
Career and Technical Education

Course Catalog

Providing knowledge and skills for your future



2011-2012

www.gstboces.org

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Key

B: Bush Education Center, Elmira
C: Coopers Education Center, Coopers Plains
W: Wildwood Education Center, Hornell

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Cover designed by:
Eric Weyand - Hornell
Digital Media Arts student - Wildwood Education
Center

Education and financial destiny are not a matter of chance. They're a matter of choice. Whether you choose college, the military or work, the CTE Program is your first step.

Our programs are developed based on present and future needs in the job market, so our students are in demand when they enter the workforce. To find out about the fastest growing careers, check out the Department of Labor's website at www.labor.state.ny.us.

It's no secret that finding a job is tough, and deciding on a career is even tougher. The Career and Technical Education (CTE) Program gives you a chance to explore and experience careers in a setting that closely resembles a real-world workplace.

If you're entering the workforce immediately after high school, the CTE Program gives you the competitive edge you need to show potential employers that you're the best candidate for the job.

Students heading to college or technical school benefit from the CTE Program too. Hands-on experience raises your understanding beyond the level of textbook theory and gives you a practical advantage in the college classroom or laboratory.

The CTE Program makes it easy to find the career field that best suits you. Explore different careers in the Career Exploration (B and E) program, or start intensive study in a specific area in the Career Preparation (S and T) program. The choice is yours!

This booklet is full of information about the CTE Program. Call us at (607) 739-3581, or talk to your home school counselor today to find out more. You can also visit our website at www.gstbooces.org.

Answers to frequently asked questions about the CTE Program

What is the CTE Program?

The Career and Technical Education (CTE) Program offers high school students and adults the opportunity to learn job skills through instruction and hands-on experience. Students can use these skills to start a career right after high school or as preparation for college or the military.

Who attends the CTE Program?

Students from Addison, Alfred-Almond, Arkport, Avoca, Bath, Bradford, Campbell-Savona, Canaseraga, Canisteo-Greenwood, Corning-Painted Post, Elmira, Elmira Heights, Hammondsport, Hornell, Horseheads, Jasper-Troupsburg, Odessa-Montour, Prattsburgh, Spencer-Van Etten, Watkins Glen, Waverly and private high schools make up the student body within the CTE Programs at the Bush, Coopers and Wildwood Education Centers.

What is a typical day like?

Most high school students spend half of every school day in the CTE Program and the remainder at their home school. CTE Programs are offered in the morning and the afternoon.

How do I apply?

It's easy! Go to your high school counselor and ask for information about the CTE Program. Your counselor can answer any questions you may have, or you can call GST BOCES at 739-3581 and ask for the appropriate campus (Bush, Coopers or Wildwood) to speak with a counselor or career coach.

May I visit the campus before applying?

Of course! You're encouraged to visit. You can sit in on a class or tour the campus during school hours.

See your school counselor for more information. You need to discuss and coordinate visits with your parents, teachers and home school counselor.

How can Career and Technical Education help me meet graduation requirements?

Students may earn as many as eight credits toward graduation upon the successful completion of an approved two-year CTE program. Up to three of these credits may be an academic unit of credit in English, mathematics and science, depending upon the CTE program they are enrolled in.

What is the CTE Endorsement?

The Career and Technical Endorsement seal signifies "added value" on your high school diploma. It demonstrates you have excelled in a challenging program that meets both academic and current business/industry standards.

Students who are graduating with either a Regents or local diploma who pass their CTE program, pass a National Technical Assessment and complete a successful work experience will be eligible to receive a CTE Technical Endorsement seal on their high school diploma.

What about high school activities and transportation?

You can still participate in home school activities such as athletics, clubs, chorus or band, as well as the following CTE Program student organizations:

- Skills USA
- Health Occupations Students of America
- FFA
- National Technical Honor Society

Bus transportation to and from the CTE Program is provided by your home school district.

What if I'm going to college?

If you're planning to attend college, you may be somewhat puzzled as to how the CTE Program will fit into your plans. Be assured you'll actually be getting a jump-start on your college education, especially if you plan to attend one of the schools with which we have an articulation agreement.

In the CTE Program, you'll not only gain experience in the career you choose, you also may receive college credit and gain knowledge that will enhance your understanding in college courses. Successful CTE Program grads may even receive advanced placement through articulation agreements with many colleges.

What is an articulation agreement?

There are agreements for our CTE courses with many community colleges, technical schools and universities that allow students opportunities for advanced placement and college credit accumulation upon successful graduation from our programs. At the bottom of each course description, you will see a list of institutions with which the CTE Program has articulation agreements.

What kinds of real-life work experience can I get in the CTE Program?

As a CTE Program student, you'll have extensive opportunities for work-based learning experiences to help you make informed choices about your future. Students in the CTE Program may complete internships in real work settings and may also participate in a youth apprenticeship during the summer.

You'll also have the opportunity to volunteer in the community, set up businesses within classes and take field trips to job sites, colleges and technical schools.

Student Enrollment Guide

The following information will help guide school counselors and CSE chairs in placing students in GST BOCES Career and Technical Education Program courses.

The purpose of this information is to help school counselors and CSE chairs match the educational needs of interested students with the appropriate GST BOCES CTE Program course in order to ensure a successful educational outcome.

Criteria for Student Enrollment

The goal of this guide is to streamline the intake process for all potential CTE Program students and meet the needs of students by matching them with appropriate programs.

NOTE: No enrollments will be processed until all required records have been received. The registrar (campus secretary) will notify home schools if an enrollment packet is incomplete.

The Initial Steps

1. The home school will identify the educational need of the student interested in a CTE program.
2. Questions or concerns about student placement can be directed to:
 - Bush Education Center – 607-739-3581
Campus Counselor TBD
 - Coopers Education Center – 607-962-3175
Sandy Wallace – Career Coach
 - Wildwood Education Center – 607-324-7880
Don Cinque – Career Coach
3. If necessary, the CTE Program counselor/career coach will schedule a conference with appropriate district personnel to review the student's information and records.
4. BOCES staff will work collaboratively with the home school representatives and parents to determine placement and start dates for new students.

Step One

When the decision is made to send a student to the CTE Program, an enrollment packet with the following information must be included:

1. Completed enrollment form with all necessary signatures
2. Student transcript
3. Current report card
4. Current grades
5. Attendance records
6. Standardized testing information, including state exams, and Regents, TABE results if available
7. Health records
8. Discipline records
9. 504 Plan, if there is one
10. Current IEP and psychological report if student is classified

Step Two

Throughout the enrollment process, the focus will be on placing the student in an environment where he or she will achieve success in a safe, friendly learning environment. The home school and CTE staff will discuss various options appropriate for each student.

Step Three

The deadline for student enrollment packets for the S and T level programs (for high-school juniors and seniors) is typically the last Friday in April. B and E level program enrollment is an ongoing process. Exceptions and special circumstances are understandable and the CTE Program administrators will work with home schools in these instances.

Continuing Communications

1. The home school and CTE administration will discuss students' records, as appropriate, on an ongoing basis throughout the school year.
2. If the home district is considering a CSE referral, they should contact the respective BOCES campus to exchange information and to discuss additional strategies that might be used with a particular student.
3. If it is determined that a student is not making progress within their CTE course, other educational options will be discussed with the home district.

In the CTE Program, experience is the BEST teacher.

BEST is a series of four program levels designed to ensure that every student enrolled in the Career and Technical Education Program receives the education he or she needs to succeed.

The four BEST program levels are:

B Program B, Career Beginnings — Students develop a positive work ethic and skills related to problem-solving, decision-making and communication. Students may be placed in Program E or Program S when they have demonstrated appropriate attitude, work habits and skill level.

E Program E, Career Exploration — Students who are uncertain about what career area to choose will experience a variety of careers. Students may stay in one career area or explore other E programs. Students may be placed in Program B or Program S during the year, as appropriate.

S Program S, Career Preparation — the first year of a two-year program that leads to a Certificate of Completion and prepares students for employment in specific career areas, further education, training or military service.

T Program T, Career Preparation — the second year of a two-year career preparation program that leads to a Certificate of Completion. It provides job-seeking skills and advanced training in a specific career area, and can lead to further education, training or military service.

Career Beginnings (B)

(ICM on Wildwood and Coopers campuses)

The Career Beginnings program is designed to help students prepare for learning a skill or trade in the world of work.

Students in this introductory program will develop a positive work ethic and skills related to problem-solving, decision-making and communication.

When students have demonstrated good work habits and skills, the instructor and school counselor may recommend placement in the Career Exploration (E) or Career Preparation (S and T) Program.

Program Considerations:

- Be able to follow directions
- Be in grade 9 or above
- Indicate an interest in Career and Technical Education
- Student should show promise of program success
- Student shall not be a safety hazard to the class or themselves
- Student will need recommendation of his or her instructor to transition to E, S or T level programs

Career Beginnings Areas:

- **Gasoline Engines (Bush)**
Small Engine Basics/Small Engine Design & Identification/Small Engine Service & Repair/Introduction to Auto Body
- **Human Services (Bush)**
Human Relations/Basic Life Skills/Managing Time, Energy & Money/Managing a Household
- **Woodworking (Bush)**
Tool Safety/Basic Carpentry Skills/Use of Hand & Power Tools/Painting & Finishing/Small Projects/Basic Framing, Building Exteriors, Furniture Construction, Production Systems
- **Introduction to Career Majors – ICM (Coopers, Wildwood)**
Light Lab—Digital Media Arts/Criminal Justice/Culinary Arts/Cosmetology/Health Occupations/Computer Information Technology
Heavy Lab—Shop Safety/Measurement/Hand Tools/Wood Working Tools/Fasteners/Metal Trades/Wood Working Trades/Electrical Trades/Basic Auto Service/Heavy Equipment

Career Exploration (E)

(ICM on Wildwood and Coopers campuses)

Career Exploration is designed to introduce students to various careers which will aid them in selecting a Career Preparation (S & T) program. In consultation with instructors and counselors, students may choose a career area or multiple career areas to explore over the course of the school year. Based upon student progress, students may either advance to an S level program or revisit the B or E level program for reinforcement of work habits, attitude and skill levels.

Program Considerations:

- Be in grade 9 or above
- Student should have basic math and reading skills
- Indicate an interest in Career and Technical Education
- Student should show promise of program success
- Student shall not be a safety hazard to the class or themselves
- Student will need recommendation from his or her instructor to transition to an S level program

Career Exploration Areas:

- **Woodworking (Bush)**
Tool Safety/Basic Carpentry Skills/Use of Hand & Power Tools/
Painting & Finishing/Small Projects/Basic Framing, Building
Exteriors, Furniture Construction, Production Systems
- **Personal Services (Bush)**
Planning a Career/Trade Careers, Entrepreneurships, Assembly
Line, Sales Careers/Early Childhood/Food Service
- **Vehicle Maintenance (Bush)**
Small Engines/Introduction to Automotive Engines/Automotive
Maintenance/Introduction to Auto Body
- **Computer Exploration (Bush)**
Introductory concepts of computer hardware, software,
programming and networking
- **Introduction to Career Majors – ICM (Coopers,
Wildwood)**
Light Lab–Digital Media Arts/Criminal Justice/Culinary Arts/
Cosmetology/Health Occupations/Computer Information
Technology
Heavy Lab–Shop Safety/Measurement/Hand Tools/Wood
Working Tools/Fasteners/Metal Trades/Wood Working Trades/
Electrical Trades/Basic Auto Service/Heavy Equipment

Career Preparation (S & T)

The Career Preparation program prepares students for a career or further education in their chosen area. Courses take two years to complete. Students receive practical, hands-on experience in their chosen field. They learn teamwork, decision-making and problem-solving skills and apply Regents-level English, mathematics and science to their chosen field.

When students successfully complete their program, they receive a Certificate of Completion along with an employability profile. Upon completion of a program, they may choose to seek employment, continue their education at the college level or enter the military. All S and T level programs have college articulation agreements.

Program Considerations:

- Be entering grade 11 or 12
- Indicate interest in the CTE Program
- Student should show promise of program success
- Student shall not be a safety hazard to the class or themselves
- Be able to get along with peers and adults and be able to work in a team atmosphere
- Student must have acquired minimal credits toward a high school diploma

Career Preparation Programs:

- Aviation Studies
- Audio Media Design
- Auto Body Repair
- Automotive Technology
- Building Construction
- Computer Information Technology
- Computer Network Engineering & Business Systems
- Conservation
- Cosmetology
- Criminal Justice
- Culinary Arts
- Dental Assisting
- Diesel Equipment Technology, Maintenance & Repair
- Digital Media Arts
- Early Childhood
- Fashion Design and Retail
- Health Occupations
- Heavy Equipment
- Machine Trades
- Nurse Assisting
- Unique Careers
- Welding & Metal Fabrication

New Visions (Grade 12 only)

- Communication and Media Careers
- Education and Human Services
- Engineering
- Health Careers/Medical

Audio Media Design (CIP-090402)

CO-SER: Bush 101.200

Audio Media Design will give the students hands-on instruction in the basic field of audio and video production. This course includes the operational and electronic characteristics of pre-production, production and post-production sound and video for all media. Students will learn about the wide array of audio and video equipment, microphones and latest video and audio editing software technology that will help the student prepare for a career in the audio media industry.

Students will create and produce radio/television commercials, newscasts and dramas while at the same time learning how to operate and maintain the latest audio and video equipment. This course allows the student to choose from a wide career path that may include becoming a sound engineer or radio production specialist, working in television or as a video editor.

Course Content:

- Sound Equipment & Maintenance
- Microphones
- Multi-Media Audio Presentations
- Video Audio
- Digital Audio
- Digital Audio Production
- On Location or Live Event Audio Design
- Adobe Audition Editing
- Adobe Premiere Video Editing
- Script Writing
- Video Camera Basics
- Newscast

Program Considerations:

- Be able to communicate verbally and in writing
- Be able to process basic math computations (8th grade)
- Be able to get along with peers and adults and work in a team atmosphere

Special Clothing:

None

Related College Studies:

Two-year Mass Communication/Broadcasting degree
Four-year Mass Communication/Broadcasting degree

Employers Who Have Hired CTE Program Students:

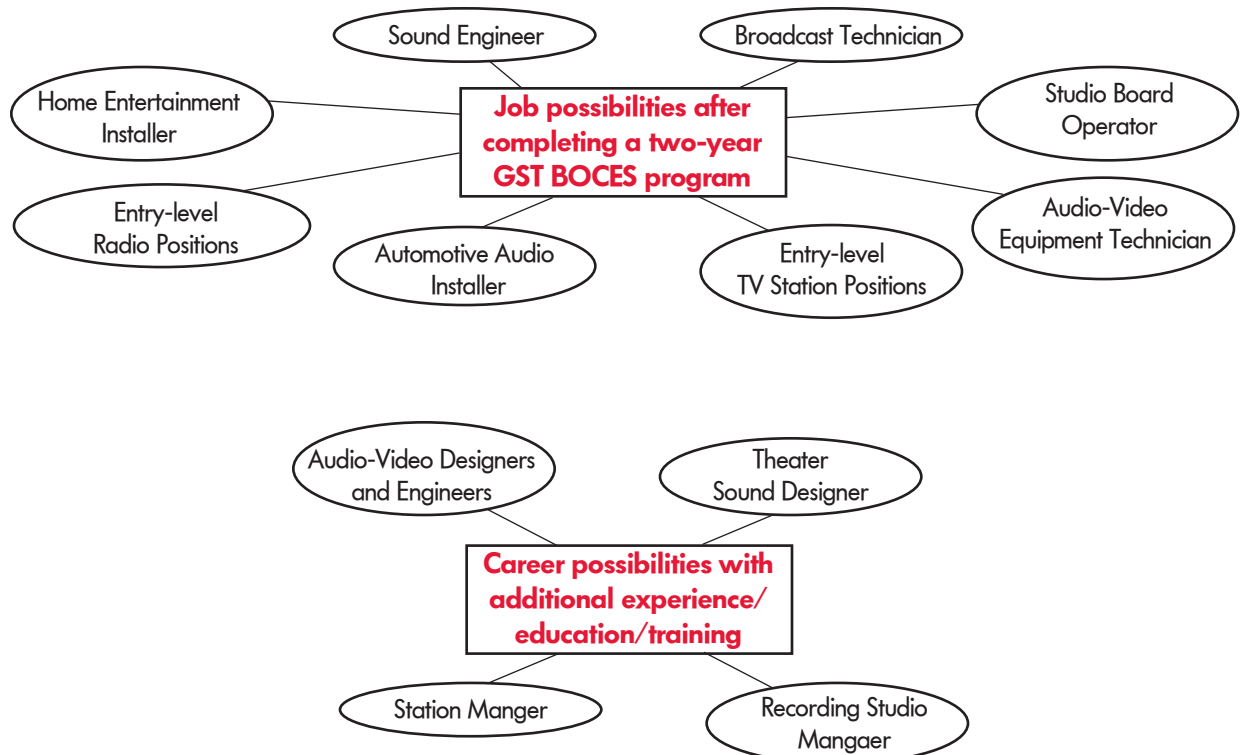
Backyard Broadcasting
Electric Wilburland Recording Studios
Pembroke Pines
WENY
WETM

Articulation Agreements With:

Broome Community College
Corning Community College
Tompkins Cortland Community College
SUNY Cobleskill
Pennsylvania College of Technology
Art Institute of Pittsburgh

Integrated Academic Credits (over two years):

English (1 credit)
Science (1 credit)



Auto Body Repair (CIP-470603)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

As an Auto Body student, you will learn everything from basic surface preparation to complete collision repair. This includes frame alignment, panel replacement, MIG and oxyacetylene welding and cutting, along with the latest in painting technology.

The equipment you will use in the Auto Body course is the latest in technology and comparable to that found in commercial auto body shops.

Course Content:

- Surface Preparation/Painting
- Sheet Metal & Fiberglass Repair/Welding
- Vehicle Construction & Frame Repair
- Estimating & Small Business Management
- Detailing & Maintenance of Automobile Bodies

Program Considerations:

- Be able to communicate verbally and in writing, and have basic reading and comprehension skills (commencement level)
- Be able to process commencement level math computations
- Behave safely around dangerous chemicals, gases and moving equipment
- Be able to lift at least 25 pounds

Special Clothing/Materials Needed:

Work clothes, work shoes, three-ring notebook, paint respirator, safety glasses

Related College Studies:

Two-year degree in Auto Body Repair & Refinishing
Two-year degree in Automotive Parts Management

Employers Who Have Hired CTE Program Students:

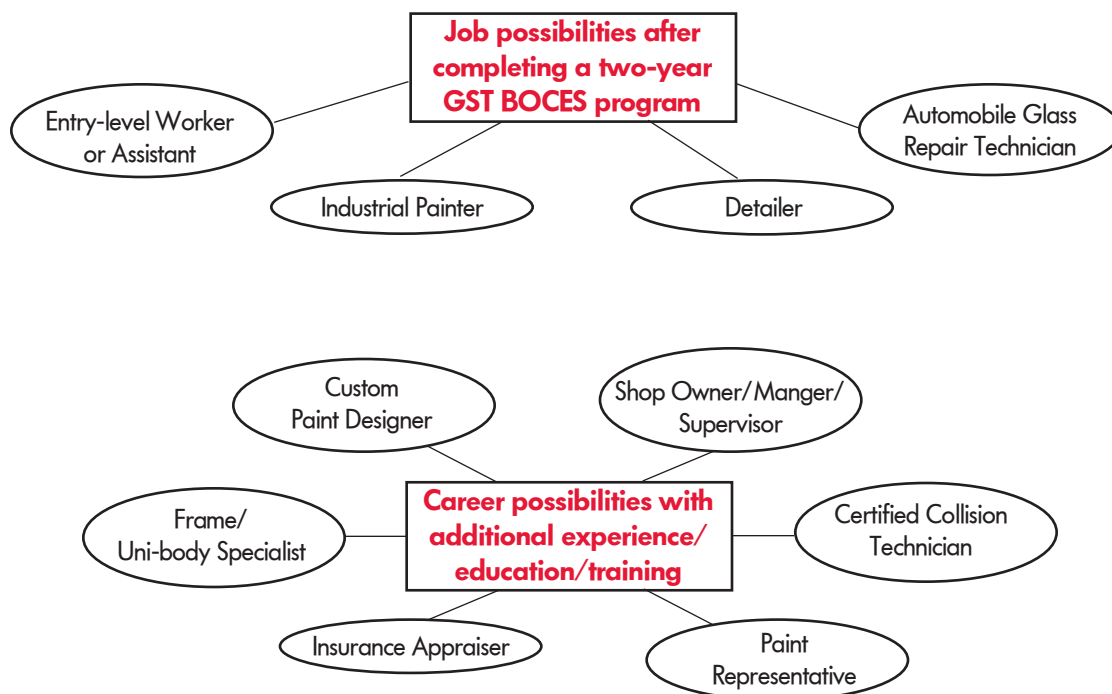
- | | |
|------------------------------|------------------------------|
| Alstom | J and T Auto Cafe |
| Arkport Cycles | Ken's Auto Collision |
| Auto Zone | Knappy's Body Shop |
| Carquest Auto Parts | Maple City Dodge |
| Clifford Wood Motors | Mercury Aircraft |
| Collision Specialties | Scott's Collision |
| Crane's Towing | Schweizer Aircraft |
| Crosby Creek Collision | Simmons Rockwell Dealerships |
| Cutting Motors | Smith's Collision (Arkport) |
| Elm Chevrolet | Smith's Collision (Bath) |
| Elmira Auto Paint | State Line Autobody |
| Ferrario Chrysler Jeep Dodge | Stephen's Auto Supply |
| Horseheads Auto Body | Tom Holleran's Auto |

Articulation Agreements With:

- Lincoln Technical Institute
- Corning Community College
- Pennsylvania College of Technology
- SUNY Alfred

Integrated Academic Credits (over two years):

- English (1 credit)
- Math (1 credit)
- Science (1 credit)



Automotive Technology (CIP 470604)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

Our Automotive Technology course offers you experience in all areas of automotive repair, from periodic maintenance service to engine replacement. You will be exposed to state-of-the-art diagnostic equipment, comparable to that used in the automotive service industry.

Course work includes maintenance, suspension, steering, brakes, New York State inspection, engine repair, drive lines, fuel systems, auto electrical systems, ignition systems, 4-wheel alignment, computer system operation and troubleshooting.

Course Content:

- Maintenance Service/Suspension, Steering, Brakes
- Engines/Drive Lines & Transmission Service
- NYS Inspection/Basic Electrical Systems/Fuel Systems
- Auto Electrical Service & Driveability/Fuel Systems & Engine Problem Diagnosis

Program Considerations:

- Be able to communicate verbally and in writing, and have reading and comprehension skills at the commencement level
- Be able to process commencement level math computations
- Behave safely around dangerous chemicals, gases and moving equipment
- Be willing to serve people from the community courteously
- Be able to lift 25 pounds

Special Clothing/Materials Needed:

Work clothes, work shoes, three-ring notebook, writing materials

Related College Studies:

Nine-twelve month certificate

Two-year degree in Automotive Service

Two-year degree in Automotive Parts Management

Two-year degree in High Performance

Four-year degree in Automotive/Business Management

Employers Who Have Hired CTE Program Students:

Advance Auto Parts
Arkport Cycle
Auto Zone
Williams Honda
Buckley's Automotive
Carquest Auto Parts
Chilson Wilcox
Clifford Chevy
Cook Brothers Supply
Corning Inc.
Crane's Towing

DC Auto Service
Elm Chevrolet
Firestone
Foote's
J and T Auto Cafe
Maple City Dodge
NASCAR
Schweizer Aircraft
Simmons Rockwell Dealerships
Specchio Ford
Synthes

Articulation Agreements With:

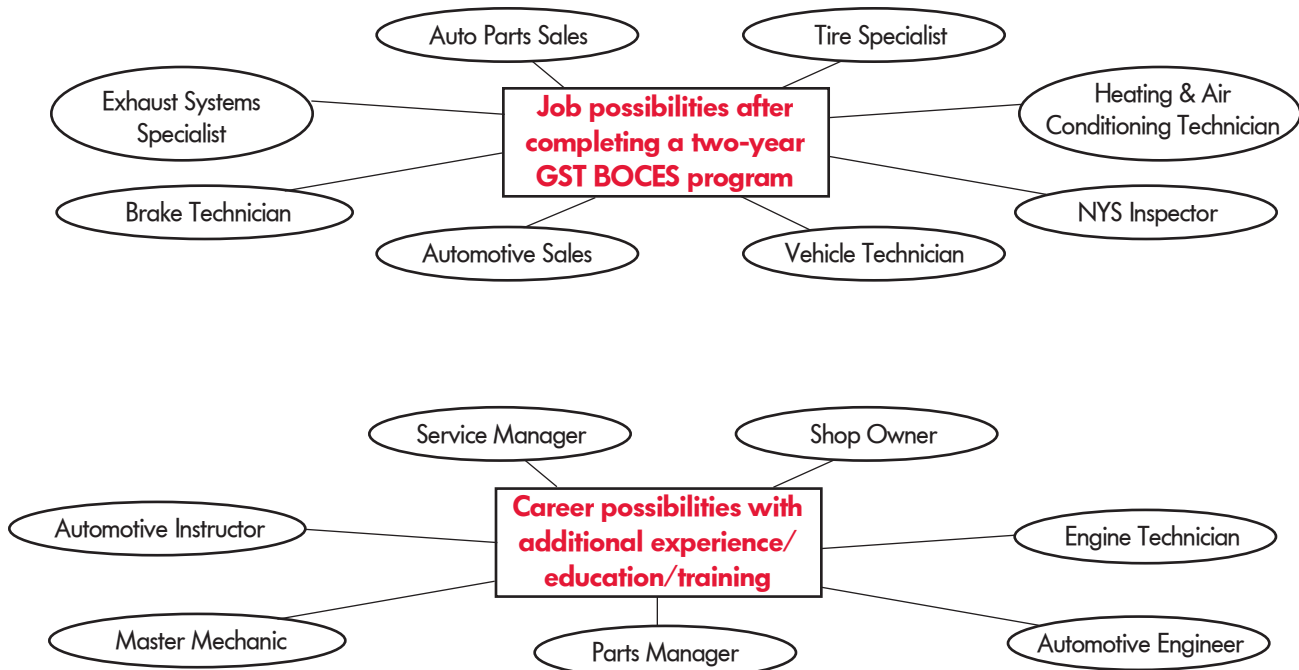
Lincoln Technical Institute
Corning Community College
Pennsylvania College of Technology
SUNY Alfred
SUNY Delhi

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)
Science (1 credit)

Corning Community College ACE Credits:

AUTO 1010 Introduction to Automotive Technology (3 credits-Coopers only)



Aviation Studies (CIP-490101)

CO-SER: Bush 101.200

(T.A.T. – Transportation, Aviation, Travel)

The Aviation Studies Program is designed for students interested in exploring the theories, job related skills and careers in the aviation industry as well as transportation and travel as they pertain to aviation. Students will learn about airport security and screening procedures, ground control procedures, principles of flight, navigation and flight planning, weather forces, reading weather patterns to determine cancellations of flights, travel booking and scheduling of tickets for the airline, transportation of personnel and passengers to and from the airport, aircraft rescue and firefighting, airport management and operations, and the Federal Aviation Administration (FAA) rules and regulations. Students who successfully complete this program will have the opportunity to take the FAA Private Pilot Exam.

Through this program students will be exposed to various careers pertaining to the aviation industry. Piloting the airplane or working as a crew member is a large part of this course. It takes a large number of people to make a flight happen. Exciting and well-paying jobs are available in all areas of this industry and this program will assist students in getting ready for such positions.

Course Content:

- Airport Basics
- Meteorology
- Communications
- Aviation Work Ethic and Character Traits
- Flight Reporting
- Principles of Flight
- Security and TSA Screening
- CPR/First Aid/AED
- Airframe Design
- Leadership Training
- Powerplant and Engine Concepts
- Navigation and Flight Planning
- Federal Aviation Regulations
- Instruments for Flight and Engines

Program Considerations:

- Be able to communicate verbally and in writing
- Be able to maintain confidential information
- Basic math skills
- Enjoy science

Special Clothing:

Khaki pants, black shoes, green knit shirt with logo. More information will be provided by instructor upon enrollment.

Related College Studies:

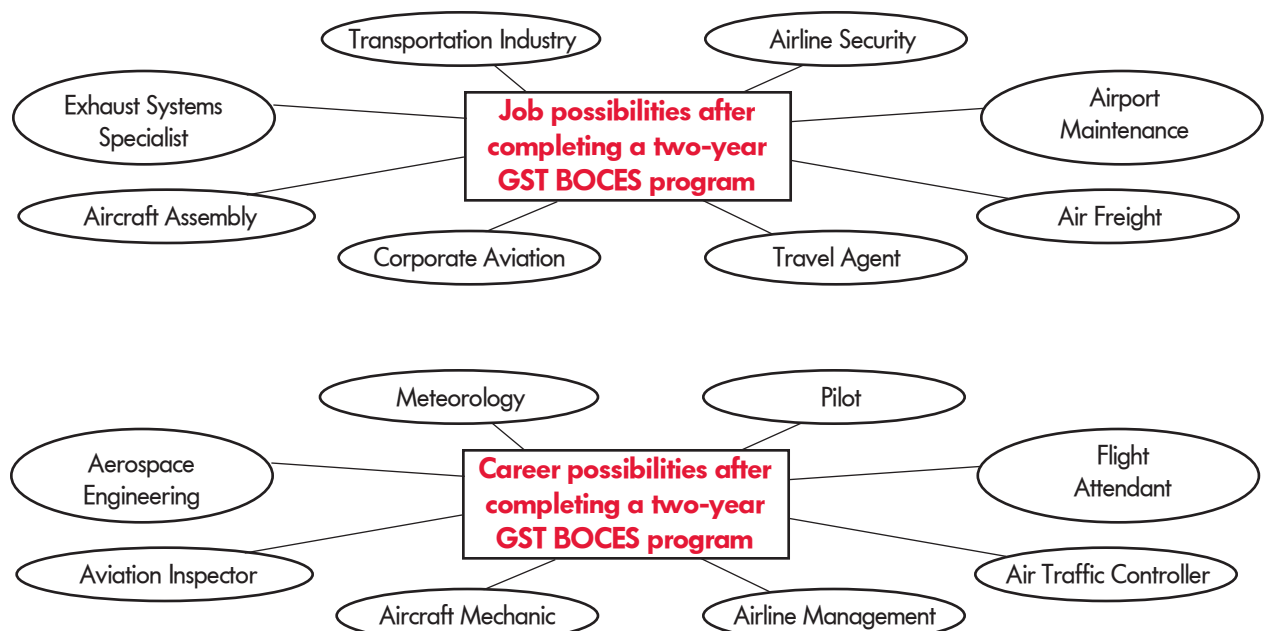
Aviation Business Management
Airport Management
Airport Maintenance
Travel and Tourism

Articulation Agreements With:

Pennsylvania College of Technology
Jamestown Community College
Schenectady Community College

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)
Science (1 credit)



Building Construction (CIP-460201)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

Building Construction students will have the opportunity to acquire skills in the safe operation of a variety of power and hand woodworking tools and machines, building site layout, various types of framing procedures and techniques, foundations and form, simple stair construction, window and door installation, thermal and moisture protection, siding application, roofing, interior finishing, basic wiring, plumbing, brick and block laying, blueprint reading and basic cabinet installation. This course encompasses all processes of house construction.

Additionally, students may have the opportunity to assist in the construction of a full-sized ranch-style house.

The Building Construction program is an approved NCCER (National Center for Construction, Education and Research) program. Students will be required to take nationally standardized exams in order to earn national certification in several NCCER topics of instruction.

Course Content:

- Electrical
- Plumbing
- Masonry
- Framing
- Interior Finish and Basic Cabinet-Making
- Exterior Finish and Trim
- Roof Framing and Finish
- NCCER National Certification

Program Considerations:

- Possess good oral and written communication skills
- Be able to process basic math calculations including algebra, geometry and trigonometry
- Have good eye/hand coordination and sense of balance
- Be able to lift a minimum of 25 pounds
- Behave safely around power tools, on roofs/scaffolding and around potentially flammable compounds

Special Clothing/Materials Needed:

Work shoes, white or brown carpenter's pants, tape measure, pencil, notebook

Related College Studies:

Two-year degree in Construction Technology or Wood Technology
Four-year degree in Construction Technology

Employers Who Have Hired CTE Program Students:

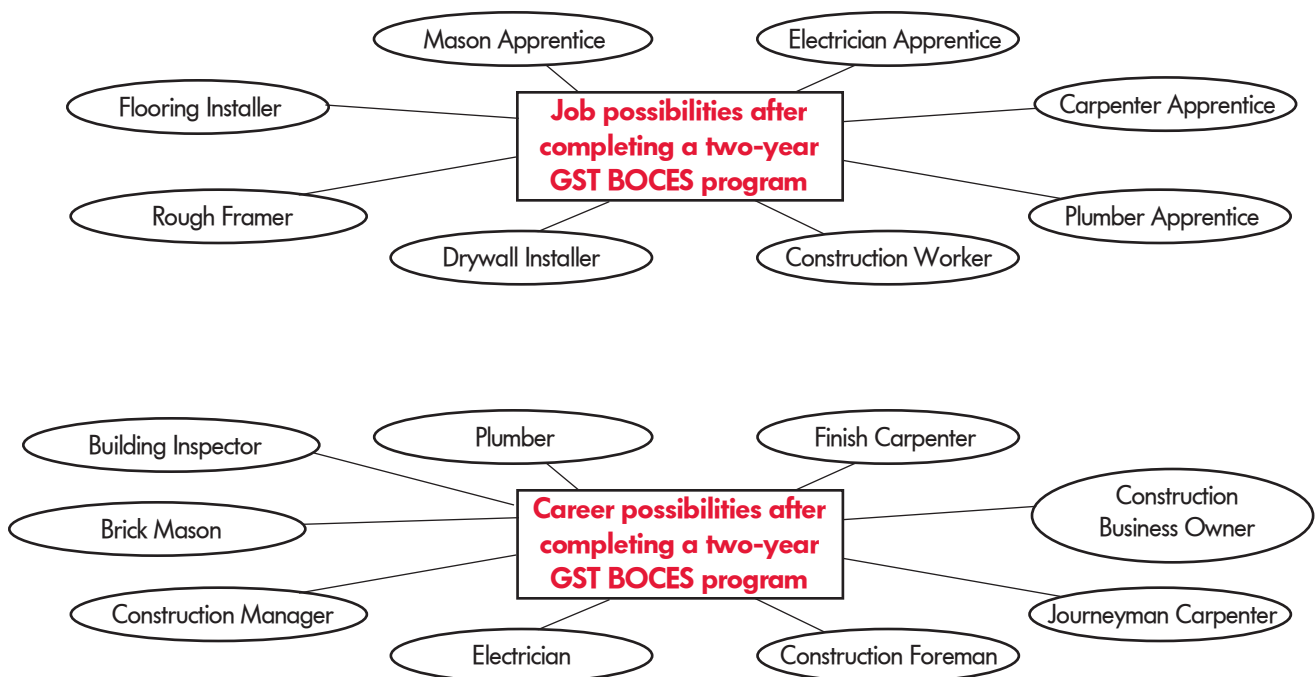
Carpenters' Union	Mills Electric
Doane Builders	Pfaff & Son
Jeff Janeski	Sheet Metal Workers Union
Keuka Construction	Silverline Construction
Klugo Construction	TRW Construction
Land Construction	

Articulation Agreements With:

Pennsylvania College of Technology
SUNY Alfred
SUNY Delhi

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)



Computer Information Technology (CIP-110901)

CO-SER: Coopers 101.100, Wildwood 101.300

Computer Information Technology is a CISCO Nationally Certified Networking and Computer Repair program. CISCO is an industry leader in the development, installment, provision and training of networking equipment and services. We also are now a certified ACE course for Corning Community College, offering four college credits for A+ Computer Repair and four college credits each for CISCO Exploration Networking and CISCO Exploration Routing.

This is a hands-on computer repair, support technician and networking program that allows students the opportunity to build, repair and network computer systems. The student also will learn to install operating systems (Windows 7, Windows XP, Linux, etc.) and software. Ample equipment and software is available for each student to have an individual learning experience.

This course is designed for the individual who is looking for the right launch pad into the fast and ever-changing computer industry. Candidates possess strong skills in analytical thinking and interpersonal communication and enjoy teamwork.

During the two-year course, students will be introduced to many different aspects of the computer industry and college opportunities. Students in the CIT program will major in CISCO Networking and A+ Computer Repair. They also may learn server management and database management.

Course Content:

- Operating Systems Structure & Evolvement
- Software Installation, Configuration & Debugging
- PC Hardware & Peripheral Equipment
- Understanding Electronic Communication
- Network Infrastructure and Cabling Types
- Network Setup, Planning and Administration
- Router Setup & Programming

Program Considerations:

- Be able to communicate verbally and in writing
- Have reading and comprehension skills at commencement level
- Be able to process/ calculate commencement level algebraic equations
- Have a strong ability to think logically and sequentially
- Possess fine motor skills

Related College Studies:

Computer Networking Technology	Computer Repair Technology
Computer Systems Technology	Information Technologies
Management of Information Sciences	Computer Science
Database Administration	

Employers Who Have Hired CTE Program Students:

Best Buy	IB Design
Corning Inc.	Micro Solutions
CyberDark Computing	New York State
Elmira College	Salient Corp.
GST BOCES	Sellard Communications
GameStop	Staples

Articulation Agreements With:

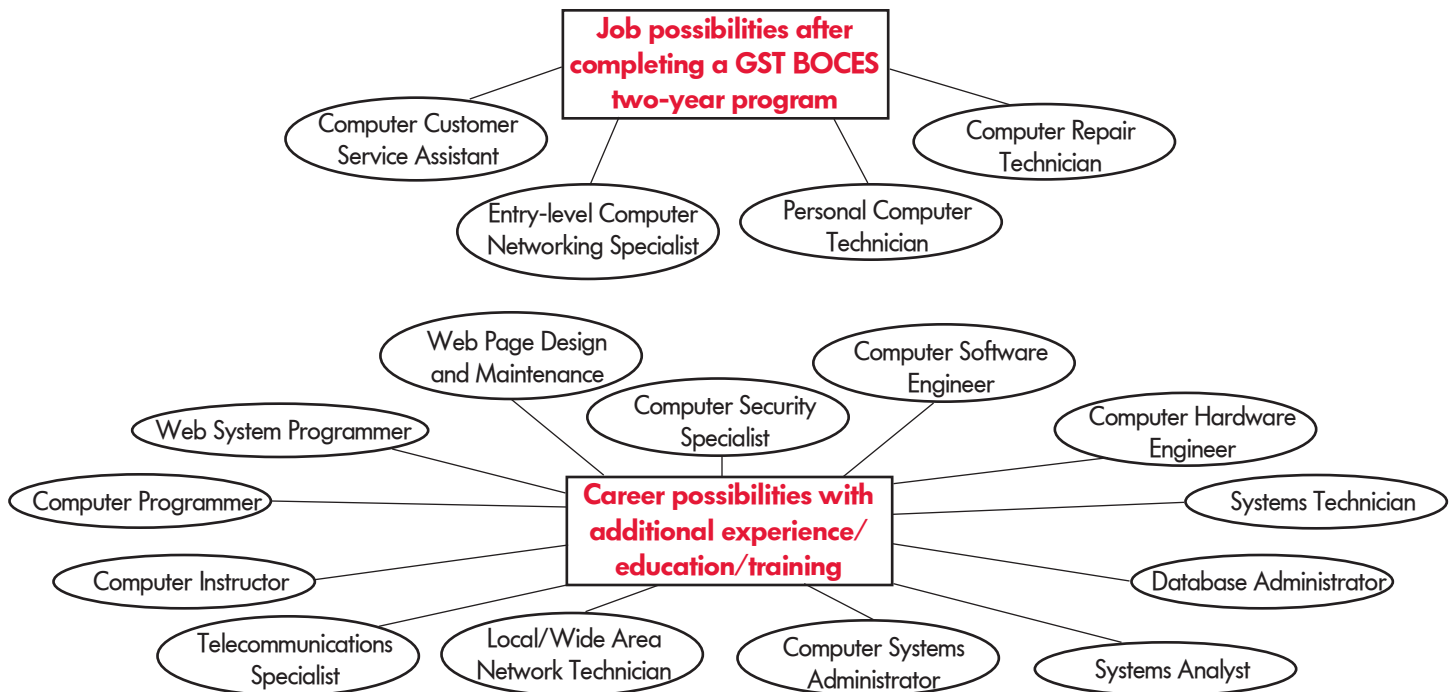
Corning Community College	SUNY Alfred
Finger Lakes Community College	SUNY Cobleskill
Herkimer Community College	
Pennsylvania College of Technology	

Integrated Academic Credits (over two years):

English (1 credit)

Corning Community College ACE Credits:

CSCS 1200 Computer Essentials (4 credits)
 CSNT 1200 Network Fundamentals (4 credits)
 CSNT 1400 LAN-WAN Networking (4 credits)



Computer Network Engineering & Business Systems (CIP-110203)

CO-SER: Bush 101.200

Computer Networking and Business Systems is a complete computer career program that involves elements of business professionalism and financial institution education in a "Company Classroom" environment. The course revolves around a CISCO Nationally Certified Networking and Computer Repair program. This is a hands-on computer repair, support technician and networking program that will allow students the opportunity to build, repair and network computer systems. Students can choose from additional learning tracks including: Corning Community College's ACE courses, Operating Systems Specialist (Windows XP, Linux, etc.) and Computer Programming. Students can apply and interview for the opportunity to work in a fully functional student-run credit union.

Candidates possess strong skills in analytical thinking and interpersonal communication and enjoy teamwork.

Students have the opportunity to earn up to 20 credits from Corning Community College. They also may learn web page programming, introduction to application programming, server management and database management. Visit our program at www.infoworx.net.

Course Content:

- Software Installation, Configuration & Debugging
- PC Hardware & Communications Equipment
- Understanding Electronic Communication
- Using Laptops, Handhelds and Cell Phones
- Network Infrastructure, Wireless and Cabling Types
- Network Setup, Planning and Administration
- Web Design & Basic Programming

Program Considerations:

- Be able to communicate verbally and in writing
- Be able to maintain confidential information
- Have reading and comprehension skills at commencement level
- Be able to process/ calculate commencement level algebraic equations
- Have a strong ability to think logically and sequentially
- Possess fine motor skills

Special Clothing/Materials Needed:

Three-ring binder, notebook, pens and professional clothing

Related College Studies:

Computer Networking Technology	Computer Repair Technology
Computer Systems Technology	Information Technologies
Management of Information Sciences	Computer Science
Database Administration	Office Technologies

Employers Who Have Hired CTE Program Students:

Best Buy	GameStop
CyberDark Computing	Salient Corp.
Corning Inc.	Sellard Communications
Elmira College	

Articulation Agreements With:

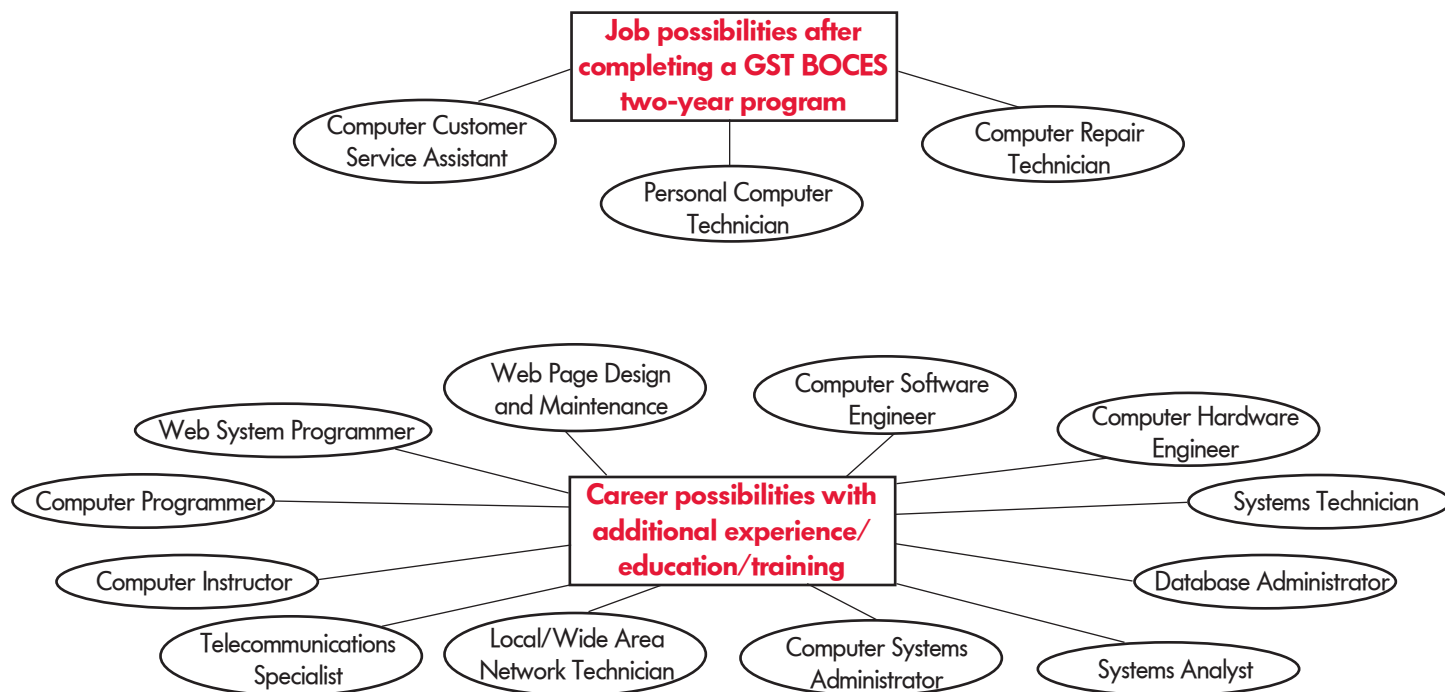
Corning Community College	SUNY Alfred
Finger Lakes Community College	SUNY Cobleskill
Herkimer Community College	
Pennsylvania College of Technology	

Integrated Academic Credits (over two years):

English (1 credit)

Corning Community College ACE Credits:

CSCS 1200 Computer Essentials (4 credits)
CSNT 1200 Network Fundamentals (4 credits)
CSNT 1400 LAN-WAN Networking (4 credits)
FYEX 1000 First-Year Experience (3 credits)



Conservation (CIP-030101)

CO-SER: Bush 101.200

As a Conservation student, you'll study the operation and management of forestry, wildlife, land, soil and water conservation, surveying and aquaculture. You'll also operate and repair bulldozers, backhoes, dump trucks and other heavy equipment.

If you're interested in this field, you should have the capacity to work long hours in all types of weather conditions.

The Conservation program is an approved NCCER (National Center for Construction, Education and Research) program. Students will be required to take nationally standardized exams in order to earn national certification in several NCCER topics of instruction.

Course Content:

- Excavator, Bulldozer & Backhoe Operation/Chainsaw Operation & Uses
- Surveying & Land Management
- Wildlife/Forestry Management
- Environmental & Natural Resources including Horticulture & Aquaculture
- Leadership/FFA

Program Considerations:

- Be able to process commencement level algebraic equations
- Have reading and comprehension skills at commencement level
- Have excellent eye/hand coordination
- Be able to lift a minimum of 25 pounds
- Behave safely around sharp, heated and potentially hazardous moving equipment

Special Clothing/Materials Needed:

Coveralls, work shoes, boots, gloves for working outdoors in all types of weather and OSHA-approved hard hat ANSI Z89.1 2003, type 1

Related College Studies:

Two-year degree in Conservation or Horticulture, Greenhouse Management, Forestry or Aquaculture

Four-year degree in Forestry, Conservation, Aquaculture or Horticulture

Employers Who Have Hired CTE Program Students:

Austin's Excavating	Town of Elmira
Central Recycling	Town of Horseheads
Chemung County Highway Department	Vanderhoff Construction
City of Elmira	Wenzel
Corning Inc.	Willow Creek Golf Course
Dalrymple	
F. T. Seismic Support, Inc.	
Gridley Excavating	
Chemung County Soil & Water Conservation	
McKees Rocks Industrial Enterprises	

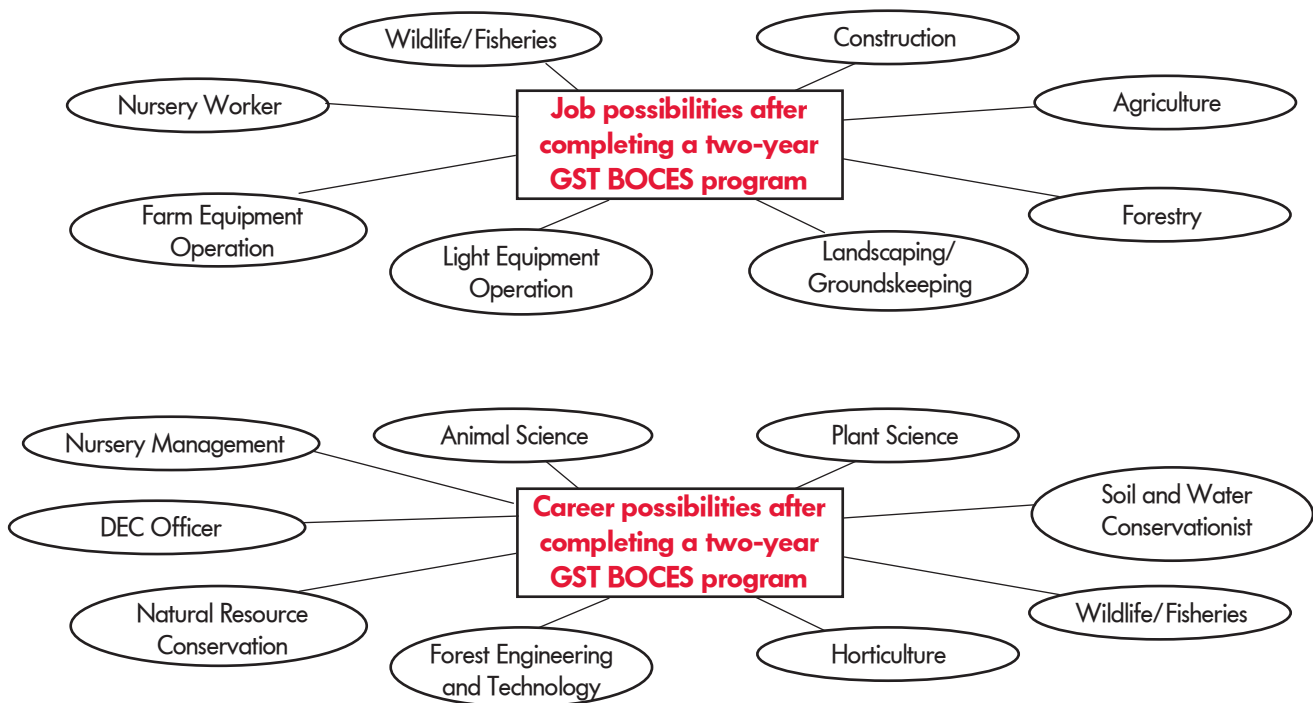
Articulation Agreements With:

SUNY Cobleskill

Integrated Academic Credits (over two years):

English (1 credit)

Science (1 credit)



Cosmetology (CIP-120401)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

Cosmetology is a two-year course offering instruction and practical experience in the skills and theory necessary for employment as a hair designer, nail technician or full-service cosmetologist. This includes care of the hair, skin, nails and all other related services. You'll find the CTE Program laboratory equipment identical to that found in a modern salon.

As a CTE Program Cosmetology student, you'll be required to complete 1,000 hours of instruction. Your successful completion of the program will qualify you to take the New York State Cosmetology Licensing Exam.

In order for Cosmetology students to meet the NYS requirement of 1,000 hours of instruction, they must attend a summer training program following the completion of their first year. Students are responsible in earning up to 125 additional hours outside of class time.

Course Content:

- Introduction to Cosmetology & Hair Shaping/Manicuring & Hair Styling
- Facials & Permanent Waving/Introduction to Hair Coloring & Straightening
- Advanced Hair Shaping/Skin & Nail Care
- Barbering Techniques, Mustache & Beard Design
- Chemical Services/State Board Preparation & Business Management
- Summer School

Program Considerations:

- Be able to maintain confidential information
- Be able to effectively communicate verbally and in writing
- Be able to process geometry, ratios, decimals, percentages and measurements accurately
- Have excellent eye/hand coordination
- Have reading and comprehension skills at commencement level
- Behave safely around sharp equipment and and potentially hazardous chemicals

Special Clothing/Materials Needed:

Professional smock, appropriate closed-toe footwear, appropriate uniform pants, student cosmetology kit and nail kit (purchased through the school)

Related College Studies:

- Two-year Esthetician/Skin Care Specialist
- Two-year Business or Fashion Merchandising degree
- Four-year Cosmetic Chemist degree
- Four-year Fashion & Retailing Management degree
- Advanced Training for Nail Technician

Employers Who Have Hired CTE Program Students:

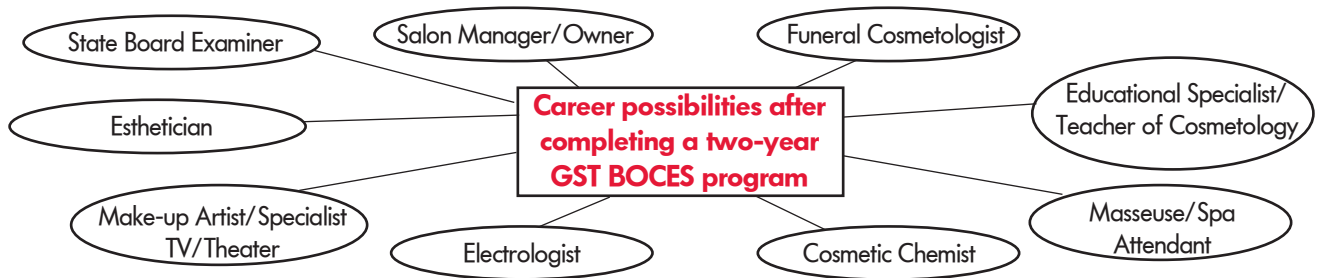
Ashley Nicole's Designs	JC Penney Salon	Sears Salon
Cost Cutters	Mall Barber Shop	Shear Perfection
Creative Concept	Master Cuts	Trade Secret
Cutting Crew	New Dimensions	Studio 12 Hair Design
Hair Hut	Regis	Tres Chic
Hair Zoo		

Articulation Agreements With:

- Atelier Esthetique Institute
- Finger Lakes School of Massage

Integrated Academic Credits (over two years):

- English (1 credit)
- Science (1 credit)



Criminal Justice (CIP-430107)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

Designed to give students hands-on instruction in the field of criminal justice, this course allows students to patrol the campus and investigate mock crime scenes. They participate in role-plays, field trips, group projects and disaster drills to learn law and crisis intervention skills in an informative, educational and interactive way.

The course emphasizes teamwork, problem-solving and self discipline. Students use their skills by providing security at special events both on and off campus.

During the second year, students complete an internship with various law enforcement agencies. They are eligible for New York State certification as a security officer, FEMA certification and CPR/AED certification.

Course Content:

- Patrol Procedures/Crisis Intervention
- Criminal Law/Forensic Science
- Supervision & Leadership Skills
- Internship/Defensive Tactics
- Arson Investigation
- Accusatory Instrument Preparation
- NYS Security Guard 8 Hour Pre-Certification
- Vehicle Stops
- Criminology
- Physical Fitness Training
- Accident Investigation
- Crime Scene Investigation
- Firearms

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Have a good record of appropriate behavior and respect for the law
- Have good eye/hand coordination, balance, stamina and attention to detail
- Be able to adhere to required dress code
- Behave safely around specialized equipment
- Have interest in forensic science

Special Clothing/Materials Needed:

Per instructor's requirements

Related College Studies:

- | | |
|------------------|--------------|
| Criminal Justice | Psychology |
| Forensic Science | Pre-Law |
| Stenography | Fire Science |

Employers Who Have Hired CTE Program Students:

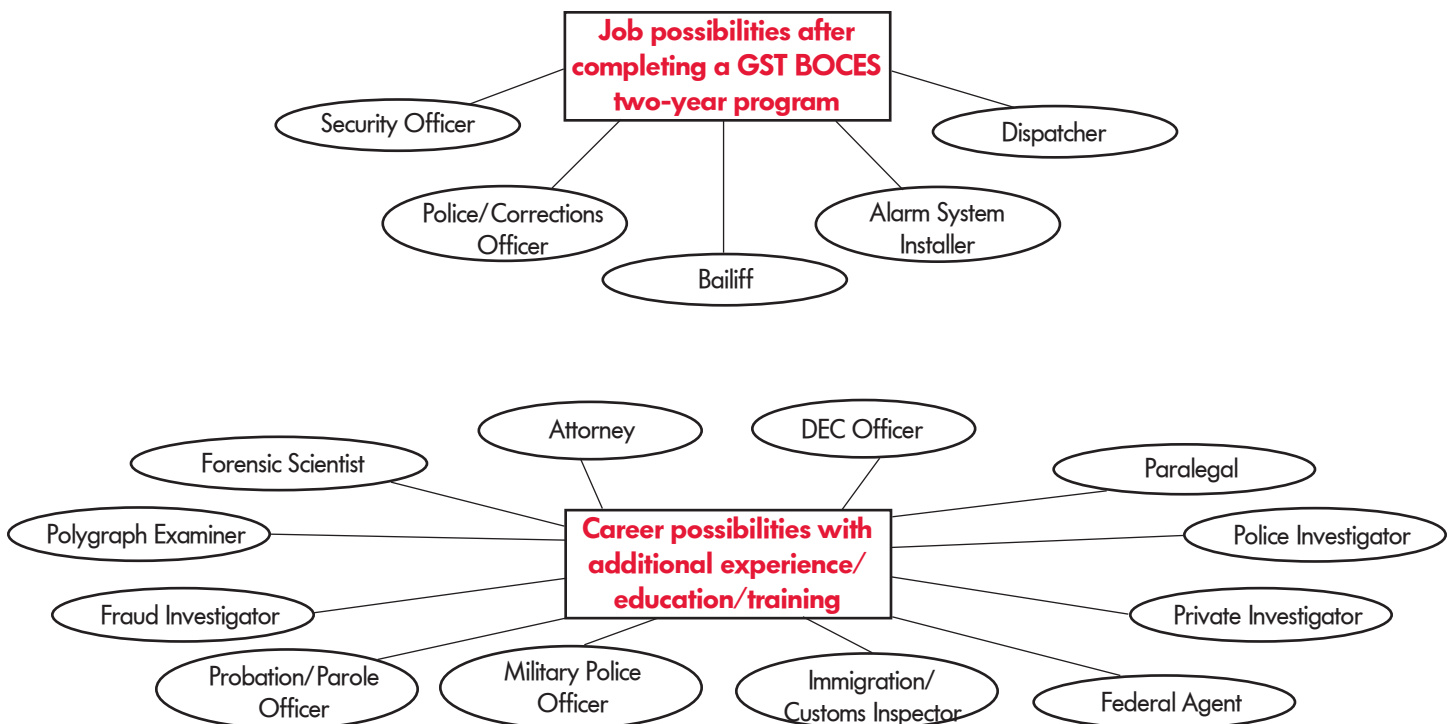
- | | |
|------------------------------------|-----------------------------|
| Alstom | Horseheads Police Dept. |
| Annot Mall Security | Local fire departments |
| Annot Ogden Medical Center | MetLife Insurance |
| Cataaugus Co. Sheriff's Dept. | NYS Dept. of Corrections |
| Chemung County Jail | NYS Park Police |
| Chemung County Sheriff's Dept. | NY State Police |
| Cornell University Police | Rocky Mountain Police Dept. |
| CCC Public Safety | Steuben County Court |
| Elmira Police Dept | Steuben County Jail |
| Erie Co. Medical Examiner's Office | Steuben County Sheriff |
| FLCC Public Safety | Watkins Glen Police Dept. |
| Hornell Police Dept. | |

Articulation Agreements With:

- Corning Community College
- Finger Lakes Community College
- Herkimer Community College
- Mohawk Valley Community College

Integrated Academic Credits (over two years):

- English (1 credit)
- Science (1 credit)



Culinary Arts (CIP-120599)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

This course introduces students to careers in food service and teaches them the basic skills and knowledge they need for success in this industry. On-the-job training and experience, coupled with a dynamic and comprehensive curriculum, fuel this program. High school students will experience all aspects of operating and managing a food service establishment, and will build good business and management skills that are transferrable to other industries. The course content is aligned with National Restaurant Association standards and the curriculum is based upon Pro Start through the New York State Restaurant Association Education Foundation.

Course Content:

- Customer Relations/Serving Safe Food/Accident & Injury Prevention/Kitchen Basics/Food Service Equipment/Nutrition
- Breakfast Foods & Sandwiches/Working with People/Salads & Garnishes/Business Math/Fruits & Vegetables/Controlling Costs
- History of Food Service/Potatoes & Grains/Lodging Industry/Art of Service/Desserts & Baked Goods/Marketing & Menu
- Purchasing & Inventory/Meat, Poultry & Seafood/Standard Accounting/Stocks, Soups & Sauces/Tourism & Retail Industry/Communicating with Customers
- ServSafe

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Have reading and comprehension skills at commencement level
- Be able to adhere to required dress code
- Be willing to serve people and maintain good personal hygiene and sanitation
- Be able to lift 25 pounds, food stock and heavy serving trays
- Behave safely around sharp and potentially dangerous objects

Special Clothing/Materials Needed:

Per instructor's requirements

Related College Studies:

Two-year degree in Culinary Arts, Pastry Arts or Hotel-Restaurant Management

Four-year degree in Food Service Management

Employers Who Have Hired CTE Program Students:

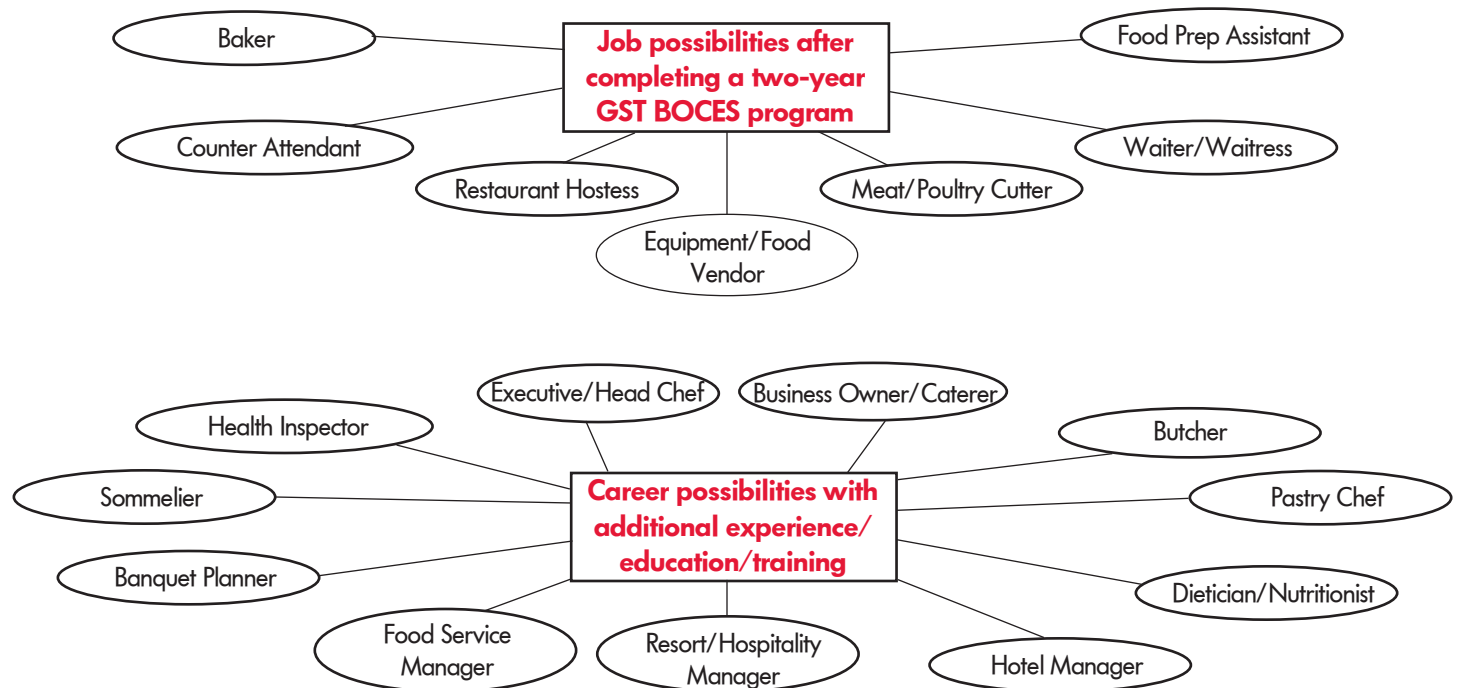
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|-----------------------|--------------------------|
| A Step Above | Hilton Garden Inn |
| Bethany Manor Dietary | Holiday Inn |
| Bethany Village | Hornell Country Club |
| Castle Grisch | Marino's |
| Cornell University | Paddy's Pub |
| Corning Catering | St. James Mercy Hospital |
| Corning Inc. | St. Joseph's Hospital |
| Chemung ARC | The Palms |
| El Monte's Inn | Turning Stone Casino |
| Friendly's | Watson Homestead |
| Giovanni's | Wegmans Market Cafe |
| Hill Top Inn | |

Articulation Agreements With:

- Paul Smith's College
- Culinary Institute of America
- Niagara University
- University of Central Florida
- Pennsylvania College of Technology
- SUNY Morrisville, Cobleskill, Plattsburg and Alfred
- Johnson and Wales University
- NYS Pro Start Articulation
- New York State Restaurant Association Educational Foundation
- Community Colleges: Schenectady, Westchester, Erie, Jefferson and Delhi

Integrated Academic Credits (over two years):

- English (1 credit)
- Science (1 credit)



Dental Assisting (CIP-510601)

CO-SER: Bush 101.200

As a Dental Assisting student, you'll gain the knowledge and practical skills necessary to assist a dentist in the examination and treatment of patients.

Course work includes dental anatomy, chairside assisting, charting teeth, tooth restoration, dental specialties, laboratory skills, office procedures and dental x-rays including digital radiology. You will also participate in a clinical experience one day a week (with an option of a partial summer) in area dental offices. Upon successful completion of the course and 200 hours of internship, you may sit for the New York State Dental Assisting Certification Exam.

Course Content:

- Dental Anatomy/Chairside Assisting
- Tooth Restoration/Patient Records
- Dental Specialties/Dental Laboratory Skills
- Dental Radiography/Receptionist Skills

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Be able to maintain confidential information
- Be able to adhere to required dress code and maintain good personal hygiene
- Be able to behave safely around sharp objects, heated equipment and potentially hazardous chemicals and materials
- Have good skills in memorization of data and recall
- Be able to deal with body fluids and unpleasant odors

Special Clothing/Materials Needed:

Uniform pants, scrub top, white socks, white clinic shoes, OSHA regulation lab coat

Related College Studies:

Two-year/four-year Dental Hygiene degree
Two-year Dental Laboratory Technology degree
Dental School

Employers Who Have Hired CTE Program Students:

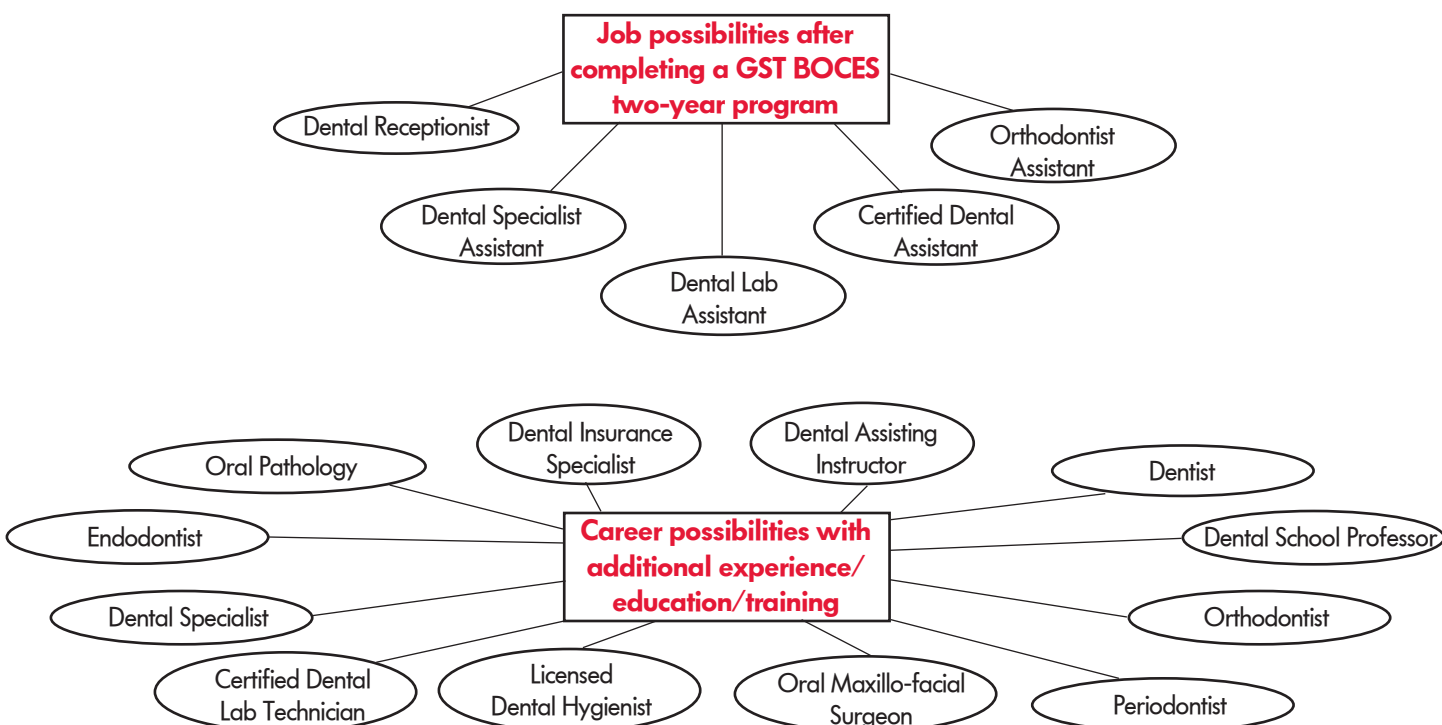
Dr. Cesari	Dr. Peterson	Dr. Conte
Dr. Dailey	Dr. Eng	Dr. May
Dr. Lawas	Dr. Laux	Dr. Bellohusen
Dr. Lodico	Dr. Menges	Dr. Orme
Dr. Schuller	Dr. Seltzer	Dr. Uy
Drs. Wilke & Baker		
Drs. Schultz & Fitzgerald		
Drs. Jurusik & Shaw		
Drs. Woodard & Wicks		
Corning Dental Associates		
Chemung Family Dental Center		
Chemung County Dental Clinic		
Guthrie Dental Clinic		
Southport Crown & Bridge		
Seneca Dental Associates		

Articulation Agreements With:

Broome Community College
Pennsylvania College of Technology

Integrated Academic Credits (over two years):

English (1 credit)
Science (1 credit)



Diesel Equipment Technology, Maintenance & Repair (CIP-470605)

CO-SER: Bush 101.200

Diesel Equipment Technology, Maintenance & Repair at the CTE Program is a two-year course. During the first year of the course, you'll learn about gas engines and transition to basic diesel engines. The second year of the course concentrates on diesel engine operation and maintenance. Students will have the opportunity to work on large diesel engines used in farm and construction equipment.

Course Content:

- Engine Systems
- Engine Overhaul/Engine Diagnosis
- Introduction to Tractor Trailer Diesel Engines/Diesel Electric & Hydraulics
- Diesel Fuel Injectors & Pumps/Fuel Systems (Gas & Diesel)

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Be able to process commencement level math computations
- Be able to behave safely around dangerous chemicals, gases and moving equipment and follow directions
- Be willing to serve community members courteously
- Be able to lift 25 pounds

Special Clothing/Materials Needed:

Coveralls, work shoes (steel-toe preferred), warm clothing, gloves

Related College Studies:

Two-year degree in:

- Heavy Equipment/Diesel Engine
- Automotive Parts Management
- Lawn and Garden Technology

Four-year degree in:

- Agricultural Equipment Technology

Technical institute certificate and degree programs in:

- Heavy Equipment/Truck Technology
- Automotive Technology
- Marine/Motorcycle Technology

Employers Who Have Hired CTE Program Students:

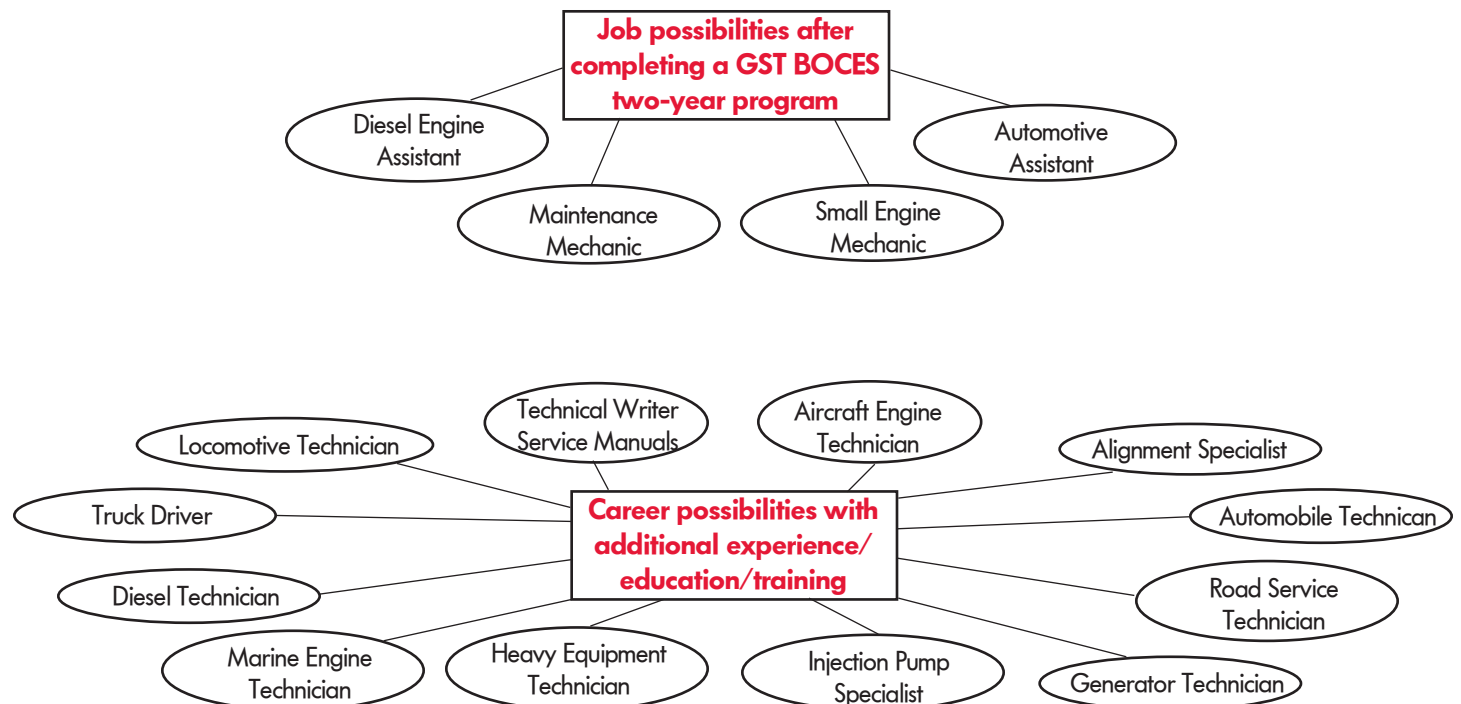
- | | |
|-----------------------------------|-----------------------|
| Albee Trucking | Schuyler County |
| Schuyler Truck Alignment | Clute Motor Company |
| St. Joseph's Hospital | Ervay's Marina |
| Tate Equipment | H & H Auto Supply |
| Ryder Transportation | Hardinge Incorporated |
| Chemung County Highway Department | |

Articulation Agreements With:

- Lincoln Technical Institute
- Pennsylvania College of Technology
- SUNY Alfred
- SUNY Cobleskill
- SUNY Morrisville

Integrated Academic Credits (over two years):

- English (1 credit)
- Math (1 credit)
- Science (1 credit)



Digital Media Arts (CIP-110803)

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

Digital Media Arts is a project-based program for students who want to explore exciting career options available in the rapidly growing visual communications fields. The program blends traditional design principles, composition, color theory and layout and typography with advanced technical skills.

Students use our high-tech digital design lab and photography and video production studios along with the latest professional software and equipment.

Students select specialized professional level training courses designed to align with their career goals. These are team-based or self-paced individual learning modules which allow highly motivated students to complete multiple courses during the program. Successful students will earn certification through the Adobe Certified Associate Program.

Course Content:

- Graphic Design & Publishing
- Commercial & Studio Photography
- 3D Animation & Game Design
- Specialty Graphics
- Video Production & Visual Effects
- Advanced Web Design
- Professional Software: Photoshop, Illustrator, InDesign, Flash, Dreamweaver, Premier/Final Cut Pro, After Effects, 3D Studio Max

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Have reading and comprehension skills at commencement level
- Have interest in the arts

Special Clothing/Materials Needed:

Writing materials, headphones

Related College Studies:

Computer Animation	Multi-Media
Graphic Design	Photography
Industrial Design Technology	Video Production
Interior Design	Web Design

Employers Who Have Hired CTE Program Students:

Artistic Greetings	Multi Media Services
The Leader	Mystic Media Web Design
ESPN	WETM-TV
Evening Tribune	

Articulation Agreements With:

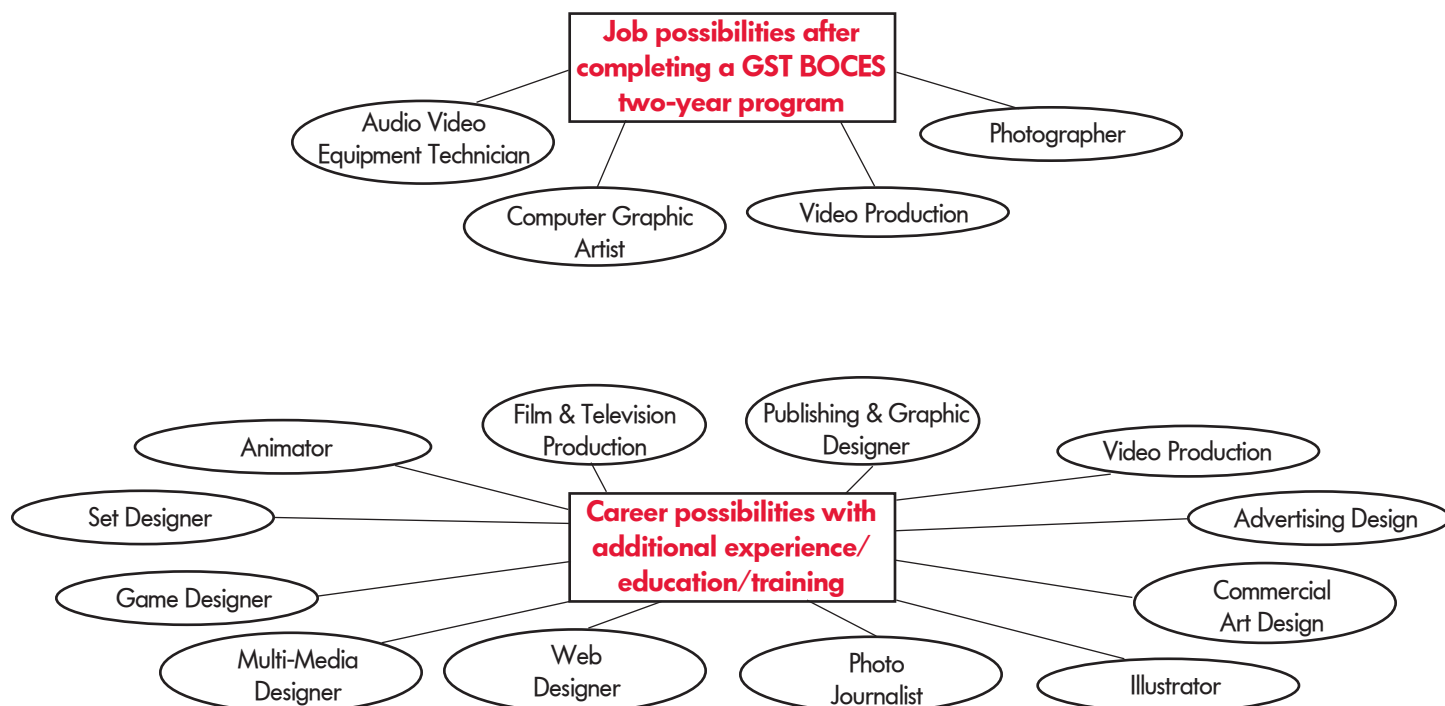
Art Institute of Pittsburgh
Center for Digital Imaging Arts at Boston University
Finger Lakes Community College
Herkimer County Community College
Pennsylvania College of Technology
SUNY Alfred

Certifications:

- Adobe Certified Associate Photoshop
- Adobe Certified Associate Flash
- Adobe Certified Associate Dreamweaver

Integrated Academic Credits (over two years):

English (1 credit)



Early Childhood (CIP-190709)

CO-SER: Bush 101.200

This course is designed to prepare you to work as an Early Childhood Assistant. In cooperation with the Head Start Program, located on the Bush campus, students will work with children aged six weeks to 12 years to assist in developing vital job skills. As part of this program students will participate, with teacher's approval, in a public or private school classroom.

As an Early Childhood student, students will be prepared to seek employment as a "nanny" (private care), in public and private day care centers and in agencies serving the disabled. Students also will be well-prepared to continue their education in early childhood education or elementary education or to establish their own home or family day care program.

Course Content:

- Introduction to Early Childhood Education
- Setting Up Your Own Preschool
- Special Education: Middle Aged Children Planning & Developmental Activities
- Observation, Guidance and Discipline
- Planning, Participation & Assessment for 4- and 5-Year-Olds
- Professional Development & School-to-Work Transition

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Have basic reading and comprehension skills
- Be able to exhibit self control in crisis situations and to think and react quickly and safely
- Be able to lift and be physically active in a playground setting
- Be able to maintain confidential information
- Be able to control personal behavior and control language

Special Clothing/Materials Needed:

Seasonal professional, relaxed clothing, including shoes and sneakers (no flip-flops or sandals)

Related College Studies:

Two-year degree in Human Services

Four-year degree in Elementary Education/Social Work/Special Education

Employers Who Have Hired CTE Program Students:

ARC

Arnot Ogden Day Care

CJ's Country Kids

EOP/Head Start

Erwin Child and Family Center

GST BOCES

United Cerebral Palsy

YMCA Child Care Center

YWCA Child Care Center

Articulation Agreements With:

Broome Community College

Corning Community College

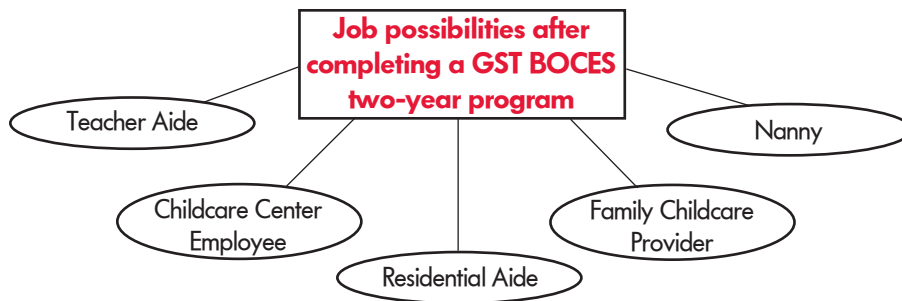
Sullivan Community College

Pennsylvania College of Technology

SUNY Cobleskill

Integrated Academic Credits (over two years):

English (1 credit)



Fashion Design & Retail (CIP-190902)

CO-SER: Bush 101.200

Fashion Design and Retail will give students hands-on instruction in the field of Fashion Design and Retailing. Students will focus on computer-aided fashion drawing, fashion construction and production methods, pattern manipulation, textile technology and retail display. Fashion Design is a technical discipline centered around materials, design, assembly and maintenance of textile machinery and products manufactured by this machinery.

The Fashion Design and Retailing Program has been organized into defined units of study covering all of the knowledge and skills needed for the student who will be seeking employment or further education in the design and manufacturing of clothing. Topics include clothing construction, advanced dressmaking, tailoring, clothing design, flat-pattern making, draping, basic design, fashion history and textiles.

Course Content:

- Introduction to Design Theory
- Garment Construction
- Patterns & Development
- Textile Technology
- 3D Design and Draping
- Designer History

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Have an interest in artistic design methods including computer software use
- Be able to process commencement level math calculations
- Be able to behave safely around sharp objects and potentially hazardous moving equipment

Special Clothing/Materials Needed:

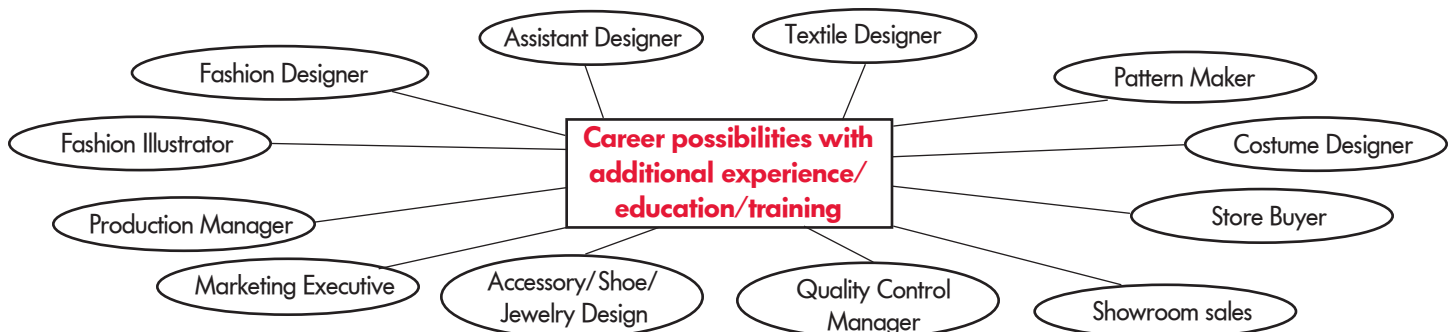
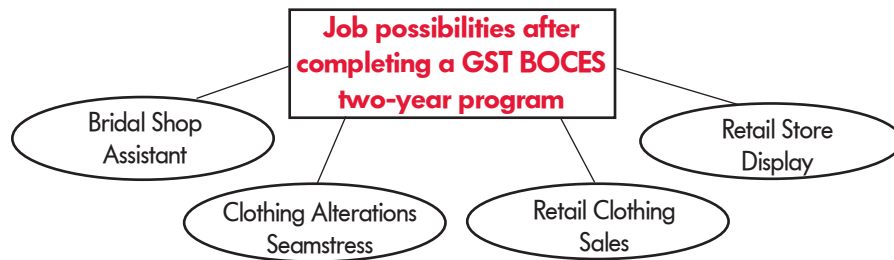
11" x 14" sketch book, package of at least 24 color pencils, a plastic storage bin (27/28 quart size), unlined paper for three-ring binder, two blue and two red fine point pens

Articulation Agreements With:

Cazenovia College
SUNY Broome
SUNY Oneonta

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)



Health Occupations (CIP-209999)

CO-SER: Wildwood 101.300

Health Occupations is a New York State licensed program. It builds on a core program as an introduction to all health occupation careers. After successful completion of the core curriculum, students will enter Health Occupations II including Health Related Child Care and Health Assistant Programs.

Supervised clinical experience is included for all programs at various related sites, such as St. James Mercy Health, McAuley Manor, Head Start, Hornell Children's Home and doctors' offices.

LPN programs are available for post-secondary students. Integration of academics, technology and universal skills are important components in Health Occupations.

After meeting the NYS required guidelines, the student will be eligible at the end of the third semester to take the NYS Certified Nurse Assistant Exam. This will qualify him/her to work in a long-term care facility.

Course Content:

- Health Occupations Core
- Certified Nurse Assisting
- Health-Related Child Care
- Health Assisting

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Be able to process commencement level math calculations
- Be able to maintain confidential information
- Be able to lift a minimum of 25 pounds
- Be able to deal with body fluids and unpleasant odors
- Be able to follow directions and control personal comments and behaviors in a professional setting

Special Clothing/Materials Needed:

Uniforms and physicals are required (cost is approximately \$60)

Related College Studies:

- Certificate in Early Childhood Services
- Two-year degree in Registered Nursing
- Two-year degree in Medical Laboratory Technician
- Two-year degree in Health and Human Services
- Two-year degree in Early Childhood Studies
- Four-year degree in Nursing
- Four-year degree in Elementary Education/Social Work/Special Education

Employers Who Have Hired CTE Program Students:

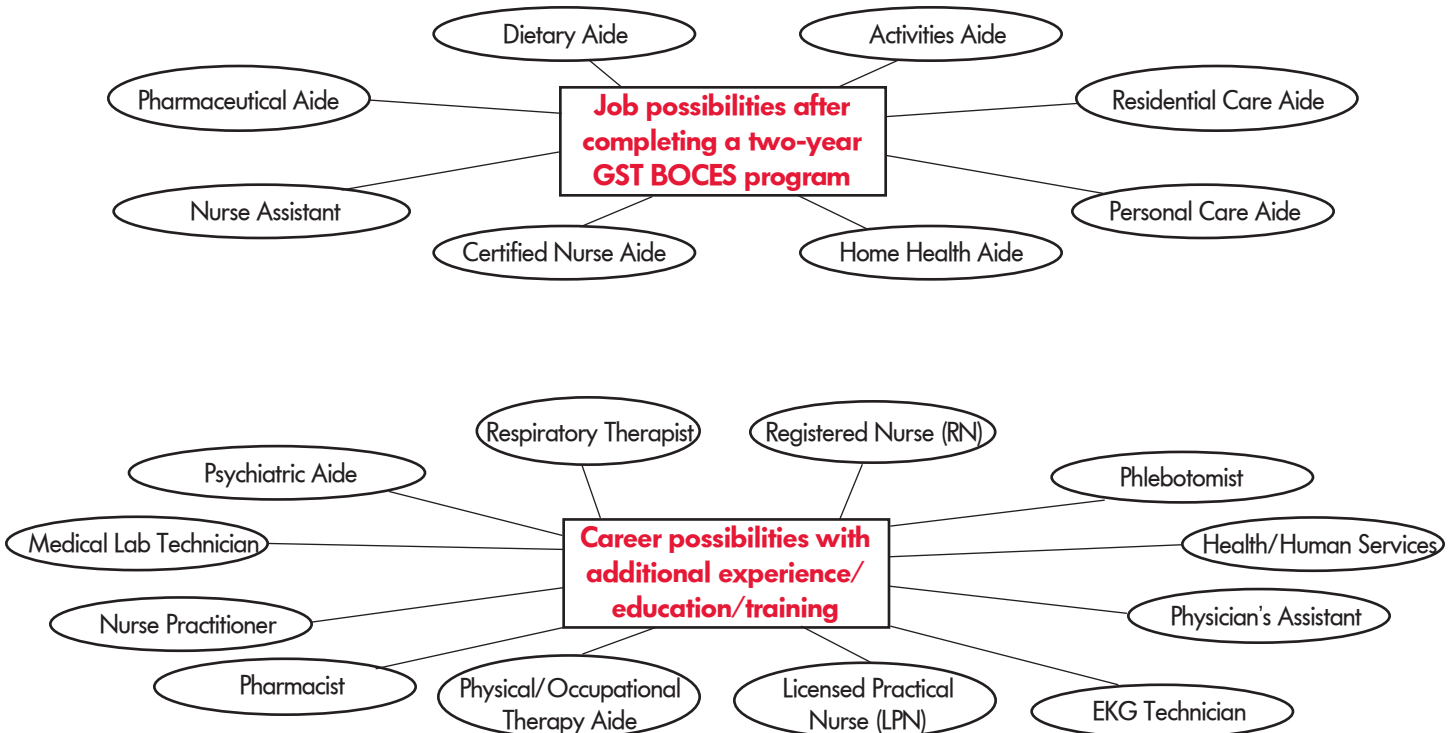
- Ira Davenport Hospital
- Fred and Harriet Taylor Health Center
- St. James Mercy Health
- Mercy Care/McAuley Manor
- Hornell Gardens
- Hornell Children's Home
- Jack n' Jill Nursery School

Articulation Agreement With:

- Corning Community College

Integrated Academic Credits (over two years):

- English (1 credit)
- Science (1 credit)



Heavy Equipment (CIP-470302)

CO-SER: Coopers 101.100, Wildwood 101.300

Students in the Heavy Equipment program study the operation, maintenance and repair of heavy equipment. Upon completion, students are adaptable to a wide variety of careers in the construction industry. The program offers a combination of theory, academic integration, technical skills, hands-on instruction and field project experiences.

The Heavy Equipment program is an approved National Center for Construction, Education and Research (NCCER) program. Students will be required to take nationally standardized exams in order to earn national certification in several NCCER topics of instruction.

Course Content:

- Basic Operation of Backhoes, Bulldozers, Loaders, Skid Steers, Tractors, Dump Trucks, Graders & Excavators
- Preventative Maintenance of Heavy Equipment & Motorized Power Equipment/Basic Surveying
- Equipment Safety/OSHA 10 Training/Off-Campus Projects
- Intro. to Hand Tools/Stationary Power Tools/Battery Systems/Power Tools/Plumbing
- Welding/Electrical Wiring/CPR & First Aid Certification/Small Engines
- Fork Truck Licensing/Basic Rigging/Intro. to Blueprints
- Tires, Chains & Brakes
- Chain Saw Operation/Forestry/Logging/Senior Projects
- Cooperative Mentoring/Commercial Drivers' License

Program Considerations:

- Be able to process commencement level algebraic equations
- Have basic reading and comprehension skills
- Have excellent eye/hand coordination
- Be able to lift a minimum of 25 pounds
- Behave safely around sharp, heated and potentially hazardous moving equipment

Special Clothing/Materials Needed:

Work boots, coveralls, hard hat, work gloves, 3-ring notebook, calculator

Employers Who Have Hired CTE Program Students:

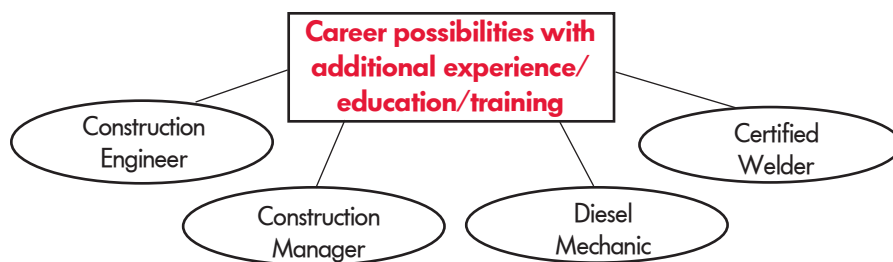
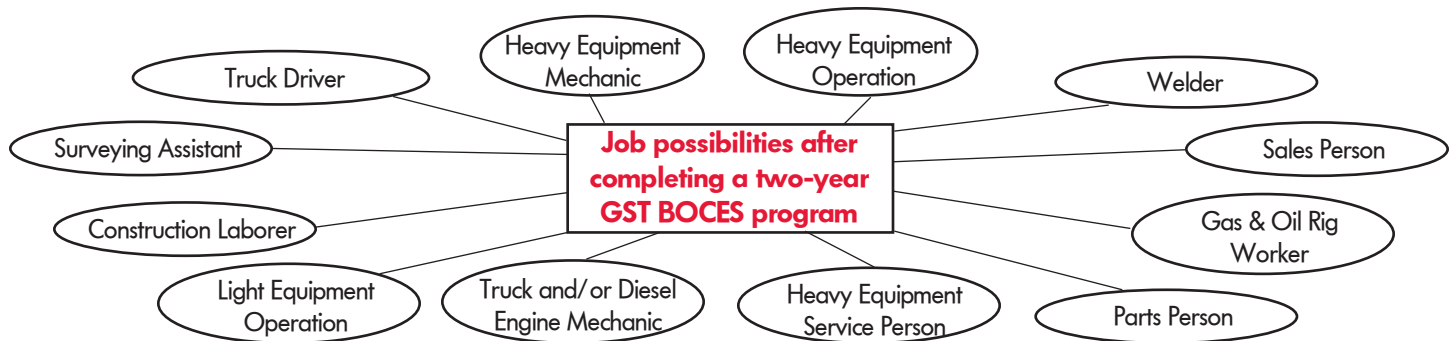
Cold Springs Construction	R.L. Callahan's
L.C. Whitford Co.	Steuben County
Mercury Aircraft	Town Highway Departments
NYS DOT	Wagner Forest Products

Articulation Agreements With:

Finger Lakes Community College
Paul Smith's College
Pennsylvania College of Technology
SUNY Alfred
SUNY Cobleskill

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)



Machine Trades (CIP-480501)

CO-SER: Coopers 101.100

Machine Trades prepares students for entry-level jobs in a variety of machining occupations. Machine tools including lathes, milling machines, drill presses, cylindrical grinders and surface grinders are used throughout the program. Students also learn to program and operate CNC lathes and CNC milling machines. The fundamentals of CAD and CAM are taught on the latest version of AutoCAD and Mastercam.

Machine Trades students develop their skills by making tools that will be used on the job. During the first year, students learn to set up and operate manual machine tools, precision measurement, calculating speed and feed rates, print reading, AutoCAD and calculator math, including applied trigonometry. In the second year, students learn precision grinding, CNC programming and operation and advanced AutoCAD skills. Students also will be introduced to Computer Aided Manufacturing (CAM) and also may complete a two to four week internship with a local manufacturer.

Course Content:

- Manual Machining
- Math for Machinists
- Print Reading
- CNC Milling Programming
- CNC Lathe Programming
- Computer Assisted Design (CAD)
- Computer Assisted Manufacturing (CAM)

Program Considerations:

- Comfort with basic mathematical functions: addition, subtraction, multiplication, division
- Have commencement level reading and comprehension skills
- Knowledge of Auto-CAD 1 is desirable but not required
- Be able use common mathematical formulas

Special Clothing/Materials Needed:

Work boots, TI 30Xa Calculator

Employers Who Have Hired CTE Program Students:

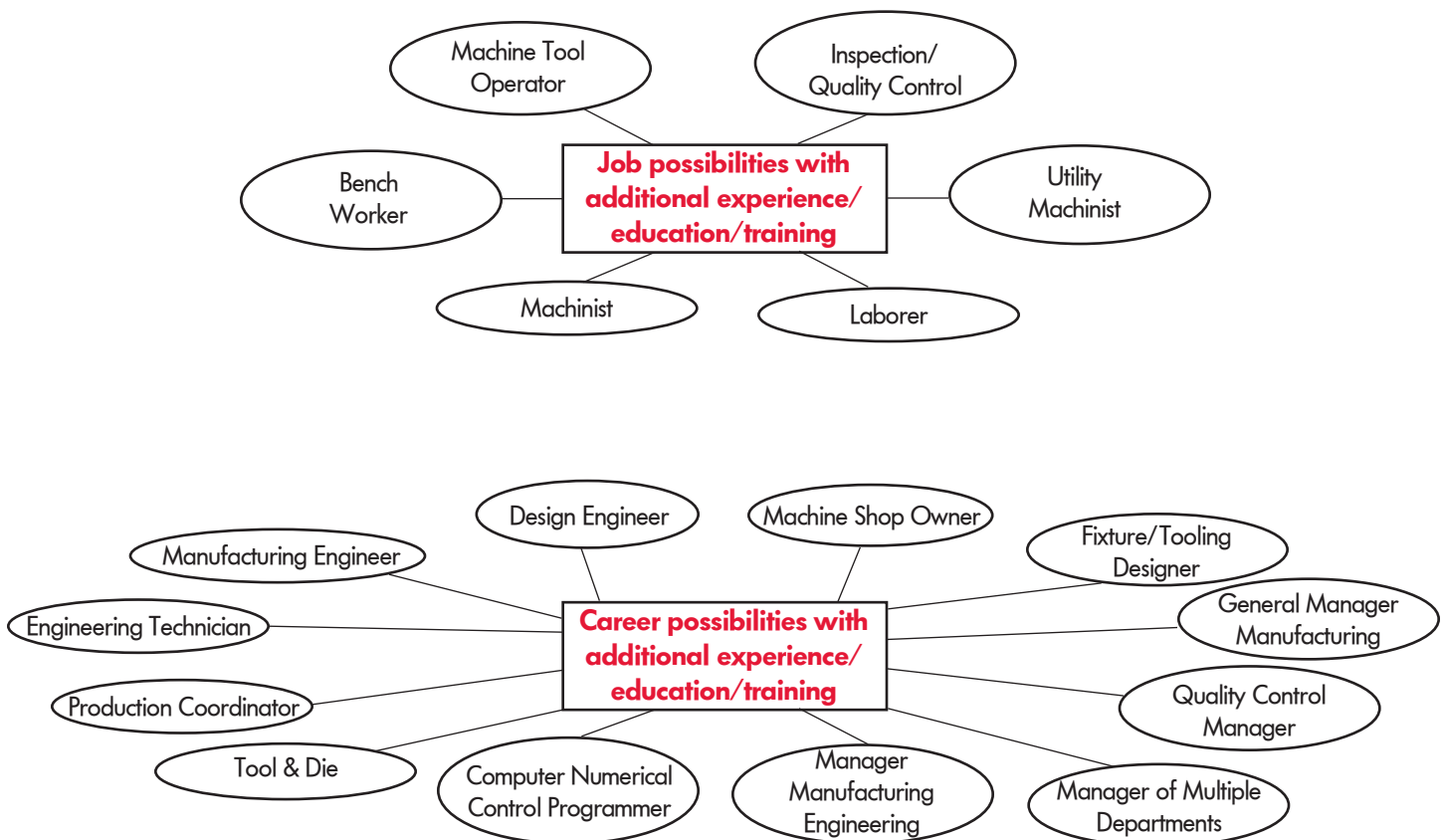
Cameron Manufacturing & Design	Mercury Aircraft
Corning Inc.	Synthes
Courser Inc.	Schweizer Aircraft
Dresser-Rand	Tobeyco Manufacturing
Hardinge, Inc.	

Articulation Agreements With:

Corning Community College
Pennsylvania College of Technology
SUNY Alfred

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)



Nurse Assisting (CIP-511614)

CO-SER: Bush 101.200, Coopers 101.100

Nurse Assisting offers you the skills necessary to seek employment in hospitals, long-term care facilities, home health care, residential care and facilities for the mentally and physically challenged. You will learn the use of medical equipment, medical/surgical techniques, infection control and procedures common to health care. In addition, you'll acquire basic knowledge vital for professional health careers including radiology, physical/occupational therapy, mental health and nursing.

The Certified Nurse Assisting course emphasizes geriatrics and direct patient care. Upon successful completion of this program you will produce a marketable resume and be eligible to take the NYS exam for Certified Nurse Assisting. Integration of academics, technology and universal skills are important components of this course.

Course Content:

- Health Care Worker/Nurse Assisting
- Advanced Nurse Assisting I/Advanced Nurse Assisting II
- Geriatrics (CNA)/Advanced Geriatrics (CNA)
- Overview of Clinical Assistant I/Overview of Clinical Assistant II

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Be able to process commencement level math calculations
- Be able to maintain confidential information
- Be able to lift a minimum of 25 pounds
- Be able to deal with body fluids and unpleasant odors
- Be able to follow directions and control personal comments and behaviors in a professional setting

Special Clothing/Materials Needed:

White clinic shoes, beige stockings and a watch with a second hand

Bush Education Center: required uniforms, which include scrub pants, top and jacket, must be purchased prior to the first rotation

Coopers Education Center: uniform to be determined by instructor

Related College Studies:

- Two-year Registered Nursing degree
- Two-year Medical Laboratory Technology degree
- Two-year Health and Human Services degree
- Two-year Radiology degree
- Four-year Nursing degree/Nurse Practitioner/Midwife

Employers Who Have Hired CTE Program Students:

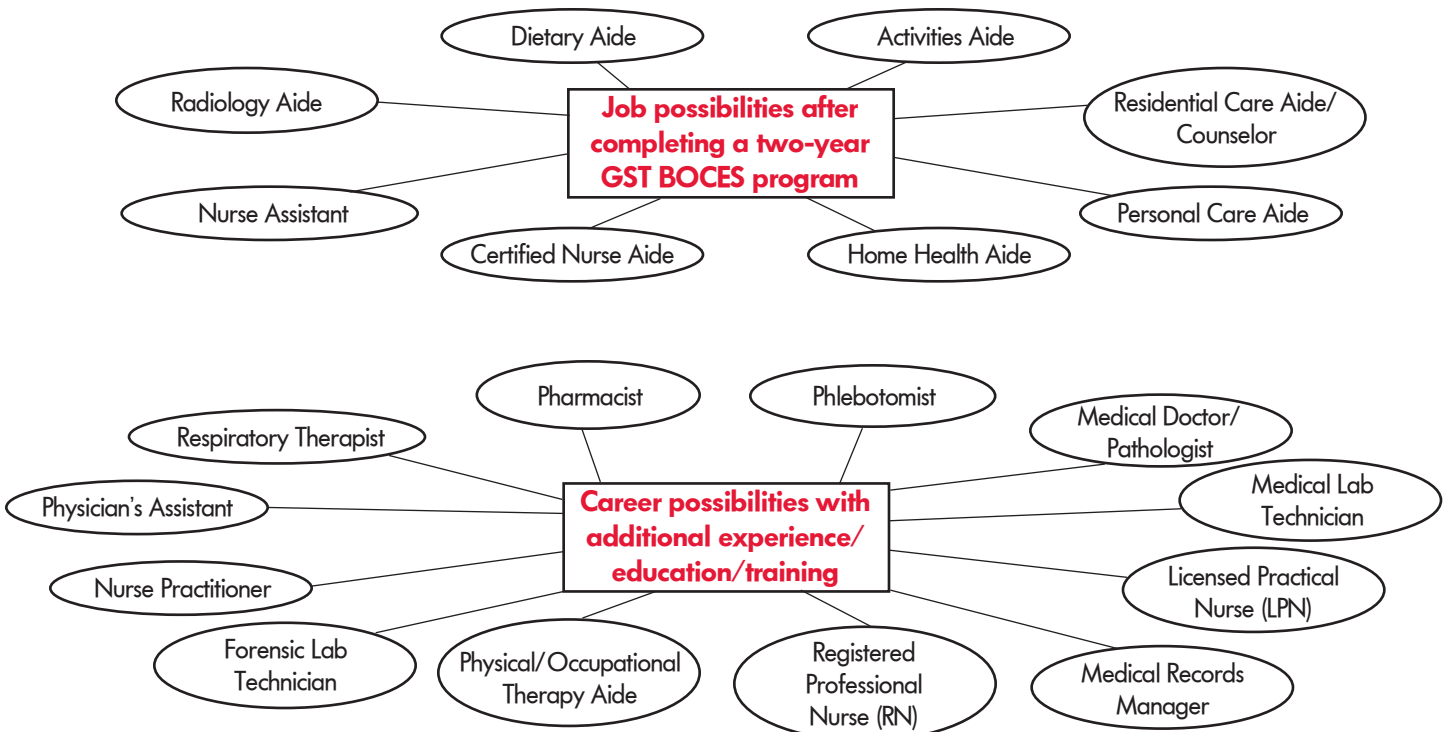
- | | |
|---------------------------------|-----------------------------|
| Annot Ogden Medical Center | Ira Davenport/Taylor Health |
| Bethany Retirement Center | St. Joseph's Hospital |
| Chemung County Nursing Facility | Schuyler Hospital |
| Corning Hospital | The Falls Home |
| Elcor Health Services | Three Rivers Health Center |
| Founder's Pavilion | UCP House |
| Elderwood | Woodbrook |

Articulation Agreements With:

- Corning Community College
- St. James Mercy Hospital/Alfred State College

Integrated Academic Credits (over two years):

- English (1 credit)
- Science (1 credit)



Unique Careers Placement Program

CO-SER: Bush 101.200, Coopers 101.100, Wildwood 101.300

If a student is interested in a career area that is not offered by GST BOCES, they may apply for placement in the Unique Careers Program. Together with the work site supervisor/mentor and the BOCES work experience coordinator, students develop an individualized training plan that outlines objectives, job-specific outcomes, responsibilities and expectations. This experience usually runs for one semester during the senior year and includes career-related instruction. Students complete timesheets and a daily journal that are collected by the coordinator, and regular evaluations are completed by the worksite supervisor.

Course Content:

- Career Interests and Direction
- Interviewing a Career-Related Professional
- Preparation for the Real World
- Habits of Highly Effective Teens
- Mission Statement and Goal Setting
- Corporate Culture
- Professional Resume and Cover Letter
- Employment Leads
- Employment Applications
- Successful Interviewing
- Portfolio

Program Considerations:

- Home school coursework in good standing
- Have good attendance and grades
- Be self-directed, focused, and self-disciplined
- Have plans for post secondary education
- Be recommended by teacher and guidance counselor

Special Clothing/Materials Needed:

Dress acceptable for profession

Areas Students Have Studied:

Architecture
Banking and Finance
Engineering
Journalism
Language Arts
Marketing
Physical and Occupational Therapy
Speech Therapy
Sports Management
Veterinary Science

Other CTE Work-Based Learning Opportunities

Linking education with business and industry is an important part of education at GST BOCES. There are several programs available that can provide students with “hands-on” experience with an area employer. These programs can be as short as 20 hours or can last up to an entire school year, depending on what best fits a student’s needs. At the worksite, a student will have the opportunity to ask questions, gain valuable experience and earn a great reference that can help in the future.

Internship

This placement is tied to the student’s Career and Technical Education Program at GST BOCES. The student will work with his or her instructor and work experience coordinator to determine which worksite is best and how long the internship will last. The instructor will base his or her decision on the student’s attendance, attitude and performance in class.

Generally, an internship lasts two weeks, though some may continue for several months. The student reports to the worksite instead of BOCES during assigned times. Some placements include time outside of school hours.

Internships are unpaid and transportation is usually the responsibility of the student, although sometimes it is possible to arrange bus transportation through the home school district.

Participating employers from the Southern Tier include area hospitals, governmental agencies, non-profit agencies and a wide range of private business and industry sites. While not an expectation, many students are offered jobs by their worksite supervisors because of the positive attributes they’ve displayed while on their internships.

Cooperative Work Experience

Outstanding students may qualify to participate in a paid cooperative work experience as part of their career training. Students will be selected based on skills, attendance, grades and maturity. This experience lasts a minimum of 200 hours and may occur during the summer or at a time mutually agreed upon by the student, school

and employer. Credit toward graduation also may be awarded. An individual training plan will be created with specific academic and technical skill objectives which will be updated as the need arises. The student will be responsible for keeping a daily log with information and skills accomplished during the work experience.

In addition, the Capstone Program is offered at the Bush campus. This program is provided for outstanding seniors in the second half of the final year of their Career and Technical Education program. Qualified students, if given the opportunity to work in their field of training, are encouraged to take this step.

First Year Experience

FYEX 1000 (Bush, Coopers, Wildwood)

In addition to the Corning Community College ACE courses listed under specific CTE programs throughout this catalog, Wildwood also offers students the opportunity to enroll in FYEX 1000. FYEX 1000 is a CCC required college course that facilitates intellectual and social integration of first year students into the academic community. The course provides specific methods and strategies which students may adopt to promote personal growth and success both in the college environment and throughout life.

FYEX 1000 students are released from their CTE program for one to two hours each week in order to fulfill the 45-hour college course requirement. Interested students must apply to a committee of teachers and administrators in order to be selected for this course.

Welding & Metal Fabrication (CIP-480508)

CO-SER: Bush 101.200, Wildwood 101.300

As a Welding student, you will learn the proper procedures for welding and the recognition of metals. You will also receive instruction in proper safety and the care and use of small hand and power tools used in the trade of metal fabrication. You will have the opportunity to develop skills in reading and understanding blueprints. Our goal is to prepare students for employment in the welding field by offering effective hands-on and classroom training to meet local industrial standards.

Course Content:

- Basic Gas Tungsten Arc Welding/Advanced Gas Metal Arc & Gas Tungsten Arc Welding
- Introduction to Welding: Oxyacetylene & Arc Welding/Basic Shielded Metal Arc Welding: Fast Freeze Group
- Advanced Shielded Metal Arc Welding: Low Hydrogen Group/Basic Gas Metal Arc Welding: MIG
- Advanced Shielded Metal Arc Welding/Welder Certification

Program Considerations:

- Be able to effectively communicate verbally and in writing
- Be able to process commencement level math calculations
- Have good eye/hand coordination and attention to detail
- Be able to maintain dress code and safety rules
- Be able to behave safely around equipment and potentially hazardous gases, chemicals and hot torches

Special Clothing/Materials Needed:

Steel-toed work boots, cotton long-sleeved shirt with button-down pockets, starter kit of leathers (helmet and gloves – purchased through instructor or on your own)

Related College Studies:

Two-year degree in Welding Technology
Four-year degree in Welding Engineering

Employers Who Have Hired CTE Program Students:

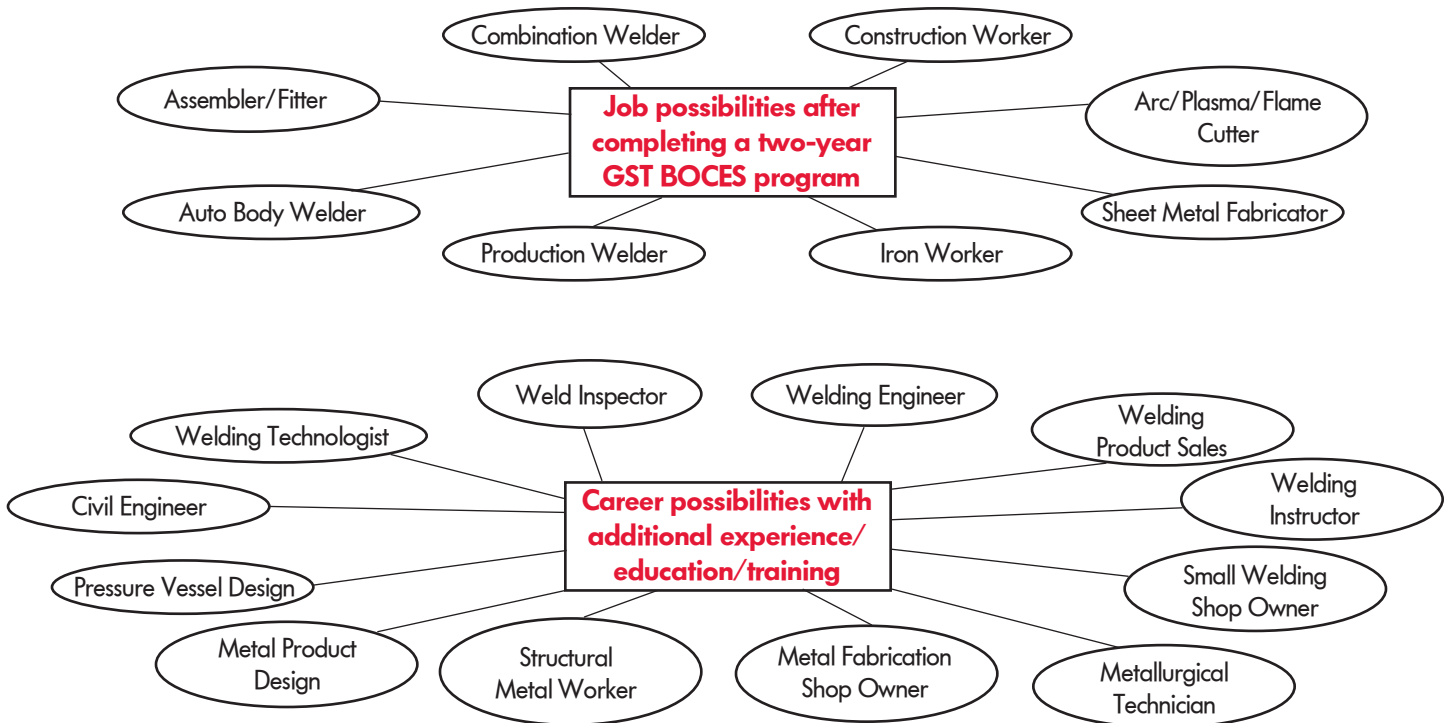
BMS-Bill's Machine Shop	Air Flow Manufacturing
Cameron Manufacturing & Design	Root Construction
Cornell University	Elmira Metal Works
Dalrymple Construction	Echo Bridge
Sheet Metal Workers Local 112	
Plumbers and Steam Fitters Local 267	

Articulation Agreements With:

Lincoln Technical Institute
Pennsylvania College of Technology
SUNY Alfred
SUNY Delhi

Integrated Academic Credits (over two years):

English (1 credit)
Math (1 credit)
Science (1 credit)



New Visions Programs

CO-SER: Bush 101.200

- **Communication & Media Careers (CIP-099999)**
- **Education & Human Services (CIP-130101)**
- **Engineering (CIP-149999)**
- **Health Career Exploration Program (CIP-519999)**

The New Visions courses are designed for accelerated, college-bound seniors. These programs are demanding and extremely rewarding for a highly motivated, mature and academically capable student. The New Visions curriculum emphasizes expanding written and oral communication skills. Students acquire new knowledge through independent and cooperative learning and demonstrating relevant knowledge assimilated through non-traditional assessment methods. Classroom time is supplemented with many different on-site rotations.

As a New Visions student, you will earn credit for senior English (1 credit), Participation in Government (.5 credits), and Economics (.5 credits) in addition to two credits in Occupational Education.*

*Health Careers students instead may choose to earn 1.5 credits in Occupational Education and .5 credit in Health.

Prerequisites:

Students must have met all graduation requirements by the end of their junior year, except for Senior English, Participation in Government and Economics.

In addition, students must have:

- Demonstrated high motivation by writing an essay describing their goals and attributes
- Recommendations from a school counselor, an administrator and three academic teachers
- Successfully completed the interview process
- A grade point average of 85 percent or higher
- Excellent attendance records of 90 percent or better (reviewed on an individual basis).

Communication & Media Careers

Rotation sites include local and regional broadcasting, publishing and media production facilities. Students are provided with hands-on workplace experiences.

Curriculum Content:

- Introduction to Media Production
- Senior English/Senior Government/Senior Economics (Integrated)
- Principles of Communication
- Media Literacy
- Career Skills

Special Clothing/Materials Needed:

Business attire

Job Opportunities with Post-Secondary Education

Include:

Advertising/Marketing	Print Media
Audio Production & Recording	Public Relations
Educational Communications	Radio Production
Graphic Design	Television Production
Industrial/Corporate Communications	
Media Production & On-Line Technologies	

Articulation Agreement With:

Art Institute of Pittsburgh
Tompkins Cortland Community College

Engineering

With internship sites at Cutler-Hammer, Hilliard, Hardinge, Sear Brown, Hunt Engineering, Schweizer Aircraft and Corning, Inc., students are exposed to a wide variety of engineering fields. Mentors at each site will introduce students to a real-life project.

Projects:

These are examples of possible projects. Students are involved in the selection process each year.

- Robe Goldberg (competition)
- Solar Design
- Heat Transfer Model Hoose
- Helicopter Blade Optimization

Curriculum Content:

- Engineering Career Exploration
- Fiscal Management
- Problem-Solving
- Teamwork/Leadership
- The Engineering Process
- Senior English/Government/Economics (Integrated)

Prerequisites:

Taking a CAD and/or drawing course prior to taking this course is recommended.

Job Opportunities with Post-Secondary Education

Include:

Civil Engineer/Structural	Aerospace Engineer
Architectural Engineer	Chemical Engineer
Electrical Engineer	Automotive Engineer
Manufacturing Engineer	Mechanical Engineer
Computer Science/Robotics	

Articulation Agreements With:

Corning Community College

Education & Human Services

This program is designed for college-bound students who are interested in pursuing a career in the field of education or human services. New Visions provides an invaluable opportunity for students to obtain skill and understanding through participation in multiple rotations in various classrooms and human service agencies.

Curriculum Content:

- Introduction to Education & Human Services
- Career Exploration & Professionalism
- Senior English/Senior Government/Senior Economics (Integrated)
- Technology integration in education

Special Clothing/Materials Needed:

Business/educational attire

Job Opportunities with Post-Secondary Education Include:

Preschool Educator	School Counselor
Elementary Educator	Family Services Caseworker
Middle School Educator	Child Care Worker
Secondary Educator	School Administrator
Special Educator	Psychologist
Speech, Occupational, Physical Therapist	
Social Worker	

Articulation Agreement With:

Corning Community College (pending)

Health Careers

New Visions fosters recognizing and articulating the interrelationship between the student's academic subjects and career aspirations in the health field.

New Visions Health Career students choose from more than 80 rotation sites in area hospitals, offices and clinics. The students experience 40 different rotation opportunities throughout the year.

Curriculum Content:

This is a total immersion approach to education, integrating:

- Senior English/Senior Government/Senior Economics
- Human Anatomy & Physiology
- Medical Terminology & the Disease Process
- Medical Skills & Clinical Practices

Special Clothing/Materials Needed:

Students must purchase at least one set of navy scrubs and one pair of white clinical shoes. A lab coat is provided.

Job Opportunities with Post-Secondary Education include:

Doctor/Physician/Surgeon	Physician's Assistant
Practical Nurse	Biomedical Engineer
Athletic Trainer/Sports Medicine	Nutritionist/Dietician
Chiropractor	Veterinarian
Dentist/Orthodontist/Dental Hygienist	Health Care Administrator
Registered Professional Nurse/Nurse Practitioner	
Physical Therapy/Speech Therapist/Occupational Therapist	
Radiologic Technologist/Nuclear Medicine/Ultrasound/Interventional/CAT	
Mental Health Professional/Psychologist/Psychiatrist/Therapist	
Paramedic/Emergency Medical Technician	

Articulation Agreement With:

Corning Community College

Additional Considerations:

New Visions students acquire proficiency in effective interaction with people other than their peer group, independence from the traditional learning process and the ability to recognize the relationship between academic, social and employment skills. The class is demanding but is extremely rewarding for a highly motivated, mature and academically capable student. The New Vision Health Career Exploration student is well prepared for a successful college experience. More than 98 percent of students have continued their education at institutions including Cornell University, Columbia University, D'Youville College, Ithaca College, Syracuse University, Mansfield University, SUNY Binghamton, SUNY Albany, Medaille, SUNY Geneseo, SUNY Brockport, University of Rochester, Rochester Institute of Technology, Daemen College, St. John Fisher, LeMoyne, SUNY Oswego, SUNY Fredonia, Old Dominion, James Madison University, Brown University Medical School and SUNY Upstate Medical School.

New Visions Programs

CO-SER: Coopers 101.100, Wildwood 101.300

- **Engineering (CIP-149999)**
- **Medical (CIP-519999)**

These advanced-level programs are designed for college-bound students with strong math and science backgrounds and an interest in either science, engineering or health care. Students will spend approximately equal amounts of time rotating through a variety of professional settings within their career interest area(s) and in the classroom with college-level courses (with reduced tuition rates). The college courses are provided at BOCES two mornings a week. Students attend New Visions programs every morning throughout their senior year. Students are expected to provide their own transportation to worksites (school transportation may be provided, depending on the school district).

Prerequisites:

Prospective students will:

- Complete an application and essay that is submitted to their guidance counselor
- Have an excellent attendance record
- Have a proven academic record (especially math and science), and
- Provide three letters of recommendation.

Engineering (Coopers, Wildwood)

Students acquire knowledge and experience through a project based learning approach. Part of their time is spent in the classroom receiving instruction as well as working alongside a mentor through internships with local companies. The design of this program gives students an introduction to engineering and a chance to work in a professional environment with real projects. Students will have

Continued on next page

Engineering, continued

the opportunity to earn up to eight college credits in calculus. Current rotation sites include Corning Incorporated (Sullivan Park Research Facility, Corporate Engineering and the Erwin Manufacturing facilities), Hunt Engineering, World Kitchen and Dresser-Rand, with others pending in the Hornell region.

Curriculum Content:

- Microsoft Excel (one college credit)
- Microsoft Word (one college credit)
- Calculus I and II (eight college credits)

Prerequisites:

Pre-Calculus (available at some schools and at Corning Community College)

Special Clothing/Materials Needed:

Business casual (see instructor for explanation, if necessary)

Additional Considerations:

Prior New Visions Engineering students have used this program as a springboard to earn paid internships at many of their rotation sites (please note there is no guarantee of paid positions, which are awarded based on student initiative and company need). In addition, students have gone on to receive engineering degrees from RIT, Buffalo State, Alfred University, Virginia Tech, Clarkson, Penn State, Messiah College and many others.

Job Opportunities with Post-Secondary Education include:

Civil Engineer/Structural	Aerospace Engineer
Architectural Engineer	Chemical Engineer
Electrical Engineer	Automotive Engineer
Manufacturing Engineer	Mechanical Engineer
Computer Science/Robotics	

and many other careers in the science field

Corning Community College ACE Credits (Coopers):

MATH 1610 Calculus I (4 credits)

MATH 1620 Calculus II (4 credits)

BUOT 1062 Word Processing for Non-Major (1 credit)

CSST 1051 Introduction to Spreadsheets (1 credit)

Wildwood: College credits are pending with Corning Community College, Alfred State College or Alfred University.

Curriculum Content:

- Students study human anatomy and physiology using prepared slides, skeletons, models, animal dissection, experiments and lectures
- Basic medical skills such as vital signs, use of personal protective equipment and infection control are learned through hands-on practice in the classroom and clinical settings
- Computer skills are taught, practiced and demonstrated by end of course projects
- Clinical rotations include shadowing health care professionals in the local community. Rotation sites include Corning Hospital, St. James Mercy Hospital, Founders Pavilion, McAuley Manor and various private practitioners in the community. Areas of shadowing include but are not limited to:

Radiology	Physical Therapy
Occupational Therapy	Recreation Therapy
Endoscopy	Emergency Room
Operating Room	Maternity
Pediatrics	Cardiac Rehab
Stress Lab	Clinical Lab
Dental Office	Chiropractor
Veterinary Clinic	Dialysis
Cancer Treatment	Pharmacy

Special Clothing/Materials Needed:

Lab coats and white duty shoes are required
Scrubs are required for Wildwood students only

Additional Considerations:

The Anatomy and Physiology elements of this program are accepted as fulfilled requirements at many schools, providing an advantage in course work and financial savings. Past students have gone on to study at undergraduate colleges including University of Rochester, RIT, St. John Fisher, LeMoyne, Syracuse, Dartmouth, SUNY Geneseo, SUNY Binghamton, SUNY Albany and Springfield College. Medical schools attended by graduates include University of Rochester, Upstate Medical, University of Buffalo, Pitt and Hershey.

Corning Community College ACE Credits:

BUOT 1062 Word Processing for Non-Major (1 credit-Coopers only)

CSST 1051 Introduction to Spreadsheets (1 credit-Coopers only)

Medical (Coopers, Wildwood)

This course is designed to provide students with opportunities to study basic medical concepts and investigate areas of interest through job shadowing experiences. In addition, students earn eight college credits in Anatomy and Physiology from Alfred University.

Here's what members of the CTE Advisory Council Hall of Fame have to say about the CTE Program...

Michael Sincock

Mike, a graduate of Elmira Free Academy, took part in the Mechanical Technology program from 1976 to 1979. He now is the president and owner of Bouille Electric in Elmira.

Mike: "BOCES gave me many skills that I still use daily. The road to my successes would have been much longer without my BOCES experience."



Evelyn Austin

Evelyn (Lynn) is a 1989 graduate of Southside High School. She attended the Dental Assisting program at the Bush Education Center from 1988 to 1990 and graduated with honors. Twenty years after first working with Elmira orthodontist Dr. Ron Bellohusen as a student in the BOCES program, Lynn is a dental assistant in his office today.



Evelyn: "BOCES was a huge help to me. They provided me with an education, found me work before I graduated, and helped me stay certified with the change of time and new programs they created to keep up with requirements in my field. Thank you, BOCES!"

Mairee McManus

Mairee is a 2000 graduate of the New Visions Health Exploration program and Hornell High School. She is a surgical physician assistant at Community General Hospital in Syracuse and works per diem at A.L. Lee Memorial Hospital emergency department.

Mairee: "Thank you to all the BOCES staff and wonderful educators for putting together a great New Visions program. New Visions not only gave me the competitive edge needed to be accepted into a Physician Assistant program, it taught me skills that I use on a daily basis in my practice today."



Nathan Dwyer

Nathan, a graduate of Corning East High School, completed the Machine Trades program at the Coopers Education Center in 2004. Nathan is a manufacturing engineer with Synthes in Horseheads. He was recently selected to be part of a group tasked with setting up a new manufacturing facility in China.



Nathan: "The fundamental skills that I learned in the Machine Trades Program provided me with the skills and direction I needed to be successful in college and in my career."

GST BOCES
9579 Vocational Drive
Painted Post, NY 14870
(607) 739-3581

**GST BOCES provides cost-effective, quality programs and services through
the collaborative efforts of the following school districts:**

Addison • Alfred-Almond • Arkport • Avoca • Bath • Bradford • Campbell-Savona • Canaseraga
Canisteo-Greenwood • Corning-Painted Post • Elmira • Elmira Heights • Hammondsport • Hornell
Horseheads • Jasper-Troupsburg • Odessa-Montour • Prattsburgh
Spencer-Van Etten • Watkins Glen • Waverly