



# CENTRAL ACADEMY OF TECHNOLOGY AND ARTS

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**Principal**  
**Vicki Merritt**

**Assistant Principals**  
Thomas Stewart  
Josh Wall

## SCHOOL PROFILE FOR 2019-2020

### SCHOOL COUNSELING STAFF

**Sarah Goodwin – Information Systems and MPRA**  
**Ashley Cole – Performing Arts – Dance & Theatre, & Pre-Engineering**

**Ashley Lawson – Medical & Transportation**  
**Tammy Tweed – Student Records Coordinator**

**CENTRAL ACADEMY OF TECHNOLOGY AND ARTS** opened Fall 2006 and is a comprehensive magnet high school of academies. Each year students in rising 9<sup>th</sup> and 10<sup>th</sup> grade apply from throughout the Union County Public Schools 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 9<sup>th</sup> grade students are selected based on a lottery for all academies except Dance and Theatre; those two academies will participate in an audition process. The 10<sup>th</sup> grade students are selected on a first come, first serve basis. The 10<sup>th</sup> grade students applying to the Performing Arts Academy also participate in the audition process.

**MISSION STATEMENT:** To prepare students for informed decision-making, effective citizenships, personal achievements, higher-education and rewarding careers. Focused curriculum is offered in the fields of information systems, medical science, performing arts, pre-engineering, and transportation systems.

**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 Cybersecurity students learn about ethics in technology, as well as, trends in the growing industry. Although these courses are “deep” in programming and compute logic, 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, digital electronics, and computer-integrated manufacturing. These are connected together through engineering principles connecting math, science, and technology. The majority of courses are delivered through the Project Lead the Way curricula.

**MEDICAL SCIENCE ACADEMY:** The goal of the Project Lead the Way Biomedical Sciences 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.

**PERFORMING ARTS ACADEMY:** Programming is offered in Dance and Theatre Arts. Both pathways expose students to the many facets of a successful performance, history, theory, and techniques. Students will be able to hone their current skills through a variety of program-specific courses that will create a well-rounded performer. Students participate in major performances throughout high school.

**MUSIC PRODUCTION AND RECORDING ARTS (MPRA) ACADEMY:** The curriculum in this academy creates a solid foundation both in musicianship and technology. Coursework is focused on music theory, aural skills, applied music performance, introduction to music technology, recording studio techniques, music production, and music business.

**COLLEGE PREPARTORY 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 ninety-minute classes; earning a maximum 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 point
AP (Advanced Placement)	1 additional points

#### HONORS AND COLLEGE LEVEL COURSES OFFERED AT CATA

**Honors level** courses are offered in the areas of Academy Courses, English, Fine Arts, Math, Physical Education, Science, Social Studies, World Language, and Career and Technical Education. Course content, pace, and academic rigor place high expectations on the student and surpass standards specified by Common Core and Essential Standards.

##### Honors Courses

Advanced Biology Topics	Computer Integrated Manufacturing	Game Art Design	Principles of Biomedical Science
Advanced Calculus AB	Computer Programming I, II	Health Science I	Psychology/Sociology
Advanced Chemistry Topics	Concert Chorus III, IV	Human Body Systems	SAS Programming
American History I, II	Dance III, IV	Ladies Chorus III, IV	Spanish III, IV
Band III, IV	Discrete Math	Math II, III	Sports Medicine I & II
Biology I	Drafting	Medical Interventions	Statistics
Biomedical Science	Earth Science	Mixed Chorus III, IV	Theatre Arts III, IV
Chemistry	Electronics DC, AC	Network Computer Engineering	Visual Arts III, IV
Civics	English I, II, III, IV	Peer Tutor	Yearbook III, IV
Civil Engineering	Engineering Design	Physics	Weightlifting
Computer Engineering	Forensic Science I	Pre-Calculus	World History

AP level course content, pace, and academic rigor are college-level as adopted by the College Board and prepare 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, the scheduling conflicts with required academy courses can prevent students from taking more than two levels of a World Language.

##### AP (ADVANCED PLACEMENT) COURSES

Aerospace Engineering	Calculus BC	English III, IV	Psychology
Art-2D Studio	Chemistry II	Environmental Science	US History
Biology II	Computer Science	Government US	
Calculus AB	Computer Science Principles	Physics I	

#### STUDENT LED ORGANIZATIONS

Arcade Club	Environmental Club	HOSA	Robotics
BETA Club	Fashion Club	International Thespian Society	Shooting Sports Team
Biology Club	Fellowship of Christian Athletes	Jazz Band	Science Olympiad
Black History Month Club	Fishing Club	Junior Beta Club	Skills USA
Canine Club	Gaming Club	MPA Ensemble	Society of Women Engineers
Chess Club	Gay-Straight Alliance	National Honor Society	Student Council
Creative Writing Club	Hands Helping Others	National Honor Society of Dance	World Travel Club
Debate Club			World Language Club
			Yearbook Club