the high school, introductory courses are available at grades 9 and 10, with advanced and specialized instruction in 11 and 12. We have Agriculture, Business, Finance, & Marketing, Career Development, Computer Science & Information Technology, Family and Consumer Science, Health Science, and Trade and Industrial classes.

At our middle schools, students are offered career exploratory courses.

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Executive Director

Career and Technical Education

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Hoke County Schools System does not discriminate against race, color, religion, sex, marital status, pregnancy, parenthood, or handicapping conditions in its education activities or employment practices.

COLLEGE & CAREER READY LABS

PAXTON/PATTERSON

Paxton/Patterson Labs provide the best college and career preparation for America's youth. Their learning systems engage students with problem-based, real world technology. The labs empower students to discover their interests and aptitudes, along the pathway to post-secondary success. Their unique labs concentrate on STEM Education, Health Science Careers, and Architecture & Construction. They also carry the most respected line of tools, equipment, supplies and furniture for schools.

The Health Science Careers learning system prepares middle school students for careers related to medicine, nursing, and health science programs-from Biomedical Engineering to Veterinary Medicine.

- Career Exploration
- Customizable Content
- Two Person Teams
- Authentic Medical Equipment

STEM in Health Science & Medical Science

6th-8th Grade

Biomedical Engineering

Biotechnology R & D

Clinical Lab Practices

Dentistry

Emergency Medical Technician

Employability Skills

Environmental Health & Safety

Health Information Management

Intro to Health Science

Medical Imaging

Mental Health

Nursing

Ophthalmology

Pharmacology

Speech Therapy

Sports Medicine

Therapeutic Services

Veterinary Medicine



STEM in Health Science

EY112Y0HS6, EY112Y0HS7, EY112Y0HS8

STEM in **Health Science** is the ultimate career exploration to engage students in authentic problem-based learning experiences as they discover their interests and aptitudes in **Health Science**.



Clinical Lab Practices

Students perform a variety of clinical lab experiments as they use common language, equipment and safety procedures expected in a laboratory setting.

Dentistry



Students examine the roles of dental professionals from hygiene to therapeutics as they assess, chart, diagnose, remove decay, and create dental castings.



Emergency Medical Technician

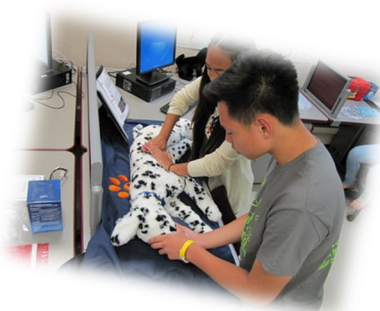
Students examine the roles and responsibilities of an EMT as they perform CPR, utilize an AED, dress wounds, stabilize limbs, and assess burns.

Intro To Health Science



Demonstrate their knowledge of human anatomy, terminology, body systems and the foundational skills necessary to pursue health-related careers.





Health Information Management



Students examine the roles and responsibilities of a Health Information Management professional and the tasks involved with medical records, billing and the importance of patient privacy.



Medical Imaging

Students utilize a range of tools to view the human body in order to safely diagnose, monitor, or treat medical conditions.

Nursing



Students learn hands-on about the roles and responsibilities of nursing professionals including taking vitals, patient education, phlebotomy, suturing, and medical math (solutions & dilutions).



Sports Medicine

Students address the common tasks of diagnostics, therapeutics, education, and prevention of injuries to athletes.

Veterinary Medicine



Students practice safety techniques when dealing with animals, prepare surgical packs, prevent disease transmission, and simulate X-ray techniques.

STEM in Medical Science

EY112Y0MS6, EY112Y0MS7, EY112MY0MS8

STEM in **Medical Science** is the ultimate career exploration to engage students in authentic problem-based learning experiences as they discover their interests and aptitudes in **Medical Science**



Biomedical Engineering

Students get first-hand experience in materials science and engineering as they experiment with the techniques of prosthetic design.

Biotechnology R & D



Students examine strategies used by scientist to develop and improve medications and demonstrate techniques used in a laboratory research setting.



Employable Skills

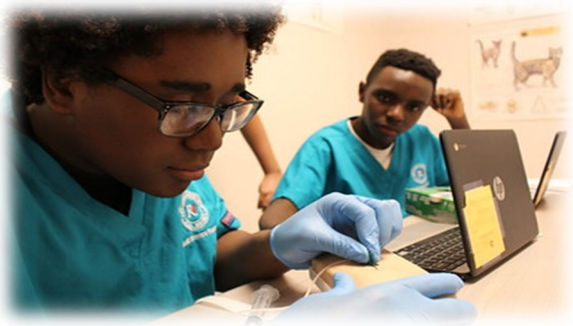
Students develop the essential transferable skills needed to get hired and succeed in the workplace and life.

Environmental Health & Safety



Students assess the safety hazards and procedures for maintaining the health and safety of a medical facility and its patients as well as disaster preparedness and emergency response.





Mental Health



Students examine a wide range of mental health conditions and disorders affecting mood, thinking and behavior.



Ophthalmology

Students assess eye health through the practices and procedures common in the field as they learn if a career in this field is a good fit for them.

Pharmacology



Students apply techniques to ensure prescription safety, as well as creating solutions and compounding.



Speech Therapy

Students examine and perform the practices and procedures for assessing and treating communication problems and speech disorders.

Therapeutic Services



Students examine the pathway focused on changing the health status of patients over time through direct care, treatment, counseling, or health education information.

CY202Y0 – Web Development

(CSD I) 6th Grade



The first middle grades corselet (Units 1, 2) of CS Discoveries introduces students to computer science as a vehicle for problem solving, communication, and personal expression. As a whole, this corselet focuses on the visible aspects of computing and computer science and encourages students to see where computer science exists around them and how they can engage with it as a tool for exploration and expression.

Unit 1 – Problem Solving

Through a series of puzzles, challenges, and real world scenarios, students are introduced to a problem solving process that they will return to repeatedly throughout the course. Students then learn how computers input, output, store, and process information to help humans solve problems.

Unit 2 – Web Development

Students are empowered to create and share the content on their own web pages. They begin by thinking about the role of the web, and how it can be used as a medium for creative expression. As students develop their pages and begin to see themselves as programmers, they are encouraged to think critically about the impact of sharing information online and how to be more critical content consumers.

CY212Y0 – Animations, Games, App Development

(CSD II) 7th Grade



The second middle grades corselet (Units 3 and 4) of CS Discoveries asks students to look outward and explore the impact of computer science on society. Students will see how a thorough user-centered data is used to address problems that affect large numbers of people, and how physical computing with bare circuit boards allows computers to collect input and return output in a variety of ways.

Unit 3 – Interactive Animations and Games

Students build on their coding experience as they create programmatic images, animations, interactive art, and games. Along the way, they practice design, testing, and iteration, as they come to see that failure and debugging are an expected and valuable part of the programming process.

Unit 4 – The Design Process (and App Development)

Students transition from thinking about computer science as a tool to solve their own problems towards considering the broader social impacts of computing. Through a series of design challenges, students are asked to consider and understand the needs of others while developing a solution to a problem. The second half of the unit consists of an iterative team project, during which students have the opportunity to identify a need that they care about, prototype solutions both on paper and in App Lab, and test their solutions with real users to get feedback and drive further iteration. With extended time, students will be able to develop more functional application prototypes.

CY222Y0 – Computer Programming

(CSD III) 8th Grade



The third middle grades corselet (Units 5 and 6) of CS Discoveries empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Computer Science Discoveries takes a wide lens on computer science by covering topics such as programming, physical computing.

Unit 5 – Data and Society

Students learn about the importance of data in solving problems and understand how computers can help in this process. The first chapter explores different systems used to represent information in a computer and the challenges and tradeoffs posed by using them. In the second chapter students learn how collections of data are used to solve problems, and how computers help to automate the steps of this process. In the final project, students gather their own data and use it to develop an automated solution to a problem.

Unit 6 – Physical Computing

Students further develop their programming skills, while exploring more deeply the role of hardware platforms in computing. Harkening back to the component model for a computer from Unit I, students look towards modern “smart” devices to understand the ways in which non-traditional computing platforms take input and provide output in ways that couldn’t be done with the traditional keyboard, mouse, and monitor. Students develop programs that utilize the hardware for inputs and outputs, and the unit concludes with a design challenge that ask students to use the Circuit Playground as the basis for an innovation of their own design.

