

CAREER & TECHNICAL EDUCATION

2019  
2020

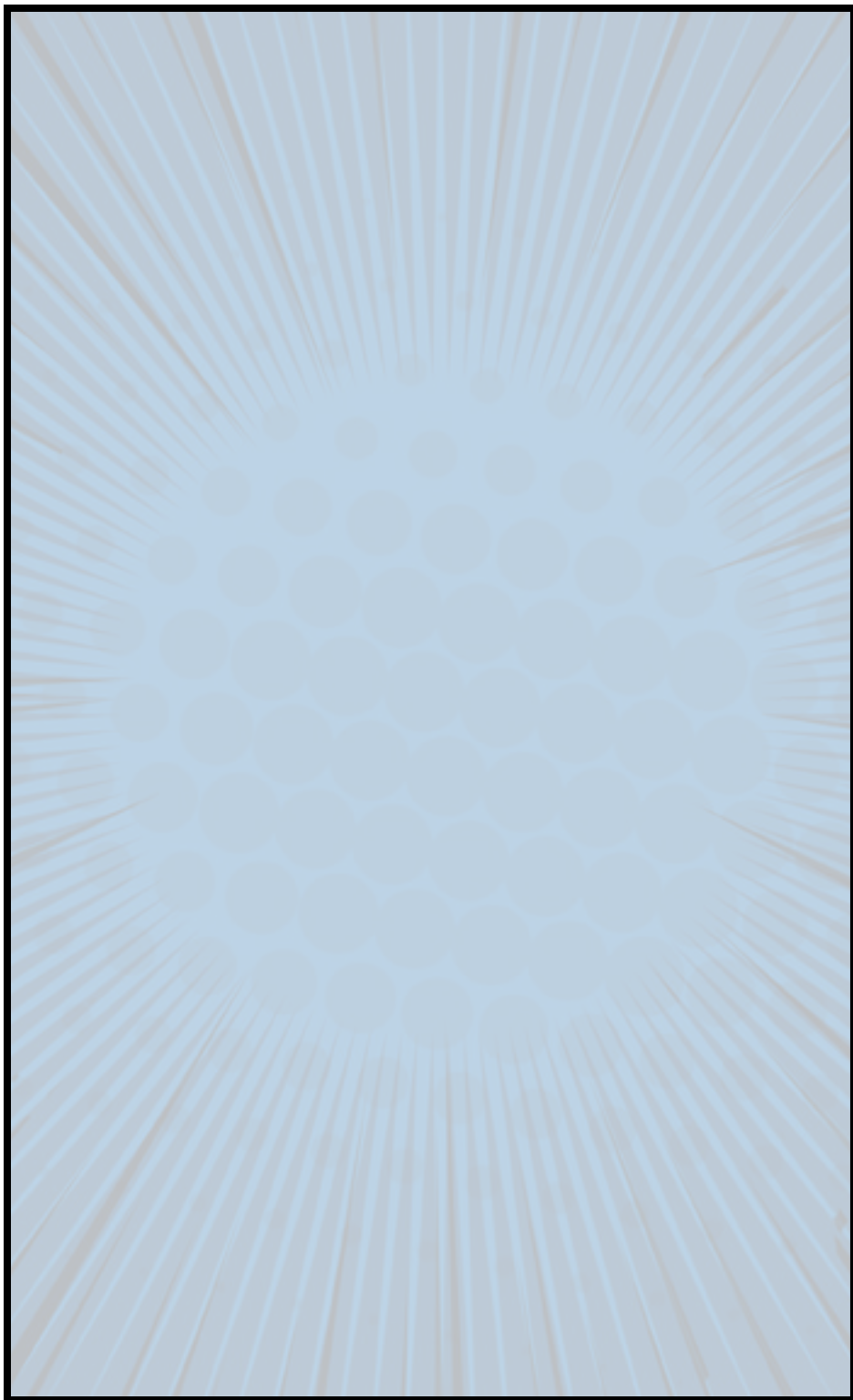
# COURSE CATALOG



**CTE** CAREER & TECHNICAL EDUCATION

at the Center for Instruction, Technology & Innovation

BECOME THE HERO  
OF YOUR FUTURE



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# ADVANCED METAL MANUFACTURING



## Program Description

Advanced Metal Manufacturing will introduce students to the skills and training of design, machining, fabricating and welding. Using engineering drawing techniques and CAD-CAM software, students will design projects starting with raw materials such as steel, aluminum and brass. Machine tools and fabricating equipment will then be used to assemble the projects. (Program was formerly known as Motorsports Fabrication.)

 This collage features several images: a student in a grey hoodie working at a workbench; a student in a maroon shirt using a tool; a student in a grey shirt welding with a Miller machine; and a close-up of a welding torch creating a bright spark. The background is a blue, stylized graphic with stars and a ribbon.
 

## Program Length / High School Credits

1 or 2 years/4 credits per year

## Possible Career Opportunities

- Metal Fabricator
- CAD Engineer
- Welder

Career & Technical Education | [CITiboces.org/CTE](http://CITiboces.org/CTE) | [#CTE](#) | [f](#)

# AUTO BODY REPAIR



## Program Description

Each damaged vehicle presents a new problem to be solved. Auto body technicians solve these problems by using specialized equipment and tools to straighten frames, remove dents and replace parts. Students will practice procedures that will develop their perceptual capabilities and skills to produce high quality auto body repairs.



## Program Length / High School Credits

1 or 2 years/4 credits per year

## Possible Career Opportunities

- Auto Body Technician
- Painter
- Parts Manager

# AUTO TECHNOLOGY I&II



## Program Description

Through the Auto Technology program, students learn the various aspects of vehicle diagnosis, repair and maintenance. Units of study include electrical/electronic systems, engine performance, brake systems, engine repair and steering/suspension systems. Students have opportunities to perform hands-on work through the program.



## Program Length / High School Credits

1 or 2 years (Auto Tech I - AM only,  
Auto Tech II PM Only) /  
4 credits per year

## Possible Career Opportunities

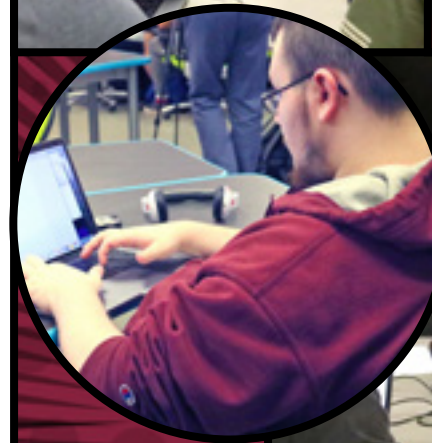
- Mechanic
- Auto Parts Sales-person
- Insurance Adjuster

# COMPUTER CODING



## Program Description

Computer Coding and Programming is an introductory class based around programming foundations. Students work on a variety of computer languages including HTML, CSS, DNA, SQL and JavaScript. There is an emphasis on developing for the web, as well as producing data-driven applications.



## Program Length / High School Credits

1 or 2 years/4 credits per year

## Possible Career Opportunities

- Computer Programmer
- Information Technology (IT)
- Back-end Web Developer
- Database Technician

# COMPUTER SYSTEMS AND NETWORKING - A+



## Program Description

The A+ Computer Repair course prepares students to take the CompTia A+ certification exam and addresses computer repair and maintenance, hardware/software upgrades, operating system configurations and basic networking.



## Program Length / High School Credits

1 year (offered in PM session only) / 4 credits

## Possible Career Opportunities

- Repair Technician
- Installation Analyst
- Network Manager

# COMPUTER SYSTEMS AND NETWORKING - CISCO



## Program Description

The Cisco program will introduce students to skills and knowledge needed for careers in computer networking. Projects include networking installation and configuration, troubleshooting procedures, local area networking, wide area networking and security issues.

The coursework will prepare students for employment as entry-level networking technicians or for post-secondary studies.



## Program Length / High School Credits

1 year (offered in AM  
session only) / 4 credits

## Possible Career Opportunities

- Cyber Security Engineer
- Network Administrator
- System Analyst



# CONSTRUCTION TECHNOLOGY



## Program Description

Construction Technology provides students with classroom instruction and hands-on experiences in various aspects of the construction industry. Students will rotate through the following areas: green construction, electrical wiring, masonry, carpentry, plumbing, heating and steel construction. A strong emphasis is placed on the core employability skills and construction competencies.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

- Opportunities
- Carpenter
- Laborer
- Electrician

# COSMETOLOGY



## Program Description

The Shear Class Beauty Salon at CiTi offers students the opportunity to gain practical experience and apply classroom theory as they work toward meeting the requirements to take the NYS licensing exam.



## Program Length / High School Credits

2 years / 4 credits per year

## Possible Career Opportunities

- Salon Manager
- Hairstylist
- Nail Care Artist

# CULINARY



## Program Description

Working as a chef, cook or food preparation worker involves the ability to work as an efficient team member. While applying classroom theory in an industrial kitchen, students will learn food preparation and cooking methods, food-handling techniques and sanitation procedures. This course provides students with a solid foundation for further career-related training programs.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

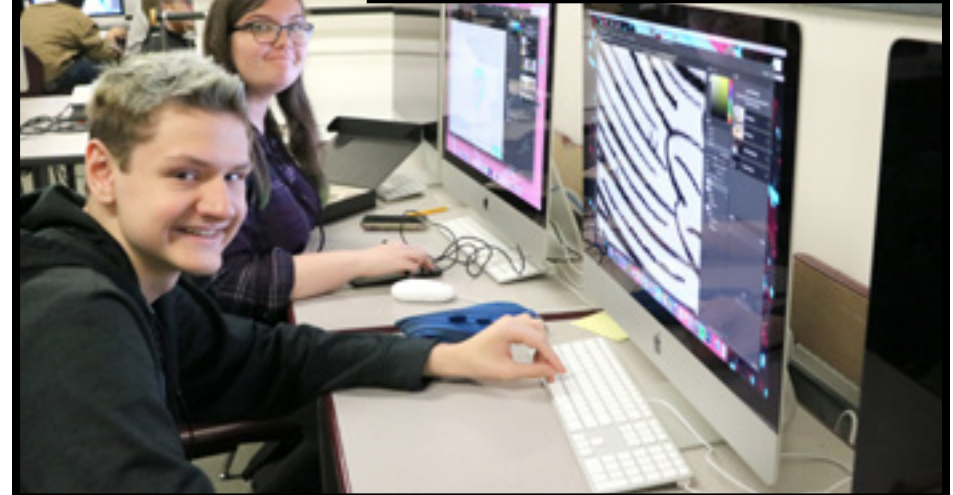
- Sous Chef
- Food Critic
- Baker Assistant

# DIGITAL MEDIA



## Program Description

This program combines the creative elements of fine arts with digital technologies. Students use the latest industry hardware and software to complete projects in multimedia (including video production, audio editing and special effects), desktop publishing and digital photography. Students will have the opportunity to explore the world of Adobe Photoshop, Illustrator and InDesign.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

- Graphic Designer
- Animator
- Videographer

# EARLY CHILDHOOD EDUCATION



## Program Description

The program is designed to teach students the aspects of teaching and working with young children from birth through elementary age. Students will explore career pathways and develop the characteristics of successful teachers and childcare providers through practicums.

Applying theoretical concepts to real-life situations, students are able to take what they have learned in the classroom to their rotation experiences.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

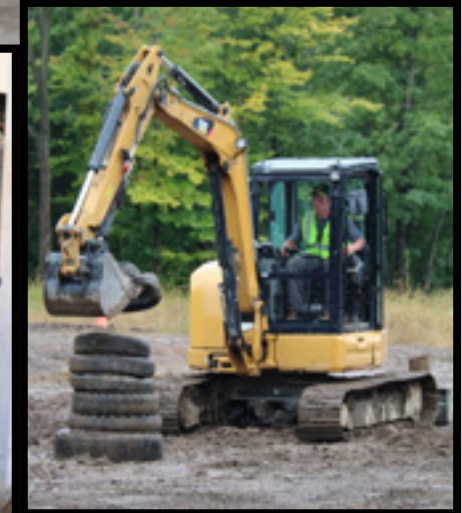
- Elementary Teacher
- Daycare Provider
- Teacher's Aide

# HEAVY EQUIPMENT REPAIR AND OPERATION



## Program Description

Students in the Heavy Equipment Repair and Operation (HERO) program will learn how to service, repair and operate various types of heavy duty trucks and excavation equipment. Students practice operating machinery on simulators before testing their skills on equipment. Classroom instruction also provides training for a Commercial Driver's License, Class B (CDL-B) so that any student 18 years old or older may obtain his/her license.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

- Excavator Operator
- Heavy Equipment Mechanic
- Construction Manager

# INDUSTRIAL ELECTRICAL TECHNOLOGY



## Program Description

This program provides the hands-on skill development and technical training needed for entry level employment. Students will learn how to install, troubleshoot and maintain industrial electrical systems using state-of-the-art tools of the trade.



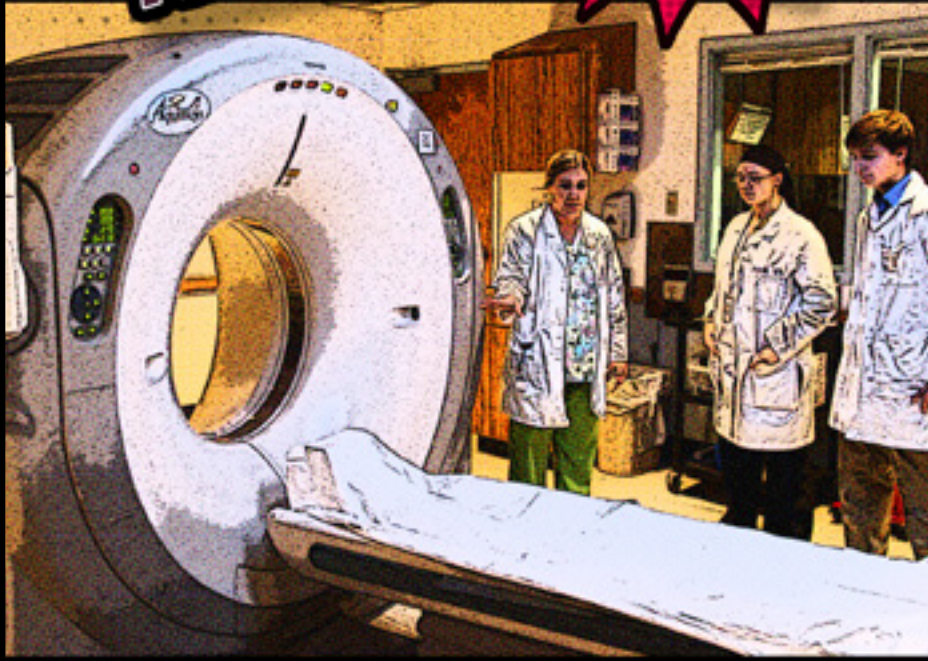
## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

- Electrician
- Transmission Technician
- Lineman
- Residential Wireman
- Electrical Technician
- Controls Electrician

# NEW VISION ALLIED HEALTH



## Program Description

The program is designed for high school seniors interested in pursuing a career in healthcare. Students will participate in classroom instruction and career-related experiences observed during clinical rotations in settings such as Oswego Hospital and private practices, ranging from primary care to dental care. The classroom setting is held on the SUNY Oswego campus, giving students a first-hand experience as college students.



## Program Length / High School Credits

1 year (seniors only) / 4 credits

## Possible Career Opportunities

- Nurse
- Doctor
- Family Health Educator



# NEW VISION LAW AND GOVERNMENT



## Program Description

The program is designed for high school seniors interested in pursuing a career in law, public safety or government. Students will participate in classroom instruction and career-related experiences observed during rotations in settings such as the Oswego County Probation Department, Fulton Police Department and E-911. The classroom setting is held on the SUNY Oswego campus, giving students a first-hand experience as college students.



## Program Length / High School Credits

1 year (seniors only) / 4 credits

## Possible Career Opportunities

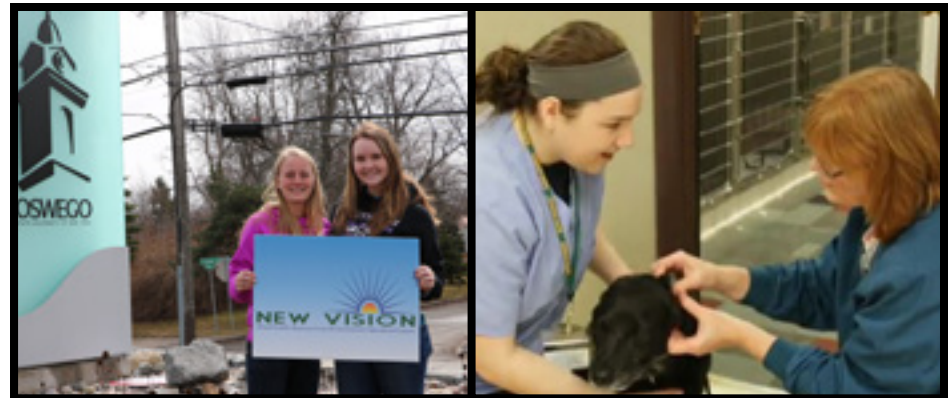
- Lawyer
- Police Officer
- Court Clerk

# NEW VISION SPECIALIZED CAREERS



## Program Description

The program is designed for high school seniors who have a strong interest in pursuing a career that does not fall under our other New Vision programs. Students will participate in classroom instruction, along with real-life career-related experiences observed during rotations that are tailored to their interests; an engineering student may go to Fulton Boiler Works for a rotation, while a veterinary student may go to the Fulton Animal Hospital.



## Program Length / High School Credits

1 year (seniors only) / 4 credits

## Possible Career Opportunities

- Engineer
- Veterinarian
- Psychologist

# NURSING ASSISTANT



## Program Description

Nursing Assistants perform a variety of tasks including patient observation and helping patients eat, dress and bathe. This course will provide classroom theory and lab skills to obtain the NYS Nurse Aide Certification. Supervised clinical experiences at area nursing homes and long-term care facilities help students gain first-hand experience. This course serves as an excellent stepping stone into other health-related training programs.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

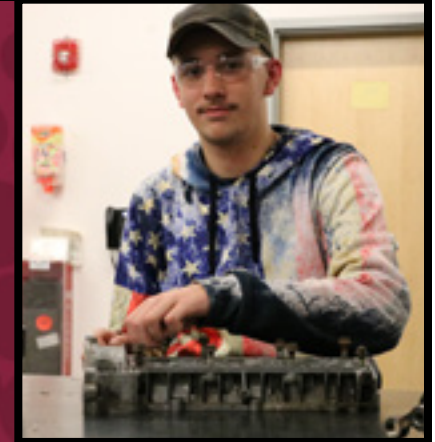
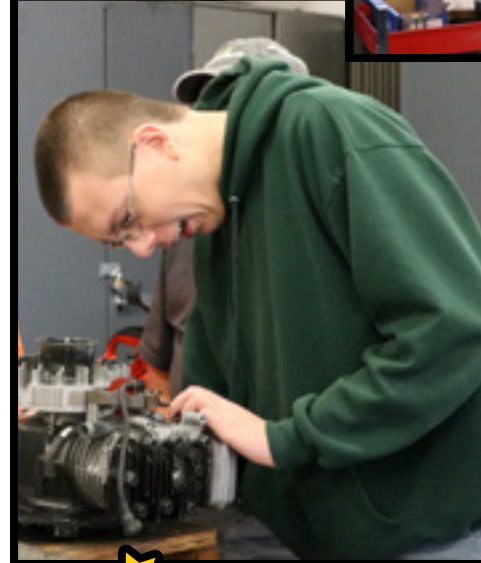
- Nurse Assistant
- Group Home Therapy Aid
- Healthcare Advocate

# OUTDOOR POWER EQUIPMENT TECHNOLOGY



## Program Description

Snowmobiles, motorcycles, snow blowers, lawn mowers and other outdoor power equipment require routine maintenance and repair. This program provides students with a solid background to enter the workforce or further their education. Those entering this career area will be required to use diagnostic resources and troubleshoot to repair equipment.



## Program Length / High School Credits

1 year / 4 credits

## Possible Career Opportunities

- Generator Service Technician
- Parts Manager
- Logger

# PUBLIC SAFETY AND JUSTICE



## Program Description

Students enrolled in this program will have the opportunity to explore law enforcement, security, corrections and emergency management and response. Many hands-on learning experiences will provide students opportunities to learn about evidence gathering, fingerprinting, fire control, emergency response techniques and more.



## Program Length / High School Credits

1 or 2 years / 4 credits per year

## Possible Career Opportunities

- Firefighter
- State Trooper
- Paramedic

# WELDING TECHNOLOGY



## Program Description

Welding is to metal fabrication what glue and nails are to carpentry. Making a good weld takes a high level of skill. This program is designed to help students gain the basic welding, fabricating, math and problem solving skills needed to qualify for entry-level employment or apprenticeship. Students work to complete the American Welding Society Entry Level Welder One Qualification.



## Program Length / High School Credits

1 year / 4 credits

## Possible Career Opportunities

- ARC/MIG/TIG Welder
- Metal Fabricator
- Welding Inspector



Think outside the box and explore different occupations and trades through hands-on learning at the Center for Instruction, Technology & Innovation. Whether your post-high school plans include college, the armed services or an immediate career, our Career and Technical Education (CTE) programs will serve as the perfect launch pad for a rewarding and successful future.

CTE offerings combine rigorous academics, innovative technology and collaborative teaching with work-based learning experiences. This combination offers you the unique opportunity to earn a Regents diploma with an industry-approved credential and prepares you for an exciting and competitive 21st-century career.

With nearly two dozen programs to explore, you are bound to find a course that appeals to you and will allow you to tap into your existing talents while developing other skills that may lead to a lifelong career choice. Join our list of successful alumni, and come learn in environments that promote critical thinking, problem-solving and essential working skills!

### **Student Safety Committee**

The student safety committee is for students with good decision-making skills, who can recognize safety issues and have a desire to promote a culture of safety.

### **Student Senate**

Student senate provides leadership opportunities for students. The group helps to promote a positive school community and organizes school events.

### **Student Technology Integration Committee**

The student technology integration committee allows students the chance to help implement innovative technology solutions, to be a voice for technology use by students and to help others learn about cutting-edge tools.

### **Future Farmers of America (FFA)**

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

### **National Technical Honor Society (NTHS)**

NTHS is the acknowledged leader in the recognition of outstanding student achievement in career and technical education. Thousands of schools and colleges throughout the U.S. and its territories have a chapter of the honor society on their campus. NTHS honors the achievements of top CTE students, provides scholarships to encourage the pursuit of higher education and cultivates excellence in today's highly competitive, skilled workforce.

### **SkillsUSA**

SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens. SkillsUSA improves the quality of our nation's future skilled workforce through the development of Framework skills that include personal, workplace and technical skills grounded in academics. Students have the opportunity to compete regionally, and if successful, the state and national levels.



National Technical Honor Society





# VISION, MISSION & CORE VALUES

## OUR VISION

} Equity and excellence for the betterment of our entire community.

## OUR MISSION

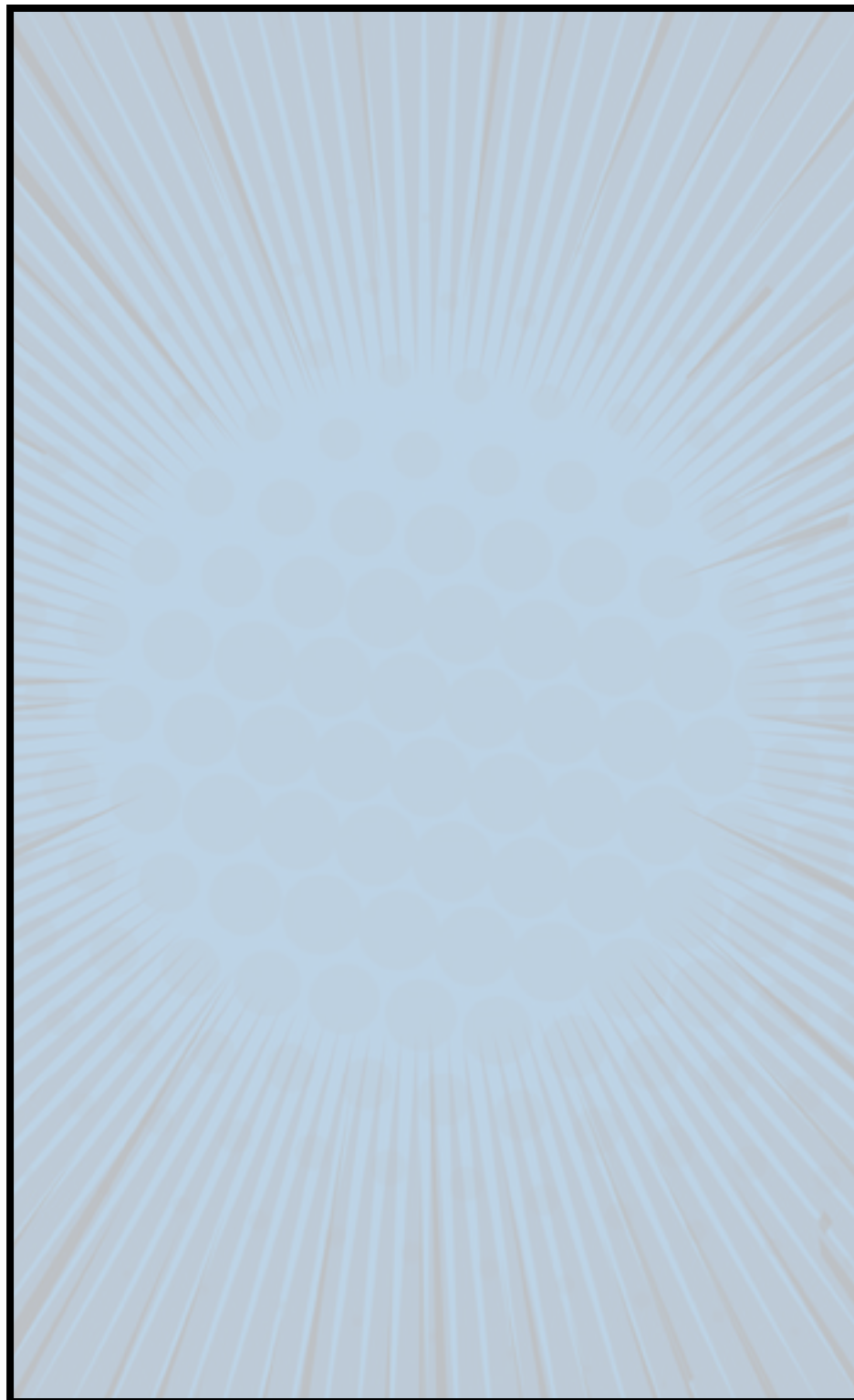
} We will be the leaders in bringing our community unique and effective educational solutions and services.

## CORE VALUES

} We Embrace  
**INNOVATION & CREATIVITY.**

.....  
We Make Student Based Decisions with  
**HONESTY, RESPECT & INTEGRITY.**

.....  
We Collaborate, Focused on  
**QUALITY SERVICE, EXPERTISE  
& STUDENT SUCCESS.**







# CTE CAREER & TECHNICAL EDUCATION

at the Center for Instruction, Technology & Innovation



#CTE



Center for Instruction,  
Technology & Innovation  
*Your education destination*