

CAREER & TECH ENROLLMENT GUIDE

UPDATED 2024



ERIE 1 BOCES CTE ADMINISTRATION

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OUR MISSION

**Erie 1 BOCES commits to those we
serve - students, staff and communities -
by understanding, anticipating and
responding to their needs.**

CAREER AND TECHNICAL EDUCATION OVERVIEW

Career and Technical Education (CTE) has been a part of the United State's framework for more than a century and centers can be found throughout the country. The New York State Education Department (NYSED) defines CTE as "an umbrella term for instruction that introduces students to career opportunities and requirements and helps them obtain technical skills, apply academic skills, and develop career-related behaviors."

In "Guidelines for Career and Technical Education Administrators and School Counselors" (June 2020), NYSED states that the elements of an effective NYSED approved CTE program are:

- appropriately certified CTE teachers who remain current within their profession
- a sequence of courses that prepares students for employment or postsecondary study
- a work-based learning opportunity
- a business and industry consultant committee that provides input into the program
- an opportunity to apply academic concepts to real-world situations
- the opportunity to earn college credit for college-level high school programs
- preparation for industry-standards based student assessments
- an opportunity to use the most current business/industry-based technologies
- an opportunity to achieve the career majors standard (CDOS Standard 3b)
- an active CTE student leadership organization (CTSO) to promote leadership and service.

Counties annually participate in CTE programs and courses through Erie 1 BOCES Career and Technical Education. The majority of these programs take place at Erie 1 BOCES Career and Technical Education Centers.

Harkness CTE Center

99 Aero Drive
Cheektowaga, NY 14225

Calspan CTE Center

4411 Genesee Street
Cheektowaga, NY 14225

Kenton CTE Center

151 Two Mile Creek Road
Tonawanda, NY 14150

Potter CTE Center

705 Potters Road
West Seneca, NY 14224



STUDENT CTE ELIGIBILITY

Students in NYSED Approved Programs

NYSED Approved Programs are for students in grades 11 and 12. Refer to district criteria for determining grade level to ensure students requesting enrollment have met the requirements to be in grades 11 and/or 12.

Students Placed Out of District

Students attending programs outside of their home district (Erie 1 BOCES Exceptional Education, etc.) are enrolled through their program. Districts are responsible for ensuring students have transportation to and from Erie 1 BOCES CTE Centers, including students in out-of-district placements.

Non-Public School Students

Students enrolled in non-public schools (private or parochial) are entitled to CTE programming. These students are enrolled through their home district school counselor and should be included on district priority lists. See New York School Law (39th Edition) 4:10 for more guidance. Districts are responsible for ensuring students have transportation to and from Erie 1 BOCES CTE Centers, including non-public school students.

Home-Schooled Students

Students who are home-schooled are not entitled to CTE programming and therefore cannot be enrolled. See New York School Law (39th Edition) 48:54 for more guidance.

Grade 12 Students as First-Year CTE Students

Grade 12 students may be enrolled in the first year of a NYSED-Approved Program as just one year of career explorations and technical skills development is beneficial. These students will not be considered course completers, but will be recognized for their participation at the annual end-of-the-year recognition ceremony.

ACCES-VR Students

In some instances, ACCES-VR may enroll a student with disabilities (SWD) in year two of a NYSED Approved Program to complete the program the year after graduation. Enrollment is not guaranteed and depends on a variety of factors including eligibility/discretion of ACCES-VR and the CTE enrollment process.

Transition-Age SWD

Enrollment requests for SWD in transition programs will be discussed with enrolling partners individually. In most instances, we recommend that SWD begin their CTE program before they reach transition age.

Adult Students

Erie 1 BOCES CTE does not provide career training for adult students. However, Erie 1 BOCES Workforce Development offers a variety of adult career training programs.

ASSISTING WITH CTE COURSE SELECTION

Continuum of Services

CTE at Erie 1 BOCES is one option for career programming. When a student is requesting CTE and/or career-related programming, (ex., Work-Based Learning), it is recommended that the entire continuum of services be considered.

- In-District Offerings: Many districts offer locally and/or NYSED-approved CTE electives internally. These electives can help prepare students for an Erie 1 BOCES CTE course and/or help them focus their career interests.
- Community-Focused Offerings: Some districts offer WBL, Work Study or CEIP programs, etc. These may be appropriate for students that are looking for a community-based experience with less traditional classwork.
- Special Education Offerings: The Erie 1 BOCES Exceptional Education division offers students with disabilities work-based learning and a range of career readiness classes that can be taken in preparation for CTE at Erie 1 BOCES or as a stand alone.

Resources for Discussing CTE with Students

CTE provides the following resources for district staff to use when discussing CTE options with students and families:

- Website
- Promotional and outreach documents
- CTE Offering Comparison
- Enrollment Guide

Special Education Liaison Teachers

The Liaison Teacher (LT) ensures the transition of special education services between the Home District and the CTE Centers. They assist CTE teachers with interpretation and implementation of each student's academic needs according to their IEP/504. They provide instructional and behavioral strategies for the teacher and arrange all testing accommodations. The Special Education Liaison teachers may provide information from CTE teachers to districts for students' CSE meetings.

In the event that an LT is asked to provide information for CSE meetings, a two-week lead time will be necessary to gather the requested information. Special Education Liaisons do not provide direct or indirect Consultant Teacher Services. CTE students will not receive consistent one on one time with teachers or support staff. Liaisons act as the BOCES CTE Representative with the home district regarding students with disabilities.

STUDENT HONORS AND ORGANIZATIONS

SkillsUSA

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)

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:

- Demonstrate outstanding character, leadership, honor and responsibility
- Maintain at least a 90% average in their CTE program
- Maintain at least an 85% average in their home district
- Accrue no more than 10 unexcused absences
- Submit two (2) letters of recommendation and an ePortfolio
- Schedule and complete a personal interview

The NTHS Induction Ceremony is held in November of a student's senior year.

Regents Diploma with a Technical Endorsement

The Technical Endorsement Seal is affixed to the high school diploma of students who complete a 2-year New York State Approved CTE program and meet the following requirements:

- Passing five (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

Completion with Honors

A seal of Completion with Honors is affixed to the diploma of students who complete a CTE program and develop essential skills for college and the workplace by meeting the following requirements:

- Completion of all program requirements
- Minimum of 90% program average
- Exceptional attendance (no more than 10 absences per year)
- Exceptional punctuality (no more than 10 late arrivals per year)
- Minimum score of 90% on the ePortfolio
- Successful participation in a program internship

Erie 1 BOCES CTE 2024-25 OFFERINGS

Locally Approved Courses

Courses that are created to meet the needs of students who thrive with additional support and flexibility. There are three (3) categories of Locally Approved Courses offered at Erie 1 BOCES.

Occupational Education Courses

Heavily focused on career exploration and career-readiness skills to prepare students for independence

- Automotive Services
- Building Maintenance
- Food Services
- Human Services
- Job Skills (OE III)

One-Year Courses

One-year programs with a focus on technical skills for both juniors and seniors. Units are aligned to content knowledge and skills related to industry.

- Social Media Marketing
- Career Exploration

Career Exploration

One-year program for 10th grade students to experience a variety of CTE programs offered through Erie 1 BOCES. Time is spent shadowing programs and completing various projects designed for the Career Explorer.

NYSED Approved Programs

NYSED Approved Programs go through a complex approval process by the state. These programs provide rigorous curriculum on industry-aligned technical and academic skills, include work-based learning opportunities, and allow students to earn industry certifications.

- 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
- Early Childhood Education
- Electrical Systems
- Electronics and Applied Technology
- Emergency Medical Services (1 Year)
- Engineering and Robotics
- Exercise Science
- Fashion Design Technology
- Fire Science (1 Year)
- Health Careers
- HVAC
- Plumbing
- Video Production and Recording Arts
- Virtual Production and Design
- Web Technologies and Game Programming
- Welding

New Visions and Tech Prep

New Visions and Tech Prep are immersive career exploration programs. They are intended for high-achieving, college-bound seniors and are not CTE programs.

- Connections: Health Related Careers
- Diesel Technology
- Education Pathways Academy
- Engineering and Manufacturing
- Legal Academy
- Plant Science
- Zoo Wildlife and Conservation Careers

Erie 1 BOCES

CTE OFFERING COMPARISON

| | Locally Approved Programs | | NYSED Approved Programs | New Visions & Tech Prep |
|---|---------------------------|-------------------------|-------------------------------|----------------------------|
| | Occupational Education | One-Year/ Career Ex. | | |
| Grades 9-12 students | ✓ | | | |
| Courses can accommodate needs of most Skills and Achievement | ✓ | | | |
| Commencement Credential students | ✓ | | | |
| Focus on career-readiness skills with minimal technical skill exposure | ✓ | ✓ | | |
| Flexible curriculum allows for more modification and differentiation | ✓ | ✓ | | |
| Curriculum allows for repetition as needed | ✓ | ✓ | | |
| NGLS-aligned reading, writing, speaking and listening, math tasks differentiated by student's ability level | ✓ | ✓ | | |
| Smaller class size and adult-to-student ratio | ✓ | ✓ | | |
| Aligned to CDOS credential requirements (216 hours of CTE with at least 54 hours of WBL) | ✓ | ✓ | ✓ | |
| Grades 11-12 students | | ✓ | ✓ | |
| Industry-aligned curriculum | | | ✓ | |
| Focus on technical skills with embedded career-readiness skills | | | ✓ | |
| NGLS commencement level reading, writing, speaking and listening instruction aligned to industry standards | | | ✓ | |
| NGLS commencement level math and science instruction aligned to industry standards | | | ✓ | |
| Opportunity to enroll in English 12 | | | ✓ | |
| Opportunities for academic credit | | | ✓ | |
| Opportunity to earn Career and Financial Management credit | | | ✓ | |
| End-of-program Technical Assessment | | | ✓ | |
| 4+1 graduation pathway option | | | ✓ | |
| Average ratio of 24 students to 1 teacher (Numbers double or triple in programs that have shared spaces) | | | ✓ | |
| Opportunities to earn paid and unpaid co-op experiences | | | ✓ | |
| Opportunities to earn industry credentials | | | ✓ | |
| Opportunity to earn technical endorsement on high school diploma | | | ✓ | |
| Opportunities for dual enrollment aligned to technical content | | | ✓ | |
| Additional requirements for participation in shadowing or clinical experiences may be dictated by industry partners (ex. COVID vaccine in health care settings) | | | ✓ | ✓ |
| Grade 12 students only | | | | ✓ |
| Application and acceptance process (different timeline) | | | | ✓ |
| Class size differs from year-to-year based on number of applicants/acceptances | | | | ✓ |
| Focus on career exploration with shadowing experiences provided in a variety of professional locations | | | | ✓ |
| High school academic credit for Government/Economics and elective credit | | | | ✓ |
| Curriculum includes dual enrollment coursework with local colleges and aligned to SUNY General Education requirements | | | | ✓ |

CTE ALIGNMENT TO NEW YORK STATE REQUIREMENTS

Academic Credits

Each NYSED Approved Program offers academic credits. Credits offered are dependent upon appropriate teacher certifications and NYSED Approval. The Erie 1 BOCES CTE Course Offerings document includes updated information regarding the credits offered in each NYSED Approved Program. Students requesting Math or Science credit through CTE must have already successfully completed Regents requirements for Math and Science. Students requesting ELA 12 credit through CTE must have successfully completed ELA 11.

Career and Financial Management Credits

All NYSED Approved Programs include CFM credit: 0.5 credit offered over the duration of the program. This does not need to be requested when completing the enrollment request.

Awarding Credits

Erie 1 BOCES CTE does not award credits. The sending district awards all credits. Recommendations for credits are made based on the length of the course and the content included. Typically, a one-year NYSED Approved Program is 3.75 credits and a two-year NYSED Approved Program is 7.5 credits. Academic credits are deducted from these totals. Locally Approved Courses are one-year (Career Exploration, One-Year Programs) or two-years (Occupational Education) in length and only provide CTE credit.

Technical Endorsement

Students in NYSED Approved Programs may be eligible for Technical Endorsement on their diploma if they pass the three-part Technical Assessment for their program. Erie 1 BOCES CTE does not award this endorsement. As a student completes their program, CTE will provide technical endorsement information to qualifying students' home districts based on technical assessment scores.

CDOS Credential

All Locally Approved Courses and NYSED Approved Programs are aligned to the requirements of the Career Development and Occupational Studies (CDOS) Credential as they include commencement level CDOS standards, provide at least 216 hours of CTE content, offer opportunities for students to participate in 54 hours of Work-Based Learning (WBL) and assess students on an employability profile. However, completing a CTE program does not automatically mean a student is eligible to earn a CDOS credential.

In addition, students in NYSED Approved Programs are assessed on the YouScience 21st Century Skills for Workplace Success assessment. This assessment is approved for the CDOS credential through Option 2. If a student needs the CDOS credential as their only credential upon exiting high school or as a pathway to a diploma, notify a member of the CTE counselor prior to submitting an enrollment request. Erie 1 BOCES does not award the credential, but staff members can monitor student progress towards meeting CDOS credential requirements through their CTE program and provide documentation upon request.



ENROLLMENT FOR LOCALLY APPROVED COURSES AND NYSED APPROVED PROGRAMS

Portal Registration

Districts must submit all new enrollment requests online. Please contact **Kelsie Kruppa via email at kkruppa@e1b.org** to obtain Portal Access or for any password needs.

Supporting Information and Documentation

- Provide supporting documentations for enrollment requests. Share IEP and 504 files via Frontline. Email the following if applicable: BIP, health plans, safety plans, custody papers, etc.
- If a student has unique and/or significant needs, contact a CTE counselor to discuss the student's needs at the time of, or prior to, submitting the enrollment request.
- Send all applicable documentation (ex: FBA, BIP, Medical Plan). Medical care plans written for a school setting may not include information needed for CTE labs or WBL sites. A follow up with healthcare providers may be necessary. Additional district support for students may also be requested at this time.
- Notify a CTE counselor if the CDOS credential is needed as the only high school credential or diploma pathway.
- It is vital that demographic information is complete and accurate. This is the only way CTE receives important information such as parents/guardians, addresses, phone numbers, etc. If there is a change, contact CTE as soon as possible with the updated information.

Priority Lists

Each high school/district is required to submit a list that prioritizes the order that all their students should be enrolled in each offering. If a priority list is not submitted, the CTE Enrollment Team will use the date/time of the enrollment request to prioritize students. Students not on the priority list will automatically be placed at the end.

Enrollment Review Process

The CTE Enrollment Team reviews requests and supporting documentation. Team members may contact districts to better understand the student and/or enrollment request.

Class Size and District Enrollment Per Class

CTE program maximum enrollment varies due to factors such as safety and supervision concerns; physical size and location of the space; number of teachers; curriculum and/or industry requirement changes; and clinical hours/rotations. Maximum enrollment may change annually. Districts do not have a guaranteed number of spots per program; enrollment requests are the only access to roster spots. Enrollment requests prior to the assigned deadline are most likely prioritized over late enrollment requests.

Cross Contracts

Component district requests are accommodated before cross-contract student enrollment is evaluated. Non-Component districts must initiate cross-contract paperwork after the CTE enrollment review process is completed. Cross-contract paperwork must be signed by both the enrolling district's BOCES and Erie 1 BOCES. This paperwork is required to be on file with CTE to confirm enrollment.

Waitlists

Students cannot be on more than one waitlist. Multiple factors contribute to waitlist movement and filling a roster spot, if one becomes available. CTE counselors will contact the district if a spot for a waitlist student becomes available.

Processing Enrollment Requests after Enrollment Deadline

Late enrollment requests will not be processed until after initial class lists and waitlists are complete. As a result, enrollment status for the late requests may not be communicated until late June.



NEW VISIONS & TECH PREP ENROLLMENT PROCESS

Enrollment Requirements

Academic requirements include successful completion of three years of New York State Regents-level Math and Science. Students cannot have behavior, discipline or attendance concerns during junior year. Students must also be able to successfully complete industry requirements for shadowing. These requirements may include a background check, drug test and/or vaccinations.

New Visions Application

Acceptance into New Visions is done through an application process. Online applications become available in December. The application process includes short answer responses, recommendations and required documents (transcripts, discipline, attendance). Applications are initiated by students, but require follow up from the district counselor. This application system is NOT the same as the CTE online registration system. Application deadline is in March. Applications can be found at www.e1b.org/newvisions.

District Presentations

CTE outreach personnel are able to visit districts to present information about the New Visions Program to interested grade 11 students. Student attendance at these presentations is dictated by the district, keeping in mind the rigor, demands and format of the New Visions program. Current New Visions students may be asked to assist with the presentation.

New Visions Information Night

New Visions Information Nights are held in December and February. Interested students and families can hear about the program from New Visions staff and current students prior to completing their applications.

Acceptance

Information regarding New Visions acceptance is mailed to the student and district counselor in April. Not all students who apply are accepted into the program.



NEW VISIONS & TECH PREP PROGRAMS

Connections: Health Related Careers

Connections: Health Related Careers students experience what it's like to be a practicing medical professional as they interact with colleagues, patients, and families. Students directly observe professionals while providers care for and treat a variety of patient conditions. Students will be immersed in the health care system through behind-the-scenes experiences through our local hospital partners.

Diesel Technology

Diesel Technology is a one year Tech Prep program that connects qualified, highly motivated high school seniors with professionals in the workplace. This competitive, off-site program provides unique training with nationally recognized partners. Students will learn skills through real-world, hands-on experiences. Students will apply knowledge and skills to a wide range of diesel-powered equipment and work on Conway-Beam client vehicles and project vehicles throughout the year in a state-of-the-art diesel facility.

Education Pathways Academy

Education Pathways Academy (EPA) provides students opportunities to learn education terminology, frameworks, New York State mandates, and services. Students will participate in rotations in a variety of educational settings including elementary, middle, and high schools, as well as specialty areas like special education, music, art, occupational and physical therapy, speech, counseling, and administration. Opportunities to obtain relevant certifications (DASA, etc) are available to EPA students.

Engineering and Manufacturing

Engineering and Manufacturing is a one year Tech Prep program that connects qualified, highly motivated high school seniors with professionals in the workplace.

Legal Academy

The Legal Academy program offers an exciting opportunity for selected students to experience a unique alternative to the traditional classroom setting. Students will develop a network of professional connections through extensive field experiences across Western New York. Internship opportunities include political offices, county, city and federal courts, law offices, and transportation security administration.

Plant Science

The Plant Science program incorporates contemporary knowledge, skills, and practices found in the horticulture, floral, and landscaping industries. Students learn horticultural practices commonly used in greenhouse production, floral design, landscaping, and a variety of other industries. All students will be given opportunities to participate in experiences on site at the Buffalo and Erie County Botanical Gardens.

Zoo Wildlife and Conservation Careers

The Zoo Wildlife and Conservation Careers program allows selected students the opportunity to explore options in the many areas related to wildlife, conservation, and zoo-based careers. The program includes daily access to zoo grounds, internships with zookeepers, behind the scenes tours, and diverse guest speakers.

Animal Science

CIP CODE: 51.0808

CENTER(S): HKP

Students will prepare for a wide range of careers related to animal care and veterinary science. Topics of study include: animal health and disease, nutrition, reproduction, parasitology, anatomy, physiology, and animal behavior. Students will perform clinical procedures that are commonly performed at veterinary clinics and learn the technical skills to operate and manage a veterinary practice. Animal care and grooming clinics are implemented to help students learn standard operating procedures by following written protocols, documentation, team work, problem solving, and verbal communication/instruction in a professional work environment.

PROGRAM HIGHLIGHTS

- 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.

COLLEGE AGREEMENTS

- Alfred State College
- Canisius University
- SUNY Cobleskill
- SUNY Erie
- SUNY Morrisville
- SUNY Niagara
- Trocaire College

CAREER PATHWAYS

Entry Level

- Animal Shelter Worker
- Groomer
- Kennel Assistant
- Veterinary Assistant

Technical Careers

- Wildlife Game Warden
- Laboratory Animal Technician
- Licensed Veterinary Technician
- Wildlife Rehabilitator

Professional Careers

- Agricultural Careers
- Biologist
- Marine Biologist
- Veterinarian
- Zoologist

CLASSROOM INFORMATION

- Large class size (24+)
- Grooming clinic is physically demanding
- Clinic/lab can be loud and unpredictable
- Students participate in animal dissections
- Must pass dog grooming safety procedures and techniques test to participate in weekly grooming clinic
- Instruction is done in large groups with a lecture/demonstration of content presented visually and orally

PROGRAM CONSIDERATIONS

- Fine motor skills for animal restraint and grooming
- Able to assess risks by reading canine postures, ear/eye carriage
- Students are required to work independently and collaboratively in groups
- Able to work well with animals and animal handling (Students do not play with animals during class)
- Students interact in the lab setting with animals with various levels of supervision by the instructor.
- Strong science skills; advanced anatomy & physiology, medical terminology, and other biological competencies comparable to Regents-Level Living Environment.
- Strong Math skills; fractions, decimals, percentages, ratios
- Strong Laboratory skills: urinalysis, direct/indirect canine fecal exam slide preparations, blood smears, suturing...)
- Strong reading comprehension

ADDITIONAL INFORMATION

- Updated tetanus vaccine required
- Students with allergies, especially to animals, should speak with a physician before registering for this program



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Auto Technician Training

CIP CODE: 47.0604
CENTER(S): HKP

Students will learn the skills necessary to troubleshoot and repair today's modern vehicles. Topics of study include: engine performance, tire repair/replacement, alignment, fuel systems, wiring and electrical systems, powertrains and transmissions, brake repair and replacement, steering and suspension. Students will diagnose, troubleshoot, and perform preventative maintenance on foreign and domestic vehicles by using the latest techniques and computerized diagnostic equipment.

PROGRAM HIGHLIGHTS

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

COLLEGE AGREEMENTS

- | | |
|-------------------------------|-----------------------------------|
| • Alfred State College | • SUNY Morrisville |
| • Lincoln Technical Institute | • University of Northwestern Ohio |
| • Ohio Technical College | • Universal Technical Institute |
| • SUNY Canton | |
| • SUNY Erie | |

CAREER PATHWAYS

Entry Level

- | | |
|---------------------------|---------------------------|
| • Detailer | • Parts/Shuttle Driver |
| • Lube Technician | • Service Writer |
| • Parts Counter Associate | • Tire Service Technician |

Technical Careers

- | | |
|----------------------|-------------------|
| • Equipment Mechanic | • Service Manager |
| • Parts Manager | • Technician |

Professional Careers

- | | |
|-----------------------------|----------------------|
| • Automotive Engineer | • Dealership Manager |
| • Automotive School Teacher | • Production Manager |

CLASSROOM INFORMATION

- Large class size (28+)
- Auto Shop tools and activities can be very loud
- Auto Shop is large and spread out
- Will be working with hazardous materials (gasoline, etc...)
- Strict safety standards
- Need to wear appropriate clothing and shoes to participate in shop activities

PROGRAM CONSIDERATIONS

- Fine motor skills and hand tool use
- Able to work well in groups and individually
- Able to properly use power and hand tools while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Physical strength to lift up to 30+ lbs.
- Strong technical reading skills
- Strong math skills

ADDITIONAL INFORMATION

- Students must supply work pants, coveralls, and work boots.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Aviation Technology

CIP CODE: 49.0101

CENTER(S): H

Students will study and apply aerodynamic principles, aircraft control, and instrumentation both in the classroom and during flight opportunities. Topics of study include: flight principles, systems and performance, aerodynamics, weight and balance, navigation, weather reports and interpretation, aviation meteorology, and ground and space-based navigation. Students will learn aeromedical factors for pilots as well as ground operations, piloting skills, and unmanned aerial vehicles, as well as aerospace engineering principles.

PROGRAM HIGHLIGHTS

- Experience flight by hands-on operation of Piper Warrior and take off with a licensed pilot as your teacher.
- Experience maintenance procedures with the class aircraft.
- Create, develop, and test modification to aircraft designs in an engineering exploration style.
- Conceptualize unmanned technology and understand application to current technology.

COLLEGE AGREEMENTS

- Edinboro University
- Mohawk Valley Community College

CAREER PATHWAYS

Entry Level

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

Technical Careers

- | | |
|-------------------------------|--------------------------|
| • Airline Flight Attendant | • Maintenance Technician |
| • Certified Flight Instructor | • TSA |
| • Corporate Pilot | |

Professional Careers

- | | |
|--------------------------|----------------------|
| • Aerospace Engineer | • Airport Manager |
| • Air Traffic Controller | • Professional Pilot |
| • Airline Manager | • Test Pilot |

CLASSROOM INFORMATION

- Large class size (28+)
- Students are required to work independently and collaboratively in groups

PROGRAM CONSIDERATIONS

- Able to work independently and as a team
- Able to maintain focus for 2+ hours
- Strong time management skills
- Strong understanding of technology integration
- Strong math skills

ADDITIONAL INFORMATION

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



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Baking and Pastry Arts

CIP CODE: 12.0501

CENTER(S): HKP

Students will learn the fundamentals of baking, measurement and mixture methods, and plating and finishing techniques to create beautiful, edible works of art. Topics of study include: holiday baking, cookies and pastries, cakes, icing, and decorating, quick breads and bistro-style cooking. Students will build a professional portfolio by learning sugar and confectionary techniques, working with a variety of doughs and ingredients, and creating candies and chocolates. Students will earn a ServSafe certification during the two-year program.

PROGRAM HIGHLIGHTS

- Baking and Pastry Arts offers students an opportunity to understand what goes into creating beautifully 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.

COLLEGE AGREEMENTS

- Mohawk Valley Community College
- SUNY Erie
- SUNY Niagara

CAREER PATHWAYS

Entry Level

- | | |
|--------------------|----------------|
| • Bakery Assistant | • Pastry Cook |
| • Bread Baker | • Retail Baker |
| • Cake Decorator | |

Technical Careers

- | | |
|-----------------------|---------------------------|
| • Artisan Bread Baker | • Food Stylist |
| • Chocolatier | • Pastry Chef |
| • Commercial Baker | • Specialty Cake Designer |

Professional Careers

- | | |
|-------------------------|--------------------------|
| • Bake Shop Manager | • Hospitality Management |
| • Executive Pastry Chef | • Culinary Instructor |
| • Food Writer | |

CLASSROOM INFORMATION

- Physically demanding
- Work with sharp knives and electrical baking equipment
- Kitchen is often loud, busy, and hot
- Strict safety standards
- Fast-paced
- Uniform is required to participate

PROGRAM CONSIDERATIONS

- Fine motor skills
- Able to work well in groups and individually
- Physical strength to lift up to 25+ lbs.
- Able to properly use sharp tools (kitchen knives, etc.) while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to stand for the majority of classtime
- Maintain food safety and sanitation
- Able to transition from one task to another quickly
- Strong math skills; measuring, conversions, ratios, fractions
- Strong reading comprehension skills

ADDITIONAL INFORMATION

- Students are required to purchase and wear a professional uniform in class.
- Students with food allergies should consult a physician before starting the program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Barbering

CIP CODE: 12.0402

CENTER(S): HK

Students will learn the technical and communication skills required to be successful in a professional shop environment. Topics of study include: implements, tools and equipment, anatomy and physiology, properties and disorders of the skin and scalp, and New York State Board procedures. Students will perform professional barbering techniques, such as mustache and beard design, a variety of shear and clipper cutting techniques, hair color and lightening, as well as the basics of business, effective client communication, shop management, and safe work practices. Students must accumulate at least 500 hours of instruction in order to be eligible for the NYS Certification exam.

PROGRAM HIGHLIGHTS

- Prepare for the NYS Master Barber's licensing exam.
- Cut, color, and style a variety of haircuts.
- Learn to communicate effectively with clients and colleagues.
- Master Barbers participate in national organizations and trade shows and many compete in barbering competitions.

COLLEGE AGREEMENTS

- Bryant and Stratton College
- Erie 1 BOCES Workforce Development

CAREER PATHWAYS

Entry Level

- Assistant
- Barber Apprentice
- Receptionist
- Sales Representative

Technical Careers

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

Professional Careers

- Barber Instructor
- Cosmetic Chemist
- Product Educator

CLASSROOM INFORMATION

- Large class size (24+)
- Barbering Lab is a loud and social environment
- Students will be required to work in close proximity of others

PROGRAM CONSIDERATIONS

- Fine motor skills
- Able to adhere to professional practices
- Able to stand for the majority of classtime
- Able to properly use sharp implements (razor, blades, etc.) while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to communicate effectively with clients
- Able to interact closely with others to provide Barbering services
- Strong time management skills
- Strong math skills; geometry, algebra
- Strong science skills; chemistry, anatomy, microbiology

ADDITIONAL INFORMATION

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



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Building Trades

CIP CODE: 46.9999

CENTER(S): HKP

Students will learn the fundamental practical skills needed in the construction field, such as: proper use of hand and power tools, safety procedures, blueprint reading, and obtaining accurate measurements. Practical knowledge will be applied by working with drywall installation, rough and finish carpentry, framing, painting, roofing, floor installation, door and window installation, siding, restoration work, and more.

PROGRAM HIGHLIGHTS

- Develop, design, and construct various structures using 21st century tools and technology.
- Develop skills necessary to use and operate the same tools as a master carpenter.
- Experience and manage real life construction projects.
- Discover a variety of careers in the building trades to help make wise career decisions for your future.

COLLEGE AGREEMENTS

- Alfred State College
- Mohawk Valley Community College
- SUNY Erie
- SUNY Morrisville

CAREER PATHWAYS

Entry Level

- | | |
|------------------------|--------------------|
| • Construction Laborer | • Painter |
| • Drywall Installer | • Roofer/Sider |
| • Flooring Installer | • Union Apprentice |

Technical Careers

- | | |
|----------------------------|-----------------------|
| • Carpenter | • Home Energy Auditor |
| • Drafter | • Home Inspector |
| • Heavy Equipment Operator | • Surveyor |

Professional Careers

- | | |
|----------------------|--------------------------|
| • Architect | • Engineer |
| • Building Inspector | • Foreman/Superintendent |
| • Company Owner | • Project Manager |

CLASSROOM INFORMATION

- Large class size (28+)
- Safety Standards are rigorous (OSHA compliance mandated)
- Physically demanding
- Building Trades Shop activities can be very loud
- Building Trades Shop is very large and spread out
- Students are outside working year-round on house job site which includes working on ladders, scaffolding, roof, etc.
- Students will be required to work outside and in all weather conditions
- Instruction is done in large groups with a lecture/demonstration of content presented visually and orally.

PROGRAM CONSIDERATIONS

- Able to understand and follow safety standards
- Able to lift 50+ lbs.
- Able to work on ladders, scaffolding, roofs, etc.
- Able to follow multi-step directions
- Able to properly use power and hand tools while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Strong math skills; algebra, geometry, conversions, fractions, complex numbers
- Strong reading comprehension

ADDITIONAL INFORMATION

- Students are responsible for purchasing work boots and basic hand tools.
- Students are required to be dressed safely and appropriately to participate in labs.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Collision Repair

CIP CODE: 47.0603

CENTER(S): H

Students will train in collision repair, automotive detailing, painting and restoration work. Topics of study include: collision and auto body repair, auto refinishing, welding techniques, and replacement of parts and sections of panels. Students learn to use hand, power, and specialized auto body tools and equipment to repair dents and frame work on metal and plastic sections of automobiles. Students have the opportunity to create customized paint graphics, airbrushing, and restoration work on vehicles.

PROGRAM HIGHLIGHTS

- 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.
- Students are guaranteed a job interview for applicable openings upon graduation.
- Apprenticeship opportunities are available to successful graduates.

COLLEGE AGREEMENTS

- | | |
|-------------------------------|---------------------------------|
| • Alfred State College | • SUNY Erie |
| • Lincoln Technical Institute | • SUNY Morrisville |
| • Ohio Technical College | • Universal Technical Institute |
| • SUNY Canton | |

CAREER PATHWAYS

Entry Level

- | | |
|----------------------|------------------------|
| • C Level Technician | • Tear Down/Dismantler |
| • Detailer | • Vehicle Preparation |

Technical Careers

- | | |
|---------------------------|-----------|
| • A or B Level Technician | • Painter |
| • Estimator | |

Professional Careers

- Shop Owner/Manager
- Collision Repair Teacher

CLASSROOM INFORMATION

- Large class size (28+)
- Students are required to work independently and collaboratively in groups.
- Collision Shop activities can be very loud.

PROGRAM CONSIDERATIONS

- Stamina/Strength to stand, lift, and move equipment and parts
- Able to complete repetitive work
- Able to independently and safely use hand tools and air tools under various levels of supervision from the instructor
- Physically capable of lifting up to 30+ lbs

ADDITIONAL INFORMATION

- This program aligns with I-CAR curriculum and standards.
- Students will work toward I-CAR Industry Non-Structural Technician and Refinish Technician certifications.
- Students are responsible for purchasing work pants, coveralls, and work boots.
- Students with allergies and sensitivities, especially to dust and fumes, should speak with a physician before registering for this program



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Cosmetology

CIP CODE: 12.0401

CENTER(S): HKP

Students will learn the communication and technical skills required to be successful in a professional salon work environment. Topics of study include: hair coloring, styling, conditioning and shaping, infection control and safety standards, esthetics, and nail care. Product knowledge, proper application and technical procedures are taught to enhance the personal care of hair, nails, and skin. Students develop and practice their skills during clinic events. Students must accumulate 1,000 hours of instruction in order to be eligible to take the NYS Certification exam.

PROGRAM HIGHLIGHTS

- Prepare for the NYS Cosmetology licensing exam.
- Cut, color, and style a variety of haircuts.
- Learn to communicate effectively with clients and colleagues.
- Explore the latest beauty industry trends while applying skills to live models.

COLLEGE AGREEMENTS

- Bryant and Stratton College
- Erie 1 BOCES Workforce Development

CAREER PATHWAYS

Entry Level

- Assistant Stylist
- Fashion or Cosmetic Retail Sales
- Cosmetic Sales
- Salon Receptionist

Technical Careers

- Editorial or Advertising Stylist
- Platform Artist
- Hair Color Specialist
- Salon Manager
- Salon Stylist

Professional Careers

- Artistic Director for Salons
- Cosmetology Teacher
- Celebrity or Personal Stylist
- Salon Owner
- State Board Examiner

CLASSROOM INFORMATION

- Class size (28+)
- The salon is a loud and social environment
- Students will be required to work in close proximity of others

PROGRAM CONSIDERATIONS

- Fine motor skills
- Able to adhere to professional practices
- Able to stand for the majority of classtime
- Able to properly use sharp implements (shears, feather razor, etc) while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to communicate effectively with clients
- Able to interact closely with others to provide cosmetology services
- Able to follow basic direction prompts (right, left, etc)
- Strong time management skills
- Strong math skills; geometry, algebra
- Strong science skills; chemistry, anatomy, microbiology

ADDITIONAL INFORMATION

- Students are responsible for purchasing a Cosmetology Kit and uniform.
- Additional steps are necessary for NYS licensing.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Criminal Justice

CIP CODE: 43.0107

CENTER(S): HKP

Students will learn criminal and civil law, vehicle and traffic law, arrest and court procedures, report writing and professional communication skills. Topics of study include: interviewing skills, self-defense, emergency response, security, fingerprinting, civil rights, courts and corrections, and forensics. Students will participate in community service projects, participate in guest speaker presentations, conduct physical conditioning exercises, learn patrolling skills, collect evidence and crime scene investigation tactics.

PROGRAM HIGHLIGHTS

- Network and interact with criminal justice professionals at local, county, state, and federal agencies.
- Class includes guest speakers, field trips, and internships.
- Complete 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 AGREEMENTS

- | | |
|-----------------------------|-----------------------|
| • Bryant & Stratton College | • SUNY Erie |
| • Canisius University | • SUNY Niagara |
| • Hilbert College | • Niagara University |
| • SUNY Canton | • Villa Maria College |

CAREER PATHWAYS

Entry Level

- | | |
|--------------------------------|--------------------|
| • Armored Car Delivery Service | • Private Security |
| • Corrections Officer | • Military Police |
| • Loss Prevention | • TSA |

Technical Careers

- | | |
|--------------------|------------------------|
| • Border Patrol | • State or Park Police |
| • DEC | • Secret Service |
| • Municipal Police | • Paralegal |

Professional Careers

- | | |
|--------|----------------------------|
| • ATFE | • Lawyer |
| • CIA | • Parole/Probation Officer |
| • DEA | • U.S. Marshal |
| • FBI | |

CLASSROOM INFORMATION

- Large class size (24+)
- Students will participate in physical training activities.
- Students are required to work independently and collaboratively in groups.

PROGRAM CONSIDERATIONS

- Respectful of other people's ideas and beliefs
- Able to handle sensitive content related to Criminal Justice
- Able to problem-solve and think creatively
- Strong verbal communication/public speaking/debating
- Strong reading comprehension
- Strong writing skills
- Strong moral and ethical character

ADDITIONAL INFORMATION

- Students are eligible to receive Participation in Government credit (0.5) upon successful completion of the program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Culinary Arts

CIP CODE: 12.0599

CENTER(S): HKP

Students will learn the fundamentals of safety and sanitation, equipment operation, and how to prepare short order and large quantity cooking meals in this exciting and fast-paced program. Topics of study include: baking breads and pastries, creating main entrees, side dishes, and soups, practicing professional skills through customer services, menu planning, and recipe conversions. Students will work effectively with their team members, learn restaurant management skills through catering services and food orders.

PROGRAM HIGHLIGHTS

- Work in high energy, fast paced environment.
- Learn about the latest food trends, create and taste new and exciting foods!
- Prepare food for actual catered affairs.
- Experience Work Based Learning at leading restaurants, country clubs, and corporations.

COLLEGE AGREEMENTS

- | | |
|---------------------------------|-----------------------------------|
| • Alfred State College | • SUNY Erie |
| • Culinary Institute of America | • SUNY Niagara |
| • Trocaire College | • Mohawk Valley Community College |

CAREER PATHWAYS

Entry Level

- | | |
|-------------------------------|------------------------|
| • Food Service Representative | • Host/Hostess |
| • Hospitality Service Worker | • Prep Cook |
| | • Sanitation Assistant |
| | • Wait Person |

Technical Careers

- | | |
|--------------------|----------------------|
| • Banquet Manager | • Line Cook |
| • Chef | • Restaurant Manager |
| • Health Inspector | • Sous Chef |

Professional Careers

- | | |
|--------------------------------------|--------------------|
| • Food Chemist | • Food Stylist |
| • Food Research and Development Chef | • Head Chef |
| | • Restaurant Owner |

CLASSROOM INFORMATION

- Physically demanding
- Work with sharp knives and electrical baking equipment
- Kitchen is often loud, busy, and hot
- Strict safety standards
- Fast-paced
- Uniform is required to participate

PROGRAM CONSIDERATIONS

- Fine motor skills
- Able to work well in groups and individually
- Physical strength to lift up to 25 lbs.
- Able to properly use sharp tools (kitchen knives, etc.) while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to stand for the majority of classtime
- Maintain food safety and sanitation
- Able to transition from one task to another quickly
- Strong math skills; measuring, conversions, ratios, fractions
- Strong reading comprehension skills

ADDITIONAL INFORMATION

- Students are required to purchase and wear a professional uniform.
- Students with food allergies should consult a physician before starting the program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Cybersecurity and Networking

CIP CODE: 11.1002

CENTER(S): H

Students will use the latest software to analyze data traffic and troubleshoot PC hardware and operating systems. Topics of study include: digital forensics, computer data and hardware analysis for evidence collection and criminal prosecution, network traffic analysis, vulnerability and network activity identification, and research ethics and morals in relation to cyber-attacks and cyberterrorism. Students will configure hardware firewalls for added network security, setup secure wireless devices for homes and businesses, and use various programs to hide data within pictures, videos, and music files.

PROGRAM HIGHLIGHTS

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

COLLEGE AGREEMENTS

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

CAREER PATHWAYS

Entry Level

- | | |
|------------------------------|-----------------------------------|
| • CERT Member | • Network Installation Technician |
| • Computer Repair Technician | • Network Support Specialist |
| • Help Desk Technician | • Wiring Specialist |

Technical Careers

- | | |
|------------------------------------|---------------------------------------|
| • Local Area Network Administrator | • Network Software Support |
| • Network Security Technician | • Network Systems Engineer Specialist |

Professional Careers

- | | |
|--------------------------|--------------------------|
| • Cyber Threat Analyst | • Security Engineer |
| • Ethical Hacker | • Vulnerability Assessor |
| • Security Administrator | |

CLASSROOM INFORMATION

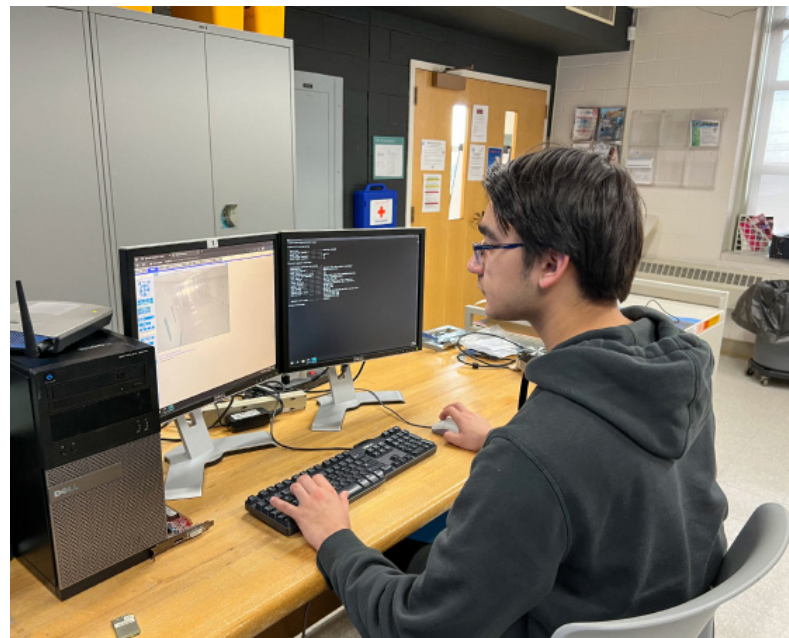
- Large class size (28+)
- No computer programming skills are taught in this program

PROGRAM CONSIDERATIONS

- Able to focus on a single task for 2+ hours
- Responsible and ethical use of technology and equipment
- Strong math skills
- Strong reading comprehension skills
- Strong time management skills

ADDITIONAL INFORMATION

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



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Dental Laboratory Technology

CIP CODE: 51.0603

CENTER(S): H

Students will combine the art and science of the fabrication of corrective devices and replacements for natural teeth. Topics of study include: dental and oral anatomy, dental terminology, laboratory safety and infection control, and tooth morphology. Students will create orthodontics and restorations, all phases of complete dentures, crown and bridge restorations, ceramic and orthodontic techniques, and digital design, scanning, and milling. Students with an interest in dentistry, dental hygiene, and orthodontics may be interested in this course.

PROGRAM HIGHLIGHTS

- Dental laboratory technology is the art and science of the fabrication of corrective devices and replacements for natural teeth.
- Learn five specialties of dental laboratory technology: complete denture, partial denture, crown and bridge restoration, porcelain and ceramics, and orthodontics.
- Students will combine science, art, skill, and craftsmanship to fabricate an appliance from beginning to end.

COLLEGE AGREEMENTS

- Bryant and Stratton College

CAREER PATHWAYS

Entry Level

- Dental Assistant
- Dental Office
- Dental Supply Company

Technical Careers

- Dental Hygienist
- Dental Lab Technician
- Research and Development

Professional Careers

- Dentist
- Oral Surgeon
- Orthodontist

CLASSROOM INFORMATION

- Large class size (24+)

PROGRAM CONSIDERATIONS

- Able to consistently pay attention to fine details
- Able to work independently
- Able to follow multi-step directions
- Able to follow all safety precautions and use dental equipment and material properly and independently
- Strong time management skills
- Strong math skills
- Strong manual dexterity for manipulating materials

ADDITIONAL INFORMATION

- Students are responsible for purchasing a lab coat.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Early Childhood Education

CIP CODE: 19.0709

CENTER(S): HKP

Students will examine the physical, social/emotional, and intellectual development of children. Topics of study include: child development, child psychology, nutrition, social/emotional learning, special needs of children, and health and safety of children. Students will design and implement lesson plans, care for children in a preschool environment, enhance professional written and oral communication skills, and gain hands-on experience through internships at local preschools, childcare centers, and elementary schools.

PROGRAM HIGHLIGHTS

- 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 AGREEMENTS

- | | |
|-------------------------------------|-----------------------------------|
| • Herkimer County Community College | • SUNY Niagara |
| • SUNY Canton | • Mohawk Valley Community College |
| • SUNY Erie | • Buffalo State University |

CAREER PATHWAYS

Entry Level

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

Technical Careers

- | | |
|------------------------------|--------------------------|
| • Children's Author | • Daycare Director/Owner |
| • Children's Museum Educator | • Daycare Lead Teacher |
| | • Teacher Aide |

Professional Careers

- | | |
|-----------------------------|-----------------------------------|
| • Child Psychologist | • Social Worker |
| • Children's Librarian | • Speech and Language Pathologist |
| • Elementary School Teacher | |

CLASSROOM INFORMATION

- Large class size (28+)
- Students are required to work independently and collaboratively in groups
- Students will interact in the lab (preschool classroom) with many preschoolers with various levels of supervision by the instructor.

PROGRAM CONSIDERATIONS

- Able to work independently and responsibly with children ages 3-5 years while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to lift 50+ lbs. and be physically active in a play setting
- Fine motor skills
- Able to work in a loud, fast-paced environment
- Able to work with multiple sensory experiences with children (ie. Play-Doh, slime, sensory bins, etc)
- Strong reading comprehension skills
- Strong writing skills to create and write lesson plans
- Strong communication and public speaking skills

ADDITIONAL INFORMATION

- Current physical and PPD required.
- This program is eligible for post-secondary dual enrollment opportunities.
- Students are eligible to receive Integrated Parenting credit (0.5) upon successful completion of the program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Electrical Systems

CIP CODE: 46.0302

CENTER(S): HKP

Students will learn the theory and fundamentals of electrical systems and apply it to hands-on projects. Topics of study include: electrical safety, basics of hand and power tools, specialized tools and equipment, wiring methods, calculations and measuring, electrical circuits and troubleshooting methods, industrial motor controls, and residential blue print reading. Students will explore renewable technologies and energy sources, control systems, and business and industry principles like financial literacy. Students will earn their OSHA 10 Safety Certification.

PROGRAM HIGHLIGHTS

- 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 AGREEMENTS

- Alfred State College
- Lincoln Technical Institute
- SUNY Erie
- Mohawk Valley Community College

CAREER PATHWAYS

Entry Level

- Apprentice
- Electrician Helper

Technical Careers

- | | |
|----------------------------|-----------------------------------|
| • Audio Service Technician | • Electrical Sales Representative |
| • Automotive Electrician | • Residential Electrician |
| • Commercial Electrician | |

Professional Careers

- | | |
|-------------------------|---------------------------|
| • Electrical Management | • Solar Technician |
| • Electrical Engineer | • Utility Scale Worker |
| • Electrical Inspector | • Wind Turbine Technician |

CLASSROOM INFORMATION

- Large class size (28+)
- Safety Standards are rigorous (OSHA compliance mandated)
- Physically demanding
- Lab activities can be very loud
- Lab is very large and spread out
- Students will be required to work outside in all weather conditions
- Students are required to work independently and collaboratively in groups

PROGRAM CONSIDERATIONS

- Able to understand and follow safety standards
- Able to lift 50+ lbs.
- Able to work on ladders
- Able to follow multi-step directions
- Able to properly use power and hand tools while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Strong math skills; algebra, geometry, conversions, fractions, complex numbers
- Strong reading comprehension

ADDITIONAL INFORMATION

- Boots or safety shoes are required for this program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Electronics and Applied Technology

CIP CODE: 47.0104

CENTER(S): H

Students will use soldering irons, hand tools, meters, and oscilloscopes to build computers, robots, amplifiers, wireless devices, and other high tech projects. Topics of study include: microcomputer systems, amplification, digital electronics, Soldering, desoldering, and PCB repair. Students will understand semiconductor, DC, and AC electronics, analog/digital conversion, telephone and cellular communications, and radio communications.

PROGRAM HIGHLIGHTS

- Learn about the latest technology in personal computing, cellular communications, HDTV, virtual reality, Bluetooth, game machines, and car audio/video systems.
- Build computers, robots, amplifier, speakers, wireless devices, power supplies, and other "high tech" projects.

COLLEGE AGREEMENTS

- Bryant and Stratton College
- SUNY Canton
- SUNY Erie

CAREER PATHWAYS

Entry Level

- | | |
|-------------------------------|--------------------------------|
| • Cable Television Technician | • Electronics Bench Tester |
| • Electronic Sales | • Satellite Systems Technician |
| • Electronics Assembler | • Security Alarm Installer |

Technical Careers

- | | |
|------------------------------------|---------------------------------|
| • Avionics Technician | • Electro-Mechanical Technician |
| • Broadcast Electronics Technician | • Equipment Repairer |
| • Electronics Technician | • Robotics Technician |

Professional Careers

- | | |
|--------------------------|-----------------------|
| • Biomedical Engineer | • Electrical Engineer |
| • Computer Engineer | • Robotics Engineer |
| • Design & Test Engineer | |

CLASSROOM INFORMATION

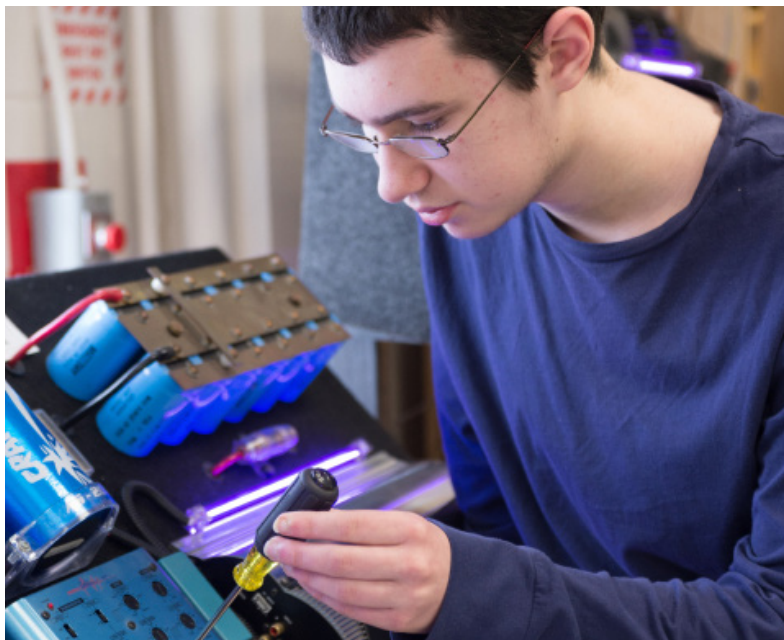
- Large class size (28+)
- Students are required to work independently and collaboratively in groups.
- Safety Standards are rigorous (OSHA compliance mandated)

PROGRAM CONSIDERATIONS

- Able to work independently and with a team
- Able to properly use soldering irons and other tools while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to implement daily safety procedures
- Able to understand abstract concepts
- Strong organizational skills
- Strong attention to detail
- Strong math skills; basic math, algebra, etc.
- Strong fine and gross motor skills
- Strong writing skills
- Strong logic and critical thinking skills

ADDITIONAL INFORMATION

- Students are eligible to take the ISCET Associate Electronic Technician Certification CET upon successful completion of the program.
- Students are eligible to take the Federal Communications Commission (FCC) certification exam upon successful completion of this program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Emergency Medical and Fire Services

CIP CODE (EMS): 51.0904

CIP CODE (FIRE): 43.0203

CENTER(S): K

Students will explore the wide variety of career opportunities available in Emergency and Fire Services and practice hands-on emergency care skills like patient assessment, treatment, team communication, and patient transportation. Topics of study include: anatomy and physiology, medical terminology, diseases and disorders, and basic medical abbreviations. Students will understand emergency medication and administration, primary and secondary assessment, weight conversions, concentration calculations, trauma intervention and special considerations, special patient populations, and EMS operations.

PROGRAM HIGHLIGHTS

- Build a foundation in medical terminology, anatomy and physiology, and pathophysiology.
- Practice hands-on emergency care skills such as patient assessment, treatment, team communication, and patient transportation.
- Gain skills necessary for firefighting, auto extrication, and mass casualty incidents.

COLLEGE AGREEMENTS

- Bryant and Stratton College
- SUNY Erie
- Trocaire College
- Mohawk Valley Community College

CAREER PATHWAYS

Entry Level

- | | |
|--------------------------------|--------------------------------------|
| • Certified Nursing Assistant | • Emergency Medical Technician (EMT) |
| • Community Medicine | • Emergency Room Technician |
| • Emergency Medical Dispatcher | |

Technical Careers

- | | |
|-------------------------------|-----------------------|
| • Certified Nursing Assistant | • Paramedic |
| • Firefighter | • Phlebotomist |
| • Licensed Practical | • Surgical Technician |

Professional Careers

- | | |
|-------------------------|--------------------------|
| • Physician's Assistant | • Public Health Official |
| • Physician | • Registered Nurse |

CLASSROOM INFORMATION

- Instruction is done in large groups with a lecture/ demonstration of content presented visually and orally.
- Students are required to work in close proximity to others.
- Students are required to work independently and collaboratively in groups.

PROGRAM CONSIDERATIONS

- Able to lift a stretcher (125+ lbs.)
- Safety protocols
- Public speaking
- Able to manage stressful situations
- Able to handle sensitive topics related to emergency medical services
- Able to work safely in a busy environment in close proximity to other people
- Strong math skills; measurements, conversions, ratios, fractions
- Strong science skills; anatomy and physiology

ADDITIONAL INFORMATION

- Students will gain certification in:
 - CPR (National)
 - First Aid (National)
 - EMT-B (State, National)
 - ICS 100, 200, 700, 800
- Students are eligible to receive Integrated Health credit (0.5) upon successful completion of the program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Engineering and Robotics

CIP CODE: 15.0405

CENTER(S): H

Students will experience hands on learning projects and skill based competitions that will prepare them for their future by learning how to develop their ideas from concept to reality. Topics of study include: engineering essentials, introduction to engineering design, principles of engineering, computer integrated manufacturing, and engineering design and development.

PROGRAM HIGHLIGHTS

- Prepare for the future by learning how to develop their ideas from concept to reality.
- Build a trebuchet, develop the technology necessary to create a 3D printed "bobblehead", and create 3D printable parts and artwork.
- Lead a team to solve real-world problems in real-world situations.

COLLEGE AGREEMENTS

- | | |
|--|-----------------------------------|
| • Bryant and Stratton College | • SUNY Erie |
| • Rochester Institute of Technology - PLTW | • University of Northwestern Ohio |
| • SUNY Canton | • Mohawk Valley Community College |

CAREER PATHWAYS

Entry Level

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

Technical Careers

- | | |
|-------------------------------|--------------------------|
| • Application Developer | • Data Analyst |
| • Computer-Control Programmer | • Database Administrator |

Professional Careers

- | | |
|-----------------------------|-----------------------|
| • Aerospace Engineer | • Electrical Engineer |
| • Architect | • Industrial Engineer |
| • Civil/Structural/Engineer | • Mechanical Engineer |

CLASSROOM INFORMATION

- Large class size (24+)
- Students are required to work independently and collaboratively in groups.

PROGRAM CONSIDERATIONS

- Able to focus on a single project for 2+ hours
- Able to work independently and with a team
- Able to pay attention to details
- Able to follow multi-step directions
- Strong time management skills
- Strong reading comprehension skills
- Strong math skills



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Esports Management and Game Development

CIP CODE: 50.0411
CENTER(S): C

Students will explore the growing world of Esports and learn the business components of this booming industry. Topics of study include: computer literacy, game industry fundamentals, narrative design, principles and elements of design, game audio components, broadcasting and streaming, logo and brand design, game theory and strategy, and marketing strategies.

PROGRAM HIGHLIGHTS

- Learn cutting-edge practices and fully integrate sound, graphics, and programming into esports business models.

COLLEGE AGREEMENTS

- SUNY Canton

CAREER PATHWAYS

Entry Level

- Esports Coordinator
- Brand Ambassador

Technical Careers

- Esports Manager
- Esports Coach
- Esports Gamer
- Game Developer

Professional Careers

- Director of Game Development
- Producer
- Machine Learning Engineer

CLASSROOM INFORMATION

- Large class size (24+)
- Students are required to work independently and collaboratively in groups.
- Students must take a shuttle from Harkness to their classroom at Calspan

PROGRAM CONSIDERATIONS

- Focus on single project for 2+ hours
- Able to follow multi-step directions
- Able to troubleshoot independently
- Responsible and ethical use of technology and equipment



VIDEO COMING SOON!

Check our website at www.e1b.org for the most up-to-date information about this program.

Exercise Science

CIP CODE: 39.9031

CENTER(S): KP

Students will explore the effects of exercise including cardio-conditioning, strength and flexibility training on human health, wellness and sports performance. Topics of study include: fitness safety, functional movement and screening, health fitness trends, human anatomy and physiology, nutrition and weight management, specialty program design, cardiovascular and resistance training program design, sport specific training, and the business of fitness. Students will design, implement, and update personal training programs based on client specific goals. Throughout the two years, students will investigate and focus on various career paths in the health industry.

PROGRAM HIGHLIGHTS

- 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 and Strength and Conditioning Coaches.

COLLEGE AGREEMENTS

- | | |
|-------------------------------|-----------------------|
| • Bryant and Stratton College | • SUNY Canton |
| • Canisius University | • SUNY Erie |
| • Buffalo State University | • SUNY Niagara |
| | • Villa Maria College |

CAREER PATHWAYS

Entry Level

- | | |
|--------------------------|----------------------------|
| • Fitness Coach | • Professional Bodybuilder |
| • Health Sales Associate | • Recreation Coordinator |
| • Sports Coach | |
| • Lifestyle Coach | |

Technical Careers

- | | |
|------------------------------|-----------------------|
| • Certified Personal Trainer | • Gym Manager |
| • Cross Fit Level 1 Coach | • Massage Therapist |
| • Group Exercise Instructor | • Therapist Assistant |

Professional Careers

- | | |
|-------------------------|-----------------------------------|
| • Athletic Trainer | • Physical Education Teacher |
| • Chiropractor | |
| • Exercise Physiologist | • Strength and Conditioning Coach |
| • Physical Therapist | |

CLASSROOM INFORMATION

- Large class size (24+)
- Physically demanding (cardio and strength training regularly)
- Lab is a loud and busy environment
- Students are required to work in close proximity to others.
- Students are required to work independently and collaboratively in groups.

PROGRAM CONSIDERATIONS

- Work safely in a busy environment in close proximity to people
- Able to adhere to high standards for safety and hygiene
- Strong science skills; anatomy, physiology, kinesiology, nutrition
- Strong reading comprehension skills
- Strong math skills; conversions, ratios, fractions

ADDITIONAL INFORMATION

- 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.
- Appropriate attire and sneakers required daily



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Fashion Design Technology

CIP CODE: 50.0407
CENTER(S): HP

Students will learn to dress, style, and create trends based on design elements and the fashion cycle. Topics of study include: basic sewing skills, fashion trend forecasting, fashion psychology, fiber, yarn, fabric, and garment production. Students will analyze fashion collections, study fashion history, explore fashion merchandising, marketing and advertising by creating a working business plan, and produce a professional fashion show.

PROGRAM HIGHLIGHTS

- Experience what it's like to produce a "NYC Fashion Week" style show exhibiting original student designs.
- 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 using your design aesthetics with merchandising concepts.

COLLEGE AGREEMENTS

- | | |
|----------------------------------|---------------------------------|
| • Bryant and Stratton College | • LIM College |
| • SUNY Genesee Community College | • SUNY Buffalo State University |

CAREER PATHWAYS

Entry Level

- | | |
|--------------------------------------|--------------------------|
| • Assistant Fashion Show Coordinator | • Retail Sales Associate |
| • Fashion Designer Assistant | • Seamstress |

Technical Careers

- | | |
|----------------------------|-----------------------|
| • Fashion Designer | • Fashion Illustrator |
| • Fashion Merchandiser | • Personal Shopper |
| • Fashion Show Coordinator | • Retail Manager |

Professional Careers

- | | |
|---------------------|---------------------|
| • Costume Designer | • Fashion Designer |
| • Creative Director | • Style Director |
| • Fashion Editor | • Textile Developer |
| • Resourcing Agent | • Wardrobe Stylist |

CLASSROOM INFORMATION

- Large class size (24+)
- Lab can be loud and busy
- Students are required to work in close proximity to others.
- Students are required to work independently and collaboratively in groups.

PROGRAM CONSIDERATIONS

- Fine motor skills and dexterity
- Able to focus on tasks at hand for 2+ hours
- Able to work independently and in groups
- Able to follow multi-step directions
- Able to troubleshoot independently
- Able to work in a busy environment
- Able to manage multiple projects simultaneously
- Strong time management skills
- Strong organizational skills
- Strong reading comprehension
- Strong math skills; measuring, conversions, fractions

ADDITIONAL INFORMATION

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



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Health Careers

CIP CODE: 51.1614

CENTER(S): HKP

Students will learn the skills to be a supportive caregiver through clinical experiences in a variety of health care environments including long term care facilities and hospitals. Topics of study include: anatomy and physiology, medical terminology, infection control, legal and ethical responsibilities, vital signs and conversions, professional communication, personal health and wellness, and physical, mental, emotional, and social developments. During clinical rotations, students perform personal care procedures, learn to take vital signs, and assist patients with mobility using crutches, canes, walkers, and wheelchairs.

PROGRAM HIGHLIGHTS

- 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.
- Tour acute care facilities, hospitals, UB's Gross Anatomy Lab, colleges, and the Gates Vascular Institute Brain Museum.

COLLEGE AGREEMENTS

- Bryant and Stratton College
- Mohawk Valley Community College
- SUNY Canton
- SUNY Erie

CAREER PATHWAYS

Entry Level

- Central Supply Aide
- Certified Nursing Assistant
- Medical Dietary Aide
- Home Health Aide
- Medical Supply Sales
- Personal Care Aide
- Pharmacy Technician

Technical Careers

- Laboratory Technician
- Licensed Practical Nurse
- Medical Assistant
- Medical Billing
- Occupational Therapist

Professional Careers

- Nurse Practitioner
- Pharmacist
- Physical Therapist
- Occupational Therapist
- Physician's Assistant
- Registered Nurse

CLASSROOM INFORMATION

- Physically demanding (lifting and moving patients)
- Students are required to work independently and collaboratively in groups.

PROGRAM CONSIDERATIONS

- Professionalism
- Able to work safely in a busy environment in close proximity to others
- Able to interact in the lab and clinical setting with various levels of supervision by the instructor.
- Able to handle sensitive topics related to health care
- Able to physically assist patient with mobility limitations
- Strong science skills; anatomy and physiology
- Strong public speaking and communication skills

ADDITIONAL INFORMATION

- Uniforms are required to be purchased by students and worn during on-site clinical experiences.
- Current physical required in fall of Junior year and must maintain updates physical for the entire two years
- Additional steps are necessary to become a Certified Nursing Assistant.
- Certifications in BLS, First Aid, Blood Borne Pathogens, Stop the Bleed, Narcan Administration, and a CNA opportunity at the end of Senior year.
- Students are eligible to receive Integrated Health credit (0.5) upon successful completion of the program.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

HVAC

CIP CODE: 47.0201

CENTER(S): HP

Students will gain an understanding of the fundamentals of residential and light commercial heating, ventilation, and air conditioning installation, service, and repair. Topics of study include: potable water systems, forced air heating systems, steam and hydronic heating systems, drainage, waste and vents, and central air conditioning systems. Students will practice soldering, brazing, blue print interpretation and isometric drawing analysis. Students will earn trade related certifications like OSHA 10 and EPA 608.

PROGRAM HIGHLIGHTS

- Gain an understanding of the fundamentals of heating and air conditioning installation, service, and repair.
- Interpret blueprints, drawings, and schematics to effectively assemble, prepare, and install piping and HVAC equipment for a variety of residential and light commercial applications.
- Get training on the latest green and solar technologies.

COLLEGE AGREEMENTS

- Alfred State College
- SUNY Canton
- University of Northwestern Ohio
- Mohawk Valley Community College

CAREER PATHWAYS

Entry Level

- Appliance Repair Technician
- Building Maintenance Technician
- Counter Sales Technician
- HVAC Installer
- HVAC Apprentice
- Service Technician

Technical Careers

- Estimator
- HVAC Technician
- Industrial HVAC Technician
- Pipe Fitter
- Union Steamfitter

Professional Careers

- Building Inspector
- Building
- Mechanical Engineer
- Operations Manager
- HVAC Educator
- Entrepreneur

CLASSROOM INFORMATION

- Large class size (28+)
- Safety Standards are rigorous (OSHA compliance mandated)
- Physically demanding
- Shop activities can be very loud
- Students will be required to work outside and in all weather conditions
- Instruction is done in large groups with a lecture/ demonstration of content presented visually and orally.

PROGRAM CONSIDERATIONS

- Able to understand and follow safety standards
- Able to lift 50+ lbs.
- Able to work on ladders
- Able to follow multi-step directions
- Able to properly use power and hand tools while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Strong math skills; algebra, geometry, conversions, fractions, complex numbers
- Strong reading comprehension

ADDITIONAL INFORMATION

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



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Plumbing

CIP CODE: 46.0503
CENTER(S): H

Students will learn how to cut and install various types of materials that are used within the field. Topics of study include: plumbing and professional safety, blue print reading, fixture assembly, codes, pressure, temperature and water heaters, and water supply systems, mains, and wells.

PROGRAM HIGHLIGHTS

- Gain an understanding of the fundamentals of plumbing installation, service, and repair.
- Interpret blueprints, drawings, and schematics to effectively assemble, prepare, and install plumbing for a variety of residential and light commercial applications.

COLLEGE AGREEMENTS

- Alfred State College
- Mohawk Valley Community College
- SUNY Canton

CAREER PATHWAYS

Entry Level

- Building Maintenance Technician
- Counter Sales Technician
- Plumbing Apprentice
- Service Technician

Technical Careers

- Plumbing Technician
- Project Estimator
- Industrial Plumber

Professional Careers

- Entrepreneur
- Master Plumber
- Plumbing Educator

CLASSROOM INFORMATION

- Large class size (28+)
- Safety Standards are rigorous (OSHA compliance mandated)
- Physically demanding
- Shop activities can be very loud
- Students will be required to work outside and in all weather conditions
- Instruction is done in large groups with a lecture/demonstration of content presented visually and orally.

PROGRAM CONSIDERATIONS

- Able to understand and follow safety standards
- Able to lift 50+ lbs.
- Able to work on ladders
- Able to follow multi-step directions
- Able to properly use power and hand tools while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Strong math skills; algebra, geometry, conversions, fractions, complex numbers
- Strong reading comprehension

ADDITIONAL INFORMATION

- Steel/Composite toed work boots and appropriate dress are required to participate in shop activities.



VIDEO COMING SOON!

Check our website at www.e1b.org for the most up-to-date information about this program.

Video Production and Recording Arts

CIP CODE: 10.0202
CENTER(S): C

Students will learn to create and produce their own original films and music with the guidance of industry professionals. Topics of study include: Video production basics, video language and project development, video program creation, microphone design and application, digital audio technology, digital audio workstation, the process and concept of sound mixing, digital console and DAW mixer technology and automation.

PROGRAM HIGHLIGHTS

- Learn to create and produce your own original films and music with the guidance of industry professionals.
- Careers in video production and recording arts are very exciting, social, and creative.
- Students will have the opportunity to gain experience with cutting edge technology and network with industry professionals.

COLLEGE AGREEMENTS

- Canisius University
- Hilbert College
- SUNY Erie
- SUNY Niagara
- Villa Maria College

CAREER PATHWAYS

Entry Level

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

Technical Careers

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

Professional Careers

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

CLASSROOM INFORMATION

- Large class size (24+)
- Must be able to handle working independently and in a group setting
- Students must take a shuttle from Harkness to their classroom at Calspan

PROGRAM CONSIDERATIONS

- Basic computer skills
- Able to maintain focus for an extended period of time
- Able to manage multiple projects simultaneously
- Able to lift 25+ lbs.
- Able to troubleshoot independently
- Strong reading comprehension skills
- Strong communication skills
- Strong writing skills
- Responsible and ethical use of technology and equipment

ADDITIONAL INFORMATION

- Students will be able to earn ProTools User, ProTools Operator Music, and ProTools Game Audio certifications as well as a Sibelius User Certification.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Virtual Production and Design

(FORMERLY DIGITAL MEDIA)

CIP CODE: 9.0702

CENTER(S): C

Students will experience real world skills and techniques in the fields of graphic design, animation, illustration, and virtual production. The 2-year program studies topics like digital photography and videography, 2D and 3D animation and compositing, visual effects, combining virtual and physical worlds. They will create dynamic content through cutting edge, modern technology and techniques taught by industry professionals as well as gain real world experience through internships and collaborative opportunities with today's top producers and creative professionals.

PROGRAM HIGHLIGHTS

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

COLLEGE AGREEMENTS

- | | |
|-----------------------|-----------------------------------|
| • Canisius University | • SUNY Niagara |
| • Hilbert College | • Mohawk Valley Community College |
| • Villa Maria College | |
| • SUNY Erie | |
| • | |

CAREER PATHWAYS

Entry Level

- | | |
|-----------------------------|------------------------|
| • Assistant Copywriter | • Film Grip |
| • Assistant Layout Designer | • Production Assistant |
| • Event Coordinator | |

Technical Careers

- | | |
|----------------------------|--------------------------|
| • Advertising Copywriter | • Layout Designer |
| • Associate Media Producer | • Multimedia Editor |
| • Digital Artist | • Media Content Producer |

Professional Careers

- | | |
|----------------|----------------------|
| • Animator | • Production Manager |
| • Graphic | • Video Producer |
| • Photographer | |

CLASSROOM INFORMATION

- Large class size (28+)
- Students are required to work independently and in a group setting
- Students must take a shuttle from Harkness to their classroom at Calspan

PROGRAM CONSIDERATIONS

- Able to focus on a specific task for an extended period of time daily
- Able to organize and complete multiple assignments at a time
- Able to reflect upon constructive criticism
- Able to sit at a computer for 2+ hours
- Responsible and ethical use of technology and equipment
- Work independently and with a team
- Strong reading comprehension skills



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Web Technologies and Game Programming

CIP CODE: 15.1202
CENTER(S): C

Students will bring ideas to life by writing software, designing and coding games, and developing web pages and sites. Topics of study include: web design, web development applications, programming, game development applications, and databases.

PROGRAM HIGHLIGHTS

- Bring your ideas to life by writing your own software.
- Be a bigger part of the web by creating web pages and sites.

COLLEGE AGREEMENTS

- Bryan and Stratton College
- Canisius University
- Villa Maria College

CAREER PATHWAYS

Entry Level

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

Technical Careers

- 3D Game Programmer
- Beta Tester
- Web Developer
- Computer Support Specialist
- Technical Product Manager

Professional Careers

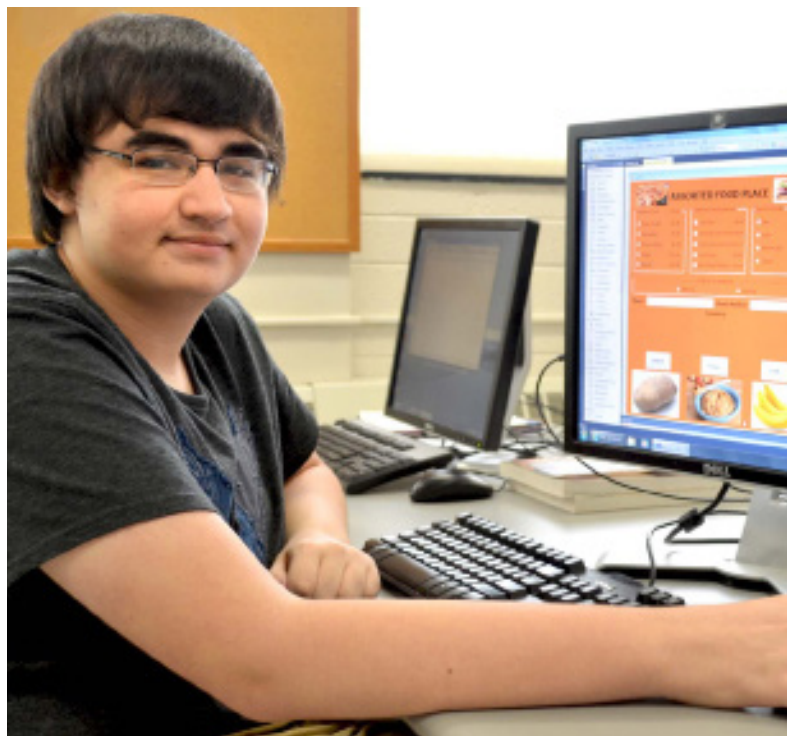
- Computer Programmer
- Computer Systems Administrator
- Computer Systems Analyst
- Game Production and Management
- Information Security Analyst

CLASSROOM INFORMATION

- Large class size (28+)
- Must be able to handle working independently and in a group setting
- Students must take a shuttle from Harkness to their classroom at Calspan

PROGRAM CONSIDERATIONS

- Independent learner
- Focus on single project for 2 hours
- Able to follow multi-step directions
- Able to troubleshoot independently
- Responsible and ethical use of technology and equipment



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Welding

CIP CODE: 48.0508
CENTER(S): KP

Students will learn to manipulate metal using a variety of welding techniques and the many different job skills that will set students up for lucrative careers in manufacturing, field work, or entrepreneurship. Topics of study include: welding safety, equipment and maintenance and care, metal working safety, oxy-fuel cutting, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, plasma arc cutting, and light manufacturing. Students will practice these methods on a variety of materials and create unique designs by using the CNC (Computer Numerical Control) Plasma Machine or by developing metal sculpture projects.

PROGRAM HIGHLIGHTS

- Take a drawing or blueprint and breathe life into it by fabricating a life size creation.
- Master different job skills that will drive you down the road of success towards manufacturing, field work, or owning your own company.

COLLEGE AGREEMENTS

- | | |
|-------------------------------|-----------------------------------|
| • Alfred State College | • Universal Technical Institute |
| • Lincoln Technical Institute | • Mohawk Valley Community College |
| • SUNY Niagara | |
| • Ohio Technical College | |

CAREER PATHWAYS

Entry Level

- | | |
|-----------------------|----------------------|
| • Shop Helper | • Welding Apprentice |
| • Sheet Metal Workers | • Welding Supervisor |
| • Welder | |
| • Welding Associate | |

Technical Careers

- | | |
|---------------|---------------------|
| • Boilermaker | • Pipeliner |
| • Machinist | • Shipwright |
| • Millwright | • Underwater Welder |

Professional Careers

- | | |
|-------------------------------|--------------------------|
| • Building Superintendent | • Mechanical Engineer |
| • Certified Welding Inspector | • Welding School Teacher |
| • Engineer | |

CLASSROOM INFORMATION

- Shop has many hazardous materials
- Safety Protocols are rigorous
- Large class size (24+)
- Work in a loud, hot and physical environment
- Requires Physical exertion and standing for long periods of time

PROGRAM CONSIDERATIONS

- Able to wear a welding helmet in shop for long periods of time
- Able to follow multi-step directions
- Able to properly use tools and materials while adhering to strict safety practices/standards under various levels of supervision from the instructor
- Able to handle working in bright lights for prolonged periods of time
- Able to lift 50+ lbs.
- Strong math skills; algebra, geometry, conversions, fractions, complex numbers
- Strong hand-eye coordination

ADDITIONAL INFORMATION

- Steel/Composite toed work boots and appropriate dress are required to participate in shop activities.
- Students with allergies and sensitivities, especially to dust and fumes, should speak with a physician before registering for this program



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Career Exploration

LOCALLY APPROVED PROGRAM
CENTER(S): HKPC

Students will experience a variety of programs in pursuit of their career interests. Time is spent shadowing the program and completing various projects designed for the Career Explorer.

PROGRAM HIGHLIGHTS

- Full year students will experience up to 8 different programs for 5 weeks each.
- Half year students will experience up to 4 programs for 5 weeks each.

CLASSROOM INFORMATION

- Will assume the classroom expectations during rotations through various programming.

PROGRAM CONSIDERATIONS

- Recommendations will be specific to the program a student is in for 5 week period.

ADDITIONAL INFORMATION

- 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.
- Work-based learning hours are not provided in this curriculum.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Occupational Education

LOCALLY APPROVED PROGRAM (2 Years or more)
CENTER(S): HKPC

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

PROGRAM HIGHLIGHTS

- Students will be provided opportunities for hands-on job training in preparation for competitive employment.
- Students will be able to explore multiple pathways while in the program.

ADDITIONAL INFORMATION

- CDOS Credential or Pathway Program only available with successful completion of standard state assessments and OE II.

CAREER PATHWAYS

Building Maintenance Careers

- Construction Laborer
- Custodial Assistant
- Home Improvement Staff
- Maintenance Worker

Human Service Careers

- Dietary Assistant
- Housekeeping/Laundry Staff
- Hospitality Worker
- Resident Aide

Food Services Careers

- Dishwasher
- Line Cook
- Prep Cook
- Server/Busser

Auto Service Careers

- Auto Detailer
- Lubrication Services
- Parts Counter Worker
- Service Center Assistant
- Tire/Brake Services

Occupational Education I

OE I (One School Year): Students will explore career modules in Automotive Services, Building Maintenance, Food Service, and Human Services. 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.

Occupational Education II

OE II (Two School Years): Students will choose one of four focus areas to continue skill development. These include:

- Automotive Services
- Building Maintenance
- Food Service
- Human Services

Curriculum activities relate to entry level employment skills necessary for successful performance.

Occupational Education III

OE III (One School Year): Students will develop and strengthen job skills through a variety of on-site and internal internship opportunities. Curriculum activities relate to entry level employment skills necessary for successful performance.



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Social Media Marketing

LOCALLY APPROVED PROGRAM (1 Year)
CENTER(S): C

Students will learn the variety of social media platforms available to businesses, learn how to build a company's brand, increase sales in e-commerce spaces, and drive website traffic. Students will explore ways to engage existing customers, reach new ones, and analyze analytics and demographic information that allow marketers to track the success of their efforts and identify more ways to engage.

PROGRAM HIGHLIGHTS

- Bring business marketing concepts to life in creative ways.
- Utilize technologies that we use every day to build brands, cultivate customer relationships, and drive business growth and initiatives.

CAREER PATHWAYS

Entry Level

- Marketing Intern
- SEO Specialist
- Content Marketing Specialist

Technical Careers

- SEO Strategist
- Email Strategist
- E-Commerce Strategist
- Content Coordinator
- Social Media Coordinator

Professional Careers

- Marketing Analyst
- User Experience (UX) Designer
- Digital Marketing Manager
- Creative Director
- E-Commerce Manager

CLASSROOM INFORMATION

- Large class size (24+)
- Must be able to handle working independently and in a group setting
- Students must take a shuttle from Harkness to their classroom at Calspan

PROGRAM CONSIDERATIONS

- Able to sit still and focus on a specific task for an extended period of time
- Able to organize and complete multiple assignments at a time
- Able to reflect upon constructive criticism
- Able to sit at a computer for 2+ hours
- Responsible and ethical use of technology and equipment
- Work independently and with a team

ADDITIONAL INFORMATION

- This is a one-year program.



VIDEO COMING SOON!

Check our website at www.e1b.org for the most up-to-date information about this program.

Connections: Health Related Careers

NEW VISIONS PROGRAM CENTER(S): ON-SITE

Students will learn anatomy and physiology, medical terminology, pathophysiology and disease as it affects individual health, as well as observe normal anatomy and physiology and disease process and treatment through clinical observation. Health care internships will provide opportunity for students to observe diverse medical professionals while participating in a clinical setting and apply theory to what is observed in the internship facility.

PROGRAM HIGHLIGHTS

- 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.

CAREER PATHWAYS

Entry Level

- Activity Aide
- Central Supply Aide
- Certified Nursing Assistant
- Home Care Aide
- Medical Secretary/ Receptionist

Technical Careers

- Emergency Medical Technician
- Imaging Technician
- Licensed Practical Nurse
- Medical Assistant
- Physical Therapy Assistant
- Respiratory Therapist

Professional Careers

- Biomedical Engineer
- Chiropractor
- Nurse Practitioner
- Pharmacist
- Physician Assistant
- Registered Nurse

PROGRAM INFORMATION

- Students will be required to work in close proximity of others
- Must be able to handle working independently and in a group setting
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- New Visions programs require an application and an interview for admission.
- Current immunization, PPD, and physical exam are required prior to the start of class.
- Students must provide their own transportation to class and clinical.
- Professional dress is required daily
- Students are responsible for purchasing a lab coat at the beginning of the school year.

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Health Related Careers (1 Credit)



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Diesel Technology

TECH PREP PROGRAM
CENTER(S): ON-SITE

Students will work on trucks and diesel engines and engage with professionals at the Conway Beam Truck Group site. Topics of study include: engine repair, lamps, accessories and wiring, welding, bearings and seals, engine removal, disassembly and installation, circuit fundamentals, wheel alignment, principles of hydraulics, and the parts and tools needed to build an engine.

PROGRAM HIGHLIGHTS

- Develop a network of professional connections through field experiences at Conway Beam.
- Real-world, hands-on training in diesel technologies at a brand new, state-of-the-art facility.
- Daily access to professional tools and equipment.

COLLEGE AGREEMENTS

- Universal Technical Institute
- Ohio Technical College

CAREER PATHWAYS

Entry Level

- Diesel Technician

Technical Careers

- Heavy Truck Mechanic
- Light Duty Truck Mechanic
- Farm Equipment Mechanic
- Heavy Equipment Mechanic

Professional Careers

- Entrepreneur
- Master Diesel Technician
- Diesel Educator

PROGRAM INFORMATION

- Must be able to handle working independently and in a group setting
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- Tech Prep and New Visions programs require an application and an interview for admission.
- Students must provide their own transportation to Conway Beam and internship sites.
- Steel/Composite toed work boots and appropriate dress are required to participate in shop activities.

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Diesel Technology (1 Credit)



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Education Pathways Academy

NEW VISIONS PROGRAM
CENTER(S): ON-SITE

Students learn the fundamentals of education through both theory-based and experiential learning. The program functions to show educator candidates everything that education has to offer, and ultimately allows students to select and consider the areas they find most relevant and appealing. Topics of study include: classroom and behavior management, child and adolescent development, lesson planning and execution, data-driven instruction and assessment, social emotional learning and best teacher practices, and working with students with disabilities.

PROGRAM HIGHLIGHTS

- Opportunity to earn 17 transferable SUNY college credits
- Dignity for All Students (DASA) and Mandated Reporter certificates
- Observation and facilitation experience in a preferred classroom setting
- Presentations from BSU faculty in areas of expertise
- Participation in educator conferences and workshops
- Courses structured as learning communities with a cohort of students and faculty exploring a common theme

COLLEGE AGREEMENTS

- Buffalo State University

CAREER PATHWAYS

Entry Level

- Teacher Aide

Technical Careers

- Teacher Assistant

Professional Careers

- Classroom Teacher
- Building Administrator
- School Counselor
- School Psychologist
- District Administrator
- School Counselor

PROGRAM INFORMATION

- Must be able to handle working independently and in a group setting
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- New Visions programs require an application and an interview for admission.
- Students must provide their own transportation to Buffalo State University and internship sites.

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Education Pathways Academy (1 Credit)



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Engineering and Manufacturing

TECH PREP PROGRAM
CENTER(S): ON-SITE

Students learn the fundamentals of engineering and manufacturing through theory-based and experiential learning rotations throughout the company. Students will learn fundamental engineering methodology and problem-solving skills, develop a network of professional connections through field experiences, and more. Topics of study include casting, molding, mechanical fastening, working with statics, dynamics, and mechanics of materials, working with vector properties and operations, and conductors, insulators, and semi-conductors.

PROGRAM HIGHLIGHTS

- Develop a network of professional connections through field experiences at PCB Piezotronics.
- Real-world, hands-on training in engineering, manufacturing, and machining technologies in a local state-of-the-art facility.
- Daily access to professional tools and equipment.
- Rotating internships throughout the school year with industry professionals.

COLLEGE AGREEMENTS

- TBD

CAREER PATHWAYS

Entry Level

- Design Drafter I
- Machinist I
- Calibration Technician I
- Production Operator

Technical Careers

- Production Planner II
- Maintenance and Service Technician

Professional Careers

- Environmental Health and Safety Specialist
- Mechanical Engineer
- Manufacturing Engineer
- Electrical Engineer

PROGRAM INFORMATION

- Must be able to handle working independently and in a group setting.
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- Tech Prep and New Visions programs require an application and an interview for admission.
- Students must provide their own transportation to PCB Piezotronics and internship sites.

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Engineering and Manufacturing (1 Credit)



FIND OUT MORE!

Scan the QR Code or speak with your school guidance counselor today.

Legal Academy

NEW VISIONS PROGRAM
CENTER(S): ON-SITE

Students will learn the foundations of law and the legal system, develop a network of professional connections through field experiences, and complete internships in political offices, courts, law offices, and more. Topics of study include criminal, family, and consumer law, lawmaking, torts, policing, freedoms and individual rights, and contemporary issues in law.

PROGRAM HIGHLIGHTS

- Develop a network of professional connections through extensive field experiences across WNY
- Shadow college level legal courses
- Internship sites include political offices, county, city, and federal courts, law offices, and transportation security administration.

COLLEGE AGREEMENTS

- Bryant and Stratton College
- Canisius University
- SUNY Erie

CAREER PATHWAYS

Entry Level

- | | |
|-------------------|-------------------------|
| • Baliff | • Legislative Assistant |
| • Dispatcher | • Lobbyist |
| • Legal Secretary | • Report Writer |

Technical Careers

- | | |
|----------------------------|---------------------------|
| • Corrections Officer | • Law Enforcement Officer |
| • Crime Scene Investigator | • Legislative Analyst |
| • Detective | • Paralegal |

Professional Careers

- | | |
|---------------------------------|-----------------------------|
| • Attorney | • Intelligence |
| • Forensic Agent: FBI, ICE, DEA | • Correction/Parole Officer |
| | • Social Worker |

PROGRAM INFORMATION

- Must be able to handle working independently and in a group setting
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- New Visions programs require an application and an interview for admission.
- Students must provide their own transportation to Canisius University and internship sites.

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Legal Academy (1 Credit)
- Parking for internships



FIND OUT MORE!

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Plant Science

NEW VISIONS PROGRAM CENTER(S): ON-SITE

Students will learn greenhouse management, plant and soil science, and landscape design. Topics of study include: the foundations of horticulture, plant cells and tissues, roots and soils, greenhouse management, watering and hydroponics, and native and invasive species. Students will engage in propagation techniques, integrated pest management (IPM), plant identification, and complete a variety of seasonal projects while on the grounds of the Buffalo and Erie County Botanical Gardens.

PROGRAM HIGHLIGHTS

- Daily access to the Buffalo and Erie County Botanical Gardens.
- See behind the scenes of the Botanical Gardens.
- Learn from experts in the fields of botany, greenhouse management, and landscaping.

COLLEGE AGREEMENTS

- TBD

CAREER PATHWAYS

Entry Level

- Floral Designer
- Greenhouse/Nursery Production

Technical Careers

- Grounds Manager
- Landscape construction
- Grower
- Horticulture Technician

Professional Careers

- Landscape Architect
- Plant Pathologist
- Biologist
- Botanist

PROGRAM INFORMATION

- Must be able to handle working independently and in a group setting
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- New Visions programs require an application and an interview for admission.
- Students must provide their own transportation to the Buffalo and Erie County Botanical Gardens and internship sites.

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Plant Science (1 Credit)



VIDEO COMING SOON!

Check our website at www.e1b.org for the most up-to-date information about this program.

Zoo Wildlife and Conservation Careers

NEW VISIONS PROGRAM
CENTER(S): ON-SITE

Students will learn about zoological care and animal sciences, experience the zoo's day-to-day operations, ways to incorporate and educate about conservation, and correlate concepts of ELA, government, and economics as they relate to animal and conservation topics. Topics of study include conservation, animal husbandry, the evolution of zoos, animal ethics and welfare, basic animal behavior, veterinary care, exhibit design, horticulture, and zoo operations.

PROGRAM HIGHLIGHTS

- Daily access to zoo grounds.
- Intern with zoo keepers at the Buffalo Zoo.
- Go on behind the scenes tours of the Buffalo Zoo.
- Learn from a wide variety of guest speakers.

COLLEGE AGREEMENTS

- Canisius University

CAREER PATHWAYS

Entry Level

- Animal Care Specialist
- Animal Shelter Worker
- Farm Hand
- Kennel Assistant
- Veterinary Assistant
- Zoo Program Assistant

Technical Careers

- Animal Nutritionist
- Animal Trainer/Behaviorist
- Animal Welfare Agent
- Habitat Specialist
- Wildlife Rehabilitator
- Zookeeper

Professional Careers

- Ecologist
- Environmental Scientist
- Marine Biologist
- Veterinarian
- Wildlife Biologist
- Zoologist

PROGRAM INFORMATION

- Must be able to handle working independently and in a group setting
- Professionalism and adherence to class and business partner expectations is required.

PROGRAM CONSIDERATIONS

- New Visions programs require an application and an interview for admission.
- Students must provide their own transportation to the Buffalo Zoo and internship sites.
- Current immunization, PPD, and physical exam are required prior to the start of class

ADDITIONAL INFORMATION

- High School Credits:
 - English 12 (1 Credit)
 - Participation in Government (.5 Credit)
 - Economics (.5 Credit)
 - Internship (1 Credit)
 - Zoo Wildlife and Conservation Careers (1 Credit)



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