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Thomas Stewart  
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# CENTRAL ACADEMY OF TECHNOLOGY & ARTS

## SCHOOL PROFILE FOR 2023-2024

### SCHOOL COUNSELING STAFF

**Ashley Cole** - Dance, Theatre, & Pre-Engineering

**Sarah Goodwin** - Information Systems & MPRA

**Stephanie Graham** - Medical, Transportation,  
International Academy

**Tammy Tweed** - Secretary

### MISSION STATEMENT

The mission of Central Academy of Technology & Arts is to prepare students to be informed, capable, and compassionate global citizens by providing an environment that fosters respect, confidence, growth, curiosity, creativity, critical thought, and knowledge.

**CENTRAL ACADEMY OF TECHNOLOGY & ARTS** opened Fall 2006 and is a comprehensive magnet high school of academies. Each year students rising 9th and 10th grade apply throughout the Union County Public School System for a spot in one of the academy programs. Each student applying must be on grade level using North Carolina End of Grade standards in reading and math. The 9th grade students are selected based on a lottery for all academies except Dance, Theatre, and MPRA; those three academies will participate in an audition process. The 10th grade students are selected on a first come, first serve basis. The 10th grade students applying to the Performing Arts Academy also participate in the audition process.

**INFORMATION SYSTEMS ACADEMY:** In Computer Engineering students learn about building computers, configuring networks and routing. In Software & Game Design students will focus on computer programming, visualization tools, and game design. In Cyber Security students learn about ethics in technology as well as trends in the growing industry. The solid preparation that is offered prepares our high school graduates to achieve any information systems career goal.

**PRE-ENGINEERING ACADEMY:** Instruction is offered in engineering design through 3-D software, electronics, and computer integrated manufacturing. These are connected together through engineering principles connecting math, science, and technology. The majority of course are delivered through the Project Lead the Way curricula.

**PERFORMING ARTS ACADEMY:** Programming is offered in Dance, Theatre, and Music Production and Recording Arts (MPRA). All pathways are exposed to the many facets of a successful performance, history, theory, and techniques. The MPRA pathway creates a solid foundation in musicianship and technology. Students will hone their current skills through a variety of courses that will create a well-rounded performer.

**MEDICAL SCIENCES ACADEMY:** The goal of the Project Lead the Way program is to provide a sequence of courses all aligned with appropriate national learning standards, which follows a proven hands-on, real-world, problem-solving approach to learning. Students explore the concepts of human medicine and are introduced to topics such as physiology, genetics, microbiology, and public health. The students explore the prevention, diagnosis, and treatment of disease.

**TRANSPORTATION SYSTEMS ACADEMY:** The Automotive Technology pathway provides instruction on brakes, steering, suspension, engine, and electronics. The Collision Repair pathway offers auto body reconstruction and frame straightening. The curriculum allows students to receive hands-on industry-recommended training. Strong academic background and technical application allow for a seamless transition from high school to post-secondary training or high-tech automotive careers.

**INTERNATIONAL ACADEMY:** The International Baccalaureate is a global leader in international education— developing inquiring, knowledgeable, confident, and caring young people. IB empowers school-aged students to take ownership in their own learning and help them develop future-ready skills to make a difference and thrive in a world that changes fast. CATA will welcome its first class of IB students during the 2022-2023 school year.

**COLLEGE PREPATORY ENVIRONMENT:** All students are assigned the **Future Ready** course of study.

**DIPLOMA REQUIREMENTS:** Students must graduate with a minimum of 28 Carnegie credit units.

**SCHEDULE:** The CATA curriculum is offered on a 4x4 block schedule for all courses. All students receive daily instruction in four 90-minute classes; earning a maximum of one credit per course.

**GRADING SCALE:** Union County Public Schools requires the following grading scale/point values. Additional quality points are given for a passing grade (60-100) for specific courses based on the course's academic level.

Numeric Grade	Non-Weighted Point Value
90-100	4.0
89-80	3.0
79-70	2.0
69-60	1.0
AUD, F, FF, P, WF, WP	0.0

Academic Level of Course	Additional Quality Points Given for a Weighted GPA
Basic	No additional points
College Prep	No additional points
Honors	.5 additional points
Advanced Placement (AP)	1 additional point

## HONORS AND COLLEGE LEVEL COURSES OFFERED AT CATA

### English

English I, II, III, IV

Advanced Inquiry

Creative Writing

Mythology

### Math

Math I, II, III, IV

Discrete Math

Pre-Calculus

### Science

Chemistry

Biology

Earth Science

Physics

Anatomy & Physiology

### Social Studies

American History

Civic Literacy

American History II

Psychology/Sociology

World History

Remember the Holocaust

### Foreign Language

Spanish III

### Electives

Sports Medicine I

Weightlifting

Counseling and Mental Health

Game Art Design

Adobe Visual Design

Digital Design & Animation I, II

Adobe Video Design

Adv. Game Art Design

Microsoft Excel

Network Engineering Tech I, II, III

Computer Engineering Tech II

Python Programming I, II

Health Science I, II

Symphonic Band III, IV

Chorus III, IV

Music Specialization

Audio Engineering I

Theatre III, IV

Dance III, IV

Robotics I, II

Advanced Manufacturing I, II

### PLTW

Human Body Systems

Biomedical Innovation

Medical Intervention

Principles of Biomedical Science

Introduction to Engineering

Electronic Design and Development

Computer Integrated Manufacturing

Principles of Engineering

Aerospace

**AP Level** course content, pace, and academic rigor are college-level as adopted by the College Board and prepares students to take the AP examinations which may lead to college credit. Most AP classes are yearlong and scheduling conflicts with required academy courses often preclude more than two AP classes per year. In addition, scheduling conflicts with required academy courses can prevent students from taking more than two levels of a World Language.

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## Advanced Placement (AP) Courses

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### English

AP English Language and Composition

AP English Literature and Composition

### Math

AP Calculus AB

AP Calculus BC

### Science

AP Biology

AP Environmental Science

AP Chemistry

AP Physics 1: Algebra Based

AP Physics C: Electricity and Magnetism

AP Physics C: Mechanics

### Social Studies

AP Government

AP U.S. History

AP Psychology

AP World

### Electives

AP Computer Science A

AP Computer Science Principles

AP Studio Art

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## STUDENT ORGANIZATIONS

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ASL (American Sign Language)

Battle of the Books

BETA Club

National English Honor Society

Chess Club

Creative Writing

Environmental Club

Esports

Fellowship of Christian Athletes

French Club

Hands Helping Others

HOSA

International Academy

International Thespian Society

Knitting for Good

Maker Club

Mu Alpha Theta

National Honor Society

National Honor Society of Dance Arts

National Spanish Honor Society

Rho Kappa

Robotics Club

Science National Honor Society

Science Olympiad

Skills USA

Society of Women Engineers

Student Council

Travel Club

Tri-M Music Honor Society

Yearbook Club