

Erie 1 BOCES

2020

2021

CATALOG



Instructional  
*programs*



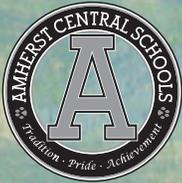
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## *Our Mission*

WE'RE COMMITTED TO THOSE WE SERVE  
- STUDENTS, STAFF AND COMMUNITIES -  
BY UNDERSTANDING, ANTICIPATING, AND RESPONDING TO THEIR NEEDS.

ERIE 1 BOCES

# COMPONENT DISTRICTS



## Thank you for your continued support!

- Akron Central School District
- Alden Central School District
- Amherst Central School District
- Cheektowaga Central School District
- Cheektowaga-Sloan Union Free School District
- Clarence Central School District
- Cleveland Hill Union Free School District
- Depew Union Free School District
- Frontier Central School District
- Grand Island Central School District
- Hamburg Central School District
- Kenmore Union Free School District
- Lackawanna City School District
- Lancaster Central School District
- Maryvale Union Free School District
- Sweet Home Central School District
- Tonawanda City School District
- West Seneca Central School District
- Williamsville Central School District



Pursuing Excellence Through Partnership



**Dr. Lynn M. Fusco**

District Superintendent and CEO

**Michael Capuana**

Assistant Superintendent, Instructional Programs  
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**BOARD OF EDUCATION**

John Sherman, President, Tonawanda  
Edward Cavan, Vice President, Sweet Home  
Raymond Carr, Lancaster  
Andrew Loeb, Hamburg  
Janet MacGregor Plarr, Frontier  
Mary Busse, West Seneca  
Renee Wilson, Cheektowaga

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**Kenton Career & Technical Center**

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**Potter Career & Technical Center**

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**E1B Learning Center (MiddleTech South and LTS)**

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**EDGE Academy**

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**Twilight**

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**West Seneca West Elementary**

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**WNY Children's Psychiatric Center**

John Pope, Supervisor  
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## Career and Technical Education

### **Harkness Career & Technical Center**

99 Aero Drive, Cheektowaga, NY 14225  
(716) 961-4070

### **Kenton Career & Technical Center**

151 Two Mile Creek Road, Tonawanda, NY 14150  
(716) 961-4010

### **Potter Career & Technical Center**

705 Potters Road, West Seneca, NY 14224  
(716) 821-7331

## Exceptional Education

### **E1B Learning Center**

675 Potters Road, West Seneca, NY 14224  
(716) 821-7025

### **EDGE Academy and Twilight**

1635 East Delavan Avenue, Cheektowaga, NY 14215  
(716) 558-5050

### **Maryvale Work Readiness**

1050 Maryvale Drive, Cheektowaga, NY 14225  
(716) 821-7098

### **Northtowns Academy**

333 Dexter Terrace, Tonawanda, NY 14150  
(716) 961-4040

### **West Seneca West Elementary**

1397 Orchard Park Road, West Seneca, NY 14224  
(716) 821-7022

### **WNY Children's Psychiatric Center**

575 Alberta Drive, Buffalo, NY 14226  
(716) 821-7017

## Workforce Development

### **Workforce Development Center**

1526 Walden Avenue, Cheektowaga, NY 14225  
(716) 821-7500





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# Career *and* Technical Education

ERIE 1 BOCES



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## CAREER AND TECHNICAL (CTE) PROGRAMS

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.....OUR.....  
**PURPOSE**

*is to*

**PROVIDE STUDENTS  
WITH A  
UNIQUE REAL-WORLD  
Interactive  
EXPERIENCE**

**State-of-the-Art FACILITIES**

**HIGH QUALITY INSTRUCTION  
*and* A FOUNDATION FOR  
CAREER PATHWAYS**



CTE Program	Integrated ELA Credit	Integrated Science Credit	Integrated Math Credit	CFM Credit	4+1 Pathway	Other Credits Per Year
Animal Science	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Auto Technician Training	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Aviation Technology	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Baking and Pastry Arts	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Barbering	-	-	-	0.5/yr	-	
Building Trades	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Collision Repair	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Connections: Health Related Careers (New Visions)	-	-	-	-	-	ELA 12 (1.0) PIG / Economics (1.0) Anatomy, Physiology and Disease (1.0) Internship (1.0)
Cosmetology	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Criminal Justice	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	PIG (0.5)
Culinary Arts	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Cybersecurity and Networking	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Dental Laboratory Technology	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Digital Media	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Early Childhood Education	0.5/yr	0.5/yr	-	0.5/yr	✓	Integrated Parenting (0.5)
Electrical Systems	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Electronics and Computer Technology	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Engineering and Robotics	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Fashion Design Technology	0.5/yr	-	0.5/yr	0.5/yr	✓	
Health Careers	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	Integrated Health (0.5)
Health Careers II (Basic Nursing Skills)	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	Integrated Anatomy & Physiology (0.5)
Legal Academy (New Visions)	-	-	-	-	-	ELA 12 (1.0) PIG / Economics (1.0) Criminal Justice (1.0) Internship (1.0)
Plumbing, Heating and Air Conditioning	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Sports Science Careers	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Video Production and Recording Arts	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Web Technologies and Game Programming	0.5/yr	-	-	0.5/yr	✓	
Welding	0.5/yr	0.5/yr	0.5/yr	0.5/yr	✓	
Zoo Wildlife and Conservation Careers (New Visions)	-	-	-	-	-	ELA 12 (1.0) PIG / Economics (1.0) Internship (1.0) Zoology (1.0)

**IMPORTANT NOTES:**

- Academic credit is deducted from the 3.75 CTE credits awarded to CTE students annually.
- A 3rd Unit of Math is contingent upon students earning 2 math credits at their home district and passing the required Regents exam.
- A 3rd Unit of Science is contingent upon students earning 2 science credits at their home school and passing the required Regents exam.
- A 4th or 5th unit of English credit is contingent upon students earning 3 English credits at their home district and passing the required Regents exam.

## ACADEMIC SERVICES



Erie 1 BOCES Career and Technical Education Programs are built on core academics enhanced by emerging technologies. Credit bearing academic services are available at Harkness, Kenton and Potter.

**Units of credit are reported upon receipt of an Academic Request from the District Counselor.**

### ENGLISH

Each 2-year CTE program offers an integrated English course which meets the requirements for a 4th or 5th unit of English credit. Lessons are jointly planned and delivered by certified English and CTE teachers.

**Composition and Communications (Integrated, 1 Credit over 2 years).**

### MATH

These courses are either integrated or available to students via a pull-out model and align to CCLS. Both options meet the requirements of 3rd unit of math credit.

**Applied Sequential Math (Pull Out, 1 Credit obtained in 1 year)**

**Math Applications (Integrated, 1 Credit over 2 years).**

### SCIENCE

These courses are either integrated or available to students via a pull-out model and align to CCLS. Both options meet the requirements of a 3rd unit of science credit.

**Applied Environmental Science (Pull Out, 1 Credit obtained in 1 year)**

**Science Applications (Integrated, 1 Credit over 2 years)**

## LIAISON TEACHER SERVICES

Liaison teachers ensure the transition of special education services between the District and CTE. They share student progress with District special education teachers and counselors. Liaison teachers represent CTE teachers at students' CSE meetings and secure student IEPs from the District to assist CTE teachers with their interpretation and implementation. Liaisons provide instructional and behavioral strategies and arrange all testing accommodations.



### SKILLS USA

Participation in SkillsUSA is open to all students enrolled in a Career and Technical Education program. At the local level, the club arranges various fundraisers to support community service projects and participates in various conferences and competitions at the local, state, and national level.

### NATIONAL TECHNICAL HONOR SOCIETY

NTHS was established to honor excellence in Career and Technical Education programs. To be considered, students must demonstrate scholastic achievement and skill development in the following ways:

#### Requirements Include:

- Good Character, Leadership, Honor and Responsibility
- Maintain 90% Average in CTE program, 85% Average in District
- Maintain 95% Attendance
- Submission of Membership Application, Portfolio, and 2 Letters of Recommendation
- Personal Interview

### REGENTS DIPLOMA WITH A TECHNICAL ENDORSEMENT

The Technical Endorsement Seal is affixed to the high school diploma of students who complete a 2-year NYS approved Career and Technical program and meet the following requirements:

- Passing 5 required Regents exams
- Successful completion of a 3-part Technical Assessment
- Completion of work-based learning experiences
- Completion of a work-skills employability profile

### CERTIFICATE OF COMPLETION WITH HONORS

A certificate is presented to students who complete a CTE program and develop essential skills for college and the workplace.

#### Requirements Include:

- Completion of All Program Requirements
- Minimum 90% Program Average
- Good Attendance (no more than 10 days absent per year)
- Punctuality (no more than 10 days late per year)
- Minimum Score 90% of Career Portfolio
- Successful Participation in a Program Internship

### JOB PLACEMENT

Erie 1 BOCES Work-Based Learning teachers provide assistance in preparing students with necessary job-seeking and job-keeping skills and help to assist students in meeting their career goals. Work-Based Learning teachers serve as liaisons between employers and Career and Technical Education students to ensure the right internship and/or job placement.

### WORK-BASED LEARNING EXPERIENCES

A supervised work experience related to instruction in a student's CTE program is offered to enhance classroom skills, knowledge and career readiness.

Internships facilitate the transition from school to work and help to develop career competency, initiative, ability to work with others, and appropriate attitudes and behaviors. This proves advantageous for students, schools, employers, and the community as they work together to meet workplace needs.

### CAREER PORTFOLIOS

The Career Portfolio is a purposeful collection of student work that demonstrates students' personal growth and achievement within their CTE experience. Students complete their program with a comprehensive professional career portfolio to use in their future endeavors. The portfolio requirement is a result of input from industry representatives who value this tool as a way to demonstrate communication and other work-related skills.

### EMPLOYABILITY PROFILES

The Employability Profile provides a record of students' performance in program specific CTE skills and competencies needed for entry-level employment. It also includes a record of the student's performance in career related skills and provides a potential employer with a snapshot of the student's skills and competencies upon completion of his/her career and technical education program. Each profile is annually approved by the Career and Technical Education Advisory Council to reflect the most current industry standards.

### ADVANCED STUDIES: POST-SECONDARY DUAL ENROLLMENT OPPORTUNITIES

Advanced Studies courses are an opportunity for high school students to enroll in college course work and receive college credit. Qualified students are able to earn college credit at a reduced cost or no cost while still in high school.

Erie 1 BOCES offers Advanced Studies options in the following:

#### **Buffalo State College (Reduced Tuition)**

- Fashion Design Technology

#### **Erie Community College (Reduced Tuition)**

- Early Childhood Education
- Sports Science Careers
- Web Technologies and Game Programming

#### **Genesee Community College (Reduced Tuition)**

- Fashion Design and Merchandising

#### **Niagara County Community College**

- Welding

Requirements	CTE Pathway	CDOS 4+1 Pathway	CDOS Credential
Exit Award	Regents Diploma	Regents Diploma	CDOS Credential (exiting credential or in addition to Regents or Local Diploma)
ESSA Score	2.0	1.5	0.5
Eligibility	All Students	All Students (Non-NYSAA)	Students with Disabilities
Required Credits	22 Credits	22 Credits	None
Required Regents Exams	Pass 4 required Regents: <ul style="list-style-type: none"> <li>• ELA</li> <li>• Math</li> <li>• Science</li> <li>• Social Studies</li> </ul>	Pass 4 required Regents: <ul style="list-style-type: none"> <li>• ELA</li> <li>• Math</li> <li>• Science</li> <li>• Social Studies</li> </ul>	No Regents exam requirements but students must have access to Regents coursework.
CTE Requirements	Successful Completion of an SED Approved CTE Program: <ul style="list-style-type: none"> <li>• Min. 3 credits of CTE</li> <li>• WBL Experiences</li> <li>• Employability Profile</li> <li>• National Technical Assessment</li> </ul>	Erie 1 BOCES can fulfill the following CDOS components: <ul style="list-style-type: none"> <li>• 216 Hours of CTE aligned to Commencement Level CDOS Standards</li> <li>• 54 Hours of Work-Based Learning Experiences</li> <li>• Development of an Employability Profile</li> <li>• Erie 1 BOCES does not complete the Career Plan</li> </ul>	
Available at Erie 1 BOCES	All CTE Programs offer Approved Technical Assessments towards a 4+1 Regents Pathway with the exception of Barbering and New Visions programs.	Important Notes for Schools: <ul style="list-style-type: none"> <li>• The District, not Erie 1 BOCES, ultimately issues the CDOS Credential.</li> <li>• Erie 1 BOCES is not responsible for the completion of a Career Plan.</li> <li>• CDOS is embedded in ALL CTE and Career Exploration programs. However, CDOS components are fulfilled only when students complete the training sequence, ie. Building Trades Years 1 and 2, Occupational Education Years 1 and 2. Students in 1 Year programs, like Barbering, will fulfill some CDOS components within the year but may not complete all. For Career Exploration students in need of CDOS, please speak to an E1B School Counselor.</li> <li>• Assurance of completed components along with the student's Employability Profile and a breakdown of WBL hours are sent to Districts in early June.</li> </ul>	

## BUILDING TIMES AND LOCATIONS



### *Harkness* CAREER & TECHNICAL CENTER

99 Aero Drive, Cheektowaga, NY 14225 • 716-961-4070

AM Session	Mid Session	PM Session
7:45 - 10:00 am	10:00 - 12:15 pm	12:30 - 2:45 pm

### *Kenton* CAREER & TECHNICAL CENTER

151 Two Mile Creek Road, Tonawanda, NY 14150 • 716-961-4010

AM Session	Mid Session	PM Session
7:45 - 10:00 am	10:05 - 12:20 pm	12:30 - 2:45 pm

### *Potter* CAREER & TECHNICAL CENTER

705 Potters Road, West Seneca, NY 14224 • 716-821-7331

AM Session	Mid Session	PM Session
7:20 - 9:35 am	9:50 - 12:05 pm	12:15 - 2:30 pm



## Animal Science

### PROGRAM SUMMARY

- Practice real world diagnostics, animal restraint, grooming techniques, and assess animal vital signs in our hands-on pet clinic.
- Participate in an internship according to your individual interests at veterinary hospitals, animal training facilities, dairy farms, stables, and grooming salons.
- Meet informative industry professionals such as local wildlife rescue, rehabilitation experts and representatives from the veterinary and animal care industry.
- Explore a variety of career opportunities including licensed veterinary technicians, laboratory animal technicians, pet grooming and veterinary science.
- Study small animals, large animals, exotics, wildlife and more!

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Medaille College

### SPECIAL NOTES

- Updated tetanus vaccine required.
- Students with allergies to animals should speak to a physician before starting this program.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Veterinarian  
 Biologist  
 Zoologist  
 Pharmacology Researcher  
 Animal Science Instructor  
 Holistic Specialists  
 Marine Biologist  
 Agricultural Careers

### TECHNICAL CAREERS

Licensed Veterinary Technician  
 Laboratory Animal Technician  
 Wildlife Rehabilitator  
 Physical Rehabilitation  
 Fisheries and Wildlife  
 Game Warden

### ENTRY LEVEL CAREERS

Groomer  
 Veterinary Assistant  
 Kennel Assistant  
 Animal Shelter Worker  
 Retail  
 Pet Therapy  
 Animal Production

### FIRST AID

- Handling, Restraint & Transportation
- CPR on Cat and Dog Manikins
- Assessment, Triage and Treatment of Emergencies
- Physical Exams and Methodologies
- Vital Ranges for Dogs and Cats
- Bandaging
- First Aid Performance

### GROOMING

- Nail Clipping and Ear Cleaning
- Bathing and Drying
- Scissoring and Clipping
- Identification and Care of Grooming Tools
- Client Interaction
- Records Maintenance

### SURGICAL NURSING

- Suturing and Wound Healing
- Surgical Gloving, Gowning, and Draping
- Pharmacology and Case Studies

### CLINICAL SKILLS

- Microscope
- Ophthalmoscope
- Otoscope
- Stethoscope
- Parasite Identification
- Blood and Fecal Handling and Processing
- Urinalysis
- Syringe Measurements and Injections

### HEALTH AND MEDICINE

- Anatomy and Physiology
- Nutrition for Companion Animals
- Vaccination Protocol
- Zoonotic Diseases and Risks

### HUSBANDRY AND REPRODUCTION

- Housing Requirements
- Gestation and Pregnancy
- Neonatal Care
- History of Domesticated Animals
- Feeding Requirements





## Auto Technician Training

### PROGRAM SUMMARY

- Prepare to enter the auto field in a dealership, repair shop, parts facility and more.
- Operate master level technician equipment to diagnose problems.
- Trouble shoot and repair today's modern vehicles.
- Experience real-world, web-based manufacturer service information.
- Work towards ASE certification.

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Erie Community College
- Lincoln Technical Institute
- Morrisville State College
- Ohio Technical College
- SUNY Canton
- University of Northwestern Ohio

### SPECIAL NOTES

- Students must supply work pants, coveralls, and work boots.
- Students in this program are eligible to earn ASE certification (Automobile Service Excellence).

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Entrepreneur  
Automotive Engineer  
Automotive School Teacher  
Dealership General Manager  
College Recruiter  
Production Manager

### TECHNICAL CAREERS

Service Manager  
Parts Manager  
Technician  
Equipment Mechanic  
Diesel Mechanic  
Tow Truck Driver

### ENTRY LEVEL CAREERS

Lube Technician  
Tire Service Technician  
Parts Counter Worker  
Service Writer  
Detailer  
Parts / Shuttle Driver

## ENGINE REPAIR

- Assembly
- Overhaul
- Remove and Replace

## COMPUTER DIAGNOSTICS

- Scan Tool Usage
- Service Information Usage
- Computerized Alignments
- TPMS Reset Equipment
- Computerized Wheel Balance

## INDUSTRY RECOGNIZED CERTIFICATION

- Automotive Service Excellence (ASE)

## NATIONAL COMPETITIONS

- Skills USA
- Ron Smith Memorial Auto Competition
- Mechanics Competition at the WNY Farm Festival
- National Automotive Technology Competition

## HANDS ON, LIVE WORK TRAINING

- School Supplied Vehicles
- Student Vehicles
- Industry Donated Vehicles and Equipment
- Work on Faculty and Privately Donated Vehicles

## BRAKES

- ABS Diagnostics
- Trouble Shoot
- Industry Standard Brake
- Hydraulic Brake Repair

## STEERING AND SUSPENSION

- Tires
- Alignment
- Live Work
- Complete Suspension Repair and Diagnosis
- Complete Steering Repair and Diagnosis

## ENGINE PERFORMANCE

- Scan Tool Usage
- Computer Diagnostic Information
- Tune Up Service
- Emission Testing and Service
- Fuel and Exhaust Systems Service

## AUTO ELECTRICAL

- Wire Repair
- Multi Meter Diagnostics
- Series and Parallel Circuits Diagnostics and Repair
- Vehicle Accessory Installation
- Starting and Charging System Diagnostics and Repair

## HVAC

- A/C Component Identification
- A/C Theory and Operation

**NOW OFFERING A  
PRE-APPRENTICE EXPERIENCE!**

✓ **JOB SHADOWING**

✓ **PAID SUMMER INTERNSHIPS**

✓ **GUARANTEED JOB INTERVIEWS**





## Aviation Technology

### PROGRAM SUMMARY

- Do you want to be the next NASA astronaut or engineer?
- Experience flight by hands-on operation of a Piper Warrior and take off with a licensed pilot as your teacher.
- Experience maintenance procedures with the aircraft in class.
- Create, develop and test modifications to aircraft designs in an engineering exploration style.
- Conceptualize unmanned technology and understand applications to current technology.

### COLLEGE CREDIT CONNECTIONS

- Mohawk Valley

### SPECIAL NOTES

- Students are required to have completed 2 credits in Regents level math and 2 credits in Regents level science upon entering the program.
- Additional requirements necessary for FAA license tests.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Aviation Professional Pilot  
 Airline Manager  
 Aerospace Financial Analyst  
 Unmanned Aerial Systems  
 Air Traffic Controller  
 Airport Manager  
 Aerospace Engineer  
 Government Employee  
 Test Pilot  
 NTSB  
 FAA

### TECHNICAL CAREERS

Maintenance Technician  
 Unmanned Technical Support Staff  
 Certified Flight Instructor  
 Corporate Pilot  
 Military / National Guard / Reserves  
 Airline Flight Attendant  
 TSA

### ENTRY LEVEL CAREERS

Airline Fueler  
 Airline Baggage Handler  
 Ramp Agent  
 Aviation Mechanic In-Training  
 Ticket Agent  
 Cargo Handler  
 Ground Service Staff

## AVIATION HISTORY AND EVALUATION

- History of Aviation
- Aircraft Types
- New Technology in Aviation
- Federal Regulations
- Research and Development

## FLIGHT PRINCIPLES, SYSTEMS AND PERFORMANCE

- Aerodynamics
- Flight Controls
- Airframes / Power Plants
- Weight and Balance

## NAVIGATION AND AVIATION WEATHER

- Pilotage
- Ground and Space Based Navigation
- Aviation Meteorology
- Weather Reports and Interpretation
- Current and Emerging Issues

## AEROMEDICAL FACTORS

- Aviation Physiology
- Decision Making Process
- Human Factors
- Accident Prevention and Investigation
- Current and Emerging Issues

## PILOTING SKILLS

- Pre Flight
- Ground Operations
- Aviation Meteorology
- Weather Reports and Interpretation
- National Aerospace System

## UNMANNED AERIAL VEHICLES

- Systems Integration
- Flight Performance
- License Requirements
- Certification

## CAREERS IN AVIATION

- Airline Pilots
- Mechanics (Airframe & Powerplants)
- Corporate Pilots
- Ground Crews
- Engineers
- Air Traffic Controllers

## AEROSPACE ENGINEERING

- Aircraft Design
- Manufacture Aerospace Vehicles
- Control Systems Integration
- Engineering Process
- Solve Problems with Creative Solutions





## Baking and Pastry Arts

### PROGRAM SUMMARY

- Baking and Pastry Arts offers students an opportunity to understand what goes into creating beautiful finished pastries, breads and cakes.
- Students will not only produce baked goods in both large and small quantities, but understand the science behind them.
- Create beautiful show pieces, plated desserts, chocolates and individual pastries in extensive hands-on classes.
- If you dream of opening your own bakery or stylish café, creating and styling spectacular cakes or preparing desserts for elegant events, a career in pastry arts is for you!
- This program is certified by the American Culinary Federation (ACF).

### COLLEGE CREDIT CONNECTIONS

- Erie Community College (ACF Accredited)
- Niagara County Community College (ACF Accredited)

### SPECIAL NOTES

- Graduates receive a certificate that they attended an American Culinary Federation Accredited (ACF) Program and a Junior Culinarian certificate.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Bake Shop Manager  
Event Planner  
Food Writer  
Hospitality Management  
Executive Pastry Chef

### TECHNICAL CAREERS

Specialty Cake Designer  
Pastry Chef  
Artisan Bread Baker  
Commercial Baker  
Retail Bakery Owner  
Food Stylist  
Chocolatier

### ENTRY LEVEL CAREERS

Bakery Assistant  
Pastry Cook  
Cake Decorator  
Retail Baker  
Bread Baker

### BAKING AND PASTRY ARTS I

- Cookies
- Quick Breads
- Cream Puff Paste Products
- Introduction to Pies and Tarts
- Holiday Baking
- Gingerbread Project
- Yeast Dough
- Introduction to Chocolate
- Breakfast Pastries
- Cakes and Icings
- Bistro-Style Cooking
- Professional Portfolio
- Retail Bake Shop

### BAKING AND PASTRY ARTS II

- Advanced Cookies
- Cupcake Wars
- Advanced Pies and Tarts
- Pate Choux
- ServSafe Certification
- Gingerbread Competition
- Internship
- Advanced Cakes and Frostings
- Sugar and Confectionery Techniques
- Laminated Dough
- Artisan Breads
- Frozen Desserts
- Plated Desserts



#### Pastry Chef Tina Fago

*Instructor, Harkness Career Center*

Chef Fago, graduate of the Culinary Institute of America, received a degree in Culinary Arts. She has experience working in both restaurants and bakeries and has participated and placed in several gingerbread competitions.



#### Pastry Chef Meg Schaller

*Instructor, Kenton Career Center*

Chef Schaller, graduate of the Culinary Institute of America, has a degree in Baking and Pastry Management. She recently wrote and published, "Become a Candy Maker at Home", a book aimed at teaching home candy makers how to create professional looking treats.



**American Culinary Federation  
Education Foundation**





## Barbering

### PROGRAM SUMMARY

- Leave your mark on the on the ever changing world of fashion and beauty!
- Prepare for the NYS Master Barber's licensing exam.
- Cut, color, and style male and female clients.
- Choose the work environment that suits you best!
- Learn to communicate effectively with clients and colleagues.
- Master Barbers participate in national organizations and trade shows and many compete in barbering competitions!

### COLLEGE CREDIT CONNECTIONS

- Erie 1 BOCES Workforce Development

### SPECIAL NOTES

- Additional steps are necessary for NYS licensing.
- Students are required to purchase a Barber Kit.

### PROGRAM ELIGIBILITY

- CDOS Credential or Pathway
- 3.75 Credits per Year

## Career Paths

### PROFESSIONAL CAREERS

Barber Instructor  
Cosmetic Chemist  
Product Educator

### TECHNICAL CAREERS

Master Barber  
Barber Shop Owner  
Platform Artist  
Product Representative  
Trade Show Organizer

### ENTRY LEVEL CAREERS

Barber Apprentice  
Receptionist  
Assistant  
Sales Representative

## THE SCIENCE OF BARBERING

- Microbiology
- Infection Control
- Safe Work Practices
- Implements, Tools and Equipment
- Anatomy and Physiology
- Chemistry and Barbering
- Electricity and Barbering
- Properties and Disorders of the Skin and Scalp

## CLIPPER CUTTING

- Clipper - Over - Comb
- Zero Degree and Up Fades
- Edge Ups
- Design Lines with Trimmers

## SHEAR CUTTING

- 0 Degree Haircut
- 90 Degree Haircut
- 45 Degree Haircut
- 180 Degree Haircut
- Shear Over Comb
- Point Cutting

## NEW YORK STATE BOARD PROCEDURES

- Packing Your Kit and Supplies
- Ideal Live Model Candidates
- Proper Sanitation and Disinfection Technique
- State Board Haircut
- State Board Facial

## SCHOOL BARBER SHOP

- Client Consultations
- Execution of Services
- Communicating Effectively with a Client

## MUSTACHE AND BEARD DESIGN

- Proper Strokes and Direction
- Designed Facial Hair

## PROFESSIONAL BARBERING

- Men's Facial Massage
- Shaving and Facial Hair Design
- Basic Principles of Haircutting
- Long and Short Hair Design
- Clipper Cutting
- Basic Tapers
- Line Ups
- Texturizing Techniques
- Blending Techniques
- Men's Hair Replacement
- Women's Hair Design and Style

## HAIR COLORING AND LIGHTENING

- Basic Hair Color Applications
- Color Theory and Terminology
- Special Effects Hair Coloring
- Coloring Mustaches and Beards

## THE BUSINESS OF BARBERING

- State Board Preparation
- Job Search
- Shop Management





## Building Trades

### PROGRAM SUMMARY

- Develop, design and construct various structures using 21st century tools and technology.
- Gain skills and certificates that allow you to be employed anywhere in North America.
- Develop skills necessary to use and operate the same tools a master carpenter would use.
- Experience and manage real life construction projects.
- Discover a variety of careers in the building trades to help make smarter career decisions for your future.

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Erie Community College
- Morrisville State College

### SPECIAL NOTES

- Students are responsible for purchasing work boots and basic hand tools (tool pouch, hammer, tape measure, etc.).

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Project Manager in Construction  
 Engineer  
 Company Owner  
 Architect  
 Building Inspector  
 Foreman / Superintendent

### TECHNICAL CAREERS

Home Energy Auditor  
 Home Inspector  
 Drafter  
 Heavy Equipment Operator  
 Carpenter  
 Surveyor  
 Mason

### ENTRY LEVEL CAREERS

Construction Laborer  
 Union Apprentice  
 Flooring Installer  
 Drywall Installer  
 Roofer / Sider  
 Painter

### CONSTRUCTION SAFETY

- OSHA Compliance
- OSHA 10 Certification
- Ladder, Scaffold Safety
- Safe Tool Use
- Jobsite Safety

### HAND AND POWER TOOLS

- Proper Use
- Repair and Maintenance
- Safe Handling and Storage

### ROUGH CARPENTRY

- Frame Floors and Walls
- Cut Roof Rafters
- Learn Different Home Building Techniques

### ELECTRICAL AND PLUMBING

- Gain Knowledge and Understanding of Different Careers
- Learn Basic Skills for Future Projects and Applications

### FINISH CARPENTRY

- Learn Finishing Skills Such as Trim, Flooring, Drywall and Fine Woodworking

### COMMON STRUCTURES

- Estimating
- Print Reading
- Energy Efficiency
- Interior and Exterior Finishes





# Career Exploration

*Find Your Path*

## PROGRAM SUMMARY

- Experience a variety of programs in pursuit of your passion.
- Full year students will experience 8 different programs for 5 weeks at a time.
- Half year students will experience 4 programs for 5 weeks at a time.
- Time is spent shadowing the program and completing various projects designed for the Career Explorer.

## SPECIAL NOTES

- Career Exploration is available as a whole or half year option.
- CDOS tracking and eligibility for full year students only.
- Available to students in grades 10, 11, and 12.

## PROGRAM ELIGIBILITY

- 3.75 Credits per Year
- For CDOS needs, please speak to an E1B School Counselor

# Exploration Opportunities

Animal Science  
 Auto Technician Training  
 Aviation Technology  
 Baking and Pastry Arts  
 Barbering  
 Building Trades  
 Collision Repair  
 Cosmetology  
 Criminal Justice

Culinary Arts  
 Cybersecurity and Networking  
 Dental Laboratory Technology  
 Digital Media  
 Early Childhood Education  
 Electrical Systems  
 Electronics and Computer Technology  
 Engineering and Robotics  
 Fashion Design Technology

Health Careers  
 Plumbing, Heating, and  
 Air Conditioning  
 Sports Science Careers  
 Video Production and Recording Arts  
 Web Technologies and  
 Game Programming  
 Welding



“WE ARE VERY PROUD OF THE WORK WE’VE DONE WITH THE BOCES PROGRAM OVER THE LAST 16 YEARS. THE STUDENTS WE HAVE WORKED WITH IN YOUR PROGRAM HAVE BEEN NOTHING LESS THAN EXCEPTIONAL. WE LOOK FORWARD TO CONTINUING OUR WORK WITH YOU.”

AMANDA LANYZS | NORTHEAST COLLISION



## Collision Repair

### PRE-APPRENTICE PARTNERSHIP

- WNY needs more qualified collision repair technicians!
- Collision Repair students will participate in a 4-week job shadowing experience at a partnering location during their Junior and Senior years.
- Paid internships are available throughout the summer.
- Upon graduation, students are guaranteed a job interview for applicable openings.
- Apprenticeship opportunities are available to successful graduates.

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Erie Community College
- Lincoln Technical Institute
- Morrisville State College
- Ohio Technical College
- Universal Technical Institute

### SPECIAL NOTES

- This program aligns with iCar curriculum and standards. Students will work towards iCar industry certifications in "Non-Structural Technician" and "Refinish Technician."
- Students are responsible for purchasing work pants, coveralls, and work boots.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Teacher  
Shop Owner / Manager

### TECHNICAL CAREERS

Painter  
Estimator  
Frame Repair Technician  
"A" or "B" Level Technician

### ENTRY LEVEL CAREERS

Detailer  
Tear Down / Dismantler  
Vehicle Preparation  
"C" Level Technician

### AUTO TECHNOLOGY CORE

- Orientation
- Introduction to Technology
- Introduction to Hardware
- Safety
- Hand Tools
- Power Tools
- Lifts and Jacks
- Lubrication
- Introduction to Cooling Systems
- Introduction to Detailing
- Welding and Cutting
- Introduction to Electrical Systems
- Leadership
- Wheels and Tires

### NON-STRUCTURAL REPAIR

- Damage Repair
- Sheet Metal Repair and Roughout
- Plastic Body Filler
- Panel Replacement
- Bumpers and Plastic Repair
- Corrosion Protection

### METAL INERT GAS WELDING (MIG)

- Introduction to Mig Welding
- Mig Welding Equipment and Techniques
- Constructing Mig Welds
- Welding Aluminum
- Resistance Spot Welding

### PAINTING AND REFINISHING

- Introduction to Painting and Refinishing
- Equipment and Safety
- Spraying Techniques
- Surface Preparation and Undercoats

### DETAILING

- Tools and Equipment
- Safety
- Detailing Before Collision Repair
- Detailing After Collision Repair
- Independent Detailer
- Auto Dealership Detailer
- Internships

### STRUCTURAL REPAIR

- Structural Analysis / Damage Repair
- Damage Identification and Estimating
- Measure System and Damage Analysis
- Frame Repair Techniques and Equipment
- Sectioning and Replacement of Structural Parts

### ADVANCED PAINTING AND REFINISHING

- Equipment and Safety
- Spraying Techniques
- Surface Preparation and Undercoats
- Introduction to Top Coats
- Introduction to Base Coats and Clear Coats

### SPECIALTY PAINTING

- Top Coats
- Tri-coats and Refinishing
- Typical Paint Problems
- Custom Paint
- Airbrushing

**NOW OFFERING A  
PRE-APPRENTICE EXPERIENCE!**

✓ **JOB SHADOWING**

✓ **PAID SUMMER INTERNSHIPS**

✓ **GUARANTEED JOB INTERVIEWS**





## Cosmetology

### PROGRAM SUMMARY

- Do you want to change people's lives and make them feel good about themselves?
- As a cosmetologist, you will have the luxury to choose which work environment suits you best.
- The cosmetologist is an outgoing person with a flair for creativity.
- Today's beauty professional is a member of the expanding and ever changing world of fashion and design.
- If you are innovative and ambitious, there is no limit to your potential!

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Erie 1 BOCES Workforce Development

### SPECIAL NOTES

- Students are responsible for purchasing a cosmetology kit and uniform.
- Additional steps are necessary for NYS licensing.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Franchise Owner or Manager  
Cosmetology School Teacher  
Artistic Director for Salons or Brands  
Celebrity or Personal Stylist  
State Board Examiner  
Trade Publication Writer

### TECHNICAL CAREERS

Salon Stylist  
Salon or Spa Owner or Manager  
Hair Color Specialist  
Make Up Artist  
Stylist for Film and Theater  
Platform Artist  
Editorial or Advertising Stylist

### ENTRY LEVEL CAREERS

Salon Receptionist  
Cosmetic Sales  
Marketing and Merchandising  
Fashion or Cosmetic Retail Sales  
Assistant Stylist

## HAIR COLOR

- Dimensional Hair Color Using Foils
- Permanent and Semi-Permanent Hair Coloring Products
- Color Consultations and Analysis
- Color Formulation and Application
- Highlighting and Lowlighting Techniques
- Hair Color Correction

## HAIR CUTTING

- Basic and Advanced Hair Cutting Procedures
- Texturizing Hair Using Scissors
- Clipper Cutting
- Cuts for Men, Women and Children

## HAIR DESIGN

- Braiding
- Updos and Special Occasion Designs
- Finger Wave Designs
- Pin Curl Sets and Styling
- Methods of Extensions
- Temporary and Permanent Hair Straightening

## NAIL CARE

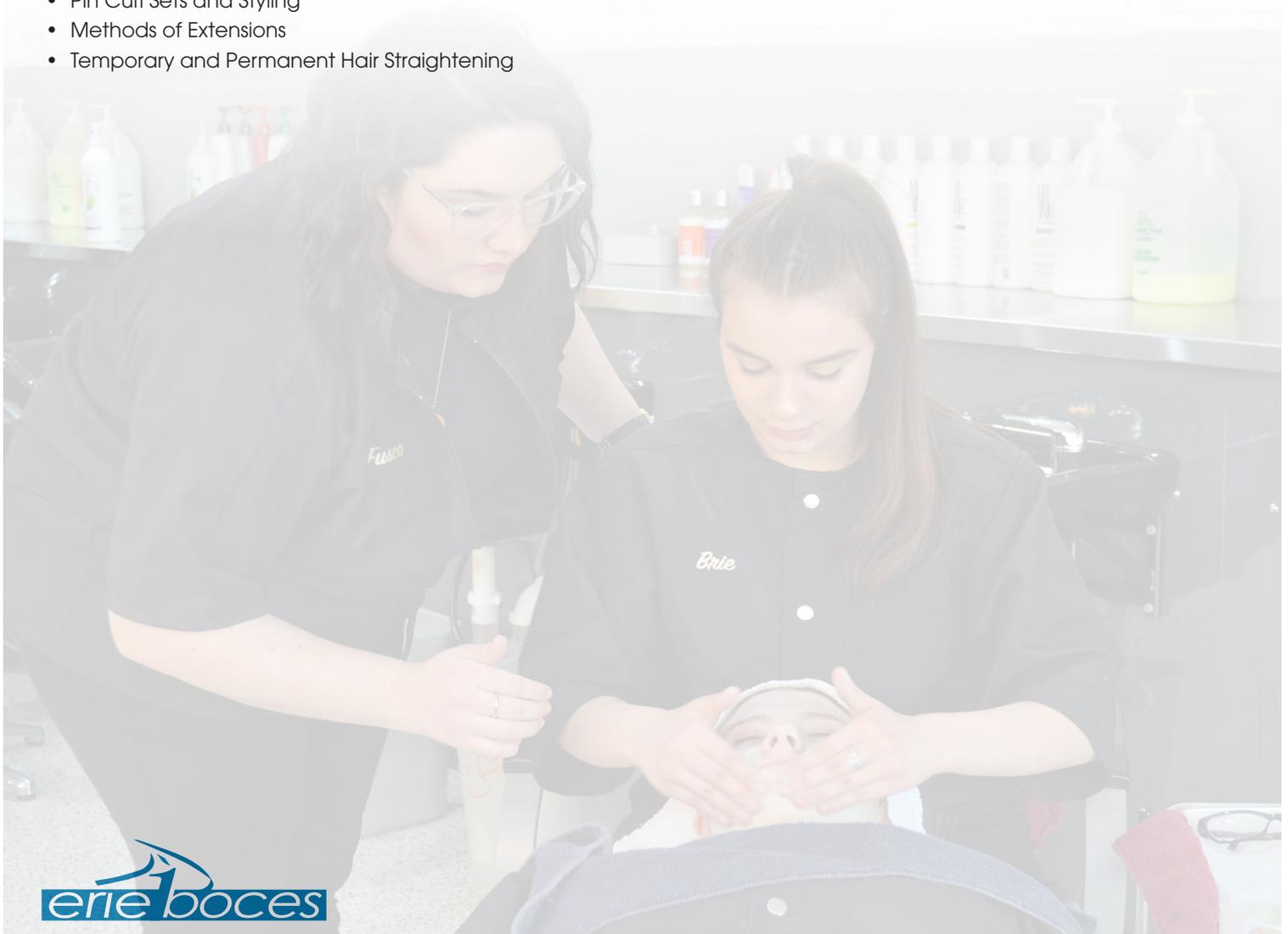
- Manicures (Natural)
- Pedicures
- Nail Care
- Nail Art and Enhancements

## SKIN CARE

- Foundational Skin Care
- Skin Tone Analysis and Consultation
- Facials and Massage
- Spa Techniques
- Make Up Applications

## STATE EXAM PREPARATION

- Salon Operations
- Review of NYS Licensing Procedures
- Presentation of Portfolios





## Criminal Justice

### PROGRAM SUMMARY

- Network and interact with criminal justice professionals at the local, county, state and federal agencies. This includes guest speakers, field trips and internships.
- Leave the program with the traits needed to be a criminal justice professional, including discipline, integrity and professionalism.
- Develop a career plan for your area of interest, including college and career planning.

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Canisius College
- Erie Community College
- Hillbert College
- Medaille College
- Niagara County Community College
- Niagara University
- SUNY Canton

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

FBI  
CIA  
DEA  
ATFE  
U.S. Marshal  
Lawyer  
Parole Officer  
Probation Officer

### TECHNICAL CAREERS

State Police  
Border Patrol  
Municipal Police  
DEC  
Park Police  
Uniform Division Secret Service  
NFTA

### ENTRY LEVEL CAREERS

Private Security  
Corrections Officer  
TSA  
Loss Prevention  
EMT / Paramedic  
Armored Car Delivery Service

### EMERGENCY RESPONSE

- AED
- Advanced First Aid
- Adult / Child / Infant CPR AED

### POLICE PRACTICAL SKILLS

- Handcuffing
- Body / Building Search
- Auto Felony Stop
- Field Sobriety
- Self Defense

### CAREER DEVELOPMENT

- Civil Service Testing
- Police Physical Fitness
- NYS Security Officer Certification

### CRIMINAL INVESTIGATIONS AND FORENSICS

- Evidence Preservation and Collection
- Recording the Crime Scene
- Analysis of Evidence

### CRIMINAL MINDS

- Violent Crime
- Serial Spree and Mass Murder
- Why People Commit Crime

### COURTS AND CORRECTIONS

- Mock Trials
- Pre Trial Procedures
- Probation
- Punishment and Sentencing
- Prison and Jails





## Culinary Arts

### PROGRAM SUMMARY

- Work in a high energy, fast paced environment.
- Learn about the latest food trends.
- Create new and exciting foods!
- Prepare food for actual catered affairs.
- Experience Work Based Learning at leading restaurants, country clubs and corporations.
- Employment opportunities while enrolled in the program, **EARN WHILE YOU LEARN!**
- This program is certified by the American Culinary Federation (ACF).

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Culinary Institute of America (ACF Accredited)
- Erie Community College (ACF Accredited)
- Niagara County Community College (ACF Accredited)
- Trocaire College

### SPECIAL NOTES

- Graduates receive a certificate that they attended an American Culinary Federation Accredited (ACF) Program and a Certified Fundamentals Cook (CFC) designation.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)
- Culinary Fundamentals Cook Certification (CFC)
- ACF Certificate

## Career Paths

### PROFESSIONAL CAREERS

Culinary Arts Instructor  
 Food Stylist  
 Food Research and Development Chef  
 Food Chemist  
 Culinary Journalist  
 Cookbook Editor  
 Banquet Manager  
 Head Chef  
 Restaurant Owner

### TECHNICAL CAREERS

Chef  
 Sous Chef  
 Health Inspector  
 Line Cook  
 Food / Equipment Sales  
 Banquet Facility Manager  
 Health Care Chef  
 Restaurant Manager

### ENTRY LEVEL CAREERS

Prep Cook  
 Host / Hostess  
 Sanitation Assistant  
 Customer Service Representative  
 Food Service Representative  
 Hospitality Service Worker  
 Wait Person

## CULINARY BASICS

- Professionalism
- Chef Uniform
- Career Opportunities

## SAFETY AND SANITATION

- Foodborne Illness
- Equipment Management
- Receiving and Storage of Food

## KNIVES AND SMALL EQUIPMENT

- Safety and Storage
- Proper Handling and Sharpening
- Culinary Terms and Knife Cuts
- Mise en Place

## STOCKS, SOUPS, AND SAUCES

- Prepare Stocks Using Fresh Ingredients
- Soups made from Scratch
- Learn and Prepare the 5 Mother Sauces with Accompaniments

## QUICKBREADS

- Measurement Fundamentals
- Baking Equipment Usage
- Cookies
- Muffins
- Biscuits and Scones

## GARDE MANGER (COLD FOOD PREPARATION)

- Salads and Dressings
- Cold Appetizers
- Sandwiches
- Vegetable, Herb and Spice Identification

## STARCHES

- Potatoes
- Pasta
- Rice
- Grains

## CAKES AND PIES

- Frostings
- Decorating Basics
- Crust Production
- Pie Fillings

## YEAST DOUGHS

- Breads and Rolls
- Pizza

## BREAKFAST

- Egg Cooking Techniques
- Meats
- Breakfast Breads

## POULTRY

- Chicken and Turkey
- Variety of Cooking Methods
- Fabrication Techniques
- Safe Cooking and Handling Procedures

## MEAT

- Beef, Pork, Lamb, and Veal
- Variety of Cooking Methods
- Fabrication Techniques
- Safe Cooking and Handling Procedures

## FISH AND SEAFOOD

- Fish Selections, Shrimp, Clams, and Oysters
- Variety of Cooking Methods
- Fabrication Techniques
- Safe Cooking and Handling Procedures

## FRONT OF THE HOUSE

- In School and Community Catering Functions
- Large Quantity Cooking
- Service Basics

## FAQ'S

- 4 out of 5 Days a Week are Spent Cooking in the Kitchen
- 1 Day a Week Learning Theory
- 60 Hours of Work Based Learning Experience (Culinary Arts II)
- Multiple Occasions for Community Service Work
- Employment Opportunities



# Cybersecurity and Networking

## PROGRAM SUMMARY

- Use the latest software to analyze data traffic on a network.
- Design computer networks and program routers and switches.
- Troubleshoot PC hardware and operating systems.
- Get industry standard Network+ and Cisco CCNA certifications while still in high school.

## COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Erie Community College
- SUNY Canton
- Trocaire College

## SPECIAL NOTES

- Graduates are eligible to take the Cisco Certified Network Associate (CCNA) certification licensing exam as well as the CompTIA A+, Network+ and Security+ certifications.

## PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Penetrating Tester  
Ethical Hacker  
Cyber Threat Analyst  
Security Administrator  
Vulnerability Assessor  
Security Engineer

### TECHNICAL CAREERS

Local Area Network Administrator  
Network Security Technician  
Network Software Support Specialist  
Network Systems Engineer

### ENTRY LEVEL CAREERS

Help Desk Technician  
Computer Repair Technician  
Network Installation Technician  
Network Support Specialist  
Law Enforcement  
CERT Member  
Telecommunications Technician  
Wiring and Cabling Installation Technician

### DIGITAL FORENSICS

- Analyze Computer Data and Hardware for Evidence Collection and Criminal Prosecution

### WIRESHARK

- Analyze Network Traffic to Identify Vulnerabilities and Monitor Network Activity

### BACK TRACK AND KALI UTILITIES

- Utilize Suite of Utilities to Find Flaws in Network Security

### INTRO TO NETWORK SECURITY

- Design and Build Networks Using the Latest Tools to Analyze and Enhance Network Security

### CYBER TERRORISM

- Research Ethics and Morals in Relation to Cyber Attacks on Society and the Mentality of a Cyberterrorist

### FIREWALL CONFIGURATION

- Configure Hardware Firewalls from Various Vendors for Added Network Security

### WIRELESS CONFIGURATION

- Configure and Setup Secure Wireless Devices for Home and Business

### STEGANOGRAPHY

- Use Various Programs to Hide Data Within Pictures, Videos and Music Files





## Dental Laboratory Technology

### PROGRAM SUMMARY

- It's an exciting time to enter the dental field with new digital techniques, materials, and equipment.
- Dental laboratory technology is the art and science of the fabrication of corrective devices and replacements for natural teeth.
- The course covers five specialties of dental laboratory technology: complete denture, partial denture, crown and bridge restoration, porcelain and ceramics and orthodontics.
- A combination of science, art, skill and craftsmanship along with a complete comprehension of basic techniques, materials, anatomy and terminology will enable the students to fabricate an appliance from beginning to end.

### COLLEGE CREDIT CONNECTIONS

- Erie Community College

### SPECIAL NOTES

- Students are responsible for purchasing a lab coat.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Dentist  
Oral Surgeon  
Orthodontist

### TECHNICAL CAREERS

Dental Lab Technician  
Research and Development  
Dental Hygienist

### ENTRY LEVEL CAREERS

Dental Supply Company  
Dental Office  
Dental Assistant

## UNIT 1

- SkillsUSA
- Laboratory Safety
- Oral Anatomy
- OSHA - Infection Control
- Tooth Morphology
- Dental Terminology

## UNIT 2

- All Phases of Complete Dentures
- Denture Repairs
- Denture Border Anatomy
- Interim Partial / Flipper
- Interim Denture / Jiffy Denture
- Introduction to Orthodontics

## UNIT 3

- Orthodontic Appliances
- Hawley Retainers
- Two Pour Models
- Crown and Bridge Restorations
- Waxing Inlays and Onlays
- Investing and Casting Inlays and Onlays
- Finishing / Polishing
- Temporary Crown
- Full Cast Gold Crown

## UNIT 4

- Crown and Bridge Restorations
- Waxing 3-Unit Bridge
- Investing / Casting
- Finishing / Polishing
- Partial Denture Frameworks
- Introduction to Dental Laboratory Porcelains
- Introduction to Porcelain Fused to Metal

## UNIT 5

- Dental Anatomy
- Oral Anatomy
- Complete Dentures II
- Characterization
- Light Curing Materials
- Success Injection System

## UNIT 6

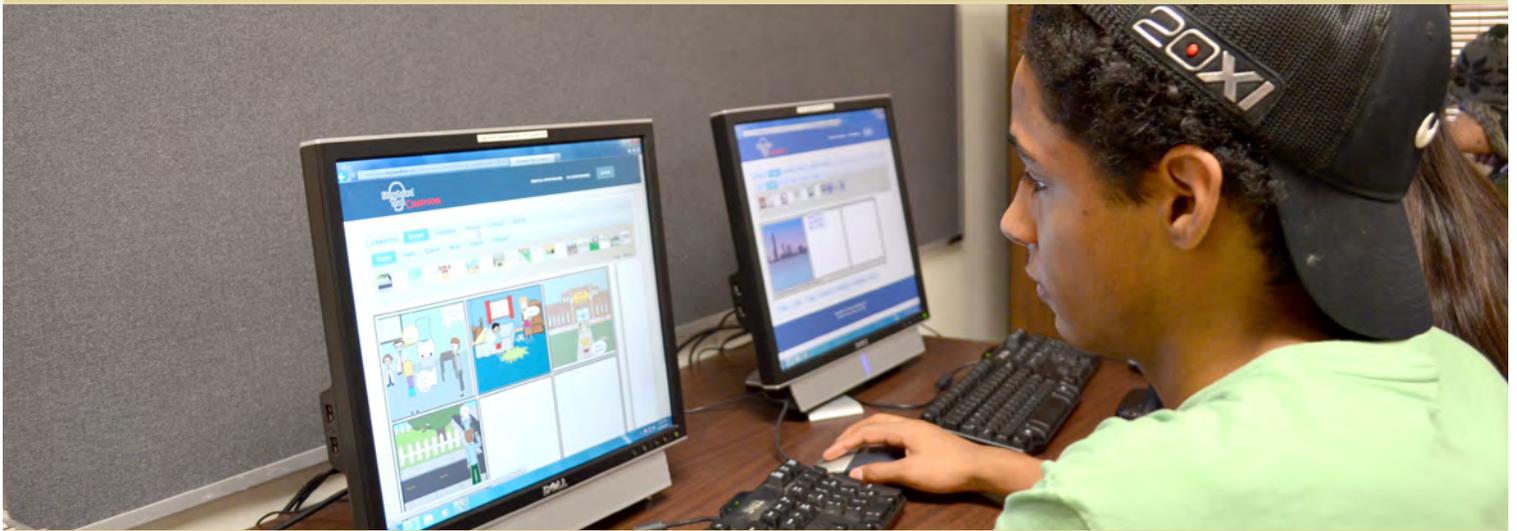
- Complete Dentures II
- Immediate Dentures
- Reline and Rebases
- Intro to Dental Implants
- Orthodontics II
- Soldering
- Removable Alignment Appliance
- Custom Mouth Guards
- Bleaching Trays

## UNIT 7

- Crown and Bridge
- Disposable Articulation System
- Single Tray Impression System
- Waxing Copings
- Induction Casting
- Life-Cast Coping
- Preparation of Coping
- Ceramics / Porcelain

## UNIT 8

- Ceramics
- Addition of Porcelain
- Cosmetic Dentistry
- Intro to CAD / CAM
- Professional Interview
- Internship (3 Weeks on Site)
- 3 Shape Digital Design / Scanning and Zirconia Milling System



## Digital Media

### PROGRAM SUMMARY

- Create impressive graphics, stunning video and eye-popping animation alongside industry professionals.
- Develop design skills for digital screens and print layouts, short films, photography and animation.
- Operate software and hardware used by today's digital media workforce.

### COLLEGE CREDIT CONNECTIONS

- Canisius College
- Hillbert College
- Medaille College
- Mohawk Valley Community College
- Niagara County Community College
- Villa Maria College

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Film Producer / Director  
Cinematographer  
Graphic Designer  
Photographer  
Production Manager  
Animator  
Package Designer  
Digital Media Specialist

### TECHNICAL CAREERS

Associate Media Producer  
Digital Artist  
Event Manager  
Layout Designer  
Multimedia Editor  
Advertising Copywriter

### ENTRY LEVEL CAREERS

Production Assistant  
Film Grip  
Assistant Copywriter  
Event Coordinator  
Assistant Layout Designer

### PHOTOSHOP

- Understanding Raster Images
- Starting a Project / Program Interface
- Working in Layers
- Selection / Move / Crop Tools
- Scaling / Skewing / Rotating: Free Transform
- Filters and Effects
- Working with Text

### DIGITAL PHOTOGRAPHY

- Basic DSLR Operation
- Lighting for Photography
- Framing and Composition
- Video Recording

### PREMIERE PRO

- File Management
- Capturing and Importing Files
- Editing: Insert, Overwrite, Roll, Ripple
- Composite Video / Creating Titles
- Transitions / Effects / Coloring
- Editing Audio / Recording Voiceovers
- Exporting Client Ready Files

### SOUND DESIGN

- Multitrack Recording in Audition
- Recording Foley and ADR
- Layering Sound Effects

### PROJECT EXAMPLES (YEAR 1)

- Movie / Concert Poster
- Magazine Layout
- Photo Restoration
- Printing and Mounting Work for Display
- Mini Documentary / Interview
- Product Commercial
- Short Film Production
- Animatic Production

### ILLUSTRATOR

- Understanding Vector Graphics
- Program Interface / Working with Documents
- Selecting and Transforming Objects
- Working with Paths
- Fills and Strokes
- Creating Shapes
- Using Type
- Drawing with Digital Tablets
- Exporting Client Ready Files
- Working with Color: RGB vs CMYK
- Typography
- Printing and Engraving Vector Graphics

### ANIMATE

- Setting Up Project / Interface / Import Files
- Working within a Timeline and Frame Rates
- Frames and Key Frames
- Drawing Shapes / Using Symbols
- Applying Motion Tweens
- Inverse Kinematics: Bone Systems
- Using Effects / Masks / Text
- Incorporating Audio and Video
- Publishing Client Ready Files

### PROJECT EXAMPLES (YEAR 2)

- Logo Design
- Package Design and Construction
- Creating a Font
- T-Shirt Design
- Animated Logos
- Animated Web Banners
- Titles for Video and Film
- Character Animation
- Digital Portfolio



## Early Childhood Education

### PROGRAM SUMMARY

- Work side-by-side with a certified teacher in a daycare or elementary classroom.
- Participate in work-based learning experiences with the YMCA, Children's Hospital, the Buffalo Zoo, UB Childcare and more.
- Create and teach your own lessons in a preschool program run right out of our school.
- Re-experience the fun of your early childhood years through art, music and storytelling.

### COLLEGE CREDIT CONNECTIONS

- Erie Community College
- Herkimer County Community College
- Medaille College
- Niagara County Community College
- SUNY Canton

### SPECIAL NOTES

- Current physical required.
- This program is eligible for post-secondary dual enrollment opportunities.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Elementary School Teacher  
 Social Worker  
 Speech and Language Pathologist  
 Child Psychologist  
 Pediatric Nurse or Pediatrician  
 Office of Child and Family Services  
 Play Therapists  
 Children's Librarian  
 Child Life Specialist

### TECHNICAL CAREERS

Teacher Aide  
 Lead Teacher - Daycare  
 Day Care Director / Owner  
 Children's Author  
 Children's Museum Educator

### ENTRY LEVEL CAREERS

Preschool Aide  
 Nanny  
 Before / After School Care  
 Recreation Programs  
 Dance Instructor  
 Coach

## INTRO TO EARLY CHILDHOOD EDUCATION

- Opportunities in Early Childhood
- Your Role in Careers with Children

## USING TECHNOLOGY

- o365
- Apps (Ka hoot, Prezi)
- Photography in the Classroom
- Interactive White Board
- iPad

## LITERATURE

- Methods of Storytelling
- Choosing Children's Books
- Steps for Reading Aloud to Children
- Children's Authors

## HEALTH & SAFETY

- Guidelines for Promoting Children's Safety
- Health Guidelines for Working with Children
- Indicators of Child Abuse
- Special Health Concerns

## GUIDANCE AND DISCIPLINE

- Direct and Indirect Guidance
- Appropriate Social-Emotional Skills
- Children's Fears and Stress

## CURRICULUM

- Daily Routines
- Program Goals
- Use of Themes
- Choosing DAP Activities
- Block Plans/Lesson Plans

## BRAIN DEVELOPMENT

- Brain Development
- Developmental Theorists

## BIRTH TO AGE TWO

- Infant's Development (Physical, Social, Emotional and Intellectual)
- Play and Infant Learning
- Materials and Activities for Working with Infants

## TWO AND THREE-YEAR-OLD CHILDREN

- Development of Two and Three-Year Old's (Physical, Social, Emotional and Cognitive)
- Appropriate Materials for Use with Two and Three-Year Old's

## FOUR AND FIVE-YEAR-OLD CHILDREN

- Development of Four and Five-Year Old's (Physical, Social, Emotional and Cognitive)
- Materials and Activities for Working with Four and Five-Year Old's

## SCHOOL-AGE CHILDREN

- Development of School Age Children (Physical, Cognitive, Social and Emotional)
- Special Programs for School Age Children
- Special Concerns When Working with School Age Children

## MUSIC AND ART

- Music and Movement Activities
- Music as a Multicultural Experience
- Music and Language Skills
- Art and Sensory Experiences
- Stages of Art Development

## MATH AND NUMBER READINESS

- Math and Number Readiness
- Assessing Math Readiness
- Math Learning Centers

## SCIENCE

- Science Themes
- Experiments
- Science Learning Centers

## VALUE OF PLAY

- Guiding Play and Puppetry Experiences
- Stages of Play
- Planning for Dramatic Play

## CHILDREN WITH SPECIAL NEEDS

- Caring for Children with Special Needs
- IEP (Individualized Education Plans)
- Careers in Support Services (OT, PT and Speech)

## SOCIAL STUDIES

- Diversity in Our Community
- Multicultural and Multigenerational Families
- Recycling
- Field Trip Experiences



## Electrical Systems

### PROGRAM SUMMARY

- This program focuses on the importance of safety, theory and application of all facets of the electrical industry.
- Students have the opportunity to complete a 30-hour internship with electricians in the field.
- Students will learn the codes associated with the electrical industry.
- Solar and wind technology is an emphasis of this program.

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Erie Community College
- Lincoln Technical Institute

### SPECIAL NOTES

- Boots or safety shoes are required for this program.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Solar Technician (Photovoltaics)  
 Wind Turbine Technician  
 Electrical Engineer  
 Electrical Construction &  
 Maintenance Management  
 Utility Scale Worker  
 Maintenance Technician  
 Electrical Inspector

### TECHNICAL CAREERS

Residential Electrician  
 Commercial Electrician  
 Automotive Electrician  
 Electrical Sales Representative  
 Audio Service Technician

### ENTRY LEVEL CAREERS

Electrician Helper  
 Apprentice

### THE BASICS

- Electrical Safety
- Trade Measurements
- Hand Tools
- Technical Calculations
- Basic Equipment and Procedures
- Wiring Methods

### ELECTRICAL CIRCUITS I

- Power Calculations
- Specialized Tools and Equipment
- Circuit Fundamentals
- Magnetism
- Raceways and Fittings

### ELECTRICAL CIRCUITS II

- Combination Circuits
- Trouble Shooting Methods
- Electrical Testing
- Cable
- Proper Enclosure Installation
- Ohm's Law

### RESIDENTIAL AND BLUE PRINT READING

- Electrical Construction Drawings
- Overcurrent Protection
- Lighting
- Residential Service Installations
- Load Center Calculations
- Commercial and Industrial Services

### A/C THEORY

- Single / Three Phase Distribution
- Transformers
- A/C Theory
- OSHA 10 Safety Certification

### MOTOR CONTROLS

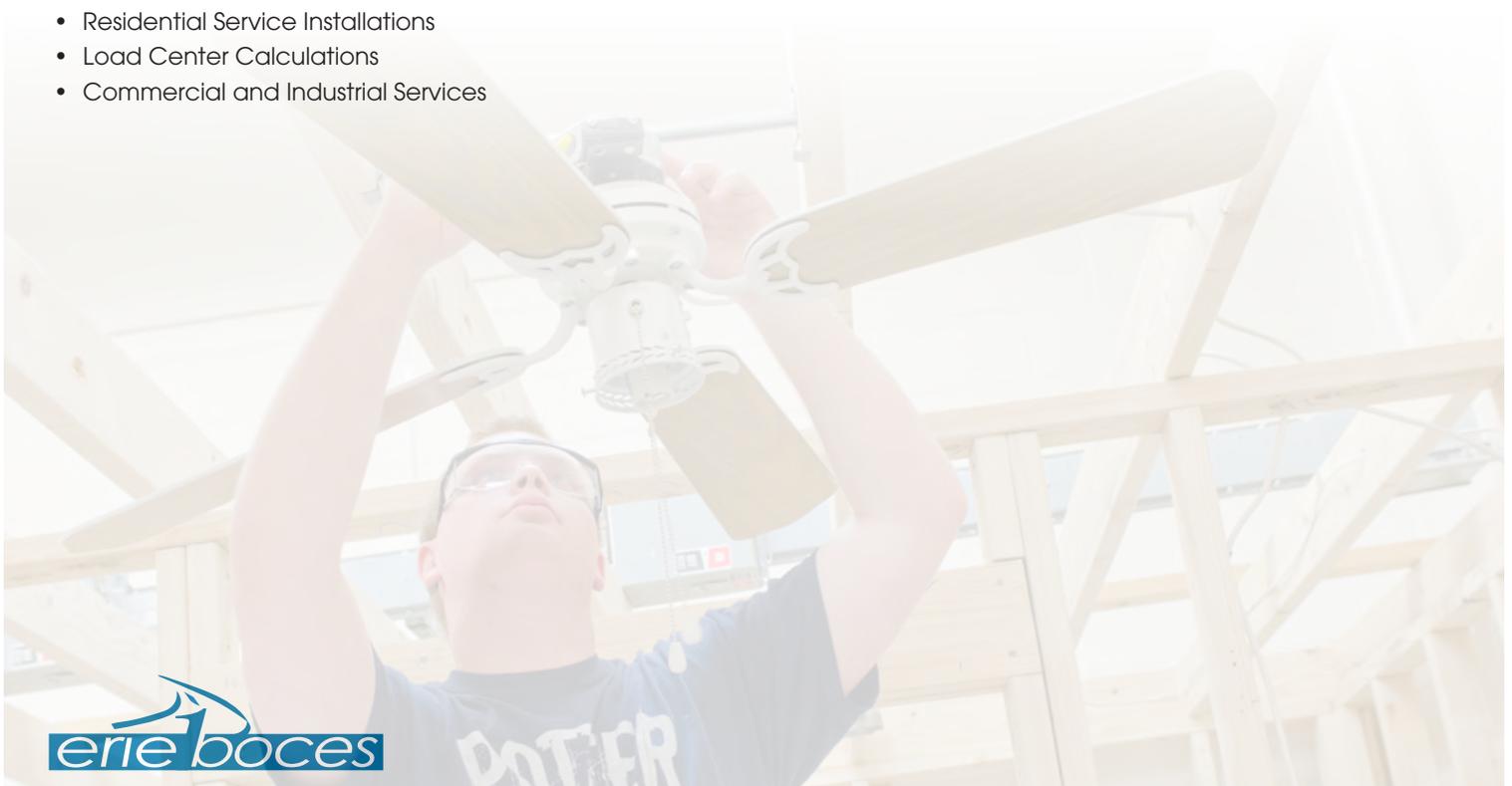
- Conductor Terminations and Splices
- Control Circuit Fundamentals
- Motor Controls
- Motor Theory and Application

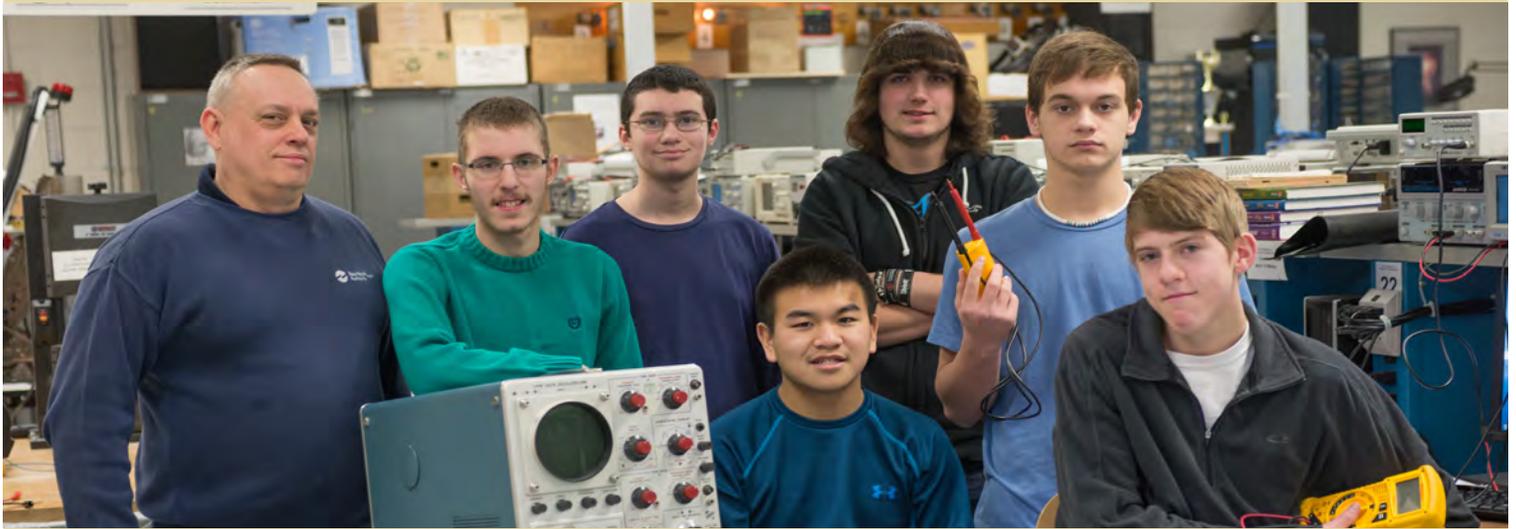
### RENEWABLE TECHNOLOGIES

- Renewable Energy
- Photovoltaic Systems
- Wind Technology
- Battery Technology
- Inverters and Application

### CONTROL SYSTEMS AND INTERNSHIPS

- Circuit Breakers and Fuses - Calculations and Applications
- Three Phase Motors
- Contractors and Motor Starters
- Financial Literacy
- Internship





## Electronics & Computer Technology

### PROGRAM SUMMARY

- Do you want to learn about the latest technology in personal computing, cellular communications, HDTV, virtual reality, Bluetooth, game machines and car audio / video systems?
- Would you like to use soldering irons, hand tools, meters and oscilloscopes to build computers, robots, amplifiers, speakers, wireless devices, power supplies and other "high tech" projects?
- Can you picture yourself working with...
  - ✓ Personal and high performance gaming computers?
  - ✓ Robots on a factory production floor?
  - ✓ Drone planes for the government?
  - ✓ X-ray machines, MRI and CAT scanners in a medical facility?
  - ✓ Cellular and fiber optic communications networks?
  - ✓ Sound, lighting and special effects equipment on a major concert tour?

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Erie Community College
- SUNY Canton

### SPECIAL NOTES

- Students are eligible to take the National Occupational Competency Testing Institute (NOCTI) and Federal Communications Commission (FCC) certification exams upon successful completion of this program.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Electrical Engineer  
 Computer Engineer  
 Robotics Engineer  
 Digital or RF Circuit Engineer  
 Electrical Power Engineer  
 Biomedical Engineer  
 Software Engineer  
 Design & Test Engineer

### TECHNICAL CAREERS

Electronics Technician  
 Robotics Technician  
 Audio - Video Equipment Installer  
 Electro - Mechanical Technician  
 Computer and Office Machine Repairer  
 Broadcast Electronics Technician  
 Medical Electronics Technician / Equipment Repairer  
 Avionics Technician

### ENTRY LEVEL CAREERS

Electronics Assembler  
 Electronics Bench Tester  
 Electronic Sales Representative  
 Cable Television Technician  
 Security Alarm Installer  
 Satellite Systems Technician  
 Telecommunications Installer  
 Solar Panel Installer

## MICROCOMPUTER SYSTEMS

- I/O Peripheral Devices
- Central Processing Unit (CPU), Motherboard and Chip Sets
- RAM, ROM, BIOS, Magnetic and Optical Memory
- Power Supply Operation, Testing and Wattage
- Operating Systems (OS) Software Installation and Upgrades
- Processor Installation, Clock Speed, Overclocking and Cooling

## AMPLIFICATION

- Gain and Frequency Response
- Bandwidth and Decibels
- Small Signal Amplifiers (Preamplifiers)
- Large Signal Amplifiers (Power Amplifiers)
- Amplifier Construction, Testing Troubleshooting and Repair
- Car and Home Theater Audio Systems

## DIGITAL ELECTRONICS

- Binary Number System
- Logic Gates, Boolean Algebra and Combinational Logic
- ASCII Code, Short Message Service (SMS)
- Text Message Protocol
- Counters, Registers and Sequential Logic
- Logic Families (TTL, CMOS)
- Troubleshooting Digital Circuits (Logic Probe, Oscilloscope, DMM)

## SOLDERING, DESOLDERING AND PCB REPAIR

- Metallurgy, Alloys, Eutectic Melting Point and Lead Free Solder
- Soldering Safety and Use of Personal Protective Equipment (PPE)
- Selection and Care of Soldering Irons
- Through Hole and Surface Mount Devices (SMD)
- Component Removal Using Solder Pump and Braid

## SEMICONDUCTOR ELECTRONICS

- Conductors, Insulators and Semiconductors
- Chemical Doping and Production of P & N Type
- Semiconductor Material
- PN Junction Diode Constriction and Biasing
- Light Emitting Diode (LED)
- Bipolar Junction Transistor (BJT)
- Integrated Circuit Design, Construction, Packaging and Pin Identification

## DC ELECTRONICS

- Sources of Electricity
- Voltage, Current and Resistance
- Ohm's Law
- Series, Parallel and Compound Circuits
- Voltmeter, Ohmmeter and Ammeter Measurements
- Power

## AC ELECTRONICS

- Frequency, Period and Wavelength
- Frequency Spectrum, Audio Frequency (A.F.), Radio Frequency (R.F.) and Microwave
- Inductance and Capacitance
- Transformers, Step-Up, Step-Down, Isolation
- Tesla Coils
- Three Phase AC Power Systems, Delta, Wye

## ANALOG / DIGITAL CONVERSION

- Analog to Digital Converter (ADC 0802)
- Digital to Analog Converter (DAC 0802)
- Sampling Rate, Resolution (8 and 24 bit), File Size
- Audio Conversion Formats (PCM, WAV, FLAC, MP3, MP4)
- Video Conversion Files (AVI, WMV, MPG)
- Video File Formats, Compression, CODEC

## TELEPHONE AND CELLULAR COMMUNICATIONS

- Duplex, Simplex and Half-Duplex Transmission
- Line, Trunk and Central Office (CO)
- Cordless Telephone (902-928 MHz, 2.4 GHz ISM)
- Wireless Telephone, Spread Spectrum (1850-1990 MHz)
- 1G (AMPS), 2G (PCS), 3G and 4G (LTE) Wireless
- Cellular and Personal Communications Systems (PCS)

## RADIO COMMUNICATIONS

- Oscillators, Hartley, Colpitts, Crystal, Microwave
- Transmitters, RF Frequency Spectrum, Federal Communications Commission (FCC), International Telecommunications Union (ITU)
- Modulation, Amplitude (AM), Frequency (FM), Pulse Width (PWM)
- Antennas and Transmission Lines, Microwave, RADAR and Satellite Communication Systems
- History of Radio, Nikola Tesla, Lee DeForest, Howard Armstrong, Guglielmo Marconi
- Receivers, Crystal and "Foxhole", Heterodyne, Superheterodyne, Block Diagrams



## Emergency Medical Services

### PROGRAM SUMMARY

- Imagine life in the exciting world of EMS!
- Explore the wide variety of career opportunities available today.
- Build a foundation in emergency response methods and learn to function as part of a health care team including: patient assessment, treatment and transportation.
- Gain knowledge of emergency response methods, dispatch procedures and emergency communication protocols.
- Gain national certifications essential for work in EMS.

### COLLEGE CREDIT CONNECTIONS (ANTICIPATED)

- Bryant & Stratton
- Erie Community College
- Trocaire College

### SPECIAL NOTES

Students will gain national certification in:

- CPR
- First Aid
- First Responder

## Career Paths

### PROFESSIONAL CAREERS

Paramedic  
Trauma / Transport Nurse  
Physician's Assistant  
Registered Nurse

### TECHNICAL CAREERS

Advanced Emergency Medical Technician  
Emergency Medical Technician  
Transport EMS (Mercy Flight)  
Licensed Practical Nurse

### ENTRY LEVEL CAREERS

Certified Nursing Assistant  
Medical Assistant  
Emergency Medical Dispatcher  
Emergency Medical Responder  
Emergency Vehicle Operator

### UNITS OF STUDY

- EMS Systems
- Workforce Safety and Wellness
- Medical Documentation and Report Writing
- EMS Systems Communication
- Therapeutic Communication
- Medical Law and Ethics
- Anatomy and Physiology
- Medical Terminology
- Pathophysiology
- Life Span and Development
- Public Health
- Basic Pharmacology
- Medication Safety
- Medication Administration
- Emergency Medications
- Airway Management
- Respiration
- Artificial Ventilation
- Patient Assessment, Treatment, and Transportation
- Scene Safety and Management





## Engineering and Robotics

### PROGRAM SUMMARY

- Through hands on learning projects and skill based competitions, Engineering and Robotics students prepare for the future by learning how to develop their ideas from concept to reality.
- Throughout the Design Process, we can take an idea and create just about anything you can conceptualize.
- Spend some time with us and learn how to build a trebuchet, help us to develop the technology necessary to create a 3D printed "bobblehead", or create 3D printable parts and artwork from black and white pictures.
- Utilizing classroom technology, we build a pumpkin-throwing trebuchet for annual competition, and a variety of robots for competitions within the classroom, at Tech Wars, and for First Robotics, held annually at RIT.

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Erie Community College
- University of Northwestern Ohio
- SUNY Canton

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Electrical Engineer  
 Mechanical Engineer  
 Robotics Engineer  
 R&D Engineer  
 Professional Engineer  
 Architect  
 Aerospace Engineer  
 Civil / Structural / Environmental Engineer  
 Chemical Engineer  
 Computer Science Engineering  
 Industrial Engineer  
 Design Engineer  
 Stationary Engineer  
 Engineering Manager

### TECHNICAL CAREERS

Electrical Technologist  
 Manufacturing Technologist  
 Computer-Control Programmers and Operators  
 Application Developer  
 Data Analyst  
 Database Administrator  
 Technology Project Manager  
 Electrical Engineering Technologist  
 Mechanical Engineering Technologist

### ENTRY LEVEL CAREERS

Advanced Manufacturing  
 CNC Programmer  
 Robotics Programmer  
 Production Scheduler  
 Repair Technician  
 CAD Designer  
 Software Developer  
 Web Developer

### INTRODUCTION TO ENGINEERING DESIGN (IED)

- Learn 3D Solid Modeling
- Utilize the Design Process
- Learn How to Communicate Using Words, Pictures, Sketches and Drawings
- Learn How to Research and Document Your Work

### PRINCIPLES OF ENGINEERING (POE)

- Engineering Design Problems and Solutions
- Develop Problem - Solving Skills
- Create Solutions to Various Challenges
- Employ Engineering and Scientific Concepts

### VEX ROBOTICS

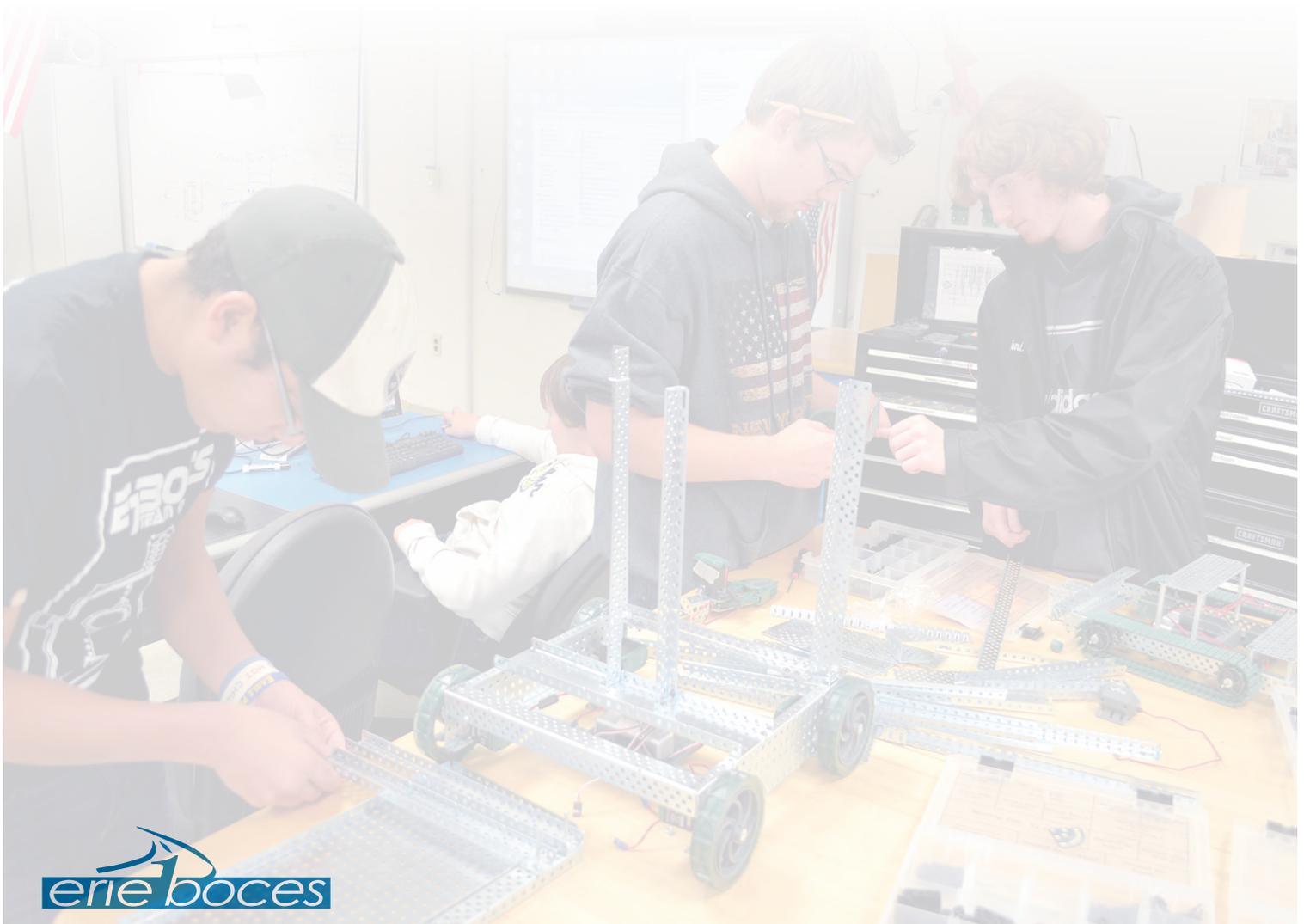
- Learn the Basics of Design, Building and the Control of Robotic Systems
- Learn to Program Robots Using RobotC
- Utilize Motors and Sensors to Navigate Obstacles
- Utilize Robotics to Perform Tasks

### COMPUTER INTEGRATED MANUFACTURING (CIM)

- Find Answers to: How Are Things Made?
- Create an Assembly Line
- Learn About the History of Manufacturing

### ENGINEERING DESIGN AND DEVELOPMENT (EDD)

- Develop Your Own Ideas to Solve Common Problems
- Build a Trebuchet From Scratch
- Create a Full Size Autonomous and Remote Controlled Robot for Competition





## Fashion Design Technology

### PROGRAM SUMMARY

- Experience what it's like to produce a "NYC Fashion Week" style show exhibiting original student designs and styled merchandise selections from WNY Fashion boutiques.
- Meet new friends with similar interests in the fashion industry.
- Learn to dress, style and create trends based on design elements and the fashion cycle.
- Get to know the movement of popular fashion by forecasting fashion trends while applying real world fashion skills.
- Create a successful business plan for a fashion boutique combining your design aesthetics with merchandising concepts.

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Genesee Community College
- SUNY College at Buffalo

### SPECIAL NOTES

- Students in this program are eligible for post-secondary dual enrollment.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Style Director  
Marketing Manager  
Senior Fashion Designer  
Creative Director  
Costume Designer  
Wardrobe Stylist  
Buyer  
Textile Developer  
Graphic Design Artist  
Retail Operations Manager  
Market Research Director  
Fashion Editor  
Resourcing Agent

### TECHNICAL CAREERS

Fashion Merchandiser  
Fashion Designer  
Window Display Artist  
Illustration Artist  
Social Media Manager  
Retail Manager  
Stylist Assistant  
Fashion Show Coordinator  
Personal Shopper  
Assistant Graphic Designer

### ENTRY LEVEL CAREERS

Retail Sales Associate  
Fashion Designer Assistant  
Assistant Fashion Show  
Coordinator  
Seamstress

### FASHION SHOW PRODUCTION

Starting with mood boards and work room sketches, students plan, create and style a line of clothing that is showcased center stage at our yearly fashion show. Students plan every aspect of the show from designs to music to posters to choreography to invitations. This real-world experience is incredibly valuable for all!

### SEWING

Basic sewing skills are used to create interesting projects that reflect student inspirations. Once basic sewing skills are mastered, you can create any designs exhibiting your inspiration.

### GRAPHIC DESIGN

PhotoShop and Illustrator programs are used to create fashion magazine layouts that express current fashion trends and create unique digital pieces of art.

### FASHION TREND FORECASTING

Learn how to predict the next big fashion trend! We locate trends using global resources following fashions in many areas of the industry.

### FASHION PSYCHOLOGY

Why do we wear what we wear? Successful fashion professionals know the spending habits of their customers. This unit helps in figuring out the priorities of consumers and why they wear and buy certain clothing styles paving the way for success in the business of fashion.

### THE BUSINESS OF FASHION

Merchandising, marketing, and advertising are the keys to success in the fashion industry. Students will create a working business plan to use when opening up their own business.

### FIBER, YARN, FABRIC, AND GARMENT PRODUCTION

How do clothes end up in the local mall? This unit follows a garment through all the steps of the production process from fiber to yarn to fabric to garment design to apparel sales. Students learn to appreciate how the clothes they wear everyday are manufactured and the impact of the fashion industry on the environment.

### FASHION HISTORY

Before we can forecast future fashion trends, we need to appreciate how fashion has changed over time. This unit explores fashions and their influences from ancient worlds and American history during the 1900's to the present.

### ANALYZING FASHION COLLECTIONS

Designers find inspiration just about anywhere. Learn how inspirations are the foundations for fashion collections and how a design aesthetic is a common thread in all their collections.

### ILLUSTRATING

Learn how to creatively illustrate fashion designs using a croquis that professional fashion designers use. This skill gives you the freedom to draw anywhere. Then digitize your artwork using PhotoShop and Illustrator.

### TECHNOLOGY

From wearable lights to digital designs in manufacturing, technology is impacting the fashion industry. Learn how to incorporate technology into your fashions from design to manufacturing to merchandising.



## Health Careers

YEAR 1 IS "HEALTH CAREERS." YEAR 2 IS "BASIC NURSING SKILLS." ONE YEAR OPTIONS AVAILABLE.

### PROGRAM SUMMARY

- Health care professionals touch lives and make a difference.
- According to a recent Gallup Poll, nursing is one of the most trusted professions in America.
- Get hands-on experience in a variety of health care environments including long term care facilities, hospitals and an internship during your senior year.
- Develop personal and professional growth in an engaging environment.
- The need for health care professionals will allow you to live or travel wherever you desire while helping others.
- Tour acute care facilities, hospitals, UB's Gross Anatomy Lab, colleges, and the Gates Vascular Institute Brain Museum.

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Erie Community College
- SUNY Canton

### SPECIAL NOTES

- Uniforms are required during on-site, clinical experiences.
- Additional steps are necessary to become a Certified Nursing Assistant.
- Current physical required for Year 2.
- Discount available to students who enter Erie 1 BOCES' LPN program after graduation.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Physician  
Physician's Assistant  
Nurse Practitioner  
Paramedic  
Physical Therapist / Occupational Therapist  
Pharmacist  
Registered Nurse

### TECHNICAL CAREERS

Phlebotomist  
Medical Assistant  
Medical Billing  
Laboratory Technician  
Licensed Practical Nurse  
Radiology Technician  
Emergency Medical Services  
Physical Therapist Assistant  
Occupational Therapist Assistant  
Massage Therapist

### ENTRY LEVEL CAREERS

Medical Receptionist  
Medical Supply Company Service  
Pharmacy Technician  
Dietary Aide  
Central Supply Aide  
Home Health Aide  
Personal Care Aide  
Certified Nursing Assistant

### ORIGINS AND HISTORY OF NURSING

- History and Trends of Health Care
- Health Care Systems
- Careers in Health Care
- Personal and Professional Qualities of Health Care Workers

### ANATOMY AND PHYSIOLOGY

- Major Organs and Systems of the Human Body
- Functions of Each Body System
- Compare Interrelationships of Body Systems
- Basic Diseases Affecting the Body Systems

### MEDICAL TERMINOLOGY

- Basic Medical Abbreviations
- Define Prefixes, Suffixes and Word Parts
- Spell and Pronounce Medical Terms Correctly

### INFECTION CONTROL

- Microorganisms and their Classifications
- Six Components of the Chain of Infection
- Antisepsis, Disinfection and Sterilization
- Bioterrorism
- Aseptic Handwashing
- Standard Precautions
- Sterile Techniques for Gloving and Dressing

### LEGAL AND ETHICAL RESPONSIBILITIES

- Situations that Might Result in Legal Action for Malpractice, Negligence, Assault and Battery, Invasion of Privacy, False Imprisonment, Abuse and Defamation
- How Contract Laws Affect Health Care
- Rights of the Patient Receiving Health Care
- Professional Standards to Meet Legal/Ethical Requirement
- Legal Regulations that Apply to Health Care Records
- HIPPA
- Basic Rules of Ethics for Health Care

### VITAL SIGNS

- Identify the Four Main Vital Signs
- Convert Fahrenheit to Celsius or Vice Versa
- Read a Clinical Thermometer
- Measure and Record Vital Signs Accurately
- Identify Normal Ranges for Vital Signs
- Include Pain as a 5th Vital Sign to be Assessed and Recorded

### COMMUNICATION

- Factors that Interfere with Communication
- Importance of Listening, Non-Verbal Behavior
- Reporting and Recording Processes
- Benefits of Teamwork
- Characteristics of Leaders

### PERSONAL HEALTH AND WELLNESS

- Nutrition
- Cultural Diversity
- Stress Reduction
- Emotional Response to Positive and Negative Stress
- Time Management and Problem Solving
- Depression

### PERSONAL CARE SKILLS

- New York State Department of Health CNA Skills
- Therapeutic Diets
- Assistive Devices for Ambulation / Transfer of Patients
- Measure and Record Height and Weight
- Basic Identification of Medication and Administration
- Geriatric Care
- Pre / Post Operative Care
- Specimen Collection

### GROWTH AND DEVELOPMENT

- Physical, Mental, Emotional and Social Developments
- Eating Disorders and Chemical Abuse
- Methods to Prevent Suicide and Common Warning Signs
- Stages of Grieving
- Maslow's Hierarchy of Needs
- Real Care Baby Project



## Occupational Education

### PROGRAM SUMMARY

- Occupational Education (OE) offers supportive career development programs for students with learning or management needs who require small classes and individually modified curricula.

### OE I (ONE SCHOOL YEAR)

- Students will explore career modules in automotive services, building maintenance, food service, and human service. Student performance is evaluated at the end of each five-week period. Evaluations from OE I are used as a guide to help choose an appropriate training area for OE II.

### OE II (TWO OR MORE YEARS)

- Students will choose one of four strands in which to continue skill development. These include Automotive Services, Building Maintenance, Food Service, and Human Service. Curriculum activities relate to entry level employment skills necessary for successful performance. Internships are available for those students ready to work in the community.

### SPECIAL NOTES

- Occupational Education students have usually undergone a vocational assessment and are able to function safely in a shop setting.

### PROGRAM ELIGIBILITY

- CDOS Credential or Pathway (with Completion of OE II)

## Career Paths

### AUTOMOTIVE SERVICES

Auto Detailer  
Parts Counter Worker  
Service Center Assistant

### FOOD SERVICE

Server / Busser  
Dishwasher  
Line Cook  
Prep Cook

### BUILDING MAINTENANCE

Maintenance Worker  
Construction Laborer  
Home Improvement Staff

### HUMAN SERVICES

Resident Aid  
Housekeeping / Laundry  
Staff  
Dietary Assistant

### AUTOMOTIVE SERVICES

- Tire / Brake Service
- Interior / Exterior Detailing
- Lubrication Service
- Engine Performance
- Exhaust Service
- Suspension and Steering
- Vehicle Maintenance
- Electrical Systems
- NYS Inspection

### BUILDING MAINTENANCE

- Electrical Repair
- Painting and Staining
- Drywall
- Plumbing Repair
- Window Glazing
- Carpentry
- Lock Replacement

### FOOD SERVICE

- Breakfast, Lunch and Dinner Service
- Baking Basics (i.e. Cookies)
- Cooking Techniques
- Real Work Internship Experience
- Knife Skills
- Soups
- Yeast Breads (i.e. Pizza)

### HUMAN SERVICES

- Hands-On Community Work Experiences in Hospitality, Health Care and Retail Service Fields
- Teamwork and Personal Skills
- Responsible Pet Ownership
- Job Preparation and Retention Skills
- Interview Skills
- Leadership and Self Advocacy





## Plumbing, Heating & Air Conditioning

### PROGRAM SUMMARY

- You will gain an understanding of the fundamentals of residential and light commercial plumbing, heating and air conditioning installation, service and repair.
- You'll interpret blue prints, drawings and schematics to be able to assemble, prepare and install piping and HVAC equipment for a variety of residential and light commercial applications.
- Be part of the team that constructs a modular home in conjunction with the Building Trades and Electrical classes.
- Get training on the latest green and solar technologies.
- Careers in the heating and air conditioning installation industry are growing rapidly each year.

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- SUNY Canton
- University of Northwestern Ohio

### SPECIAL NOTES

- Students are responsible for purchasing leather gloves, work shoes, a tool belt, basic hand tools and a 25 foot tape measure.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Plumbing / HVAC Educator  
 Mechanical Engineer  
 Operations Manager  
 Building Inspector  
 Contractor  
 Building Superintendent

### TECHNICAL CAREERS

Master Plumber  
 Union Steamfitter  
 HVAC Technician  
 Industrial Plumbing Technician  
 Estimator  
 Pipe Fitter

### ENTRY LEVEL CAREERS

Building Maintenance Technician  
 Appliance Repair Technician  
 HVAC Installer  
 Plumbing Apprentice  
 Counter Sales Technician  
 Service Technician  
 Handyman

### DRAINAGE, WASTE AND VENTS

- Learn to properly size, layout, and install DWV for both residential and commercial applications.

### POTABLE WATER SYSTEMS

- Learn to properly size, layout, and install potable water systems.

### FORCED AIR HEATING SYSTEMS

- Learn to properly size, install, troubleshoot, and repair all types of residential forced air furnaces.

### STEAM AND HYDRONIC HEATING SYSTEMS

- Learn to properly size, install, troubleshoot, and repair all types of residential boiler systems.

### CENTRAL AIR CONDITIONING SYSTEMS

- Learn to properly size, install, troubleshoot, and repair all types of residential central air systems.

### SOLDERING AND BRAZING

- A “must have” skill for all plumbers and HVAC techs! Students will learn a variety of methods for joining pipes and fittings.

### FIXTURE AND FAUCET SERVICE AND INSTALLATION

- Students will gain “real world” experience working on and installing a variety of plumbing fixtures.

### BLUE PRINT READING AND PLUMBING DRAWINGS

- Students will learn how to quickly and accurately read and interpret blueprints and isometric drawings.

### TRADE RELATED CERTIFICATIONS

- EPA608 (required to work with refrigerants)
- R410a (required to work with the new high pressure refrigerant)
- OSHA10





## Sports Science Careers

### PROGRAM SUMMARY

- Do you want to change people's lives and make them feel good about themselves?
- Sports Science Careers gives you the flexibility to choose the hours that suit your lifestyle.
- The fitness and wellness industry is one of the fastest growing in the country.
- If you are outgoing and active, this is a rewarding career choice.
- Internships will expand your occupational knowledge and help you explore your field of study.
- Get real world experience working with allied health care continuum professionals.
- Students are taught by Certified Personal Trainers.

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Canisius College
- Erie Community College
- Niagara County Community College
- SUNY Canton

### SPECIAL NOTES

- Students are responsible for purchasing a uniform for the fitness lab.
- Students will be prepped for a Personal Training Certification (NASM, ACE, NETA).
- Students in this program are eligible for post-secondary dual enrollment opportunities.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Exercise Physiologist  
Strength and Conditioning Coach  
Physical Therapist  
Athletic Trainer  
Physical Education Teacher  
Nutritionist / Registered Dietitian  
Chiropractor

### TECHNICAL CAREERS

Group Exercise Instructor  
Certified Personal Trainer  
Cross Fit Level 1 Coach  
Gym Manager  
Massage Therapist  
Yoga / Pilates Instructor  
Physical Therapist Assistant

### ENTRY LEVEL CAREERS

Health Sales Associate  
Fitness Club Front  
Desk Receptionist  
Fitness Coach  
Lifestyle Coach  
Sports Coach  
Recreation Coordinator  
Professional Bodybuilder

### FITNESS SAFETY

- CPR First Aid
- Proper Form
- Equipment Maintenance
- Spotting Techniques
- Injury Prevention
- Proper Warm-Up and Cool Down Techniques

### FUNCTIONAL MOVEMENT SCREENING

- 5 Major Movements
- Posture
- Stability
- Mobility
- Balance
- Flexibility

### HEALTH FITNESS TRENDS

- Social Media
- Research Based CEC's
- Allied Health Care

### HUMAN ANATOMY PHYSIOLOGY

- Muscle Origins and Insertions
- Joint Actions / Movement
- VT1 and VT2 Thresholds

### NUTRITION AND WEIGHT MANAGEMENT

- Metabolic Syndrome
- Basal Metabolism
- Caloric Education
- Body Composition

### SPECIAL PROGRAM DESIGN

- Special Population and Needs
- Older Adults / Special Needs
- Chronic Illness and Needs
- Youth Clientele

### STARTING A FITNESS BUSINESS

- Marketing of a Big Box Gym and Training Studio
- Legal and Ethical Implications
- Fitness Programs and Class Instruction
- Nutrition, Weight Loss, Energy and Sports Performance
- Risk Management

### SPORT SPECIFIC TRAINING

- Utilize the Same Equipment and Technology as Professionals
- Employment Opportunities in Strength and Conditioning
- Injury Prevention
- Sport Skill Assessments

### CARDIOVASCULAR AND RESISTANCE TRAINING PROGRAM DESIGN

- Design a Structured Exercise Routine for Client Goals
- Weight Loss
- Muscle Building / Assessments
- Cardiovascular Endurance / Assessments
- Exercising to Benefit Chronic Diseases and / or Avoid Risk Factors





## Video Production & Recording Arts

### PROGRAM SUMMARY

- Are you a creative person who loves video, film, sound, and music?
- Learn to create and produce your own original films and music.
- Careers in video production and recording arts are very exciting, social, and creative.
- The video and recording industry is always changing and a VPRA student will have the opportunity to gain experience with cutting edge technology and network with industry professionals.
- If you are social, creative, and love film or music, then the Video Production and Recording Arts program is for you!

### COLLEGE CREDIT CONNECTIONS

- Canisius College
- Erie Community College
- Hillbert College
- Niagara County Community College
- SUNY Canton
- Villa Maria College

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Sound Designer  
 Film Director  
 Recording Studio Owner / Manager  
 Tour Production Manager  
 Film Editor  
 Director of Photography  
 College Professor

### TECHNICAL CAREERS

Recording Engineer  
 Music Producer  
 Technical Director  
 Videographer  
 Video Editor  
 Live Sound Engineer  
 Editing Room Assistant

### ENTRY LEVEL CAREERS

Production Assistant  
 Assistant Audio Engineer  
 Stage Hand  
 Movie Set Grip  
 Assistant Camera Operator

## VIDEO PRODUCTION BASICS

- Equipment Basics
- Camera Operation
- Video and Audio Quality

## VIDEO LANGUAGE

- Camera Angle Names
- Creating Continuity
- Making Transitions

## VIDEO PROJECT DEVELOPMENT

- Defining a Project
- Preparing a Treatment
- Creating a Storyboard
- Writing a Script

## VIDEO PROGRAM CREATION

- Story Videos
- Nonfiction Programs
- Instructional Programs
- News Reports
- Documentaries

## INTRODUCTION TO SOUND

- The Recording Studio
- Live and On-Location Recording
- Careers in Audio
- The Recording Process
- Copyright in Music

## MICROPHONE DESIGN & APPLICATION

- Microphone Design
- Microphone Characteristics
- Microphone Techniques
- Microphone Selection

## DIGITAL AUDIO TECHNOLOGY

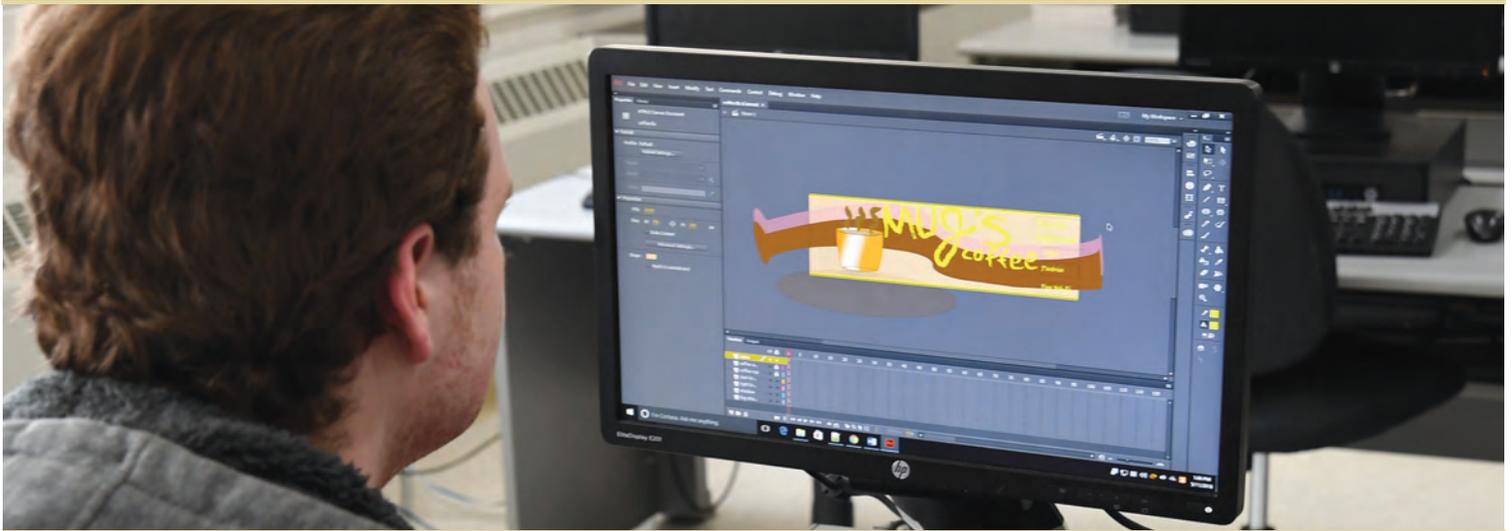
- Digital Audio Basics
- Digital Audio Recording Process
- Digital Audio Recording Systems

## DIGITAL AUDIO WORKSTATION

- DAW Hardware and Software
- Sound File Formats
- DAW Controllers
- System Interconnectivity

## ART OF MIXING

- Process of Mixing
- Concept of Mixing
- Digital Console and DAW Mixer Technology
- Mixing Basics
- Automation



## Web Technologies & Game Programming

### PROGRAM SUMMARY

- Bring your ideas to life by writing your own software.
- Like playing games? Design and code your own!
- Be a bigger part of the web by creating web pages and sites.
- Be a part of the virtual world.
- Become a leader in game design!

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Canisius College

### PROGRAM ELIGIBILITY

- Students in this program are eligible for post-secondary dual enrollment opportunities.
- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Software Developer  
 Computer Systems Analyst  
 Information Security Analyst  
 Web Developer & Project Engineer  
 IT Manager  
 Computer Systems Administrator  
 Computer Programmer  
 Game Production and Management

### TECHNICAL CAREERS

Computer Support Specialist  
 3D Game Programmer  
 Web Application Developer  
 Web Developer  
 Technical Product Manager  
 Think Tank Analyst  
 Beta Tester

### ENTRY LEVEL CAREERS

Game Interface Design  
 Coder  
 Web Design and Maintenance  
 Entrepreneur  
 Data Entry / Database Design  
 Systems Analysis  
 Entrepreneur

### WEB DESIGN

- Creating Dynamic Web Sites
- Working with Video, Sounds, and Images
- Designing Small Web Files (SWF) Games and Movies

### WEB DEVELOPMENT APPLICATIONS

- Adobe Software
- Interactive Game Development
- Cascading Style Sheets (CSS)
- Design Your Own Website

### PROGRAMMING

- Basics of Programming
- Game Programming Languages
- 3D Game Programming

### GAME DEVELOPMENT APPLICATIONS

- Program Graphical Computer Programs
- Learn Programming and Have Fun
- Virtual Learning Activities
- Design Your Own Game

### DATABASES

- How Internet Buying and Selling Works
- Organizing Customer Information
- Creating Forms and Reports





## Welding

### PROGRAM SUMMARY

- Welding holds much of our world together, from buildings and bridges to airplanes and equipment.
- Take a drawing or blueprint and breathe life into it by fabricating a life size creation.
- Know you have a future with many different job skills that will drive you down the road of success towards manufacturing, field work or owning your own company.
- Skilled Welders Needed! There is a large shortage of welders in the United States with great opportunities for employment.

### COLLEGE CREDIT CONNECTIONS

- Alfred State College
- Lincoln Technical Institute
- Niagara County Community College
- Ohio Technical College
- Universal Technical Institute

### SPECIAL NOTES

- Students in this program are eligible for post-secondary dual enrollment opportunities.
- Steel toed or composite toed work boots are required.

### PROGRAM ELIGIBILITY

- Technical Endorsement
- 3.75 Credits per Year
- Pathways to Graduation (CTE and CDOS)

## Career Paths

### PROFESSIONAL CAREERS

Engineer  
 Mechanical Engineer  
 Building Superintendent  
 Welding School Teacher  
 Certified Welding Inspector

### TECHNICAL CAREERS

Boilermaker / Ironworker  
 Fabricator  
 Machinist  
 Millwright  
 Robotics Technician  
 Sheet Metal  
 Shipwright  
 Underwater Welder

### ENTRY LEVEL CAREERS

Apprentice Steamfitters  
 Steel Distribution Center  
 Assistant / Helper  
 Grinder and Polishing Worker

## WELDING SAFETY

- PPE
- Electrical Shock
- Ferrous
- Cylinder Safety / Storage
- Equipment Operation
- Power Sources

## METAL WORKING SAFETY

- Grinding
- Preparation
- Sheering
- Machine Cutting
- Hand Cutting

## OXY-FUEL CUTTING

- Equipment Set Up
- Cylinder Handling
- Regulator Safety
- Torches / Gases
- Hand Cutting
- Track Cutting
- Hand Auto Cutting

## SMAW (SHIELDED METAL ARC WELDING), STICK

- Equipment Set Up
- Basic Operations
- Types of Electrodes
- Multiple Position Welding
- Out of Position
- Operating Equipment

## GMAW (GAS METAL ARC WELDING) / FCAW (FLUX CORED), MIG

- Equipment Set up
- Flowmeters / Gases
- Machine Parts
- Operating Equipment
- Welding Defects
- Puls Mig Welding

## GTAW (GAS TUNGSTEN ARC WELDING), TIG

- Equipment Set Up
- Gases / Flowmeter
- Equipment Operator
- Ferrous Metals
- Non-Ferrous Metals
- Torches and Machine Types
- Pulse TIG Welding

## ROBOTICS

- Types
- Processes
- Automotive Industry
- Machine
- CAD Drawing
- CNC Plasma Table

## PLASMA ARC CUTTING

- Equipment Set Up
- Safety
- Types
- Gases
- Torches

## LIGHT MANUFACTURING

- Drill Press
- Sheet Metal Bending
- Machining Lathe
- Bridge Port Drill
- Hydraulic Shear
- Hydraulic Band Saw
- Iron Worker





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# New Visions

(OPTIONS FOR HONORS LEVEL SENIORS)

ERIE 1 BOCES





## Connections: Health Related Careers

BUFFALO GENERAL MEDICAL CENTER | MILLARD FILMORE SUBURBAN HOSPITAL | OISHEI CHILDREN'S HOSPITAL

### PROGRAM SUMMARY

- The medical professional of today is a member of the ever evolving world of health care. It demands creative critical thinking to deliver high quality and state-of-the-art patient care.
- Experience a day in the life of a practicing medical professional as they interact with colleagues, patients and families.
- Students directly observe professionals while providers care and treat a variety of patient conditions.
- Correlate concepts of government and economics as they relate to today's unique health care challenges.

### SPECIAL NOTES

- New Visions programs require an application and interview.
- Current immunization, PPD and physical exam required.
- Must provide own transportation to class and clinical.

### PROGRAM ELIGIBILITY

- 1 Credit ELA 12
- 1 Credit PIG/Economics
- 1 Credit Anatomy, Physiology and Disease
- 1 Credit Internship

## Career Paths

### PROFESSIONAL CAREERS

Physician / Medical Specialties  
 Physician Assistant  
 Registered Nurse  
 Nurse Practitioner  
 Physical / Occupational /  
 Speech Therapists  
 Dentist  
 Biomedical Engineer  
 Chiropractor  
 Hospital / Nursing Home Administrator  
 Pharmacist  
 Lab Technologist  
 Registered Dietitian

### TECHNICAL CAREERS

Licensed Practical Nursing  
 Physical Therapy Assistant  
 Medical Records: Biller & Coding  
 Respiratory Therapist  
 Imaging Technician  
 Medical Assistant  
 Paramedic  
 Mortician

### ENTRY LEVEL CAREERS

Certified Nursing Assistant  
 Medical Secretary / Receptionist  
 Phlebotomist  
 Central Supply Aide  
 Home Care Aide  
 Activity Aide  
 Emergency Medical Technician

### ANATOMY & PHYSIOLOGY

- Structure and Function of Body Systems
- Medical Terminology
- Observe Normal Anatomy and Physiology Through Clinical Observation

### PATHOPHYSIOLOGY

- Disease as it Affects Individual Health
- Observe Disease Process and Treatment Through Clinical Observation

### POSSIBLE CLINICAL ROTATIONS

- Medical and Surgical Acute Care
- Infection Control
- Diagnostic Imaging
- Primary Care Clinics
- Critical Care
- Pharmacy
- Research

### ENGLISH (1 CREDIT)

- Health Care Subject Novels which Correlate to Anatomy, Physiology and Disease
- Documentation of Clinical Experience and Observation
- Healthcare Topic Case Presentations
- Topic Specific Research Paper and Debate

### PARTICIPATION IN GOVERNMENT (1 CREDIT)

- Governmental Control and Laws as they Pertain to Health Care, Licensure, Insurance and Privacy
- Public Debate on Current Healthcare Topic

### ECONOMICS (1 CREDIT)

- Financial Implications for the Practicing Professional and Medical Decisions
- Personal Finance for College and Career Readiness
- Final Project on Global Health

### HEALTH CARE INTERNSHIPS (1 CREDIT)

- Observing Diverse Medical Professionals While Participating in Clinical Setting
- Apply Theory to What is Observed in the Facility and Community Venues





## Legal Academy

IN PARTNERSHIP WITH CANISIUS COLLEGE AND THE UNIVERSITY AT BUFFALO

### PROGRAM SUMMARY

- The Legal Academy program offers an exciting opportunity for selected students to experience a unique alternative to the traditional classroom setting.
- Develop a network of professional connections through extensive field experiences across WNY.
- Create resumes superior to those of many college students.
- Shadow college level legal courses.
- Participate in the Erie County Bar Association's Mock Trial Competition.

### COLLEGE CREDIT CONNECTIONS

- Bryant and Stratton
- Canisius College
- Hillbert College
- Medaille College

### SPECIAL NOTES

- New Visions programs require an application and interview for admission.
- Students are responsible for their own transportation to Canisius College and internship sites.

### PROGRAM ELIGIBILITY

- 1 Credit ELA 12
- 1 Credit PIG/Economics
- 1 Credit Criminal Justice
- 1 Credit Internship

## Career Paths

### PROFESSIONAL CAREERS

Attorney  
Judge  
Probation / Parole Officer  
Forensic Agent: FBI, ICE, DEA  
Investigator  
Social Worker  
Intelligence Agent

### TECHNICAL CAREERS

Paralegal  
Law Enforcement Officer  
Corrections Officer  
Detective  
Crime Scene Investigator  
Legislative Analyst

### ENTRY LEVEL CAREERS

Dispatcher  
Bailliff  
Legal Secretary  
Report Writer  
Politician  
Lobbyist  
Legislative Assistant

## CRIMINAL LAW

- The Criminal Trial
- NY State Penal Law
- Violent Crimes
- Property Crimes
- The Court System
- Sentencing and Corrections

## FAMILY LAW

- Law and the American Family
- Marriage
- Parents and Children
- Foster Care and Adoption
- Separation, Divorce and Custody
- Juvenile Delinquency

## MOCK TRIAL

- Steps in a Trial
- Jury Selection
- Opening Statements
- Closing Arguments
- Rules of Evidence and Procedure
- Witness Examinations

## LAWMAKING

- Advocacy
- Settling Disputes
- Lawyers

## TORTS

- Civil Law
- Civil vs. Criminal Action
- Negligence
- Strict Liability
- Torts and Public Policy

## CONSUMER LAW

- Contracts
- Warranties
- Credit and Other Financial Services
- Deceptive Sales Practices
- Major Purchases

## INDIVIDUAL RIGHTS

- Freedom from Unreasonable Search and Seizure
- Freedom of Speech
- Double Jeopardy
- The Right to an Attorney / Jury Trial
- Protection Against Cruel Unhuman Treatment
- 8th Amendment and Capital Punishment

## POLICING

- Article 35: Use of Force
- NY State Safe Act
- The Crime Scene
- Forensic Techniques
- Felony Arrest and Felony Stop

## CONTEMPORARY ISSUES IN LAW

- Immigration Law
- Intellectual Property
- Law and Terrorism

## INTERNSHIP ROTATIONS

- Four Internships per Year
- One Internship per Quarter
- Sites include political offices, courts (county, city and federal), law offices and transportation security administration





## Zoo Wildlife & Conservation Careers

IN PARTNERSHIP WITH THE BUFFALO ZOO

### PROGRAM SUMMARY

- Consider the 23-acre Buffalo Zoo your new home!
- The Zoo Wildlife and Conservation Careers program allows highly motivated, college bound seniors the opportunity to explore options in the many areas related to wildlife, conservation and zoo-based careers.
- This exciting program includes daily access to zoo grounds, internships with keepers, behind the scenes tours, and diverse guest speakers.
- Students will get to experience the zoo's day to day operations and learn how to incorporate conservation into their daily lives and help spread the message to others.
- The school year will culminate with a project in which students research and design their own animal exhibit with input from the Buffalo Zoo's animal experts.
- Correlate concepts of ELA, government and economics as they relate to animal and conservation topics.

### COLLEGE CREDIT CONNECTIONS

- Canisius College

### SPECIAL NOTES

- New Visions programs require an application and interview.
- Students must provide own transportation.
- Students are required to have completed 2 academic credits in Regents level science and 2 academic credits in Regents level math upon entering the program.
- Current immunizations, PPD, and physical exam required.

### PROGRAM ELIGIBILITY

- 1 Credit ELA 12
- 1 Credit PIG/Economics
- 1 Credit Internship
- 1 Credit Zoology

## Career Paths

### PROFESSIONAL CAREERS

Veterinarian  
Wildlife Biologist  
Zoologist  
Curator  
Marine Biologist  
Environmental Scientist  
Fish and Game Warden  
Ecologist  
Wildlife Enforcement Officer

### TECHNICAL CAREERS

Licensed Veterinary Technician  
Wildlife Rehabilitator  
Animal Trainer / Behaviorist  
Habitat Specialist  
Animal Nutritionist  
Aquarist  
Animal Welfare Agent  
Zookeeper  
Wildlife Technician

### ENTRY LEVEL CAREERS

Veterinary Assistant  
Animal Shelter Worker  
Kennel Assistant  
Animal Care Specialist  
Wildlife Rehabilitation Assistant  
Detail Associate  
Stable Worker  
Farm Hand  
Zoo Program Assistant

### CONSERVATION

- Habitat Loss
- Invasive Species
- Climate Change
- Biodiversity
- Conservation Education
- Species Survival Plans

### ANIMAL HUSBANDRY

- Zoo Animal Care
- Diet and Nutrition
- Population Management
- Record Keeping and Transportation

### EVOLUTION OF ZOOS

- Zoo History
- Today's Zoos
- Professional Zookeeping
- Animal Ethics and Welfare
- Safety

### ZOOLOGY & ANIMAL SCIENCE

- Reptiles
- Amphibians
- Birds
- Fish and Marine Life
- Mammals
- Invertebrates
- Anatomy and Physiology

### BEHAVIOR

- Basic Animal Behavior
- Animal Observations
- Enrichment
- Positive Training Methods
- Husbandry Training

### VETERINARY CARE

- Zoonotic Disease
- Safety
- Handling and Restraint
- Preventative Care and Maintenance
- Directional Terminology

### EXHIBIT DESIGN

- Planning an Exhibit
- Plant Selection
- Exhibit Considerations and Safety
- Needs of the Animals
- Life Systems Maintenance
- Public Education Signs and Interactive Displays

### HORTICULTURE

- Native Plants
- Identifying Plants
- Botany
- Zoo Horticulture

### ZOO OPERATIONS

- Mission and Purpose
- Educational Displays
- Zoo Events
- Volunteer Opportunities
- Marketing and Business





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# Middle School *Enrichment*

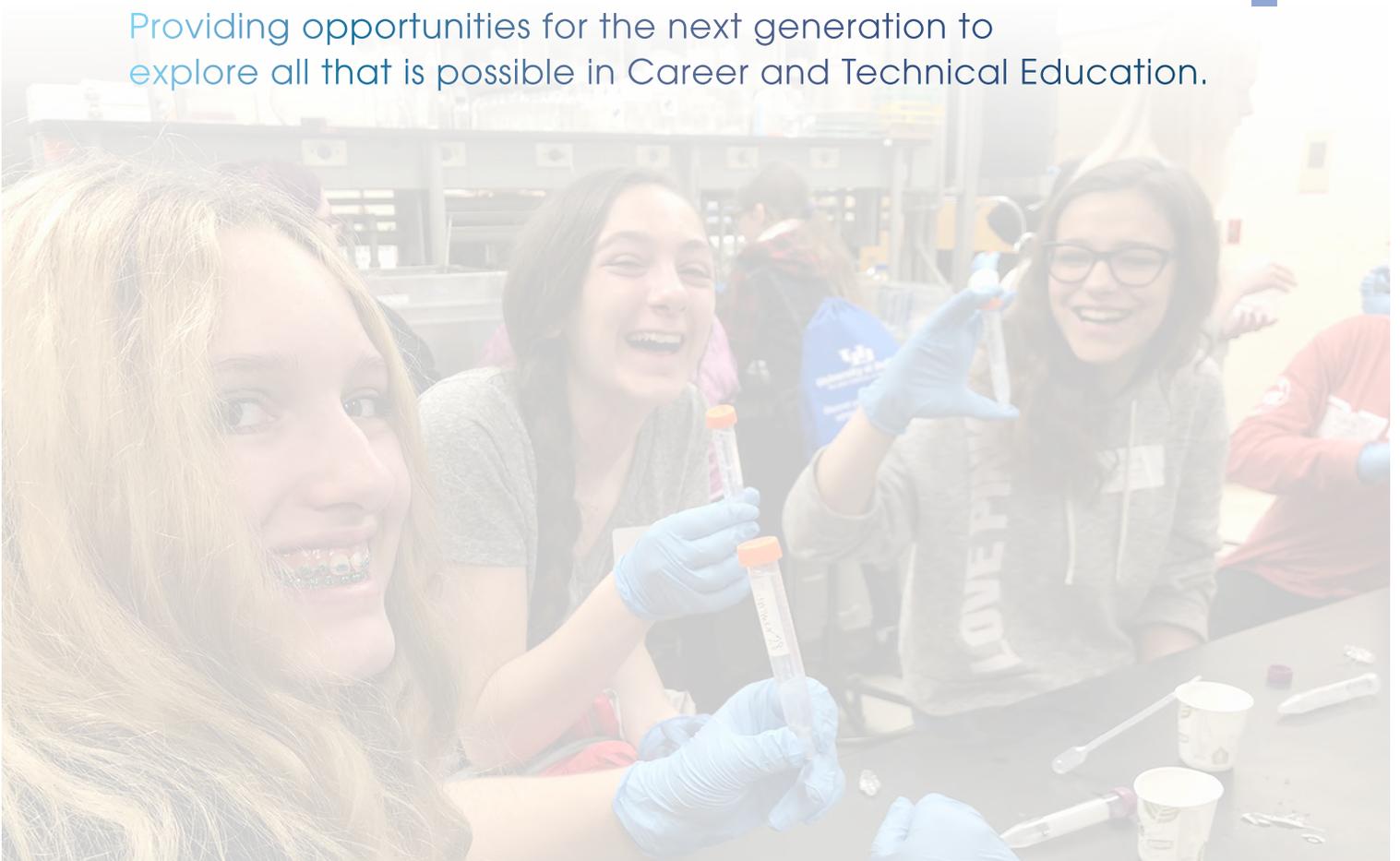
ERIE 1 BOCES



ERIE 1 BOCES

# MIDDLE SCHOOL INITIATIVE

Providing opportunities for the next generation to explore all that is possible in Career and Technical Education.





Erie 1 BOCES is committed to expanding opportunities for all WNY students to experience high quality career and technical education. Early access and exposure to career exploration, STEM, and application-based learning is critical to this effort. To support this, Erie 1 BOCES has developed a series of enrichment activities for middle school aged students. Most activities are FREE of charge and include transportation.

# MINECRAFT MADNESS

## MINECRAFT OBSTACLE COURSE TEAM COMPETITION

Minecraft Madness is an annual team competition hosted by the Web Technology and Game Programming Department. Teams of 8th grade students travel to an Erie 1 BOCES Career and Technical Center to compete against rival middle schools in the design and completion of an obstacle course they create. Students are tasked with building their best obstacle to stump their rivals and take home the trophy! Participation in this event includes a Minecraft.edu license for use in the classroom!

# “TASTE OF TECH”

Every January during Regents Week, the Harkness, Kenton and Potter Career and Technical Centers open their doors to local 8th graders for a 3-hour, interactive career exploration experience.

Campers spend a week at the Career and Technical Centers and participate in a series of 4 camps of their choosing. From Animal Science and Camp Culinary to the 7-Hour Movie Challenge, camps are designed to engage students in fun and interactive activities that make learning fun! [www.e1b.org/summercamp](http://www.e1b.org/summercamp)



## Middle School MODS

<i>Heart Healthy</i>	<i>Cupcake Wars</i>
<i>Pizza Palooza</i>	<i>Pet Purr-Suit</i>
<i>Movie Poster Design</i>	<i>Theatrical Make-Up</i>
<i>Runway to Fashion</i>	

This unique collaborative experience builds a direct partnership between a middle school Family and Consumer Science, Health, Art or Technology teacher and an Erie 1 BOCES CTE Teacher. Teachers from both the component middle school and E1B will collaborate to enhance high-interest lessons with a CTE flare. Participating students will have direct access to an E1B CTE Center for a hands-on culminating activity that builds upon the interactive lessons.

# G.R.I.T.



## Girls Rising Interest in Technology

Erie 1 BOCES is proud to offer this STEM and industry-based field trip exclusively for Middle School girls. The day includes several stops at well-known Western New York STEM based industry partners where the girls will tour, interact and hear from female leadership, participate in hands-on activities and build an understanding of available career pathways.



More Than 4,000 Students Participate Annually.



**IGNITE YOUR INNER SPARK!**



Website:  
[www.e1b.org](http://www.e1b.org)



Email:  
[atrautman@e1b.org](mailto:atrautman@e1b.org)



Phone:  
(716) 821.7076

Erie 1 BOCES does not discriminate on the basis of race, color, national origin, creed, religion, political affiliation, marital status, sex, sexual orientation, age, or disability as defined by law and is in compliance with Title IX of the Education Amendments of 1972 and with Section 504 of the Rehabilitation Act of 1973. The compliance officer for Title IX and Section 504 is the Assistant Superintendent of Instructional Services. The officer is available from 8:00 a.m. – 4:00 p.m. at Erie 1 BOCES, 355 Harlem Road, West Seneca, NY 14224. (716) 821-7100 [www.e1b.org](http://www.e1b.org).





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# Exceptional Education

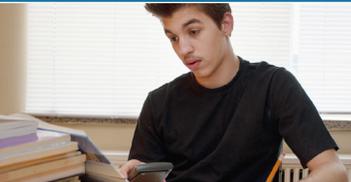
ALTERNATIVE *and* SPECIAL EDUCATION PROGRAMS

ERIE 1 BOCES



# EXCEPTIONAL EDUCATION PROGRAMS AND SERVICES

SEE INSERT IN BACK POCKET FOR MORE INFORMATION.

<p><b>E1B LEARNING CENTER</b></p>  <p><b>Middle Tech South</b> (Grades 7 and 8)</p> <p><b>Long Term Suspension</b> (Grades 9 - 12)</p> <p><b>Functional Classes</b> (Grades 9 - 12)</p> <p>675 Potters Road West Seneca, NY 14224</p>	<p><b>EDGE</b></p>  <p><b>Twilight</b> (Grades 9 - 12)</p> <p><b>CCRA</b> (Grades 9 - 12, 6:1:1 Classes)</p> <p><b>High School</b> (Regents Bound Academics Grades 9 - 12)</p> <p>1635 East Delavan Avenue Cheektowaga, NY 14215</p>	<p><b>EXTENDED SCHOOL YEAR</b></p>  <p><b>Self-Contained Classes</b> Grades K - 12</p>	<p><b>HOME HOSPITAL INSTRUCTION</b></p>  <p>All Grade Levels</p>
<p><b>INTEGRATED SPECIAL CLASSES</b></p>  <p><b>Academic and Functional Classes</b> All Grade Levels</p>	<p><b>MARYVALE WORK READINESS ACADEMY</b></p>  <p><b>Functional and Regents Bound Academics</b> High School and Middle School</p> <p>1050 Maryvale Drive Cheektowaga, NY14225</p>	<p><b>NORTHTOWNS ACADEMY</b></p>  <p><b>Middle Tech North</b> (Grades 7 and 8)</p> <p><b>RISE</b> (Grades K - 8, 6:1:2 Classes)</p> <p><b>Long Term Suspension</b> (Grades 6 - 12)</p> <p><b>Middle School</b> (Grades 6 - 8, 6:1:1 Classes)</p> <p>333 Dexter Terrace Tonawanda, NY 14150</p>	<p><b>PROJECT SEARCH</b></p>  <p><b>Functional Classes</b> Ages 18 - 21</p> <p>Beechwood Continuing Care 2235 Millersport Highway Amherst, NY 14226</p>
<p><b>RELATED SERVICES</b></p>  <p>All Grade Levels</p>	<p><b>WEST SENECA WEST ELEMENTARY</b></p>  <p><b>Functional and Academic Students</b> Grades K - 5</p> <p>1397 Orchard Park Road West Seneca, NY 14224</p>	<p><b>WNY CHILDREN'S PSYCHIATRIC CENTER</b></p>  <p><b>Intensive Day Treatment</b></p> <p>575 Alberta Drive Amherst, NY 14226</p>	<p><a href="http://WWW.E1B.ORG/ALT">WWW.E1B.ORG/ALT</a></p> <p><a href="http://WWW.E1B.ORG/SPED">WWW.E1B.ORG/SPED</a></p>



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# Adult *Workforce* Development Training

ERIE 1 BOCES



# TRAINING THE WORKFORCE



## Adult Career Training in One Year or Less

Short-term training programs to meet your needs.  
Register early to save your spot!

- Day and Evening Classes Available
- Convenient Locations
- Job Placement Assistance
- Affordable Tuition, Financial Assistance
- Industry-Experienced Instructors





Administrative Assistant



Automotive



Barbering



Building Trades



Certified Nursing Assistant



Certified Personal Trainer



Certified Production Technician



CNC Machining



Cosmetology



Electrical



Electro Mechanical Maintenance



HVAC



Licensed Practical Nurse



Medical Billing Clerk



Medical Office Assistant



Phlebotomy



Welding

### Contact Us

Workforce Development Center  
 1526 Walden Ave., Suite 200, Cheektowaga, NY 14225  
[www.e1b.org/WFD](http://www.e1b.org/WFD) • [WFD@e1b.org](mailto:WFD@e1b.org) • (716) 821-7500

### LOCATIONS ACROSS WNY!

### AFFORDABLE TUITION AND FINANCIAL ASSISTANCE

On average, Erie 1 BOCES' job training tuition costs 50% less than similar programs offered by local colleges. Students may be eligible to receive funding through: ACCES-VR, Buffalo Employment and Training Center (BETC), CSEA, ECC One Stop, Niagara Employment and Training, SEIU Local 1199, and Veterans Benefits. Various State and Federal grants are also available as well as Direct or Private Student Loans.

### LITERACY SERVICES

High School Equivalency and ESL (English for Speakers of Other Languages) courses are available across Western New York. Remedial courses are available for students who need support in Math or English.

### STUDENT SERVICES

Erie 1 BOCES supports its students successful transition into permanent employment with:

- Career Counseling
- Job Readiness Training
- Resume Writing Workshops
- Interview Preparation
- Job Placement









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*Ignite Your Inner Spark.*

Erie 1 BOCES does not discriminate on the basis of race, color, national origin, creed, religion, political affiliation, marital status, sex, sexual orientation, age, or disability as defined by law and is in compliance with Title IX of the Education Amendments of 1972 and with Section 504 of the Rehabilitation Act of 1973. The compliance officer for Title IX and Section 504 is the Assistant Superintendent of Instructional Services. The compliance officer is available from 8:00 a.m. - 4:00 p.m. at Erie 1 BOCES, 355 Harlem Road, West Seneca, NY 14224. (716) 821-7100 [www.e1b.org](http://www.e1b.org).

